provided by Electronic National Technical University "Kharkiv...

the system of economic entities activity development

UDC 330.341.1

DOI 10.36074/tmafmseoid.ed-1.04

Sergii Illyashenko<sup>1</sup>, Yuliia Shypulina<sup>2</sup>, Kateryna Sokol<sup>3</sup>

# DIAGNOSTICS OF INNOVATIVE CULTURE OF UKRAINIAN SOCIETY

#### ABSTRACT:

The relevance of the research is the need to increase the efficiency of managing the innovative culture of society as a mechanism of socio-cultural regulation of innovative human behavior, which is the basis of innovative and favorable environment-higher state, forms the prerequisites for the transition to an innovative path of development. The purpose of the research is to improve and practically test the system of management of the innovative culture of society based on the results of diagnostics of its condition. The theoretical and methodical approach to the diagnostics of the state as a subsystem of purposeful management of innovative culture of society is improved. Diagnostics of the state and dynamics of the development of the innovative culture of Ukraine, as a whole, and its individual components and their elements for the period 2013-2019 (the period of active political and socio-economic transformations) was performed. A set of practical-oriented recommendations for ensuring the proper level of individual elements and constituents of the innovative culture of the Ukrainian society is proposed. It is substantiated that the practical implementation of the obtained results will help to increase the level of innovative culture of society as one of the main elements of formation of an innovative and favorable environment of the state, which, in its turn, creates prerequisites for innovative development of the Ukrainian economy in line with the concept of innovative advancement. The theoretical, methodological and methodical foundations of innovative management at the state level have been deepened in terms of improving the system of diagnostics and management according to its results by developing the innovative culture of society.

### INTRODUCTION.

World experience shows that one of the main factors in ensuring the success of the transition of the national economy to the innovative path of development is the high level of innovative culture of society. It is considered as a mechanism of socio-cultural regulation of innovative human behavior and is one of the main components of the state's innovation-supportive

<sup>&</sup>lt;sup>1</sup> D.Sc. (Economics), Professor, Professor, Department of Management innovative entrepreneurship and international economic relations National Technical University «Kharkiv Polytechnic Institute», UKRAINE

<sup>&</sup>lt;sup>2</sup> D.Sc. (Economics), Associate Professor, Professor of the Department of Economic Cybernetics and marketing management National Technical University "Kharkiv Polytechnic Institute", UKRAINE

<sup>&</sup>lt;sup>3</sup> Ph.D. (Economics), Associate Professor of the Department of Economic Cybernetics and marketing management National Technical University "Kharkiv Polytechnic Institute", UKRAINE

environment. In countries that are leaders of innovation growth, the development of innovation culture is stimulated, in particular: the development and realization of people's creative potential is promoted in every possible way, the life success of entrepreneurs-innovators is promoted, a favorable moral and psychological climate (i.e., social attitude to the society, purposefully formed) absence of bureaucratic, re-league and other restrictions, dissemination of innovators' best practices, etc.).

For the economy of Ukraine, based on the production of III-IV technological structures, the problem of intensification of transition to innovative development in line with the concept of innovative advancing is extremely aggravated. Further delay is already threatening the systemic separation from economically developed countries due to the incompatibility of techniques, technology, management methods, quality of life standards of the population, etc. In the context of the above, the development of the innovative culture of society will allow us to form stable prerequisites for the pre-emptive innovation development of the domestic economy.

Problems of formation of innovative culture of society are researched in the works of many Ukrainian and foreign scientists. Methodological aspects of the formation of innovative culture of society, its role and importance in the innovative development of the state were investigated by O.V. Balabanov. [1], Bondar-Pedgurska O., Korotich Ya. [2], Bunina E.I., Davidova N.V. [3], Zubenko V.V. [5], Stoyanovsky A.R., Lezhanska T.V. [9]. The issues of defining the essence of innovation culture as a component of innovation-friendly environment were covered by Lyubina O.N. [7], Nikolaev A. [8] and others. [6]. Its role in the system of mechanisms of activation of the processes of innovative development of the state is revealed in normative documents that determine the strategic priorities of innovative development of Ukraine [4, 10]. In almost all works, the importance of managing the innovation culture of society as a catalyst for the processes of activating the innovative development of the state is emphasized. However, the management of an innovative culture involves the diagnostics of its condition and the definition of a vector of management actions on this basis. But the issues of diagnostics of the state of innovative culture of the Ukrainian society have remained virtually unexplored, which does not allow purposeful management of its development. Thus, the aim is to improve and practically test the approach to diagnostics as an integral part of the management system for the development of innovative culture of Ukrainian society.

# STRUCTURE OF INNOVATIVE CULTURE OF SOCIETY AND APPROACH TO ITS DIAGNOSTICS.

The innovative culture of a society reflects the value orientation of a person on innovations enshrined in motives, knowledge, skills and habits, as well as patterns and norms of behavior. According to [11], within the innovative culture

of society, there are three components of subsystems, which perform the following functions: innovation-value - the development of new models of innovative behavior on the basis of the best models of innovation, own or borrowed; selection - choice of new behaviors that meet the needs of society; translational - the transfer to the future of selected and tested models of innovative behavior that correspond to the system of values of society.

The composition of the elements of these subsystems of innovative culture of society is given in table. 1. The system of assessment of the level of individual elements on a 10-point scale is indicated there. A score of (0)  $0 \le 0 \le 5$  points indicates a low level of the bi-element,  $5 \le 0 \le 8$  indicates a high,  $8 \le 0 \le 10$  points.

The evaluation system characterizes the target priorities, i.e. the state of the element of the corresponding subsystem is better. In most cases, the state of the elements has intermediate estimates.

Table 1

innovative culture of society				
Nº	Subsystems and their elements	Evaluation system		
1. Innovative				
1.1	The life success of innovators	0 is low; 10 is high		
1.2	Dominant moral and ethical standards	0 - Iow; 10 - high		
1.3	Socio-economic development	0 is low; 10 is high		
1.4	Quality of life	0 is low; 10 - high		
1.5	The intensity of production	0 is low; 10 is great		
1.6	Science-intensive life	0 is low; 10 is great		
1.7	Distance to power	10 - small; 0 - great		
1.8	Tendency to risk	0 is low; 10 is great		
1.9	Individualism or collectivism	10 - individualism		
1.10	The degree of tolerance for success	0 is low; 10 is high		
1.11	Manhood or womanhood	10 - manhood		
1.12	Ethnocentrism or cosmopolitanism	10 - cosmopolitanism		
1.13	Religious or other restrictions	0 - significant; 10 are practically absent		
2. Selection				
2.1	Competitiveness or monopolization	10 - competitiveness		
2.2	Legal support for the innovator	0 is low; 10 is great		
2.3	Financial support	0 is low; 10 is great		
2.4	Organizational support	0 is low; 10 is great		
2.5	The dominant technological way	0 is the third; 10 - Fifth		
2.6	Catching up or outstripping development	10 is ahead		
2.7	Technology transfer	0 - complicated; 10 is free		
2.8	Infrastructure support	0 is low; 10 - high		
2.9	Attitude towards environmental	0 is indifferent; 10 - support		
	friendliness of production			
2.10	Attitude towards environmental	0 is indifferent; 10 - support		
	friendliness			
3. Translational				
3.1	State of education	0 is low; 10 is high		
3.2	The role of education in life success	0 is low; 10 is great		

### System of evaluation of elements of subsystems of innovative culture of society

Table 1	(continued)
---------	-------------

3.3	Encouraging lifelong learning	0 is low; 10 is significant	
3.4	Positive influence of traditions	0 is low; 10 is big	
3.5	Compliance with moral standards	0 is low; 10 is great	
3.6	The influence of moral standards	0 - insignificant; 10 is big	

formed from [11]

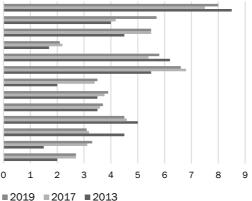
## DIAGNOSTICS OF THE DYNAMICS OF INNOVATIVE CULTURE OF UKRAINIAN SOCIETY.

Assessment of the state of innovative culture was performed by the expert method. As experts (18 people) were invited leading experts of the enterprise, as well as scientists who are interested in the research issues. Consistency of opinions of experts was checked by coefficients of concordance.

Assessment of the level of innovative culture was carried out: in 2013 (before the annexation of Crimea and the occupation of part of Donetsk and Lugansk regions); in 2017 (sustainable social and economic development of Ukraine in the context of loss of part of its potential); 2019 (election development and changes in government in the country).

The results of the evaluation of the level of elements of the individual components are presented in the diagram form in Fig. 1-3.

Religious or other restrictions Ethnocentrism or cosmopolitanism Manhood or womanhood The degree of tolerance for success Individualism or collectivism Tendency to risk Distance to power Science-intensive life The intensity of production Quality of life Socio-economic development Dominant moral and ethical standards The life success of innovators

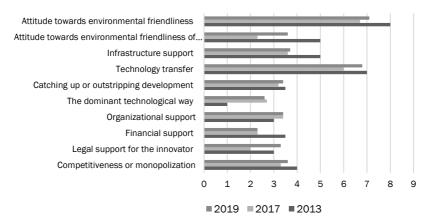


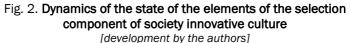
## Fig. 1. Dynamics of the state of the elements of the innovative component of society innovative culture

[development by the authors]

The analysis of Fig. 1 indicates that a high level has only one element of innovation, which characterizes the absence of religious and other restrictions. The middle level has elements that characterize risk aversion, as well as everyone's collectivism or individualism of the population. Elements of ethnocentrism or cosmopolitanism, manhood or womanhood have moved up to the average last year. Ratings of other items indicate that they are low.

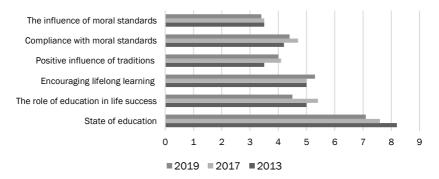
## Chapter I. Methodological principles of setting up the system of economic entities activity development

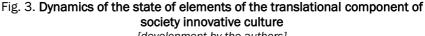




From Fig. 2 it follows that there are no elements of the selection component with a high level of their development. Intermediate levels have elements that characterize the environmental friendliness and technology transfer. Others have low levels.

The analysis of Fig. 3 indicates a high level of education, which is steadily declining. With some conventionality, it is possible to refer to the average level of assessments of the elements that characterize the stimulation of lifelong learning, and as well as role of education in life success (last year the level of this element has fallen). Other elements have a low level.





[development by the authors]

The dynamics of generalized assessments of subsystems of the innovative culture of a society is presented in Fig. 4. Generalized scores are calculated as the average scores of their constituent elements. As follows from the analysis of Fig. 4 all components of the innovative culture of society have a low level. Only in 2017 did the translational component average. The positive points include the steady increase in the level of innovation component.

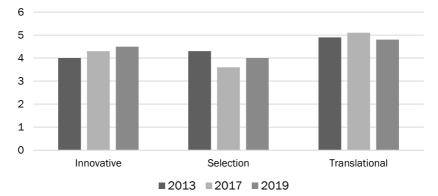


Fig. 4. The dynamics of the constituents of society innovative culture [development by the authors]

The following were calculated (weighed average) integrated assessments of the level of innovative culture of society in the analyzed periods: 2013 - 4.36; 2017 - 4.2; 2019 - 4.25. The weight of the individual components was taken into account [11]: innovative - 0.3; selection - 0,45; translational - 0.25. The results of the calculations show that the innovative culture of Ukrainian society has a low level, which confirms the problem of transition of the Ukrainian economy to the innovative path of development, especially in line with the concept of innovative advancement.

3. Recommendations for managing the development of innovative culture of Ukrainian society. Without claiming to the completeness of the analysis and the indisputability of the obtained results, it can be argued that they can be the basis for recommendations for the formation of a system of measures for managing the development of society innovative culture.

In particular, the results of the analysis of the diagrams in Fig. 1-3, the following measures can be recommended to increase the level of elements of the components of subsystems of innovation culture:

- innovative: to identify and stimulate through the mechanisms of state support several priority strategic directions of socio-economic development of the state, regions and industries (element 1.3, Table 1); to promote the growth of scientific and technological production (1.5, Table 1), in particular, through

the depreciation policy to stimulate the updating of technological equipment, through the innovative policy of stimulating innovation activity, etc .; in every possible way to promote the life-time of innovators (1,1, Table 1); to create channels of direct access to the representatives of the authorities by means of e-government systems, in every possible way to develop systems of automatic decision-making, without the participation of bureaucratic structures (1.7, Table 1), etc.

- selection: improve antitrust law (element 2.1, table. 1); improve and increase the effectiveness of mechanisms of legal, financial and organizational support for innovators (2,2, 2.3, 2.4, Table 1); develop innovative infrastructure (2.8, Table 1); measures to stimulate the development of elements 2.5, 2.6 are similar to the measures of stimulation of element 1.3, table. 1; to improve the mechanisms of production greening (2.9, Table 1), etc.

-translational: to establish in the legislative and regulatory acts educational and qualification requirements for employment and the right to perform work in both the public and private sectors, to improve the mechanisms for monitoring their compliance and appropriate legal response (elements 3.2, 3.3, table 1); to improve the mechanisms for promoting the quality of education at all levels (item 3.1, table 1), etc.

It should be noted that increasing the level of all components will be facilitated by measures aimed at strengthening the moral foundations of society. Practice shows that economically developed countries contribute in every way to this process, so they should follow example.

Thus, the results of diagnostics of society innovative culture as a whole contribute to the growth of volumes and quality of relevant actual knowledge: due to its current state and dynamics of development; to take steps to improve the status.

### CONCLUSION.

Conclusions on the topic of the study. Summarizing the above, we can conclude that the authors have improved the theoretical and methodological approach to diagnostics as a subsystem of purposeful management of the development of society innovative culture. According to it, diagnostics of the state and dynamics of the development of innovative culture of Ukraine as a whole, and its individual components and their elements, was performed. The obtained results can be used as an information-factual basis of the system of management of development of the state innovative culture.

According to the results of diagnostics, a set of recommendations for ensuring the proper level of individual elements and components of subsystems of innovative culture of Ukrainian society is proposed. Their practical implementation will help to increase the level of society innovative culture as one of the main elements of the formation of innovative and favorable environment, which, in its turn, creates the preconditions for the innovative development of the Ukrainian economy.

The obtained results deepen the theory of innovative management at the state level in terms of improving the system of diagnostics of the state and dynamics and management of its results by the development of innovative culture of society and the formation of an innovation-friendly environment on its basis. They also deepen the principles of knowledge management regarding the prospects of creating an innovative and enabling environment of the state.

Further research should be aimed at the accumulation of statistical data and the formation of a set of econometric models for the formalized management of the development of innovative culture of society.

#### **REFERENCES:**

- Balabanov, V.O. (2004). Do problemy formuvannia innovatsiinoi kultury suspilstva. XXI stolittia: Alternatyvni modeli rozvytku suspilstva. [The problem of formation of innovative culture of society. XXI Century: Alternative Models of Society Development]. *Third World Theory: Mater. 3rd International. scientific-technical conf., (Kyiv, May 21-22, 2004).* Kiev: Phoenix, Ch.1, 388–391 [In Ukrainian].
- [2] Bondar-Podgurska, O. & Korotich, Y. (2012). Innovatsiina kultura yak neobkhidna umova staloho rozvytku sotsialno-ekonomichnoi systemy. [Innovative culture as a prerequisite for sustainable development of socio-economic system]. Model of the Visegrad countries in integration of young people into a single scientific and cultural space: Coll. abstracts Int. stud. Forum (Lutsk, April 3-7, 2012). Lutsk: VIEM, 124–127 [In Ukrainian].
- Bunina, E.I. & Davydova, N.V. (2015). Ynnovatsyonnaia kultura v kontekste ynnovatsyonnoho razvytyia obshchestva. [Innovative culture in the context of innovative development of society]. Bulletin of the Kharkiv National University named after VN Karazin. Series "Valeology: Present and Future," (978). Removed from https://periodicals.karazin.ua/valeology/article/view/2283/2027
- [4] Law of Ukraine "On Priority Areas of Innovative Activity in Ukraine" of December 05, 2012 No. 3715-VI. (2012). Removed from https://zakon.rada.gov.ua/laws/show/3715-17
- [5] Zubenko, V.V. (2007). Ynnovatsyonnaia kultura obshchestva osnova ynnovatsyonnoho razvytyia hosudarstva. [The innovative culture of society is the basis of the innovative development of the state]. Bulletin of Donetsk University. Avg. In: Economics and Law, Iss. 1, 209–215 [In Russian].
- [6] Illiashenko, S.M. & Shypulina, Yu.S.& Illiashenko, N.S. (2015). Innovatsiina kultura suspilstva yak sotsiokulturnyi mekhanizm aktyvizatsii innovatsiinoi diialnosti. [Innovative culture of community as a sociocultural mechanism of activation of innovative activity]. Challenges and Prospects for Innovative Economic Development: Proceedings of the Twentieth International Scientific and Practical Conference, (Odessa, September 7-11, 2015). T. 1. Part 1 / National Academy of Sciences of Ukraine, Institute of Research of Scientific and Technical Potential and History of Science. AHEM. Dobrova NAS of Ukraine, Kyiv-Odessa, 138-143 [In Ukrainian].
- [7] Lyubina, O.N. (2012). Sovremennyie podhodyi k opredeleniyu innovatsionnoy kulturyi obschestva. [Modern approaches to defining the innovative culture of society]. *Humanitarian Information Portal Knowledge. Understanding. Skill»*, (6). Removed from http://www.zpujournal.ru/e-zpu/2012/6/Liubina\_Innovative-Culture/

## Chapter I. Methodological principles of setting up the system of economic entities activity development

- [8] Nikolaev, A. (2006). Innovatsionnoe razvitie i innovatsionnaya kultura. [Innovative development and innovative culture]. Issues of Cultural Studies, (3), 86–90 [In Russian].
- [9] Stoyanovsky, A.R. & Lezhanska, T.V. (2012). Innovatsiina kultura yak chynnyk rozvytku vitchyznianoho innovatsiinoho pidpryiemnytstva. [Innovative culture as a factor in the development of domestic innovative entrepreneurship]. Managing the Innovation Process in Ukraine: Problems of Commercialization of Scientific and Technical Developments: Abstracts. IV Int. scientific-practical video con. (Lviv, May 23-24, 2012). Lviv: Issue of NU Lviv Polytechnic, 221–222 [In Ukrainian].
- [10]Androschuk, I.B. Zhilyaev, B.G. Chizhevsky, M.M. Shevchenko, G.O. (Eds.) (2009). Ukraine's innovation development strategy for 2010-2020 in the face of globalization challenges. Kiyv: Parliamentary view.
- [11]Shypulina, Yu.S. (2017). Upravlinnia formuvanniam innovatsiinoi kultury promyslovykh pidpryiemstv: monohrafiia. [Management of formation of innovative culture of industrial enterprises: a monograph]. Sumy: Trytoria LLC [In Ukrainian].