ANALYSIS OF ARCHETYPIC DIMENSION OF INSTITUTIONAL-EVOLUTIONARY TRAJECTORIES OF SYSTEM INNOVATIONS

Abstract. The history of the modern Ukraine is a period of significant transformation of all the spheres of the public life. Geopolitical trends require a profound meaningful transformation of all the spheres of the state. In turn, it requires the development of appropriate strategies in order to ensure Ukraine’s competitiveness and ensure its subjectivity. This can be done by improving the quality of the public resource management through systemic decisions through an institutional approach. However, in the practice of public administration of Ukraine, these aspects of an interdisciplinarıy approach to understanding the base of institutional transformations find little practical implementation within the framework of reforms, which leads to the loss of both their innovative potential and existing social capital (psychosocial potential by E. Afonin). Thus, the
methodology of developing purposeful changes in the institutional structure as determinants of systemic integrity, solving the problem of assessing the mutual impact of changes in individual institutions, and analyzing the dynamics of the entire institutional structure remain poorly understood. Therefore, the purpose of this study is to analyze the archetypal factors of the functioning of macro systems, which need to be paid particular attention in order to find the most effective points of effort (resources) within the framework of applying the concept of institutional and evolutionary trajectories of the systemic innovations. The archetypal methodology to determine the basics of the formation of institutional and evolutionary trajectories of implementation of systemic innovations is considered in the research. The results of the study show that the success factors of reforms as system innovations are related not only to changes in the structures and functions of the institutional mechanism of the state, but above all to social factors. The study shows that the success of the systemic innovations is the creation of a unique environment of change based on a combination of technological and innovation basis, economy and socio-cultural system. It is substantiated that for the ideas and potential of the systemic reforms to turn into real innovations, that is, to be realized in the socio-economic space of the country, a whole range of objective and subjective reasons, in particular cultural “support” of innovation plays a rather important role.

**Keywords:** systemic innovations, archetype, institute, strategy, change, transformations.

**АНАЛІЗ АРХЕТИПНОГО ВИМІРУ ІНСТИТУЦІЙНО-ЕВОЛЮЦІЙНИХ ТРАЄКТОРІЙ ВПРОВАДЖЕННЯ СИСТЕМНИХ ІННОВАЦІЙ**

**Анотація.** Історія сучасної України є періодом значних трансформацій усіх сфер суспільного життя. Тренди геополітики вимагають глибокої змістової трансформації всіх сфер держави. А вона, в свою чергу, вимагає розробки відповідних стратегій з метою забезпечення конкурентоспроможності України та забезпечення суб’єктності. Це можливо реалізувати через підвищення якості управління державними ресурсами на основі системних рішень через інституційний підхід. Однак у практиці публічного управління України зазначені аспекти міждисциплінарного підходу до розуміння бази інституційних трансформацій практично не мають практичного втілення в рамках реформ, що призводить до втрати як їх інноваційного потенціалу, так і наявного соціального капіталу (психосоціальний потенціал за Е. Афоніним). Отже, маловивченими залишаються питання методології розробки цілеспрямованих змін інституційної структури як детермінанти системної цілісності, вирішення проблеми оцінки взаємного впливу змін окремих

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1 Робота виконувалася за рахунок бюджетних коштів МОН України, наданих на виконання науково-дослідного проекту № 0117U003855 “Інституційно-технологічне проектування інноваційних мереж для системного забезпечення національної безпеки України”
інститутів та аналізу динаміки всієї інституціональної структури. Проаналізовано архетипні фактори функціонування макросистем, на які необхідно звернути особливу увагу для пошуку найбільш ефективних зусилля (ресурсів) в межах застосування концепції інституційно-елюційних траєктивій впровадження системних інновацій. Розглянуто архетипну методологію до визначення основ формування інституційно-елюційних траєктивій впровадження системних інновацій. Доведено, що фактори успішності реформ як системних інновацій пов’язані не тільки зі змінами структур та функцій інституціонального механізму держави, а насамперед з соціальними чинниками. Визначено, що фактором успішності системних інновацій є створення унікального середовища, що грунтується на поєднанні технологічно-інноваційного базису, економіки та соціально-культурної системи. Обґрунтовано, що для втілення ідей та потенціалу системних реформ в реальні інновації, тобто реалізації в соціально-економічному просторі країни, необхідний спектр об’єктивних і суб’єктивних причин, зокрема культурна “підтримка” інновацій відіграє досить важливу роль.

Ключові слова: система інновація, архетип, інститут, стратегія, зміни, трансформації.

АНАЛІЗ АРХЕТИПНОГО ІЗМЕРЕНИЯ
ІНСТИТУЦІОНАЛЬНО-ЕВОЛЮЦІЙНИХ ТРАЄКТОРІЙ
ВНЕДРЕННЯ СИСТЕМНИХ ІННОВАЦІЙ

Аннотация. История современной Украины является периодом значительных трансформаций всех сфер общественной жизни. Тренды геополитики требуют глубокой содержательной трансформации всех сфер государства. А она в свою очередь, требует разработки соответствующих стратегий с целью обеспечения конкурентоспособности Украины и обеспечение субъектности. Это возможно реализовать через повышение качества управления государственными ресурсами на основе системных решений с институциональным подходом. Однако в практике публичного управления Украины указанные аспекты междисциплинарного подхода к пониманию базы институциональных трансформаций практически не находится практического воплощения в рамках реформ, которое приводит к потере как их инновационного потенциала, так и имеющегося социального капитала (психосоциальный потенциал согласно Э. Афонину). Таким образом, малоизученными остаются вопросы методологии разработки целенаправленных изменений институциональной структуры как детерминанты системной целостности, решения проблемы оценки взаимного влияния изменений отдельных институтов и анализа динамики всей институциональной структуры. Проанализированы архетипные факторы функционирования макросистем, на которые нужно обращать особое внимание для поиска наиболее эффективных усилий (ресурсов) в рамках применения концепции институционально-эволюционных траекторий внедрения системных инноваций. Рассмотрена архетипная методология определения основ формирования институционально-эволюционных траекто-
рий внедрения системных инноваций. Доказано, что факторы успешности реформ как системных инноваций связаны не только с изменениями структур и функций институционального механизма государства, а прежде всего с социальными факторами. Показано, что фактором успешности системных инноваций является создание уникальной среды, которая основана на объединении технологически-инновационного базиса, экономики и социально-культурной системы. Обосновано, что для внедрения идей и потенциала системных реформ в реальные инновации, то есть реализации в социально-экономическом пространстве страны, необходим спектр объективных и субъективных причин, в частности культурная “поддержка” инноваций играет довольно важную роль.

Ключевые слова: системная инновация, архетип, институт, стратегия, изменения, трансформации.

__Formulation of the problem. The history of the modern Ukraine is a period of significant transformation of all the spheres of the public life. If development presupposes the preservation of the former quality of the system while implementing a number of internal changes based on innovation, then the geopolitical trends require a profound substantive transformation of all the spheres. In turn, it requires the development of appropriate strategies in order to ensure Ukraine’s competitiveness and ensure its subjectivity. This can be done by improving the quality of the public resource management through systemic decisions through an institutional approach.

In today’s context, the government, experts, and scholars are proposing numerous strategic systemic reform projects. However, as the business literature classic, Peter Drucker wrote, “the culture has the strategy for breakfast”. The answers to questions about the quality of these projects cannot be said unequivocally unless it is clear in which institutional system they will operate. Therefore, the question arises of the assessment of these projects in accordance with the cultural code of the Ukrainians, for which we propose to consider the archetypal approach and its impact on the dynamics of institutional change.

Analysis of the recent research and publications. The systemic aspect of innovation stems from current concepts of the technosphere as a social environment that is emerging as an infra-industry. It integrates technologically not only various fields of activity, science and production of goods and services, but also the sphere of life, complex technological systems of the human activity and socio-cultural life [1].

The innovation gap as a differentiation of the countries was considered in the study [2] as a modification of the cultural gap. As the main one in this study is the conclusion that modern culture is technogenic. This means that the values of the modern man and society have a technological basis, so leading are the societies and systems of their values, set not by traditional
but high technology. We can partially agree with this conclusion, in particular regarding the impact of innovation on the public administration change, but we cannot in any way dismiss the influence of tradition.

This approach is confirmed by a study [3] that proves that the traditional culture is the most important condition and prerequisite for innovative social development. If tradition, at its inception, or tradition as a fact of culture for a certain period, is viewed by researchers as cultural innovation, then traditional culture is either “strengthened” or “weakened” by changing the socio-cultural situation in the society, becoming the “engine” or the “brake” of the innovation culture. At the same time, traditionalism, which is present in the public consciousness and social practice, intensifies when the processes of modernization lead to a significant deterioration of the socio-cultural environment. Accordingly, maximum efficiency of transformation can be obtained in case of maximum coincidence of the vectors of innovations and traditions. In our view, this aspect can be considered as an administration task.

These aspects should be at the heart of the institutional triangle-based governance [4, p. 30]. It consists of three interdependent and interconnected components of the government system that must ensure its proper functioning:

• institutions (establishments, structures, organizations);

• processes (“rules of the game”, norms, procedures);

• people (cadres, civil servants, executants, society).

An innovation ecosystem is important for the implementation of any innovation, which creates stools or obstacles for innovation. Based on the institutional approach and according to the rainforest model [5] we can consider it as a part of two parts — “iron” and “soft”, where “iron” means the created physical infrastructure (economic potential), under “soft” — a culture in which new types of behaviour and social interaction of the people that contribute to development, including innovative, are formed. One of the key processes in the creation of an ecosystem is the transition from the “EGO-system”, where the individual level plays a crucial role, to the “ECO-system”, when all the levels operate within a framework of trust.

However, in the practice of public administration of Ukraine these aspects of the interdisciplinary approach to understanding the base of institutional transformations are currently practically not implemented in the framework of reforms. This leads to the loss of both their innovative potential and existing social capital (psychosocial potential by E. Afonin).

Thus, the methodology of developing purposeful changes in the institutional structure as determinants of systemic integrity, solving the problem of assessing the mutual impact of changes in individual economic institutions, and analyzing the dynamics of the entire institutional structure remain poorly understood.

Therefore, the purpose of this study is to analyze the archetypal factors of the functioning of macro systems, which need to be paid particular attention in order to find the most effective
points of effort (resources) within the framework of applying the concept of institutional and evolutionary trajectories of the systemic innovations.

**Research methodology.** Modern innovation in solving the problems of public administration is formed as an interdisciplinary field of theory and practice at the intersection of psychology, sociology, administration theory, economics and cultural studies. These approaches are based on the understanding that one of the most important factors in the search, development and implementation of the system innovation is people (society). Quite often the formula 4P (marketing mix) is interpreted in a new way, and now it stands for “People, People, People & People” [6].

The archetypal approach is consistent with the approach to managing systemic change as a natural-artificial system [7]. This approach is also consistent with the approach to knowledge management. According to it, in the context of development management, the factor of so-called “tacit knowledge”, often including the skills (competence) and culture inherent in individuals but not aware of them, is often ignored. One of the famous scientific aphorisms of M. Polanyi, the author of the concept of “tacit knowledge” — “We can know more than we can tell” — illustrates possible sources of the psychosocial resources for innovative development of the public administration.

North, drawing parallels between technology and institutions, noted the high cost of start-up costs, the effects of training and coordination, and adaptive expectations [8–9]. He also noted that the key to long-term growth is not the allocation, but adaptation efficiency, which can be achieved on the basis of psychosocial resources. Effective political and economic systems generate flexible institutional structures that can overcome the shocks and changes that are inevitable even with successful development. Note that the formation of such systems must take into account the factor of psychosocial development resources, for which is indispensable the archetypal methodology.

For the purposes of institutional planning, which involves the prediction, design, formation and control of different institutions that reflect the integral characteristics of a particular country, we propose to use the concept of institutional development strategies [10–13], which should take into account the archetypal component.

**Presentation of the main material.** Administration science of the late 19 — early 20 century was characterized by the dominance of the neoclassical direction, which focuses its attention on the study of the equilibrium state of the economic systems. Therefore, it gradually emerged that the application of the neoclassical theory produces adequate results only in the analysis of the institutional-invariant economic systems considered in the short-term, but is an unreliable tool for the analysis of the transitive processes characterized by a change in the institutional structure of the society. This explains the emergence and development of the institutional direction.

In our study it is appropriate to consider the innovative development as a combination of intellectual, resource and institutional changes in the system. These changes create the condi-
tions for the accumulation of cumulative potential capable of mastering the latest technologies, creating new products, exploring new markets, increasing the real product for consumption, providing favourable conditions for the development of the society.

Effective institutions create incentives that deliver economic growth. In this sense, the institutions and, accordingly, institutional changes can be viewed through the prism of savings on transaction costs, which, in turn, is the basis for using the comparative advantages in the development of the social division of labour, exchange, expansion of the production capacity and sustainable growth.

The innovation process, as a unity of resource-technological and institutional aspects of reproduction, presents institutional dynamics in the form of mutual influence and selection of conditions for reproduction of goods, as well as social conditions for concerted actions.

In this context, the context of institutional and evolutionary trajectories of the systemic innovations should be considered in order to understand more precisely the nature of the current trends and tasks of the public administration.

Based on the study [6] we can distinguish the following key aspects of the systemic innovations that allow us to determine the role of the psychosocial potential of the archetypes:

1) systemic innovations are innovations that are embedded in a system and affect its values, culture and permeate all its subsystems, pushing them for continuous development and improvement;

2) systemic innovations are the improvement of the organizational and business models, change of the thinking and behaviour (quality of thinking = quality of product = quality of life);

3) systemic innovations are solutions based on work with the system properties and laws of development of the complex systems (leverage effect, synergistic effect, laws of harmonious and sustainable development, etc.);

4) systemic innovations are solutions that identify the hidden resources of the system and activate its internal development potential;

5) systemic innovations are solutions that create favourable conditions for innovative activity in the system (implementation of various innovations).

From these definitions we see the possibility and need to move from traditional technocratic approaches to systemic change to approaches aimed at creating a new base for promoting transformation at all the levels, capable of both taking into account and influencing the habits and norms of the society in order to support effective and dynamic development.

Note that this approach is not a definite alternative to the existing ones. For example, it is consistent with the ideas of the Wellbeing Economy movement, whose experts say that “no entity can make the important changes that are needed. It requires collaboration and inspiration. And that means connecting, organizing and enhancing the work of organizations, groups and individuals seeking to build a welfare economy” [14].

These approaches were embodied in the 1990s in the framework of in-
novative theories of promoting the high-tech industries and models of the socio-cultural promotion of innovative development, formed on the basis of theories of the economic cycle and socio-economic concepts of the development and are practice-oriented. In these theories the role of innovation as a leading factor in the dynamics of development is considered in the following aspects [15, pp. 46–47], which are directly relevant to our study:

1) the role of institutes is important in the development of innovation; they are interpreted as both a “brake” for innovation and as a way of successful choice (under certain conditions) between the alternative solutions;

2) acknowledges the objective need to strengthen the role of the state in managing the development (monitoring, planning and forecasting) in cooperation with relevant stakeholders;

3) the availability of practical problems of the innovative motivation of different groups of stakeholders.

As an example of two institutional approaches with diametrically opposite results and the logic of the systemic reforms we can consider the PRC. To explain the reasons for today’s economic success one has to go back to 1978, when the country was in crisis (over 300 million people were living in absolute poverty) after experiments on the creation of a commune of the people and the cultural revolution.

Dan Xiaoping decided on a risky but thought-provoking experiment on institutional transformation to create a market economy. This required a new tool to speak to the people in a clear language, and he decided to turn to Confucianism. “To cross the river, you need to touch the rocks at the bottom”, said Dan Xiaoping, forming the ideology of “reform and openness” policies. If, according to Mao Zedong, Confucius was a “rat crossing the street” to be destroyed, Dan Xiaoping used Confucianism as the “ideological key” that opened the hearts of the ordinary Chinese. Without renouncing Marxism, the Chinese leader turned to the historical memory of the people because he understood that for hundreds of years Confucianism had shaped the Chinese mentality.

In fact “Dan Xiaoping’s brilliant intuition was consonant with the ideas of C. Jung, who as a result of the study of the human psyche concluded that in the structure of the spiritual world of man in addition to the personal unconscious there is a deeper layer of the psyche — the collective unconscious, possessing a general super-personal nature” [16, p. 87].

The need to formulate similar approaches to systemic reforms is due to the fact that despite the widespread discourse of these issues in Ukraine, there is a deepening of negative trends that pose a threat to the national security in the strategic perspective. Fig. 1 shows the dynamics of the reform index, illustrating their “fading” since 2015.

At the same time, the experience of the countries that have made “leaps of development” in their time shows that they were made not on the basis of copying foreign experience, but on the creation of “organic” models of the development. This, in turn, shapes the importance of archetypal methodology, enabling us to identify the ideas that should underpin the systemic reform.
In particular, based on the analysis of Khitsyak V. [19], devoted to the analysis of the conformity of the Ukrainian folk practices with the economic models of sustainable development, we can draw the following conclusions that may underlie the systemic economic innovations:

- the mentality of the Ukrainian as a farmer corresponds to the tendencies of the innovative food security, on the basis of which it is expedient to plan the modernization of this tradition and create conditions for the development of the urban agro-culture (incentives for developers (greenhouses on roofs), opportunities for product exchange (local markets), learning about new agro-technologies (vertical beds, hydroponics, etc.));
- Ukrainians’ practices in using food scraps for the preparation of organic fertilizers or as food for animals are in line with the global trends in greening the economy and continuing the product life cycle;
- the orientation of Ukrainians to the well-being of the children (for 32 % of Ukrainians this is the most important factor in life) to counteract the happiness “here and now at all costs” meets the criteria of the society’s maturity and model of sustainable development. This feature can form the basis of the information campaigns on innovative policy practices and the benefits of the sustainable development;
- generation bonding, emotional bonding, transferring traditions as traits of the Ukrainian culture are of particular importance in the context of sustainable development, in particular in overcoming the inequality and social support. Many researchers believe that without the involvement of the citizens, the government is unable to cope with a number of tasks. In identifying the benefits of archetypal methodology, it should be noted that the bonding of generations not only helps to see changes better, but also to identify the needs of other groups in the society;

The index may be known from -5 to +5, but +2 is seen as a pace of reform

*Fig. 1. Dynamics of the reform monitoring index [18]*
• traditions of producing homemade products in “home manufactories” may, in the face of a favourable institutional environment, in the future be the basis of a boom in the small innovative businesses;

• it is the habit of the Ukrainians to consider what “people will say” is consistent with the growing role of the local communities and the emergence of a “locally managed decentralized circular economy”, the main idea of which is to understand everyone’s responsibility in the sustainable development practices.

Thus, based on the logic of the archetypal methodology, the systemic reforms will be possible if:

1) a concept of system transformation, that includes a clear understanding of the interconnection (content) of the social functions and the content of the proposed system innovations. You can use the experience of the other countries, but overlay on the archetypal matrix and current realities.

This concept should understand which elements are key in terms of potential effect and conflict potential, and which are secondary. Today, this work is not done due to the lack of some effective think tanks and mechanisms of influence.

2) you need to track, complement, and respond to changes. Starting system innovation is a program. The competencies required for its implementation relate to both rapid and large-scale thinking skills, practical administration skills (including analytics, decision-making, leadership, etc.), as well as autonomy in the implementation of the intended.

3) requires a place of social, administrative and political interaction from which the system projects and programs can be implemented.

An important aspect of consideration of the institutional and evolutionary changes is the differentiation of the institutions involved in the transformation processes, as well as the diversity of types, forms of organizations and processes. It should be noted that previously almost all the tasks were performed by a network of the state institutions from which the “system” was formed. The civil society institutions have been little additions to this system. Most elements of the system and the relationships between them were accessible to direct control. In today’s context, the elements that have previously been considered merely as additions play an increasing role in shaping the changes, and their real impact is increasing. The current institutional framework for change is no longer a mere system of institutions. At present, the subjects and processes in this field are heterogeneous, diverse, heterochronous and subject to different logic, including archetypal. The role and place of the formal institutions is shrinking rapidly, and the relationships between the various elements are established situationally.

Based on the above, we can distinguish a certain set of objective criteria for analyzing the quality of the institutional and evolutionary trajectory of the system innovations implementation:

• progress in the development of the key social competences;

• level of achievement of the results needed to continue the implementation of the system innovations;

• synthesis of the archetypes and the complex of solutions that reflect the essence of the system innovations;
• compliance of the content of the system innovations with the requirements of the time;
• level and orientation of the systemic innovations in accordance with the public requests.

**Conclusions and prospects for further research.** The archetypal methodology to determine the basics of the formation of the institutional and evolutionary trajectories of implementation of the systemic innovations is considered in the research. The results of the study show that the success factors of the reforms as systemic innovations are related not only to the changes in the structures and functions of the institutional mechanism of the state, but above all to social factors. The study shows that the success of the systemic innovations is the creation of a unique environment of change based on a combination of the technological and innovation basis, economy and socio-cultural system. It is substantiated that for the ideas and potential of the systemic reforms to turn into real innovations, that is, to be realized in the socio-economic space of the country, a whole range of objective and subjective reasons, in particular cultural “support” of innovation plays a rather important role. We believe that further research should specify the impact of the specific components of archetypes and the trajectory of their embodiment in the systemic innovations.

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