THE ROLE OF PUBLIC GOVERNANCE OF THE SECURITY LEVEL OF SOCIO-ECONOMIC DEVELOPMENT OF REGIONS

Abstract. Nowadays, the crisis in Ukraine leads to deterioration of socio-economic conditions. Therefore, the formation of socio-economic security of the regions should be the priority. An effective tool for this is public administration, which promotes the participation of civil society in the process of regulating the development of regions. Therefore, there is an urgent task to study the prerequisites for its implementation, the ability of public administration to achieve appropriate results. The purpose of the article is to study the peculiarities, pace and effectiveness of public administration for the formation of an appropriate level of security of socio-economic development of regions. The methodology is based on a systematic approach to the application of public administration and its impact on the formation of an appropriate level of security of regional development; formalization of levels, goals, consequences of application of regulatory instruments, algorithms of involvement in the regulation of civil society: a comparative analysis of the level of subsidies of territorial communities. Prerequisites for the formation of socio-economic security of the regions are established. The structural scheme of application of regulatory tools of development of the region for formation of an appropriate level of safety is developed. To this end, regulatory instruments are segmented in accordance with the political, economic, social, environmental, spatial levels, which detail the relevant areas of development and their results. In addition, the structural and functional scheme of algorithm of introduction of public management of development of regions is developed. It is established that the extension of public administration to perform certain tasks should correspond to the level of social responsibility. A high level of subsidies to the budgets of territorial communities was revealed, which leads to an increase in the level of socio-economic danger. Therefore, it is stated that the balanced development of territorial communities should be the main goal of public administration. It is offered to estimate efficiency of management according to the author’s analytical representation based on the rates of budget balancing and as the degree of achievement of the purposes on the condition of an effective parity of the achieved result and expenses.

Keywords: public administration, safety level, socio-economic development, decentralization, civil society, efficiency evaluation criterion.

JEL Classification R10, R50

Formulas: 3; fig.: 2; tabl.: 1; bibl.: 20.
РОЛЬ ПУБЛІЧНОГО УПРАВЛІННЯ РІВНЕМ БЕЗПЕКИ
СОЦІАЛЬНО-ЕКОНОМІЧНОГО РОЗВИТКУ РЕГІОНІВ

Анотація. Сьогодні криза в Україні призводить до погіршення соціально-економічних умов. Тому пріоритетом повинно стати формування соціально-економічної безпеки регіонів. Ефективним інструментом для цього є публічне управління, яке сприяє участі громадянського суспільства у процесі регулювання розвитку регіонів. Тому постає актуальне завдання дослідження передумов його впровадження, спроможності публічного управління в досягненнях належних результатів. Мета статті — вивчення особливостей, темпів та ефективності впровадження публічного управління для формування належного рівня безпеки соціально-економічного розвитку регіонів. Методологія базується на системному підході до застосування публічного управління та його впливу на формування належного рівня безпеки розвитком регіонів; формалізації рівнів, мети, наслідків застосування регуляторних інструментів, алгоритмів, порівняння рівня дотаційності територіальних громад. Установлено передумови формування соціально-економічної безпеки регіонів. Розроблено структурну схему застосування регуляторних інструментів розвитку регіону для формування належного рівня безпеки. Для цього регуляторні інструменти сегментовано відповідно до політичного, економічного, соціального, екологічного, просторового рівнів, які деталізують відповідні напрями розвитку та їхні результати. Також розроблено структурно-функціональну схему алгоритму впровадження публічного управління розвитком регіонів. Установлено, що поширення публічного управління на виконання певних завдань повинно відповідати рівневі соціальної відповідальності. Виявлено високий рівень дотаційності бюджетів територіальних громад, що призводить до збільшення рівня соціально-економічної небезпеки. Тому вказано, що основною метою публічного управління має стати збалансований розвиток територіальних громад. Ефективність управління запропоновано оцінювати за авторським формульним представленням за темпами досягнення балансування бюджетів та як ступінь досягнення цілей за ефективного співвідношення досягнутого результату і витрат.

Ключові слова: публічне управління, рівень безпеки, соціально-економічний розвиток, децентралізація, громадянське суспільство, критерій оцінювання ефективності.

Формула: 3; рис.: 2; табл.: 1; бібл.: 20.
Introduction. Nowadays, the formation of prerequisites for socio-economic security of the regions should be one of the main tasks of public policy. The permanent crisis in Ukraine, which covers all spheres of life of the citizen and the state, creates preconditions for the growth of risks of deteriorating indicators of socio-economic security. Deterioration of socio-economic conditions increases the need to implement long-term public policy aimed at reducing the impact of risk factors, neutralizing their consequences to ensure an adequate level of security of citizens, regions and the state. As the experience of developed democracies shows, one of the effective tools for this is public administration, which determines the participation of civil society in the process of regulating the socio-economic development of the regions. With the introduction and strengthening of the policy of decentralization of Ukraine’s economy, the influence of the central government on regional processes aimed at the formation of socio-economic security of the regions will decrease. Therefore, there is an urgent task of creating new forms and methods of management. Rigorous administration and command style of management should give way to informed awareness of local communities of the needs and characteristics of the regions and the formation of appropriate motivational tools to achieve results.

Analysis of research and problem statement. The basis for the analysis of economic security presented in this article was its definition as «a state of the economy and institutions of power, which provides guaranteed protection of national interests, independence of the chosen economic course, social orientation of economic reforms, sufficient defense potential even under adverse conditions of internal and external processes» [1]. An example of the application of the methodology of taking into account threats to economic security in creating an algorithmic model was the work [2] and the correlation of competitiveness and economic security using an adaptive mechanism [3], which was studied using the example of other countries [4]. The isolation of factors of competitiveness of regions according to the approach [5] and stratification of levels and components of economic security taking into account modern experience are also taken into account [6]. It was useful to detail the threats, in particular, the environmental threat, which is given in [7]. In terms of the use of financial instruments to minimize the impact of risks and significant factors on the level of economic and social security of the regions, a detailed analysis is given in the report [9], articles [10; 11]. The influence of global trends on the peculiarities of approaches to the formation of economic and social security of regions in particular, the processes of globalization that stimulate the formation of non-economic system [12], primarily in Central and Eastern Europe [13], and the use of mathematical methods [14], unstatic nature of these processes [15] and the method of their study in the dynamics is demonstrated [16]. The approach to delimiting policy decisions and public administration systems is highlighted in [17] and the related problem of critical infrastructure stability [18] was also used in the study, as well as the optimization approach to economic and social security management [19] and the conceptual analysis of public administration as an adaptive mechanism for neutralizing threats [20]. Unfortunately, in the body of scientific research there is no mathematical formalization of the relationship between competitiveness and economic security and mathematical substantiation for the use of adaptive tools. Methodical approaches and practical developments of these authors were expanded and applied in the presented work.

The purpose of the article is to study peculiarities, preconditions, rates and efficiency of introduction of public management for formation of an appropriate level of safety of social and economic development of regions.

Unsolved aspects of the problem. It should be noted that the preconditions for the formation of socio-economic security of regions, areas of application of regulatory tools of public administration, the level of necessary and sufficient pace of public administration to perform socio-economic tasks, the criterion for assessing the effectiveness of public administration haven’t been studied enough.

Research results. Nowadays, public administration and regulation of socio-economic processes must use a certain systematic approach in the application of new mechanisms and influence on the development of regions. The mere recognition of the importance of public administration marks the transition to a network, information economy. In our opinion, this means not only and not so much the use of tools of persuasion and propaganda to motivate a person or other tools of
influence, but the formation of an informed person who is aware of his public choice and consciously responsible for this choice. It is an informed and responsible citizen — the basis of civil society — who is the key to the formation of socio-economic security, including the regional level.

The features of public administration include the following: administration to meet the needs of the whole community; multilevel nature of administration; implementation of the principle of social partnership; involvement of broader public in governance through civil society structures; stimulating civic activity; establishing feedback between government and the community; constant public monitoring of administrative regulatory actions; monitoring the effectiveness of public administration according to objective criteria.

Involvement of civil society in public administration in the formation of an appropriate level of security of socio-economic development of regions is a process that is complicated by many factors and requires a significant restructuring of social, political and economic institutions. First of all, this process is complicated by the different structure of civil society and existing governance institutions. Using systems theory, civil society structures are networked in nature and existing management institutions are hierarchical. Therefore, the problem is not in the reduction of management structures of socio-economic development of regions, but in the analysis of mechanisms for involving civil society in governance processes so that its interests become the basis for a network decision-making process. This required an analytical study of the application of regulatory instruments of socio-economic development of the region under public administration to form an appropriate level of security. As a result, the block diagram presented in Fig. 1 was formed.

**Fig. 1. Structural scheme of application of regulatory instruments of socio-economic development of the region for the formation of an appropriate level of security**
This scheme is segmented according to the levels: political, economic, social, environmental, spatial, which detail the relevant levels of socio-economic development of the regions. The purpose, tools and consequences of application of regulatory tools in accordance with the specified levels are established and systematized. All this is summarized in the block diagram in Fig. 1.

This, in turn, provided an opportunity to form a structural and functional scheme of the algorithm of involvement of civil society in the regulation of socio-economic development of the regions (Fig. 2).

![Fig. 2. Structural and functional scheme of the algorithm of introduction to the regulation of socio-economic development of the regions of civil society](image)

Fig. 2 shows the tasks that are taken care of by the control system. The tasks are structured according to the appropriate level of public awareness, which should coincide with the level of responsibility for the consequences of realization of these tasks: strategic management, tactical planning, decision-making, control and monitoring of the results and, if necessary, current regulation. The result of the implementation of these tasks should be sustainable socio-economic development of the region. Involvement of civil society network structures in each of these tasks should be carried out with the formation of appropriate mechanisms for informing them and increasing the level of understanding of responsibility for management decisions.

The growth of the level of responsibility for management decisions should be correlated with the economic self-sufficiency of the regions, which should be correlated with the level of socio-economic security of the region.

The effectiveness of public administration in the formation of the appropriate level of security of socio-economic development of regions can be assessed as, on the one hand, the degree of realization of goals and tasks, on the other hand, as the ratio of the effect from management to administrative costs. That is, when the involvement of additional structures of civil society will require an increase in administrative costs — this will be the first sign of its inefficiency.

«Region», as the analysis shows, is a rather vague definition. The administrative units to be included in the civil society governance structures that can be analyzed are the regions of Ukraine, which according to the requirements of decentralization are divided into the corresponding substructural governance units — united territorial communities (OTG) (Table).
### Analysis of the level of OTG subsidies for 2019 by regions

<table>
<thead>
<tr>
<th>Name of the area</th>
<th>The number of OTG in the area, units</th>
<th>OTG with reverse grant, units</th>
<th>Maximum reverse subsidy in the budget, units</th>
<th>Balanced OTG, units</th>
<th>OTG with basic subsidy, units</th>
<th>Maximum basic subsidy in the OTG budget, %</th>
<th>The share of OTG in the region, %</th>
<th>The share of the population of all OTG from the population of the region, %</th>
</tr>
</thead>
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<tr>
<td></td>
<td>N</td>
<td>n₁</td>
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<td>m₁ ≤ 10%</td>
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<td>2 ≥ 20%</td>
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<td>6 ≥ 20%</td>
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<td>4 ≥ 10%</td>
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<td>2 ≥ 20%</td>
<td>2 ≤ 20%</td>
<td>2 ≥ 10%</td>
</tr>
</tbody>
</table>

**Source:** based on data (Official website of the State Statistical Service of Ukraine, 2021; Statistical publication Regions of Ukraine, 2019; The official site of The National Institute for Strategic Studies, 2021).

The total share of the population and territory of OTG from the relevant indicator of the region, given in Table, indicates the importance of these indicators of a particular OTG for socioeconomic indicators of the region. A significant number of these OTGs, as the analysis shows, is characterized by a high level of subsidies and low levels of financial sufficiency, which increases the level of socio-economic danger, which is in some way correlated with key performance indicators (KPI) and competitiveness.

Table shows the results of the analysis of the financial condition of 806 OTG according to [9]. This number is limited to those OTGs that have established direct relations with the State Budget on January 1, 2019. There are three groups of regions according to the level of the basic subsidy in relation to own revenues. The first group — more than 15 OTGs in the region with a share of the basic subsidy of more than 20% (Volyn, Ivano-Frankivsk, Chernivtsi, Lviv, Ternopil, Rivne); second group: 5 — 10 OTGs in the region with a share of the basic subsidy of more than 20% (Zhytomyr, Khmelnytsky, Kherson, Odessa, Dnipropetrovsk); the third group — less than 5 OTGs in the region with a share of basic subsidy over 20% (Vinnytsia, Zaporizhia, Luhansk, Sumy, Mykolaiv, Donetsk, Cherkasy, Poltava, Zakarpattia, Chernihiv, Kirovohrad, Kharkiv, Kyiv). The indicator of the level of development of communities and their financial condition and, accordingly, competitiveness, is the value inverse to their degree of basic and reverse subsidies. The analysis
showed that only 86 OTGs are fully balanced. Only 137 received a reverse subsidy and implemented a budget policy to equalize the disparity in development, and the vast majority — 583 OTGs were actually financed by a basic subsidy from the State Budget. The share of the basic subsidy in their budgets reached the level of 64% in some cases. This is a characteristic of the regulatory influences applied in these regions. Therefore, the main goal of public regional governance should be to achieve balanced development and reduce disparities in the development of regions and OTGs, increasing their competitiveness. Only regions with a balanced budget are able to implement their own policy of forming an appropriate level of security of socio-economic development.

And the restructuring of the mechanisms of involvement in the management of civil society structures should be carried out in such a way as not to harm this goal. This thesis is to some extent an extension and concretization of Yakobchuk’s thesis [19] on the role of public administration in reducing the use of methods of direct action of state administration of the economy and substituting them by indirect methods. Such an indirect method should be to spread the influence of civil society on the regulation of local budgets, stimulate regulatory measures to create a favorable environment for business, which will obviously contribute to improvement at all levels, shown in Fig. 1 — increasing the number of jobs, raising the standard of living of the community, and, accordingly, increasing revenues to local budgets, i.e. their balance. And all together it will form the preconditions for socio-economic security. That is, it is also a continuation of the conclusions [19] that «the most important objects of influence of public management... should be ... depressed regions». In Table these regions are reasonably highlighted in the comments to it.

Public administration is not only and not so much a restructuring of administration «from the top». Decentralization has strengthened the social activity of citizens. The topical public issue on the legal regulation of the payment of the single tax and personal income tax (PIT) is a particular example. This proves that the communities of the regions are aware of the trends of socio-economic development of the regions and see the consequences of specific regulatory actions. Namely, the fact that the economic crisis is projected to lead to a decrease in budget revenues at all levels. At the same time, the custom of paying personal income tax at the place of registration of the enterprise, and not at the place of registration of an individual (taxpayer) who works for it, leads to a disparity in the budgets of the respective OTGs. Public activity indicates that taxpayers are interested in receiving funds in the budget of the OTG where they actually live. They realize that personal income tax is a significant part — 45% of tax revenues to the local community budget, and the registration of the company for many reasons is made in the administrative center of the region, thus balancing its budget and not the local OTG’s budget.

A rational way out of this situation is to include PIT in the budget of OTG at the place of the taxpayer’s registration.

And this is just one of many examples of the formation of the influence of public administration on the creation of preconditions for socio-economic security of the region.

Decentralization has raised many other regulatory issues. It is necessary to introduce a clear legal division of powers for the formation and implementation of regional policy. Nowadays, regional policy at the state level is formed by the National Institute for Strategic Studies. The realization of this policy is entrusted to the Ministry of Development of Communities and Territories of Ukraine. Where does the power of the first and second institutions end and where do the regional institutional structures themselves begin to be responsible for regional policy?

The question of mathematical formalization of appropriate adaptive influences to ensure the socio-economic development of regions arises. Competitiveness can be an objective functional factor according to [3—5]. Competitiveness using the WEF methodology is considered by us as the ability of regional elites and civil society to ensure a stable pace of socio-economic development in the mid-term horizon. The analysis of literature sources [3—5] found that according to them the competitiveness is determined by very diverse and, often, qualitative factors. This complicates both the analysis and control over time of the degree of impact of the selected adaptive tools on the competitiveness of the regions. Therefore, as a numerical indicator that correlates with the
competitiveness of regions in the current socio-economic realities, we have chosen the inverse of their subsidization due to the adequacy of statistical information about it and its factors (see Table). The use of these factors, as evidenced by the analysis of Table should be carried out taking into account the level of subsidies of the relevant group of OTG. The following analytical representation of the adjustable functional is offered:

\[ f = \{(N - B) \cdot A_1(n_1, n_2, n_3) \cdot A_2(m_1, m_2, m_3) \cdot A_4(m_{\text{max}}) \cdot k_1^{-1} \cdot k_2^{-1} \cdot \sum_i a_i f_i \} \rightarrow \min, \]  

where \( A_1, A_2, A_3, A_4 \) are weighting factors, the value of which is determined by factor analysis, in particular, in accordance with the group by the level of subsidies \( (n_1, n_2, n_3) \) and \( (m_1, m_2, m_3) \); \( a_i \) is weight of one-factor adaptive influence of disproportion regulation; \( f_i \) is factor of influence; \( i = 1 \ldots z \). Moreover, the adaptive impact is maximized by the ratio of the achieved result \( (\theta_i) \) to the cost of management \( \pi_i \):

\[ \{a_i f_i\} \varphi(\theta_i / \pi_i) \rightarrow \max. \]  

Assessment of the effectiveness of the impact factor provides control in the dynamics:

\[ \frac{\partial f(a_i f_i)}{\partial t} < 0, \]  

where \( t \) is time.

Mathematical formalization (1)—(3) makes it possible to apply it to implement the algorithm presented in Fig. 2 and other algorithmic approaches to regulating the socio-economic development of regions.

With the implementation of the policy of public management of the regions, all regulatory issues that hinder this process should be resolved. And this is also a prerequisite for ensuring the appropriate level of security of socio-economic development of the regions.

**Conclusions.** The preconditions for the formation of socio-economic security of the regions are analyzed. The structural scheme of application of regulatory tools of social and economic development of the region for formation of an appropriate level of safety is developed. When developing a structural scheme, using a systems approach, regulatory tools are segmented according to political, economic, social, environmental, spatial levels. These levels detail the relevant areas of socio-economic development of the regions. The directions of application of regulatory instruments in accordance with the specified levels are established and systematized and the consequences of application of these instruments are detailed. A structural and functional scheme of the algorithm for involving public management of socio-economic development of regions has also been developed. It is established that the extension of public administration to perform certain tasks should correspond to the level of development of social responsibility.

As it was proved by the conducted research, OTGs make up a significant share of territories and the population of regions, so the financial condition of 806 OTG has been analyzed. The indicator of the level of development of communities and their financial condition is the value inverse to their degree of basic and reverse subsidies. A high level of subsidies and a low level of financial sufficiency of the vast majority of these OTGs have been established. This leads to an increase in the level of socio-economic hazard, which correlates with KPIs and competitiveness. Since most OTGs are financed by a basic subsidy from the State Budget, and the share of the basic subsidy in their budgets reached 64%, the main goal of public regional governance should be to achieve balanced development and reduce disparities in regional and OTG development and growth of their competitiveness. And the effectiveness of management is proposed to assess as the pace of achieving budget balancing and as the degree of implementation of goals and objectives with an effective ratio of the achieved result to management costs.

**Литература**


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