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REGIONAL DEVELOPMENT PROJECT MANAGEMENT: FINANCIAL ASPECT

The article explores the financial aspect of managing regional development projects in the context of strategic planning and socio-economic challenges. Particular attention is paid to project financing, their role in investment incentives for regions, infrastructure modernization and human capital development. The object of the study is practical mechanisms for financing projects aimed at the socio-economic development of regions. The authors analyze the main sources of funding, the role of the State Fund for Regional Development (SFRD), and co-financing mechanisms from local budgets. The authors consider the impact of project financing on regional development, taking into account current economic and social circumstances, including military challenges. Particular attention is paid to the strategic management of financial resources, which allows achieving long-term sustainable development of territories and reducing territorial disparities. The model of regional development project management has been improved, reflecting a systematic and strategic approach to the financial support of regional initiatives, with a focus on efficiency, transparency, multi-channel financing, risk management, and institutional capacity, which ensures its adaptability to the challenges of modern regional policy. The proposed approaches can be used as a basis for the development of regional development strategies focused on achieving social justice and economic efficiency. Analyzing the research of scholars, it has been found that most of them focus on the need to attract alternative sources of funding. This will increase the financial capacity of local budgets by 20–30% compared to traditional approaches. Some models of interregional financing adapted to the conditions of Ukraine demonstrate a 25% increase in resource efficiency due to the digitalization of infrastructure project management. The article also emphasizes the importance of cross-sectoral cooperation and partnerships between the public, private and civil society sectors in project financing. The presented results are of practical importance for local governments, think tanks, and regional development policy makers. In the context of European integration processes, the application of the best European practices in financial management at the regional level is becoming increasingly important. The implementation of innovative financial instruments can enhance the adaptability of regional systems to external shocks. The results of the study can serve as an analytical basis for further scientific developments and implementation of effective state regional policy.

Keywords: project management, regional development, financing, socio-economic development, public policy.

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1. Introduction

Regional development project management is a priority tool for achieving the strategic goals of the state regional policy. Given the need to overcome interregional disparities, stimulate economic growth at the local level, and make efficient use of the resource potential of the territories, the financial aspect of managing such projects is of particular importance. In the context of decentralization of power, deepening European integration processes, and the challenges posed by the full-scale war in Ukraine, the issue of implementing effective regional development projects and their sustainable financial support is of particular relevance.

In the modern scientific literature, the issues of financial support for regional development have gained considerable attention, especially in the context of decentralization and European integration processes in Ukraine. [1] emphasize the importance of forming an effective system of financing regional development, focusing on the need to attract various sources of funding and increase the financial capacity of local budgets. [2–5] cover the digitalization of infrastructure projects and

programmes. However, insufficient attention has been paid to models of financing interregional projects in Ukraine.

The research of [5] scientific school is based on the digitalization of project-oriented management of infrastructure projects, which is adapted to modern requirements. The study by [6] clarifies the specifics of modern financial instruments, their advantages and obstacles to the development of interregional cooperation in Ukraine.

[7] analyzes project management in local self-government, drawing attention to the need to increase the project maturity of local self-government bodies for the efficient use of financial resources.

Researchers from the National Institute for Strategic Studies [8] propose improving the mechanisms for financing Ukrainian-Polish cross-border cooperation projects, in particular by simplifying the procedures for local borrowing and issuing municipal bonds (NISD). In addition, in May 2024, an analysis of the state regional policy was carried out, which revealed the need to harmonize the system of planning and financing the restoration and development of regions, as well as to increase the capacity of administrations.

Thus, current research emphasizes the importance of a comprehensive approach to financial support for regional development, including diversification of funding sources, increased financial autonomy of local budgets, development of public-private partnerships and improvement of interregional cooperation mechanisms.

The aim of research is to identify the features and improve the mechanisms of financial support for regional development projects, as well as to form an effective system for managing these projects, taking into account current economic conditions.

2. Materials and Methods

The object of research is for financing projects aimed at the socio-economic development of regions.

The research presented in this article is based on the general economic methods of modern scientific practice, which are aimed at identifying current patterns of regional development project management. The methods of scientific cognition and generalization are based on statistical data, and graphical and tabular approaches are used to visualize the results. Particular attention should be paid to adapting project tools to the specifics of regional functioning, taking into account their financial aspects, and improving methods for assessing the effectiveness of regional development projects.

3. Results and Discussion

Regional development cannot be seen as a spontaneous process. Its logic should be based on clearly defined strategies, goals and implementation tools that ensure the achievement of positive socio-economic dynamics at the local level. In this context, the implementation of the project approach allows formalizing the activities of territorial communities and local governments towards achieving strategic development goals. Implementation of projects in the regions is an effective tool for attracting investment, modernizing infrastructure, developing human capital, and activating the regions' internal resources.

The need to implement regional development projects is driven by the need to ensure effective management of territories based on strategic planning, as well as by the imperatives of post-war reconstruction, economic growth and social cohesion. The projects help create new jobs, support the development of small and medium-sized businesses, improve access to public services, restore transport, utilities, and social infrastructure, and promote the integration of regions into the national economic space. Of particular importance is the implementation of projects aimed at developing the innovative economy, digital transformation, and green energy, which is in line with the vector of sustainable development and reducing regional inequality.

Financial support for regional development projects is one of the key aspects of regional policy implementation. The success of projects largely depends on the adequacy of financial resources, their stability, flexibility of funding sources, and the effectiveness of financial management.

The main sources of funding for regional development projects are shown in Fig. 1.

At the same time, it is important that funding is not only formal, but also strategically sound – it meets the priorities of regional development, is focused on the multiplier effect and has a long-term impact on the development of the territory. It should also be emphasized that the State Strategy for Regional Development for 2021–2027 is focused on the implementation of updated principles in the process of formulating and implementing state policy in the field of regional governance. This strategy envisages a departure from the traditional model of supporting certain sectors of the economy or so-called depressed areas. Instead, the

emphasis is on combining sectoral and territorial approaches, which allows for more comprehensive and balanced spatial and economic planning [9].

One of the leading mechanisms through which the state exerts a targeted influence on the socio-economic development of individual regions is the financial support instrument in the form of the State Fund for Regional Development (SFRD). Its functioning as one of the key elements of the regional policy implementation is not only specific to Ukraine, but also complies with generally accepted international approaches to stimulating spatial development. The practice of creating and effectively using specialized regional funds has a long history in many countries: in particular, since the 1970s, such instruments have been actively used in the European Union to equalize regional imbalances, stimulate investment in backward areas and support local initiatives [10].

At the same time, in Ukraine, the institutionalization of this approach took the form of the creation of the SFRD only in 2012, when the fund was launched as a budgetary instrument aimed at implementing the state regional policy in accordance with strategic documents for regional development. This allowed for the launch of systematic support for infrastructure, social and economic projects at the local level, taking into account the priorities of each individual territorial community or region. Thus, the formation and development of the SFRD in Ukraine, although it started late compared to international practice, reflects the global trend towards strengthening the role of centralized financial support in solving regional problems and stimulating local economic growth.

In accordance with Article 24-1 of the Budget Code of Ukraine, the State Fund for Regional Development is considered a specialized financial instrument designed to provide financing for investment programmes and projects aimed at stimulating the development of certain territories. Its resources are used, among other things, to implement initiatives involving inter-municipal cooperation, modernization of infrastructure facilities, formation of industrial and innovation clusters, and creation of conditions for sustainable economic growth at the local level. The key condition for receiving funding is that projects must meet the strategic priorities set out in the current version of the State Strategy for Regional Development. Thus, the fund serves as a state mechanism for implementing regional policy aimed at reducing territorial disparities, increasing the competitiveness of regions, and strengthening the capacity of territorial communities [11].

One of the key differences of the current approach to the use of budget funds within the framework of the state regional development policy is the abandonment of the traditional practice of financing individual. In particular, scattered, insignificant objects of the budget sphere, such as capital or current repairs, which have no strategic impact on the development of the region. Instead, the concept of financing complex regional projects that have a clearly defined goal, aligned with the long-term objectives of regional development strategies and programmes for implementing these strategies, is being introduced.

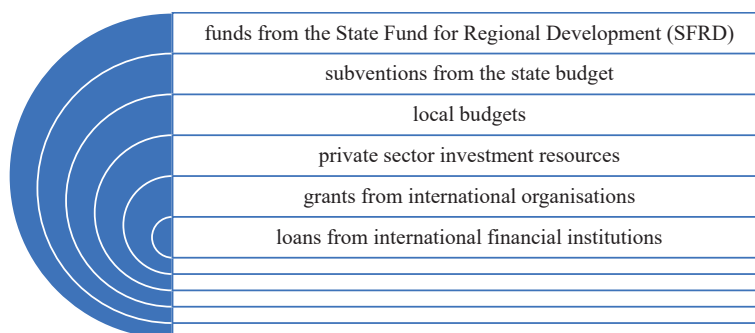


Fig. 1. Main sources of funding for regional development projects

Such projects are subject to a competitive selection procedure, which ensures transparency and efficiency in the allocation of financial resources. Their implementation is based on the principles of the programme-targeted approach, which involves the integration of state funding with local budgets and other sources. In this context, the use of public-private partnership mechanisms is of particular relevance, as they not only reduce the burden on the budget system but also attract investments and expertise from the private sector to ensure a long-term social and economic effect.

In 2023, the financial resources allocated under the State Fund for Regional Development were reoriented to the needs of the defense sector; in particular, to support the Armed Forces of Ukraine, due to the current challenges of martial law. This approach was a necessary step dictated by the need to concentrate budget funds on ensuring national security and maintaining the state's defense capability.

At the same time, in 2024, it is planned to take into account the specifics of the functioning and targeting of the SFRD funds in accordance with the updated regulatory provisions and budgetary norms. It is about restoring its role as an instrument for implementing investment policy in the field of regional development. According to the proposed approaches, funding from the SFRD should be used exclusively for the implementation of investment projects aimed at restoring infrastructure, modernizing social facilities, stimulating local economic activity, and reducing territorial imbalances.

All this is possible thanks to the joint activities of the community and the active participation of rural residents in the formation of an innovative business model for the future [12]. A thorough analysis of the dynamics of the share of intergovernmental transfers from the state budget in the overall structure of local budget revenues in Ukraine for the period 2015–2024 is advisable (Fig. 2). This area of analysis is important given the need to assess the real level of financial autonomy of local governments, as well as to identify trends in strengthening or

weakening the financial self-sufficiency of regions in the context of regional development projects.

An analysis of the share of transfers from the state budget in total local budget revenues for 2015–2024 shows significant fluctuations in this indicator, reflecting changes in economic conditions and financing. Since 2015, the share of transfers has significantly decreased from 59.1% to 24.7% in 2022, due to economic crises, the pandemic and the war. However, since 2023, there has been a recovery, and in 2024 the share of transfers reached 30%, which can be explained by several factors. First, the war in Ukraine, which began in February 2022, had a significant impact on the financial situation on the ground, including a decline in local revenues due to the economic crisis, lower tax revenues, and the destruction of infrastructure. This prompted the central government to increase transfers to support local budgets during this difficult period.

Secondly, in the context of war and economic instability, local authorities needed additional financial resources to cover not only social needs, but also the costs of infrastructure restoration, refugee support, and local security and defense. Therefore, the government was forced to increase funding through intergovernmental transfers, which allowed local governments to stabilize their financial situation and support important social projects.

In general, the increase in the share of transfers since 2022 is a result of the decline in the financial capacity of local budgets and the need for significant state support in an emergency.

At the same time, in order to fully understand the financial independence of local authorities, it is advisable to analyze the structure of their revenues, in particular the ratio between transfers and own revenues. In this context, special attention should be paid to the share of own revenues in total local budget revenues in January–November 2024, which allows assessing the level of budget autonomy and the ability of territorial communities to independently provide funding for local development (Table 1).

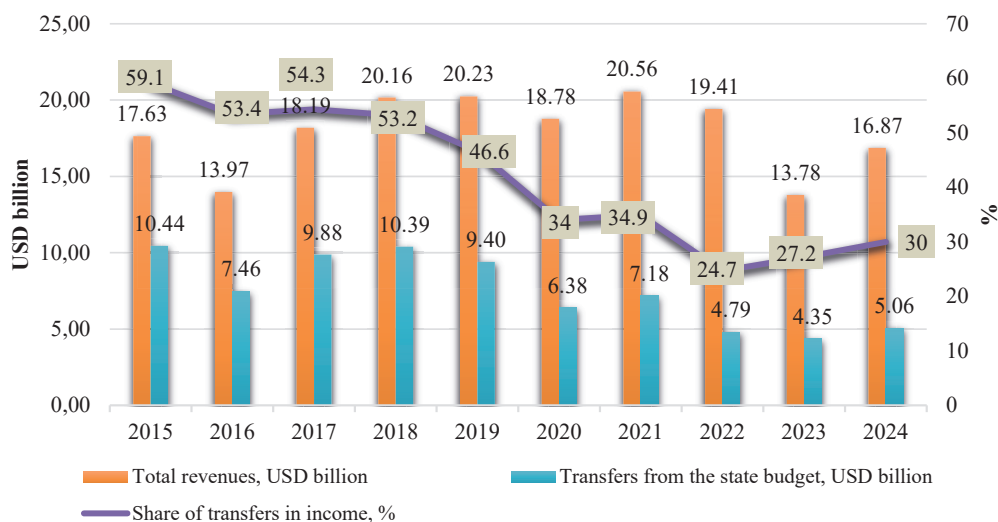


Fig. 2. Share of transfers from the state budget in local budget revenues in 2015–2024 (based on [4, 13])

Table 1

Share of local budget revenues in total revenues in January–November 2024

Region	Own revenues of local budgets, million USD	Transfers from the state budget, million USD	Total local budget revenues (general fund), million USD	Share of own revenues in total revenues, %
1	2	3	4	5
Vinnitsia	405.93	147.55	553.48	73.3
Volyn	236.30	130.67	366.97	64.4
Dnipropetrovsk	1218.26	292.10	1510.36	80.7
Donetsk	149.62	293.50	443.12	33.8

Continuation of Table 1

1	2	3	4	5
Zhytomyr	276.04	131.63	407.67	67.7
Zakarpattia	242.01	165.54	407.55	59.4
Zaporizhzhia	277.09	220.34	497.43	55.7
Ivano-Frankivsk	273.26	169.40	442.66	61.7
Kyiv region	715.03	197.24	912.27	78.4
Kirovohrad	249.37	87.44	336.81	74.0
Luhansk	12.40	111.57	123.97	10.0
Lviv	797.81	242.03	1039.84	76.7
Mykolaiv	248.86	152.86	401.72	61.9
Odesa	648.87	239.97	888.84	73.0
Poltava	473.69	114.86	588.55	80.5
Rivne	243.80	152.09	395.89	61.6
Sumy	240.43	102.77	343.20	70.1
Ternopil	216.21	105.69	321.90	67.2
Kharkiv	607.85	367.30	975.15	62.3
Kherson	51.81	180.03	231.83	22.3
Khmelnyskyi	306.31	128.03	434.35	70.5
Cherkasy	321.89	108.64	430.53	74.8
Chernivtsi	159.33	113.96	273.29	58.3
Chernihiv	234.41	108.77	343.18	68.3
Kyiv	2116.85	202.72	2319.57	91.3
Ukraine	10723.50	4266.69	14990.20	71.5

Note: own processing [14]

As is seen, the highest values of the share of own revenues were recorded in Kyiv (91.3%), Dnipropetrovsk (80.7%) and Poltava (80.5%) regions, which indicates high financial independence and a strong tax base. At the same time, some regions have a critically low share of own income, such as Luhansk (10%) and Kherson (22.3%) regions, due to the military conflict, business relocation, and a sharp decline in economic activity.

On average, the share of own revenues in Ukraine was 71.5%, which is a positive signal of gradual fiscal decentralization, although some areas still remain heavily dependent on the state budget. This situation directly affects the ability to implement regional development projects, as own revenues form the basis for co-financing investment initiatives, ensuring the stability of local budgets and long-term planning.

In the context of studying the financial aspect of managing regional development projects, it is also advisable to analyze the functional structure of local budget expenditures, which allows to identify funding priorities at the level of territorial communities (Fig. 3).

In particular, the distribution of expenditures by functional classification – that is, by the areas to which budget resources are directed. These are education, healthcare, social protection, housing and communal services, economic activity, etc. All this allows makes it possible to assess the extent to which local budgets are focused on strategic development areas and whether an adequate level of support is provided to key areas of the population's life.

The analysis of local budget expenditures in January-November 2023–2024 shows that socially oriented priorities in the financial policy of the regions remain.

The largest funds have traditionally been allocated to education, with funding increasing from 5.25 billion USD to 6.24 billion USD. At the same time, spending on economic activity (from 2.08 billion USD to 1.64 billion USD) and housing and communal services (from 1.22 billion USD to 1.23 billion USD) decreased, indicating a redistribution of resources in favor of social protection (up from 0.96 billion USD to 1.19 billion USD) and security (from 0.32 billion USD to 0.44 billion USD).

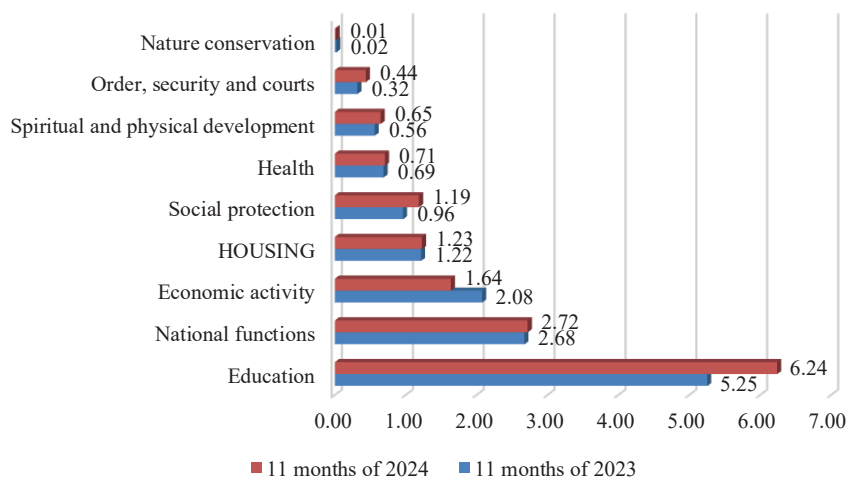


Fig. 3. Local budget expenditures by function in January-November 2023–2024, billion USD (own processing [15])

A slight increase is observed in the area of spiritual and physical development, while nature protection received the least funds and shows a decline in funding. In general, the expenditure structure reflects the adaptation of local budgets to the war and the priority of basic needs of the population.

Thus, the changes in the volume and structure of expenditures presented above indicate that local budgets are trying to adapt to new realities. By balancing the support for basic social services and security, but need to be reviewed in terms of strategic management of development projects. Must take into taking into account the needs of long-term economic growth.

Therefore, for the proper management of regional development projects, it is necessary, first of all, to ensure strategic planning of expenditures, taking into account the long-term development goals of the territories. In particular, to promote the structural reorientation of budgetary resources towards financing infrastructure, innovative and economically activating initiatives. It is also important to create an effective mechanism for prioritizing projects, which involves assessing their multiplier effect, impact on employment, entrepreneurship and value creation at the local level.

Thus, effective financial management in the field of regional development requires not only an increase in funding, but also institutional support, improved financial planning. In particular strengthening of the financial autonomy of communities, and the introduction of modern approaches to managing financial flows at all stages of the project cycle. This will help ensure the sustainability, effectiveness and inclusiveness of regional development as the basis for the country's long-term socio-economic stability.

Based on the study, the model of regional development project management has been improved, which reflects a systematic and strategic approach to the financial support of regional initiatives (Fig. 4).

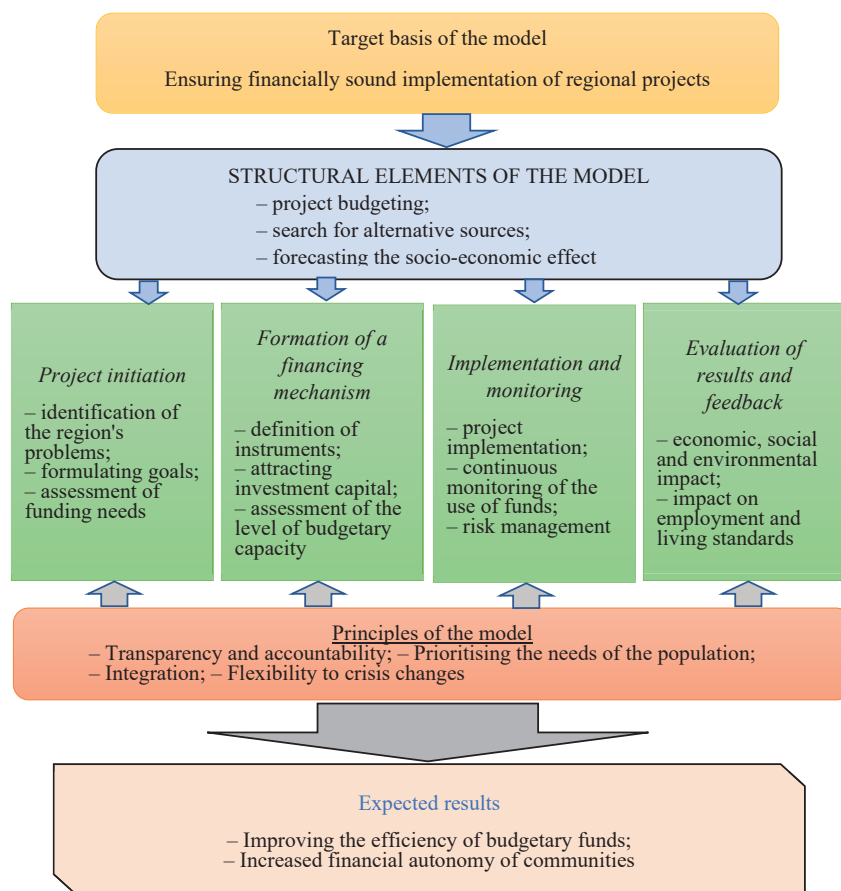


Fig. 4. Regional development project management model

This model has been improved by focusing on efficiency, transparency, multi-channel financing, risk management and institutional capacity, making it more adaptable to the challenges of modern regional policy.

Thus, the transition from the dependency model of budgeting to project-based financing is a fundamental condition for ensuring sustainable regional development in the face of current challenges.

The peculiarity of financing regional development projects in Ukraine is a significant dependence on the state budget, which reduces the financial independence of communities and creates risks in the event of budgetary constraints. There is also an uneven distribution of funds between regions, which is often driven not so much by socio-economic needs as by political factors or the administrative capacity of project applicants.

Another problem is the low level of co-financing from local budgets, which limits the implementation of large infrastructure projects. In this regard, it becomes extremely important to attract alternative sources, such as public-private partnership mechanisms, cooperation with international donors, and inter-municipal cooperation. The interpretation of the results shows that the key factors behind the low efficiency of financing regional development projects in Ukraine are the excessive dependence of communities on the state budget and the uneven distribution of funds between regions. These problems can be explained by the weak financial autonomy of local budgets, political factors in the distribution of funds, and the limited administrative capacity of local authorities.

In addition, attention should be paid to the underdeveloped culture of project management in communities, which creates additional financial risks associated with the failure to disburse funds, misuse of resources, or delays in project implementation. An important element is also the introduction of a system for monitoring and evaluating the effectiveness of the use of financial resources, which allows for transparency, accountability, and increased trust in project management institutions. Increase the institutional capacity of the regions by introducing internal project development units specializing in the preparation of grant applications and support for international technical assistance. Conducting presentations for potential investors, creating conditions for concessions or co-financing of infrastructure projects.

In addition, effective project management requires enhancing the institutional capacity of local authorities, in particular in terms of project management, budget forecasting, and attracting additional sources of funding, such as grants, international technical assistance, and public-private partnerships. In turn, the digitalization of budget processes and monitoring of cost-effectiveness will help ensure transparency and efficiency in the implementation of strategic initiatives of regional significance. By combining the digitalization of budgetary processes, strengthening the institutional capacity of local governments, and implementing monitoring and evaluation systems, the results obtained contribute to solving the problem under study in a comprehensive manner and provide practical value in improving the efficiency of regional projects. Digital forecasting and evaluation tools will allow for more rational spending planning and avoid inefficient investments.

4. Conclusions

Regional development project management in today's environment is emerging as a strategic tool for achieving socio-economic sustainability, enhancing the institutional capacity of territorial communities and activating local resources. The effectiveness of this process directly depends on an integrated approach to project planning, implementation and monitoring, and a key success factor is the availability of sufficient, stable and strategically oriented financial support. It is the financial aspect of project management that determines the ability of regions not only to implement short-term initiatives but also to create long-term prerequisites for sustainable development.

The implementation of instruments such as the State Fund for Regional Development allows for targeted support for priority projects on the ground, helping to equalize socio-economic disparities between territories, build infrastructure, and stimulate economic activity. The transition to financing complex, integrated projects that meet strategic development goals reflects the modernization of public policy approaches in the field of regional governance. In this context, it is important to ensure transparent competitive selection procedures, use the programme-targeted method, and engage public-private partnership instruments, which opens up new horizons for the efficient use of financial resources.

Given the current challenges, including the consequences of the war and the need to restore destroyed infrastructure, the role of financially supported regional development projects is growing. Their implementation should be based on the logic of long-term impact, multiplier effect, and integration into the national system of socio-economic growth. In the long term, it is important to ensure synergy between public, local and private sources of funding, which will help transform regions into competitive and innovation-oriented development spaces.

Conflicts of interest

The authors declare that they have no conflicts of interest in relation to the current research, including financial, personal, authorship, or any other, that could affect the research, as well as the results reported in this paper.

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The research was conducted without financial support.

Data availability

All data are available, either in numerical or graphical form, in the main text of the manuscript.

Use of artificial intelligence

The authors confirm that they did not use artificial intelligence technologies when creating the current work.

References

1. Mashlii, H., Mosiy, O., Halushchak, O., Halushchak, M. (2024). Theoretical and practical aspects of financial support of regional development. *Economic Scope*, 190, 335–339. <https://doi.org/10.32782/2224-6282/190-60>
2. Bushuyev, S., Onyshchenko, S., Bushuyeva, N., Bondar, A. (2021). Modelling projects portfolio structure dynamics of the organization development with a resistance of information entropy. *2021 IEEE 16th International Conference on Computer Sciences and Information Technologies (CSIT)*, 293–298. <https://doi.org/10.1109/csit52700.2021.9648713>
3. Sodoma, R., Kobylkin, D., Pavuk, I. (2023). Project-oriented management of digitization of socioeconomic development of territorial communities. *Proceedings of the 4th International Workshop IT Project Management (ITPM 2023)*. Warsaw, 36–46.
4. Ievlanov, M., Vasylysova, N., Panforova, I., Kliuvanskyi, Y. (2025). Improving a risk estimating method for the Smart house information system IT project. *Eastern-European Journal of Enterprise Technologies*, 1 (3 (133)), 6–16. <https://doi.org/10.15587/1729-4061.2025.322051>
5. Kovalchuk, N., Zachko, O., Kovalchuk, O., Kobylkin, D. (2023). Project Management of the Information System for the Selection of Project Teams. *2023 IEEE 12th International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS)*. Dortmund, 1054–1057. <https://doi.org/10.1109/idaacs58523.2023.10348656>
6. Koltun, V., Palamarchuk, T., Lutsenko, L. (2024). Organisational and financial mechanism for improving interregional cooperation in the context of post-war reconstruction of Ukraine. *Bulletin of Taras Shevchenko National University of Kyiv. Public Administration*, 20 (2), 16–24. <https://doi.org/10.17721/2616-9193.2024/20-3/12>
7. Buryk, Z., Poprotskyi, O. (2022). Project management in local self-government. *Economics and Region*, 4 (87), 247–256. [https://doi.org/10.26906/EiR.2022.4\(87\).2806](https://doi.org/10.26906/EiR.2022.4(87).2806)
8. "Shchodo vdoskonalennia mekhanizmiv finansuvannia proektiv ukrainskopol'skoho transkordonnoho spivrobitnytstva". *Analitichna zapyska* (2013). Available at: https://niss.gov.ua/doslidzhennia/regionalniy-rozvitok/schodo-vdoskonalennia-mekhanizmiv-finsansuvannya-proektiv?utm_source
9. Vatamanyuk-Zelinska, U., Zhovtiak, K., Vatsiak, D. (2021). Assessment of the state fund for regional development in the field of investment projects. *Entrepreneurship and Innovation*, 18, 78–84. <https://doi.org/10.37320/2415-3583/18.14>
10. Treszczow, M. (2014). Funds of regional development: european experience and necessity of its implementation in ukraine. *Efficiency Public Administration*, 39, 420–426. Available at: http://nbuv.gov.ua/UJRN/efdu_2014_39_53
11. *Biudzhetni Kodeks Ukrainy* (2010). Kodeks Ukrainy No. 2456-VI. 08.07.2010. Available at: <https://zakon.rada.gov.ua/laws/show/2456-17/conv#n507>
12. Sodoma, R., Lesyk, L., Hryshchuk, A., Dubynetska, P., Shmatkovska, T. (2022). Innovative development of rural territories and agriculture in Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 22 (4).
13. *Pro zatverdzhennia Derzhavnoi strategii rehionalnoho rozvytku na 2021–2027 roky* (2020). Postanovoia Kabinetu Ministriv Ukrainy No. 695. 05.08.2020. Available at: <https://www.kmu.gov.ua/storage/app/uploads/public/5f3/40c/c1e/5f340cc1e0f9e216385973.doc>
14. Ministry for Development of Communities and Territories of Ukraine. Available at: <https://mindev.gov.ua/>
15. Ministry of Finance of Ukraine. Available at: <https://mof.gov.ua/>

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