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#### MODERNIZATION OF THE REGIONS OF UKRAINE: ITS FEATURES

**Abstract.** Building an innovation vector for the development of Ukrainian regions aims to stimulate innovation and modernization of the economy and to seek adequate tools that would be adapted to modern conditions and not only identify problems of regional innovation development, but also allow comprehensive understanding and search for concrete measures for their further and purposeful development; elaboration of theoretical bases, understanding of the essence of processes of modernization of society and economy and substantiation of their role in ensuring sustainable economic development of Ukraine. The development and implementation of a clear long-term economic policy is a benchmark for the innovative development of the national economy, which is complex and systematic, affecting all areas in the social, political and economic life of society.

### Introduction.

In today's context, economic system of Ukraine is currently in a state of constant transformation, which is associated with modernization. In the process of modernization, management mechanisms of economic growth by improving economic infrastructure, the use of the latest technologies of information transfer is a transition from the traditional society to the modern, from the agrarian - to the industrial, post-industrial (postmodern). Nowadays, the term "modernization" is quite widespread, both in the scientific world and in everyday life, and implies complex, complete, qualitative changes that affect all aspects of social life: economic, social, legal, political, and cultural. *Modernization* (from the Greek. Moderne - the latest) - improvement, restoration of the object, bringing it in compliance with new requirements and norms, specifications, quality indicators. In specific areas of social life, modernization solves the following tasks:

economy - the use of technology based on scientific knowledge, industrialization,
 development of the market of goods and labor, the existence of incentives for the creation and
 introduction of innovations. An important feature of economic modernization is the trend

towards equalization of income between economic sectors, regions and socio-occupational groups.

- social sphere specialization of people, public and state institutions by type of activity. This specialization is less dependent on gender, age, social origin and more and more on the personal qualities of a person, his qualification, education.
- politics- formation of nation-states, separation of powers, ability of the state to make structural changes in economy, politics and social sphere while preserving the stability of society; the establishment of political democracy.
- culture the spread of literacy, the diversity of schools and currents in philosophy and science, confessional pluralism, involvement of large groups of people in the achievements of culture, rationalization of consciousness, the spread of values of individualism.

Modernization is an objectively existing, socio-historical process for strengthening the economy, raising the cultural level of the population, and the prestige of the country. It should be noted that the creation of a modern infrastructure must go hand in hand with the modernization of the public consciousness, with political stability being a guarantee of a harmonious development of society. Regional policy acts as a tool for modernizing the spatial structure of the economy, and regional features of industry management and infrastructure placement determine the initial conditions for modernization: the state and structure of the production apparatus in the regions, the sectoral structure of production, including industry, and the susceptibility of regions to innovations. Despite the comprehensive scientific interpretation and analysis of modernization processes, in Ukraine, unfortunately, modernization still stands for: underdevelopment, as it is carried out by borrowing from economically developed countries mainly technical and cultural achievements; partiality,incompleteness - borrowing only technical, scientific achievements, without profound changes in socio-political relations, legal and cultural norms.

Therefore, building an innovative vector of regional development of Ukraine aims to stimulate innovations in order to modernize the economy and find adequate tools that would be adapted to the current conditions and not only to identify problems in regional innovation development, but also to allow comprehensive understanding and search for specific measures for their further and purposeful development.

# 1. Defining the concept of "Modernization of regions"

At the moment, there is a need for a new regional policy in which the priorities of economic reforms and modernization must be combined with the tasks of regional development of Ukraine. The economic essence of modernization is determined by the progress of society, by changing its material basis - the technical, technological and economic basis. Thus, the term modernization describes a large number of simultaneous changes in different spheres of society. However, there are different interpretations of modernization. In particular, German researcher V. Zapf is considering the modernization of:

«Professional competencies and educational innovations in the knowledge economy»

- as a secular process initiated by the Industrial Revolution, during which a small group of modernized societies developed;
- as a multifaceted process in which those who have fallen behind are catching up with those who have gone forward;
- as an attempt by modernized states to respond to new challenges to innovation and reform [2].

Interesting enough is P. Shtompka's approach, which has identified three meanings of the term:

- modernization is synonymous with all progressive socio-economic changes as society moves in front;'
- the term "modernization" is identical with the term "modernity" and means a complex of social, political, economic, cultural and intellectual transformations. These include the processes of industrialization, urbanization, rationalization, bureaucracy, the dominant influence of capitalism, the spread of individualism and motivations for success, the consolidation of reason and science;
- the term "modernization" refers to underdeveloped societies and describes their efforts to "catch up" with the leading, most developed countries that exist with them at one historical time, within a single global society. In another language, and in this case, "modernization" describes the movement from the periphery to the center of modern society [3].

The scientist M. Mikhalchenko notes that «... modernization orients society and its structures, spheres for improvement, advancement, the development and realization of new goals, tasks, priorities, strategies. Modernization is a creative and transformative function of development. But it is specific - as a means of renewing societies. Modernization is indeed an unfinished project and a project that never completes on a global scale. A society that has completed a modernization project can go to the historic landfill» [4]. Considering the category of "modernization" and theoretical approaches to its understanding, we can state the lack of a unified approach to its understanding and make the following generalizations:

- modernization a process that involves the simultaneous qualitative changes at all levels in all areas and affects all members of society;
- modernization is not possible without innovations, but taking into account the historical and national characteristics of the country;
- modernization implies improvement of social, economic, political, cultural, environmental components for the purpose of sustainable development;
- modernization involves the use of effective management systems.

Recently, modernization has become quite important as a modern institute for solving structural and technological problems of the economy. However, its use in practice requires a deepening of the theoretical foundations of the relationship with both the general principles of economic theory and the specific tasks of industrial policy.

# 2. Features of modernization processes in Ukraine

The strategy of modernization of regional industrial complexes of Ukraine is a system of managerial and organizational decisions aimed at changing the material and technical base of a complex of industries based on the introduction of technological innovations as a result of the development of regional cross-sectoral innovation links in specific areas within specific industries. According to the report by the Global Innovation Index 2018, prepared by Cornell University, the INSEAD School of Business and the World Intellectual Property Organization, in 2018, Ukraine ranked 7th and ranked 43rd, ahead of Thailand and behind Greece. And in the below-average income bracket, Ukraine came in 1st place. The basis of Ukraine's innovative competitiveness is human capital and research, as well as the knowledge and results of research. Their effective implementation is a major competitive advantage [5]. Thus, in 2017, there was a reduction in the number of industrial enterprises engaged in innovative activities (by 9% compared to 2016 to 16.2% of all industrial enterprises), which took place due to a significant reduction in innovatively active enterprises. This took place in 2018-2019 [5].

Modernization of the industry on the basis of development of new technologies implies the existence of mechanisms of communication between partners not only in the sense of a formal communication process, but also in the sense of having confidence. The effectiveness of communication depends on the presence of trust in the system of interaction between its participants. Industrial policy has always acted in two ways:

- in the practical plane as a system of views and concrete actions regarding the development of industry, individual industries and enterprises, including goals, objectives and methods of achievement;
- in the theoretical context as an economic category, which determines the most important relations between the authorities, business and society in relation to meeting the needs of society, the formation of an effective structure of the industrial system, the growth of technological level, innovation and competitiveness of industrial production, without affecting specific enterprises.

In these circumstances, modernization reflects not only the general nature of change - "renewal", "improvement", but also the nature of the interaction of economic entities and society in the implementation of industrial policy, forming a kind of institutional platform for solving complex problems of innovation, efficiency and competitiveness. This is especially true of industrial regions - Dnipropetrovsk, Donetsk, Zaporizhia, Poltava, Kharkiv, Kiev and Lugansk regions, which are defined as industrial regions whose industrial production indices are (table 1).

In general, some regions produce almost 2/3 of the country's industrial output. As shown in the table the absolute leaders for 2018 are Dnipropetrovsk and Zaporizhzhya regions. Today, these industries are a powerful industrial complex. In the structure of industrial production of the region the largest share is of ferrous metallurgy, electricity, mechanical engineering and metalworking, non-ferrous metallurgy.

	Роки						
Regions	2013	2014	2015	2016	2017	2018	2019
Dnipropetrovsk	98,4	92,5	92,1	99,3	100,1	103,0	98,0
Donetsk	90,0	68,5	65,4	106,4	89,1	102,6	101,1
Zaporizhia	96,8	96,8	95,3	96,9	106,2	103,6	94,1
Poltava	97,2	92,9	96,2	100,1	98,9	101,5	101,7
Kharkiv	94,6	94,8	88,2	105,8	106,1	102,9	98,8
Kiev	91,3	85,9	94,6	104,4	95,8	98,1	98,2
Lugansk	88,5	58,0	34,0	139,0	69,0	83,0	87,0

Table 1. Industrial production indices by regions of Ukraine

The individual groups of regions differ significantly by type of industrial activity. Industrial regions as the main carriers of the industrial brand of Ukraine inherited its main structural problems. Meanwhile, each of them has its own peculiarities of the structural and technological structure, which determines the nature of their development and features of the regional strategy. Regarding the modernization of the economy of industrial regions, we must bear in mind that its challenges are of economic origin but materialize at the regional level, significantly affecting the overall state of both national and regional economies. The economy of Ukraine's industrial regions is significantly deformed, and structural contradictions such as:

- ✓ small and even decreasing share of high-tech products;
- ✓ breach of value chains through reduced production of finished products;
- ✓ strengthening of raw material and semi-finished production structure.

Industrial regions, as the main carriers of the industrial brand of Ukraine, inherited its main structural problems, although each of them has its own peculiarities of structural and technological structure and economic development, which in each case should determine the regional character of the modernization strategy. Much ofthe territorial strategies in the developed countries of the world are created in the light of new economic geography, in which the potential of sub-state entities - regions and especially the largest cities - is constantly growing. In new geospatial coordinates, macro-regions and metropolitan areas are becoming key heights of the economy, where production, accumulation and predominant use of economically significant factors: capital, labor, and knowledge are taking place in a concentrated form. Emphasis is placed on the structural and institutional support for the growth of an individual region or city in the economy and social sphere, making it a real world, national and intellectual, industrial and financial center, with the involvement of transnational businesses, which will enhance innovation and human resources, technological and financial investments. It is important to reiterate that the process of modernization is not possible without innovative activity of enterprises or regions as a whole. Unfortunately, it can be stated that in comparison with 2016, the volume of financing of innovation activity in 2017 in Ukraine as a whole decreased both nominally and as a percentage of the GVA of industry - from 4.6% to 1.4% (Pic. 1).

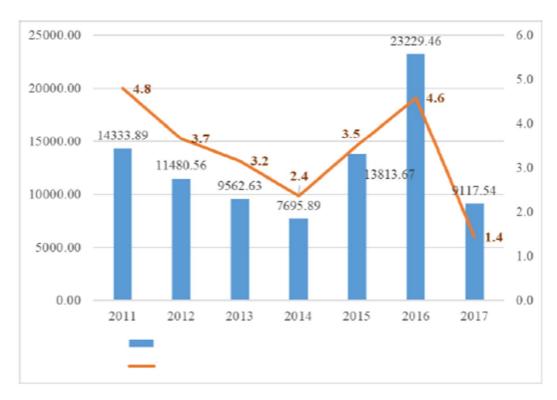


Fig. 1. Dynamics of financing of innovation activity

The main source of financing for innovation costs are the own funds of enterprises as a whole by industry (Pic. 2)



Fig. 2. Dynamics of the total volume of financing of innovational activity 2012-2017

In 2017, enterprises spent money on innovation mainly for the purchase of machinery, equipment and software - 64.7% of the total amount of financing for innovation or UAH 5898.84 million, which is by 20.7 pp. less than in 2016 (Pic. 3). Instead, the share of R&D spending increased from 10.6% in 2016 to 23.8% in 2017.

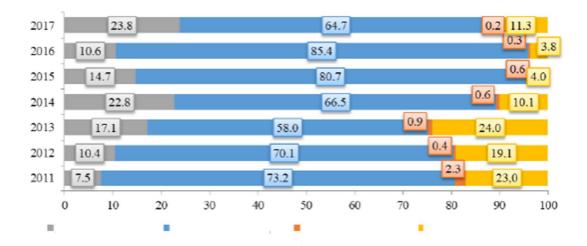


Fig.. 3. Dynamics of directions of innovative expenses for 2011-2017

No less problematic is the position of foreign economic relations of industrial regions is the import, mainly of high-tech products, which are hardly produced in Ukraine. The demand for mechanical engineering products, which is needed not only to support existing production, but also becomes a key factor in technological development and modernization of the economy, has become particularly acute. In 2018, imports of such goods amounted to \$ 57141.0 million, or 115.2%. Foreign trade operations were conducted with partners from 221 countries [10].

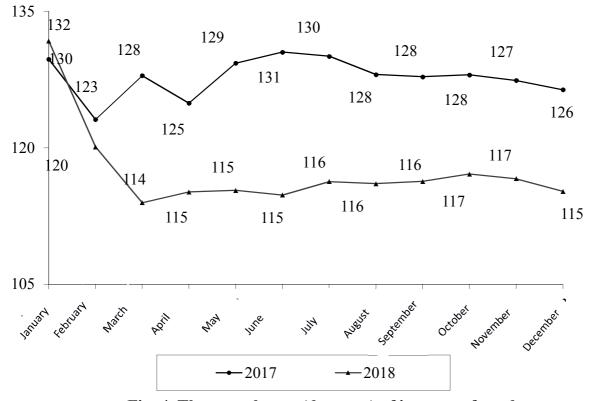


Fig. 4. The growth rate (decrease) of imports of goods

Unfortunately, despite Ukraine's desire to join the economy of innovative type, it is noticeable that de-industrialization of the country is actually taking place, which hinders any attempts to implement modernization processes. Industrial production fell by almost a third (28.7%) over 25 years of economic transformation. The number of employees decreased by half (by 44.12%), and nearly 2 million people were laid off. We lost entire industries, especially the innovative spectrum of activity - electronic industry, instrument making, machine tools, machine tools, agricultural machinery, special types of mechanical engineering for the mining, chemical and metallurgical industries. It can be argued that Ukraine has almost lost an industrial platform on which an innovation-type economy can develop.

The importance of industry remains high, despite the fact that its volume has been declining in recent years. According to estimates in Ukraine, the processes of innovative modernization of industry are of particular importance for the regions in the context of the urgent need to solve important strategic problems related to updating the technological and technological base of the industrial sector of the economy and expanding the scale of production of finished products with high added value; ensuring balanced industrial, social and environmental development; restructuring of social infrastructure; strengthening their business image. The relevance of the study of this problem is exacerbated by the processes of decentralization of national economy management, as well as the search for ways to activate the economic development of regions. Solving the urgent problems of modernizing the economy of the regions of Ukraine can not only be ensured by the efforts of the state center and its governing bodies. Here, the involvement and involvement of regional and local authorities is needed and their initiative and responsibility should be enhanced by decentralizing governance between the different levels of government in order to create a favorable regional economic space for all types of economic activity, attract investment and human resources, generate and promote innovation in accordance with market needs. Management decentralization processes are able to give the state policy of modernization of the national economy the features of integrity and balance of interests.

In Ukraine, the processes of innovative industrial modernization are of particular importance for the regions in the context of the urgent need to solve important strategic problems related to updating the technical and technological base of the industrial sector of the economy and expanding the scale of production of finished products with high added value; ensuring balanced industrial, social and environmental development; restructuring of social infrastructure; strengthening their business image. Along with the need for radical changes in the structure of the economy, an equally important problem of their transformation is the change of behavioral stereotypes of economic agents. The problems of the regions of Ukraine is specific and not simple result of cyclical economic development and aging of basic industries. The deep and stable economic and social ties established in the region, albeit devoid of a solid economic foundation, gives rise to institutional and social resistance to change and form a kind of "social contract" for economic activity that blocks changes in economic structure.

#### Conclusions.

The notion of modernization is multifaceted and debatable. For this reason, it is necessary to note the need for more detailed coverage of economic issues related to modernization. Addressing the challenge of ensuring the financial and price stability of regions, which some scientists point out, sometimes conflict with each other, at least for developing countries. At this stage, in our opinion, modernization in Ukraine can be characterized as reflected and partial. Reflected, because our country has only recently embarked on the path of independent statehood, so it has to draw on the experience of those who have passed this path. Therefore, based on the above, we emphasize that understanding the problems of the modernization processes at the theoretical level will prevent many possible errors in state construction. The question of the purpose and the ideal image of these changes remains open. Modernization in practical terms includes elements of a shocking nature and implementation of a number of reforms in a rather short timeframe. Therefore, when it comes to modernization, we do not mean any exclusively evolutionary process that will last for decades. Of course, many reforms take a long time, but that does not mean that they have to be delayed. Ukraine is facing the need to tackle two related problems: technological modernization of the economy and smoothing out regional differences in development.

The modernization of the economy of the country and its regions is an important Therefore, in today's conditions, factor in increasing international competitiveness. successfully maintaining its status in the market is helped by the so-called "intellectual leadership", that is, an important factor is changing the role of man in the system. Structural modernization of the country's industry, its regions and institutional reforms will also be integral, contributing to the transition to a higher stage of modernization. We are convinced that there is no real alternative to the modernization strategy as a quality upgrade of the country. One can discuss the priorities and mechanisms of such modernization in terms of specific reforms, but the implementation of the modernization project is the only means not only to solve urgent problems, but also to ensure the dynamic development of the country. Given the sharp aggravation of a number of political, economic, social and demographic problems, it can be argued that the degradation of society and the institution of the state can be an alternative to modernization. So far, the Ukrainian political elite has not been able to clearly formulate its vision of modernizing reforms. According to recent events, the behavior of the Ukrainian political elite is determined by the interests and goals of the state, with the government being seen as a tool for lobbying the latter. There is no mechanism of feedback between government and society, which significantly reduces the effectiveness of both the government itself and the effectiveness of civil society. In such circumstances, it is the scientific and expert community that must constantly form public opinion on the need and directions of modernization, while civil society must press for power to prevent the very idea of modernization.

The current model of the country can last for a long time, both due to only partial changes and improvements to the political system, and thanks to a favorable global economic environment, but it has no historical perspective in the medium and long term.

The driving force of the modernization process should be the internal potential of the country, because its realization occurs under the conditions of fierce competition in world markets. It hardly makes sense to look for external "partners" or "donors" in this process, which does not mean refusing to actively use the opportunities arising from international economic, political and cultural cooperation in different formats. To date, the modernization process has not become a matter for the modern Ukrainian elite. At the same time, civil society has not yet put pressure on the elite in this area. Today, we need to combine expertise, a pragmatic approach to policy-making and public support in understanding the duration of transformation processes, the limitations of processes and the need to prioritize.

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