UDC 330:657.1:657.47

JEL Classification: D20, G34, M41

D0I: 10.15587/2706-5448.2021.235296

Article type «Original research»

Pavlo Hlasov

IMPROVEMENT OF THE MECHANISM OF MANAGEMENT ACCOUNTING OF ENTERPRISE EXPENSES IN THE CONDITIONS OF CLUSTERIZATION

The object of research is the implementation of clustering of the economy as an effective mechanism for management accounting of the costs of enterprises. One of the most problematic areas is the identification of the main priority areas of clustering the economy, which will actively influence the development of management accounting of enterprises' costs. The use of a cluster mechanism for management cost accounting, thanks to management, information, personnel, financial, investment, and innovation potential, will create a research base for developing cost accounting methods and assess the prospects for its use in clusters.

The analysis of the current state of the introduction of clustering of the economy is made on the example of Ukraine. The main characteristics of the directions of development of the introduction of clustering of the economy have been determined. The main priority areas of clustering of the economy will actively influence the development of management accounting of enterprises' costs.

In the course of the study, approaches to clustering the economy as an effective mechanism for management accounting of enterprises' costs are used. The stages of the introduction of clustering of the economy as an effective mechanism for management accounting of the costs of enterprises are determined. These stages provide for the determination of the role of clustering the economy in creating an effective mechanism for accounting for expenses in clusters and the development and implementation of action plans for its implementation. The next step is to analyze the implementation of management accounting of expenses in clusters and develop the principles of its formation. For their implementation, it is proposed to develop directions for the development of the introduction of clustering of the economy and to present the cluster mechanism as an effective factor in improving the management accounting of enterprises' costs. Thanks to this, it is possible to prevent and solve the problems of management accounting of expenses in clusters and to increase the efficiency of the cluster association. In comparison with similar well-known methods, the proposed approaches allow to form an effective management cost accounting system and improve management in clusters using the cluster approach.

Keywords: clustering of the economy, cluster formations, management cost accounting, management cost accounting mechanism.

Received date: 01.02.2021 Accepted date: 17.03.2021 Published date: 30.06.2021 © The Author(s) 2021 This is an open access article under the Creative Commons CC BY license

How to cite

Hlasov, P. (2021). Improvement of the mechanism of management accounting of enterprise expenses in the conditions of clusterization. Technology Audit and Production Reserves, 3 (4 (59)), 6–11. doi: http://doi.org/10.15587/2706-5448.2021.235296

1. Introduction

In modern economic conditions, the increasing influence of global problems of mankind on the development of the world economy, states must recognize that the clustering of the economy is an important factor in economic growth. The world economy has never experienced such a significant decline in production and profits in the past 100 years. Through the originality and novelty of the diverse threats created by the pandemic for the development of the international economy, it becomes necessary to timely identify the conditions, events, phenomena and processes that are sources of threats, with a subsequent

assessment of the degree of their influence on the state of the economy.

This means that even after a significant part of the lockdown restrictions have been lifted, economic recovery after a pandemic-induced drop to pre-crisis levels may take a long period.

Increasing the stability and competitiveness of our own economy is one of the priority tasks for the countries of the world. Moreover, each country must ensure such a level of its national economic security, which will guarantee its safe economic functioning. Clustering economies can help countries achieve this. Thanks to the cluster approach, it becomes possible to produce a competitive product and sell it

ECONOMICS AND MANAGEMENT OF ENTERPRISE

on the world market, which will ensure the efficient and rapid development of the international economy.

In developed countries, the combination of enterprises into clusters can reduce costs, increase competitiveness by reducing costs. In Europe, cluster development is a priority regional development strategy. The dependence of the competitiveness of enterprises on external market processes requires an increase in the effectiveness of the cost accounting management system. This requires new approaches to improving the efficiency of the management system for accounting for the costs of enterprises and improving the organization of management accounting. The characteristic differences in the management of cost accounting using the cluster approach in the leading countries of the world need to improve the effectiveness of the cost accounting management system.

In such conditions, the creation of a favorable macroeconomic, informational and regulatory environment for the development of clustering of the economy as an effective mechanism for management accounting of enterprises' costs has a priority. Determining the nature of the development of cluster formation makes it possible to introduce a strategic mechanism for managing cost accounting. Trends towards an increase in the potential of a cluster and its competitiveness with the growth of the world economy and an improvement in business sentiment are the prospects for the implementation of cluster policy. The development of organizational and methodological foundations for the formation of a mechanism for management accounting of enterprises' costs on the basis of the cluster approach is an important theoretical and scientific and methodological issue that has not been sufficiently studied in scientific works. Thus, the study of cluster development and its impact on the management accounting of enterprises' costs is an urgent problem and requires further solution.

2. The object of research and its technological audit

The object of research is the introduction of clustering of the economy as an effective mechanism for management accounting of the costs of enterprises. Let's consider it on the example of Ukraine. Thus, there are already more than 50 clusters and cluster initiatives in Ukraine. Therefore, in recent years, clustering has begun to receive more attention from the state, certain changes have taken place, in particular, the creation and development of clusters is recognized as one of the most important directions in the development strategies of many regions. But there are still a number of problems that require immediate solutions to accelerate the development of the introduction of clustering of the economy.

So, one of the most problematic areas is the study of aspects of the problem of the influence of the clustering process on management cost accounting. The problem can be attributed to insufficiently investigate and such that requires further analysis.

3. The aim and objectives of research

The aim of research is to study the introduction of clustering of the economy as an effective mechanism for management accounting of the costs of enterprises.

To achieve the set aim of research, the following objectives have been identified:

- 1. To analyze the theoretical and scientific-methodological aspects of the development of the mechanism of management accounting of costs based on the cluster approach.
- 2. To determine the directions of development of the introduction of clustering of the economy as an effective mechanism for management accounting of the costs of enterprises.

4. Research of existing solutions to the problem

The work of many scientists is devoted to the study of theoretical and methodological aspects of the development of the introduction of clustering of the economy as an effective mechanism for management accounting of costs of enterprises. In these works, the authors investigated:

- economic importance of the cluster [1]. In the future, the economic significance of the cluster should be considered in connection with the impact of management on it;
- directions of improving the clustering of the economy [2]. The list of directions should be expanded;
 strategic management accounting of costs in clusters [3].
 However, it would be advisable to indicate the features of the development of the mechanism of management cost accounting based on the cluster approach.

And in [4], it was proved that cluster formations are stable, but a clear definition of stability is needed in the spirit of the core of a cooperative game.

Special attention was also paid to:

- recovery of the financial state of the economy after the pandemic [5]. It is necessary to define a clear action plan for economic recovery and indicate clustering as an effective mechanism for its development;
- issues of cluster development [6] and the need for financial activity of the government to overcome the crisis [7]. There are proposals on promising areas of government work on the development of clusters, and there are no directions for using the cluster mechanism for management cost accounting.

The author of [8] notes that the cluster approach is an effective means of increasing competitiveness, contributes to the growth of living standards of the population, activation of business, building up innovative and technological potential, and improves the investment climate. But it is also necessary to consider the cluster mechanism as a factor in management cost accounting.

In works [9, 10], the authors generalized the problems of clustering the Ukrainian economy. Although it would also be desirable to develop promising directions for solving these problems. In [11], the world experience of clustering is considered, and in the future it would be necessary to determine the features in the management of cost accounting using the cluster approach in the leading countries of the world.

Thus, the results of the analysis allow to conclude that the issue of the organizational and economic foundations for the formation of a mechanism for managerial cost accounting based on the cluster approach is promising. It is necessary to investigate the specifics of managing cost accounting using the cluster approach in the leading countries of the world and develop directions for using

the cluster mechanism for managing cost accounting using the example of Ukraine.

5. Methods of research

During the execution of the work, general scientific and special research methods were applied:

 analysis and synthesis – for a preliminary analysis of the problems of forming an effective mechanism for management accounting of costs of enterprises, features of management accounting of expenses in clusters, problems of the influence of clustering on management accounting of costs and methods of its application in clusters. And also for the study of the features and analysis of the current state of the introduction of clustering of the economy, the conditions for implementation, directions of development and improvement; analogies and comparative comparison – to determine the characteristics of the introduction of management accounting of enterprises' costs, the ratio of the formation of a mechanism for management accounting of costs using the cluster approach and without it. And also for the comparative characteristics of clustering processes in Ukraine and foreign countries.

6. Research results

In Ukraine, in the current conditions of searching for a way out of the economic crisis and the formation of a new model of the country's economic development, there is a search for a new institutional unit that will be able to take on certain obligations, make expenses and receive income. Ukraine is forced to look for different approaches to the production of services and goods in order to sell them at prices, reimburse production costs and give profit. Structural changes in the economy depend on institutional factors, efficient technologies, and investment changes. The formation and development of clusters are natural processes of the modern economy, relatively new and promising. The cluster model is an effective tool for ensuring the effective development of the Ukrainian economy and the development of an innovative model in industry, determined by the goals of applying the cluster approach.

Today, cluster strategies for economic development are widely used all over the world. Forming the cluster policy, the state bodies of the developed countries of the world advocate a broad classification of clusters in order to include in them as many firms as possible [12].

Clusters have a flexible strategy, which gives them the opportunity to optimize costs and increase the efficiency of their activities, to respond in a timely manner to strategic challenges of the external and internal environment. The cluster approach helps to increase the level of transparency and manageability of regional economic processes. In the case of successful functioning and development of the cluster, they become centers of attraction for investments, the best human resources and related services [13].

World practice provides various tools and forms for implementing the cluster approach. The development of European clusters takes place in the context of the European strategy of reasonable specialization, therefore, the involvement of the European clustering model for the innovative and industrial development of the Ukrainian

_ 8

industry is another logical step in the European integration direction [14].

Many countries of the world have chosen for themselves the path of intensive innovative development and the cluster model of economic organization. In the context of globalization, clusters have become a force that consolidates, unites enterprises and contributes to their achievement of maximum production efficiency and obtaining significant competitive advantages.

Maintaining financial and management accounting is essential for the development of the cluster. In today's conditions, the costs and cost of products (goods, services) tend to grow. Therefore, cluster formation is forced to determine the need for management accounting of enterprises' costs. In the context of the clustering of the economy in Ukraine, the approach to strategic management cost accounting should be expanded. The current state of management cost accounting as a type of practical activity is characterized by the emergence of new accounting and management procedures, tools and methods, considered as competitive advantages and key factors in increasing the efficiency of operational, tactical and strategic activities. The influence of the clustering process on strategic management cost accounting can be characterized by the following properties: information assessment and measurement can be carried out in various ways, information can be both financial and non-financial in nature. In clusters, there is a system for collecting and grouping the necessary information for managers at various levels of management, which allows them to timely analyze the means of reducing costs, take into account the peculiarities of both internal and external environments, and optimize costs. It should be noted that strategic management cost accounting is closely interconnected with the cluster management system. Effective management of cluster mergers of enterprises leads to a double synergistic effect. First, in the implementation of economic ties between the enterprises of the cluster, information is exchanged, which leads to the optimization of production costs, a decrease in transaction costs, an increase in the profit of the enterprises of the cluster, and the dissemination of innovations and knowledge. Secondly, effective cluster structures act as points of growth for the regional economy and contribute to the development of the national economy. In addition, clusters contribute to the pace of implementation of innovations, determine their direction and thereby create the foundation for future economic growth of both the region and the country. The process of forming a mechanism for managing expenses accounting in clusters requires the development of a new management methodology. Clusters should increase the efficiency of management, which would allow not only to quickly adapt to the actual operating conditions, but also to ensure their effective development. The cluster is considered a complex object of management, therefore, it becomes necessary to collect, systematize and process a large amount of various information of a financial nature, as well as to constantly analyze the situation, adjust the previously developed financial plan on its basis, and take into account a large amount of additional information. All cluster members prepare separate financial statements, but the main enterprise consolidates and publishes the performance indicators of the cluster member enterprises. The Consolidated Statement of Financial Results (Statement of Comprehensive Income) is the main source of information

on indicators that can be used to measure, evaluate, monitor, and analyze the results of the cluster's functioning. The presence of a relationship between the members of a cluster association provides an opportunity to use all the elements of strategic management cost accounting. The influence of the clustering process on management cost accounting allows the use of methodological tools of economic analysis to conduct blitz diagnostics of the financial and economic condition of an enterprise and identify bottlenecks in the composition of business processes.

It should be noted that the components of the influence of the clustering process on management cost accounting are:

- sectoral and individual characteristics of the cluster, its network structure;
- presence of a large enterprise-leader, which determines the business strategy of the cluster;
- multifunctional production;
- stability of economic ties;
- interaction of the members of the cluster association within their production programs and management;
- innovative development and the possibility of using new resources and technologies;
- distribution of costs by centers of responsibility (these costs are determined according to different methods);
- availability of a strategically oriented accounting system for collecting and processing information;
- consolidation of indicators in the reporting;
- level of access to information and control over its quality and reliability;
- perfect technologies for storing information;
- availability of various media.

So, if to study the organization of management accounting of expenses in clusters, it should be noted that clusters use specific methods of strategic management accounting of expenses, and this leads to non-standard implementation of management activities, which is reflected in the proposed table in Fig. 1.

The role and importance of financial reporting as an information base for strategic management cost accounting is of great importance. The sequence of the processes of cost accounting, costing, analysis of deviations from standard production costs and their fluctuations under the influence of various factors shows the specifics and features of the cluster. These factors make it possible to avoid the typical mistakes that arise when providing modern strategic conditions for cost accounting. The development of internal mechanisms for the financial stability of the cluster is closely related to the process of accounting and analytical support for making managerial decisions. Therefore, it is necessary to develop directions for the development of the introduction of clustering of the economy as an effective mechanism for management accounting of enterprises' costs and to regulate the relations of cluster participants in the implementation of cost accounting management. To do this, it is necessary to pay attention to the organizational and financial support for the development of the introduction of clustering of the economy as an effective mechanism for management

accounting of the costs of enterprises. It is necessary to provide clusters with financial, scientific, technical, and personnel support, which will allow conducting thorough studies of the organization of management accounting of costs and developing methodologies for introducing a cluster form of organization of enterprises as the main direction of improving the mechanism for managing cost accounting. It is necessary to develop a manual that will provide an overview of the best practices of clusters, both national and global. Also, in this manual it is possible to publish information on modern management methods, including cost accounting.

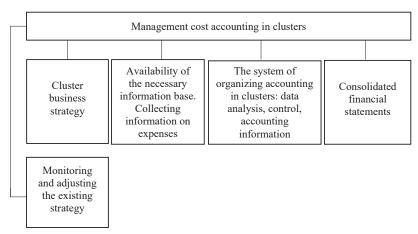


Fig. 1. Organization of management accounting of expenses in clusters (developed by the author)

It should be noted that, unlike the United States or Great Britain, where great attention has been paid to management accounting and management reporting for decades in the preparation of professional accounting personnel, there have never been special programs for professional training of management accountants in Ukraine. Therefore, it is advisable to develop such a program in order to ensure a high level of knowledge of accountants.

Directions for the development of the introduction of clustering of the economy as an effective mechanism for management accounting of the costs of enterprises, primarily related to the support of clusters from the state. Certain changes have taken place in recent years. Thus, the adoption of the National Economic Strategy for the period up to 2030 [15] is a significant support for the strategic course of the state in the economic sphere. One of the objectives of this strategy is to create favorable conditions for the development of clusters.

It is necessary to establish cooperation between the state and scientific institutions on the development of methods for accounting for the costs of enterprises. The normative acts of Ukraine, which regulate accounting, do not contain norms for documenting, evaluating and reflecting cluster expenses in the accounts. Therefore, we believe that in Ukraine it is necessary to intensify the interaction of business, government, the public and science in order to communicate and coordinate ties of the organizational and informational direction between the cluster members.

The lack of regulatory support for the functioning of clusters has led to the fact that today clustering is not sufficiently fixed in the legislation of Ukraine, the concept of a cluster is absent in the laws of Ukraine. Thus, the Economic Code of Ukraine provides for various organizational

and legal forms of business associations, namely: associations, corporations, consortia, concerns, and other business associations provided for by law (unions, unions, business associations, etc.). If to compare these forms of business amalgamation with such a form of amalgamation as a cluster, we can conclude that a cluster can be a separate form of business amalgamation. Therefore, it is advisable to supplement the Economic Code of Ukraine with a new organizational and legal form of enterprise associations clusters. It is also necessary to develop and adopt the Concept of Cluster Economy in Ukraine. It should determine the organizational, technical and methodological aspects of the activity of clusters in Ukraine and develop a generalized mechanism for the implementation of measures of state policy for the development of clusters at the local level. In particular, the provision of appropriate infrastructure, the development and implementation of information registers and databases, investment incentives. Thus, the lack of generalized statistical information regarding Ukrainian clusters, quality control of functioning of existing clusters, the initiator of the adoption of the cluster development program indicates that there are almost no state bodies in the sphere of cluster policy. Thus, the development in Ukraine of the clustering of the economy as an effective mechanism for management accounting of the costs of enterprises requires a system of state policy measures aimed at developing the concept of cluster development.

7. SWOT analysis of research results

Strengths. The strengths of the application of clustering of the mechanism of management accounting of enterprises' costs are that these measures make it possible to improve the implementation of clustering of the economy as an effective mechanism for management accounting of costs of enterprises. Compared to other approaches to the implementation of an effective mechanism for management accounting of expenses in clusters, this is most clearly achieved by introducing clustering of the economy. An increase in labor productivity, an increase in production in clusters, the formation of new companies and the creation of new jobs, the introduction of the best available technologies for the use of the latest equipment has a positive impact on the development of clusters. Thanks to the formation of competitive advantages that contribute to attracting domestic and foreign investment, the growth of the region's innovative potential, and support for the creation of clusters on the part of the state, an organizational and economic mechanism for management accounting of enterprises' costs is being formed. So, the proposed methods will make it possible to develop an effective, efficient, motivational mechanism for management accounting of enterprises' costs. In comparison with analogs, the proposed study makes it possible to predict the development of management cost accounting using clustering, which allows integrating all cluster advantages into this development.

Weaknesses. The analysis shows that the lack of regulatory support for the functioning of clusters has a negative impact on their development. Insufficient adequate financial support for cluster development impedes the improvement of the cluster's activities. Lack of experience in clustering and full and detailed accounting of

clusters, lack of access to modern management methods, including cost accounting, and an insufficient amount of scientific research slow down the development of management cost accounting in clusters. These negative aspects prevent clusters from defining progressive methods of cost accounting and introduce an imbalance in the development of legislative, methodological, financial, scientific, information management components of the management cost accounting mechanism based on the cluster approach.

The weak side is the insufficient financial, scientific, technical, and personnel support, which made it possible to conduct thorough studies of the organization of management accounting of costs and develop methodologies for the introduction of a cluster form of organization of enterprises as the main direction of improving the mechanism for managing cost accounting. In addition, it is necessary to take into account the rather high cost of this process. But the weaknesses are not critical. So, if government funding is limited, it is possible to raise funds from other sources that are not prohibited by law.

Opportunities. It should be noted that further improvement of the cost accounting management mechanism can be supplemented with new research. Studying the relations of cluster members in the implementation of cost accounting management, the state of organizational and financial support for the development of the introduction of clustering of the economy as an effective mechanism for management accounting of enterprises' costs will reduce the costs of the cluster. Applied implementation of the best available technologies using the latest equipment can be upgraded, improve the cost accounting management mechanism. Methodological recommendations have been developed and can be used in practice.

Threats. Threats include the fact that the macroeconomic forecast for Ukraine is not very comforting. Quarantine in connection with the COVID-19 epidemic reduced domestic demand and significantly weakened external demand for Ukrainian exports.

Lack of government support negatively affects the development of the introduction of clustering of the economy as an effective mechanism for management accounting of enterprises' costs. The situation is complicated by the fact that some threats are unmanageable, for example, the COVID-19 epidemic, although this does not make it impossible to work in the chosen direction.

8. Conclusions

1. The analysis of theoretical and scientific-methodological aspects of the development of the mechanism of management accounting of costs based on the cluster approach is carried out. The main characteristics of the introduction of clustering of the economy as an effective mechanism for management accounting of enterprises' costs are determined.

It is noted that the components of the influence of the clustering process on management cost accounting are:

- sectoral and individual characteristics of the cluster, its network structure;
- presence of a large enterprise-leader, which determines the business strategy of the cluster;
- multifunctional production;
- stability of economic ties;
- interaction of the members of the cluster association within their production programs and management;

- innovative development and the possibility of using new resources and technologies;
- distribution of costs by centers of responsibility (these costs are determined according to different methods);
- availability of a strategically oriented accounting system for collecting and processing information;
- consolidation of indicators in the reporting;
- level of access to information and control over its quality and reliability;
- perfect technologies for storing information;
- availability of various media.
- 2. The directions of development of the implementation of clustering of the economy as an effective mechanism for management accounting of the costs of enterprises have been determined. They provide for the improvement of the regulatory, organizational, and financial support for the clustering of the economy. It is necessary to provide clusters with financial, scientific, technical, and personnel support, which will allow conducting thorough studies of the organization of management accounting of costs and developing a methodology for introducing a cluster form of organization of enterprises as the main direction of improving the mechanism for managing cost accounting.

References

- 1. Atkin, D., Chaudhry, A., Chaudry, S., Khandelwal, A. K., Verhoogen, E. (2017). Organizational Barriers to Technology Adoption: Evidence from Soccer-Ball Producers in Pakistan*. The Quarterly Journal of Economics, 132 (3), 1101-1164. doi: http://doi.org/ 10.1093/qje/qjx010
- 2. Hlasov, P. V. (2018). Economic clusterization effectiv mechanism of management accounting of compani escorts. Problemy innovatsiino-investytsiinoho rozvytku, 14, 4-12.
- Iershova, N. Yu. (2017). The Conceptual Framework of Strategic Management Accounting. Problemy ekonomiky, 1, 195-202.
- Fu, H., Kleinberg, R. D., Lavi, R., Smorodinsky, R. (2017). Job security, stability, and production efficiency. Theoretical Economics, 12 (1), 1-24. doi: http://doi.org/10.3982/te2016

- 5. Leiser, S., Mills, S. (2019). Local Government Fiscal Health: Comparing Self-Assessments to Conventional Measures. Public Budgeting & Finance, 39 (3), 75-96. doi: http://doi.org/10.1111/ pbaf.12226
- 6. Lu, R., Reve, T., Huang, J., Jian, Z., Chen, M. (2018). A literature review of cluster theory: are relations among clusters important? Journal of Economic Surveys, 32 (4), 1201-1220. doi: http://doi.org/10.1111/joes.12255
- 7. McDonald, III, B. D., Larson, S. E. (2020). Implications of the Coronavirus on Sales Tax Revenue and Local Government Fiscal Health. Journal of Public and Nonprofit Affairs, 6 (3), 377-400. doi: http://doi.org/10.20899/jpna.6.3.377-400
- 8. Mykoliuk, O. (2017). Formation of cluster structures in the conditions of the energy independence development. Economic Analysis, 3 (27), 56–61. doi: http://doi.org/10.35774/econa2017.03.056
- 9. Palyvoda, O. M., Karpenko, O. O. (2017). The Social Effects of Functioning of the Regional Clusters in the Economy: Mechanisms of Formation and Approaches to the Calculation. Biznes Inform, 3, 103-108.
- 10. Pankova, L., Potapenko, T. (2018). Formation of the cluster model of national economy on the basis of regional development. Ekonomika i orhanizatsiia upravlinnia, 2 (30), 47-56.
- 11. Pushkar, T. A., Fedorova, V. G. (2011). World experience of network and cluster associations formation and development. Ekonomichni litopisi-XXI, 11-12, 68-71.
- Ryneiska, L. S. (2016). The clusters in the modern global economy. Efektyvna ekonomika, 5, 1-3.
- 13. Samiilenko, H. M. (2019). Cluster structures of Ukrainian regions: theoretical aspects, problems and perspectives of practical implementation. Problemy ta perspektyvy ekonomiky ta upravlinnia, 1, 155-165.
- 14. Shevtsova, H. Z., Shvets, N. V. (2017). Klasteryzatsiia khimichnoi promyslovosti: yevropeiskyi dosvid ta uroky dlia Ukrainy. Biuleten ekonomichnoi nauky Ukrainy, 2 (33), 103-109.
- 15. Pro zatverdzhennia Natsionalnoi ekonomichnoi stratehii na period do 2030 roku (2021). Postanova Kabinetu Ministriv Ukrainy No. 179. 03.03.2021. Available at: https://zakon.rada.gov.ua/ laws/show/179-2021-%D0%BF#n25

Pavlo Hlasov, Postgraduate Student, Department of Audit, Kyiv National Economic University named after Vadym Hetman, Kyiv, Ukraine, e-mail: Pavel Glasov@ukr.net, ORCID: https://orcid.org/ 0000-0003-1951-6755