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FORECASTING ANALYSIS TOOLS IN MANAGING THE ECONOMIC POLICY OF TERRITORIAL COMMUNITIES

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Forecasting Analysis Tools in Managing the Economic Policy of Territorial Communities

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Abstract

In the context of globalization processes, economic instability and socio-political transformations, improving the efficiency of strategic planning and forecasting analysis is becoming an important component of ensuring the sustainable development of territorial communities. The purpose of the study is to identify effective tools for forecasting analysis and strategic management to ensure sustainable development of territorial communities. The article provides a comprehensive analysis of modern approaches to forecasting analysis in the economic policy of territorial communities' development. The key forecasting methods, including econometric models, scenario planning, artificial intelligence tools and multidisciplinary approaches, are studied, their advantages, limitations and the level of implementation in Ukraine and abroad are determined. A multivariate

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regression analysis was conducted on the example of 12 EU countries, which demonstrated a significant impact of digital accessibility and socio-demographic characteristics on the economic development of communities, which confirms the need to integrate digital technologies into the strategic planning process. The results of the study emphasize the importance of moving from short-term, reactive management to long-term sustainable development strategies that combine innovative technologies, human capital development, and active citizen participation. The proposed system for improving forecasting analysis tools, including methodological, technological, information, personnel, and regulatory aspects, is aimed at improving the accuracy of forecasts, efficiency of management decisions, and transparency of the planning process. The conclusions obtained are of practical value for the development of strategies for the sustainable development of territorial communities around the world.

Keywords: management; local self-government; econometric models; forecasting tools; public administration; territorial communities; regional development; strategic management; strategic planning; economic policy for municipal development.

Introduction

In today's globalized world, in the context of rapid economic changes and growing socio-political challenges, the role of territorial communities in ensuring sustainable development is becoming crucial. They act as key agents of local economic policy, directly affecting the well-being of the population, quality of life, and resource efficiency (Morretta, 2020). Traditional management approaches that focus on short-term, reactive solutions limit the ability of communities to adapt to external and internal challenges in a timely manner, integrate innovations, and plan for long-term development (Korhonen-Kurki *et al*., 2025). In such conditions, strategic management and forecasting analysis become necessary tools that allow to anticipate risks, evaluate alternative development scenarios and formulate comprehensive sustainable development programs that take into account economic, social and environmental aspects. The integration of digital platforms, analytical tools, and active participation of citizens in decision-making processes creates conditions for increasing the flexibility, adaptability, and effectiveness of local policies, ensuring that communities are able to successfully respond to global challenges and implement long-term strategic goals.

In this regard, predictive analysis becomes a critical tool that allows not only to respond to current problems but also to systematically assess future trends, formulate evidence-based strategies, and make informed management decisions. The transition from reactive management to strategic planning is a key prerequisite for improving the effectiveness of the economic policy of territorial communities, as it provides a proactive approach to development, promotes the sustainability

of local economies and strengthens social cohesion (Krasniqi, 2019; Zamkova *et al*., 2024).

The relevance of the topic is also due to insufficient scientific attention to the systematic implementation of forecasting models in the practice of local self-government, especially in the context of the transformation processes taking place in Ukraine and other countries with similar socio-economic challenges. This necessitates the development of adaptive, integrated approaches to forecasting analysis that take into account the specifics of the development of territorial communities, their resource capabilities and external influences.

The current scientific debate on the problem of forecasting analysis in the economic policy of territorial community development is formed at the intersection of management, regional economics, and strategic planning theories (Tarasenko *et al*., 2021).

Therefore, the study of forecasting analysis in the economic policy of territorial communities' development not only meets the requirements of modern scientific discourse, but also has practical significance for improving the quality of governance at the local level, which in the long run will contribute to the sustainable and harmonious development of society as a whole.

Literature review

There is a wide range of approaches in the literature that examine the evolution of management models from traditional reactive management to more proactive and strategic methods focused on long-term development.

The literature review shows that researchers consider forecasting analysis in the economic policy of territorial community development as a key tool for the transition from reactive management focused on overcoming existing crises to strategic planning based on proactive identification of trends and the formation of long-term development scenarios. Scientific papers (Guerras-Martín *et al*., 2014; Paliwal, *et al*., 2025; Liden *et al*., 2025) emphasize that such a transformation requires the integration of analytical models, econometric forecasts, and a system for monitoring socioeconomic indicators, which allows communities not only to adapt to changes but also to get ahead of them, ensuring competitiveness and sustainable development at the local level.

The study by Marinković *et al*. (2022) provides a valuable insight into the fragmentation of current research on corporate foresight through a systematic literature review. An integrative conceptual model is developed that reflects the key elements of foresight research (including preconditions, tools and activities, moderators, technologies, and outcomes) and explains their interaction. The author emphasizes the two-way influence of technology as an independent construct on all elements of foresight, and outlines the need to determine technological boundaries that can affect

performance. The proposed algorithm served as the basis for identifying critical gaps in corporate foresight research and forming promising areas for further research, which is of direct importance for the development of methods of forecasting analysis and strategic planning in the economic policy of territorial communities.

The SPRU (Science and Technology Policy Research) research center, as part of the UK Foresight program, presented the Foresight Futures methodology as a participatory planning tool (Berkhout & Hertin, 2002). The process of creating a scenario framework is described, key aspects and main storylines are identified, and various ways of applying this approach by government, academia and industry are summarized. Particular attention is paid to the practical possibilities of using scenarios, and the final part provides recommendations for their effective implementation and analyzes the potential of the method for strategic planning.

Current research on the development of local self-government in Ukraine emphasizes the critical need to form adaptive management structures and mechanisms that can ensure effective interaction between different levels of government and the public sector. Kunc, M. (2024) proves the existence of synergies between several areas of systems thinking and strategic management. Suggestions are offered to facilitate interaction between both fields, taking into account the types of processes used to create strategies and the perspectives used to visualize organizations as systems. A number of scholarly works emphasize the importance of institutionalizing mechanisms for monitoring the activities of local governments, which should be carried out both internally and with the participation of external actors, among which non-governmental organizations play a special role (UNDP, 2017; Baimuratov *et al*., 2023).

According to Krasnonosova and Cui (2025), the strategy of innovative development, supported by digital technologies, is the main factor in ensuring the long-term competitiveness of a business entity and its ability to respond quickly to changes in market conditions. It helps to improve management efficiency, optimize the use of resources and form a flexible corporate culture, which opens up new opportunities for growth and strengthening positions in the globalized market.

Strategic management contributes to increased transparency, accountability, and efficiency of management decision-making, which is extremely relevant in the context of current decentralization reforms and the processes of modernization of local self-government in Ukraine. The results of these studies are of great practical importance, as they form the theoretical and methodological basis for improving management practices and ensuring sustainable development of territorial communities by strengthening their institutional capacity. At the same time, studies have shown that modern innovative strategies allow business entities to follow the trend towards the use of innovative strategic planning tools, such as the Balanced Scorecard and scenario analysis, which allow for more flexible and adaptive development strategies (Tafti *et al*., 2012).

An important aspect in the study of forecasting analysis is the methodological framework represented by numerical forecasting models, econometric methods, and expert assessments. Researchers emphasize the role of adaptive models that take into account the specifics of territorial communities, including their socio-cultural, economic, and institutional structure, which significantly affects the effectiveness of economic policy (Matta *et al*., 2021). It has been established that the integration of artificial intelligence into economic forecasting and policy development significantly increases the accuracy, adaptability, and efficiency of decision-making, but requires addressing issues of confidentiality, bias, and transparency. AI has a transformative potential to ensure sustainable economic growth and stability, provided that it is implemented in an inclusive and balanced manner (Channe, 2024).

The study of the implementation of strategic planning in the context of decentralization and local government reforms deserves special attention (Ermakova & Shlafman, 2023). Scientists note that a change in the governance paradigm requires not only the formation of new forecasting tools, but also the development of the institutional capacity of local authorities, advanced training of managers, and community involvement in planning processes.

Thus, the current scientific literature identifies key challenges and areas for further research, including the integration of forecasting analysis with strategic management processes, the development of adaptive models that meet local specifics, and the expansion of practical mechanisms for introducing innovations into local economic policy. This makes it important to conduct an in-depth comprehensive study aimed at developing theoretical foundations and practical recommendations for improving the efficiency of local community management.

The purpose of the study is to conduct a comprehensive forecasting analysis of the economic policy of territorial community development, focusing on the transformation of management approaches from reactive to strategic, to identify key factors that affect the effectiveness of long-term planning, and to substantiate tools and mechanisms that can ensure sustainable socio-economic development of communities in the context of dynamic internal and external challenges.

Methodology

The study uses a systematic and interdisciplinary approach that allows for a comprehensive assessment of the economic policy of community development and the effectiveness of forecasting mechanisms of strategic management. The study combines the use of an econometric model, scenario analysis, and modern digital technologies, which ensured a comprehensive consideration of both quantitative and qualitative aspects of community development in the context of globalization processes and internal socio-economic transformations.

Official statistical sources (Eurostat, Word Bank), international databases, as well as expert opinions and experience of international forecasting practices, such as the LEAP Model, International Futures, and the Delphi method, were used to collect data. Data were processed and analyzed using multivariate regressions to assess the impact of key socio-economic and technological indicators on the efficiency of community development. Scenario analysis and Foresight methods allowed us to model alternative strategies and assess risks, while machine learning algorithms and digital analytics ensured the rapid processing of big data and increased the accuracy of forecasts. Multidisciplinary models facilitated the integration of economic, social, and environmental factors, which is critical for the formation of a balanced and sustainable development policy.

The results were validated by checking the multicollinearity and stability of the models (VIF, R^2), data quality control, analysis of the reliability of expert opinions, and comparison with international practices. Limitations of the methodology include the partial lack of quality data for individual communities, the subjectivity of expert opinions, and potential changes in the socioeconomic and political context that may affect the accuracy of long-term forecasts.

Thanks to this comprehensive approach, the methodology ensures high scientific validity, practical relevance, and adaptability of forecasting tools for different territorial communities in a global context, creating the basis for effective strategic planning and decision-making at the local level.

Results

For a comprehensive understanding of scientific approaches and conceptual forecasting models in the economic policy of territorial community development, it is important to systematize key methods, their characteristics, and examples of application. The table below summarizes the main types of models, describes their advantages, limitations, and the level of implementation in different countries (Table 1). Such an overview allows for a better understanding of the practical potential of each approach and helps to choose the optimal methodology for strategic planning at the local level.

The use of specific forecasting models in the economic policy of territorial communities is a prerequisite for the transition from reactive management to strategic planning. Ukrainian experience is gradually integrating the best international practices, but requires further development of the data infrastructure, professional development of managers, and introduction of modern digital technologies. An integrated approach that combines econometric methods, scenario planning, innovative technologies, and multidisciplinary analysis can significantly improve the effectiveness of economic policy at the local level and ensure the sustainable development of territorial communities.

Table 1. Main forecasting models in the economic policy of territorial community development

Forecasting model	Characteristics	Advantages	Limitations	Examples of application
Econometric models	Statistical analysis of historical data, regressions, time series	Quantitative assessment, validity, widespread use	Limitations in taking into account new challenges, dependence on data quality	State Statistics Service of Ukraine, demographic forecasting
Foresight analysis and scenario planning	Formation of alternative scenarios taking into account various factors	Flexibility, consideration of qualitative aspects, adaptability	Requires the involvement of experts, subjectivity of assessments	Horizon Europe projects, decentralization in Ukraine
Artificial intelligence and machine learning	Real-time processing of big data, automation of forecasts	High accuracy, speed of analysis, possibility of complex models	Requires high-quality data and resources, insufficient implementation experience	Digital initiatives of local governments in Ukraine (experiments)
Multi-disciplinary models	Combination of economic, social and environmental factors	Balanced development, consideration of complex interactions	Complexity of modeling, need for interdisciplinary teams	European regions, sustainable development projects

Source: (Brunetta et al., 2018; Wiebe et al., 2018; Getzner & Moroz, 2021; Mulska et al., 2023; Solé-Ollé, 2023; Hatsko, et al., 2025)

An analysis of current trends in economic management at the local level has revealed a number of key factors that largely determine the efficiency of territorial communities. First, digitalization and the introduction of innovative technologies create the preconditions for increasing transparency, efficiency and quality of management decisions. The introduction of information and analytical systems, automated platforms for monitoring and forecasting allows local governments to respond quickly to changes in the economic situation and formulate a more informed development policy.

Secondly, the process of decentralization of powers and resources empowers communities in decision-making, which stimulates more flexible and adaptive governance aimed at meeting the specific needs of local communities. However, this process is accompanied by challenges related to uneven infrastructure development, limited financial resources, and staff shortages, which reduce the ability of communities to effectively implement strategic initiatives.

Additionally, it is important to strengthen the role of civic participation in decision-making processes, which contributes to increasing the level of trust in local authorities and the quality of communication between the authorities and the population. However, the low level of competence of managerial personnel, as well as difficulties in collecting and processing data, create barriers to the introduction of modern forecasting and analytical methods.

In addition, political instability and uncertainty in the regulatory environment increase the risks of managerial errors, complicate long-term strategic planning, and may lead to a decrease in the investment attractiveness of territorial communities. Thus, improving the efficiency of economic governance at the local level requires a comprehensive approach that combines technological innovation, institutional support, human capital development, and intensification of social interaction.

The analysis of current trends in economic management at the local level shows a number of key factors that determine the efficiency of territorial communities. A striking example of such changes is the decentralization of territorial communities in Ukraine. According to a study by the IT Ukraine Association, more than 68% of Ukrainian communities have intensified the introduction of digital technologies into management processes, which increases transparency and speed of decision-making, and according to the E-Governance Development Index, Ukraine has improved its rating by 59.6% over the past 8 years (Shevchuk, 2023). The use of information and analytical systems to monitor socio-economic indicators contributes to better policy adaptability in response to environmental challenges (López *et al*., 2022).

The decentralization process significantly expands the powers of local authorities, which has a positive impact on the development of local initiatives and resource mobilization (Orel *et al*., 2024). A study by the World Bank (WBG, 2024) found that 42% of communities faced constraints due to a lack of financial resources and staffing shortages, which hindered the effective implementation of strategic programs. At the same time, human capital development and managerial training remain a priority, as only 35% of officials have sufficient competencies to implement modern management methods (Đajić *et al*., 2024).

Increased civic participation contributes to increased trust in local authorities: a survey conducted by Ukrainian researchers Hatsko, *et al*. (2025) indicates a 15% increase in the level of citizen involvement in decision-making processes over the past five years. However, the poor quality of data collection and analysis remains one of the key problems that complicates the implementation of predictive analysis and strategic planning (Nugroho, 2023; Madanchian, 2024).

Political instability and changes in the legislative field also negatively affect long-term planning and investment attractiveness of territorial communities (OECD; 2015). According to experts, 27% of strategic initiatives were suspended or changed due to external political factors (Christopher, *et al*., 2024). Thus, improving the effectiveness of economic governance requires an integrated

approach that combines digital innovation, human capital development, increased civic participation, and a stable regulatory environment.

The analysis of modern tools for forecasting the economic development of territorial communities in Ukraine has shown their limited effectiveness in the context of strategic planning. The most commonly used tools include strategic modeling, scenario analysis, the Delphi Method, expert assessments, and integrated digital platforms (Table 2).

Table 2. Modern tools for forecasting the economic development of territorial communities

Forecasting tool	Country/ region	Description of application	Advantages	Limitations
LEAP Model	USA (Appalachian Region), China	Web-based platform for assessing economic efficiency, analyzing the economic base and business clusters, saving energy	Interactivity, focus on local conditions	Limited adaptability to rapid changes
International Futures (IFs)	USA (University of Denver)	Modeling of integrated forecasts for 183 countries, including economic, social and environmental aspects	Global coverage, multifactorial approach	Difficulty in interpreting the results
Machine learning (ML)	USA, UK, Australia	Using ML algorithms to forecast local budget revenues	High accuracy, adaptability	Requires large amounts of data, difficult to set up
Delphi method	Japan, Canada, Germany	Collecting expert opinions to forecast economic trends	Involvement of specialists, flexibility	Subjectivity, possibility of bias
Scenario analysis	EU, Japan, South Korea	Development of alternative development scenarios for risk assessment	Assessment of possible options, strategic planning	Difficulty in determining scenario probabilities

Source: (Breiner et al., 1994; Shin, 1998; IFSPREV, 2006; Hughes, 2016; Hu et al., 2019; Gordon, 2020; Abbas et al., 2023; IPCC, 2023; Ustaoglu et al., 2017; Chung et al., 2022; Solórzano et al., 2024; Kotukh et al., 2024; Szreter, et al., 2024)

A comparative analysis of modern tools for forecasting the economic development of territorial communities in different countries of the world has shown that both traditional and innovative methods are used. For example, the United States actively uses the LEAP Model to assess the economic efficiency of

local business clusters (Abbas *et al*., 2023), as well as the International Futures (IFs) platform for multifactorial forecasting of economic, social and environmental indicators at the global level (IFSPREV, 2006). In the UK, Australia, and the US, machine learning algorithms are used to provide high accuracy of forecasts, but require large amounts of data and complex setup (Al Kez *et al*., 2024). The Delphi method, used in Japan, Canada, and Germany, allows for expert opinions, but has limitations due to subjectivity and the possibility of bias (Shin, 1998, Gordon, 2020). Scenario analysis in the EU, Japan, and South Korea allows for the development of alternative community development options, risk assessment, and strategic opportunities, although determining the probabilities of scenarios remains difficult (Kanama, 2013; Kotukh *et al*., 2024; Al Kez *et al*., 2024). In general, the results of the comparative analysis indicate the need to integrate modern digital and analytical tools into the strategic planning process, adapt international experience to local conditions, and develop data infrastructure.

An assessment of the effectiveness of existing tools for forecasting territorial communities shows that traditional statistical modeling is effective for short-term forecasts of budgetary and demographic indicators, but has limited accuracy for complex changes and does not take into account socio-political risks; scenario analysis allows assessing risks and possible external shocks, but its use is limited due to data quality and insufficient automation; expert assessments are useful for strategic decisions, but are subjective and dependent on competence. The main areas of improvement for these tools include integration with digital management systems, automation of data collection and processing, combination of quantitative and qualitative methods, standardization of expert assessments, and regular data updates, which will help improve the accuracy of forecasts and the effectiveness of strategic planning for the development of territorial communities.

The development of territorial communities in today's socio-economic environment increasingly requires a transition from reactive management decisions to strategically balanced planning based on forecasting analysis. In this study, special attention was paid to identifying the main factors that shape the economic potential of communities in the EU and assessing their relative impact on the level of well-being of the population.

The use of regression analysis tools made it possible not only to quantify the strength and direction of these influences, but also to identify opportunities for more efficient use of available resources in the long term. This approach transforms statistical data into effective economic policy guidelines, which is the basis for the transition to active management of community development. For this study, 12 countries of the European Union were selected (Table 3).

Table 3. Key economic policy indicators of EU countries for assessing the development of territorial communities

Country	GNI per capita, thousand euros	Tertiary educational, %	Population change	Renewable energy share by sector, %	Digital Accessibility Index, %
	(y)	($x_{(1)}$)	($x_{(2)}$)	($x_{(3)}$)	($x_{(4)}$)
Belgium	41,1	42,3	6,4	12,9	93,3
Bulgaria	20,1	43,3	-4,1	21,2	86,1
Czechia	30,6	50,3	7,9	17,6	91,2
Denmark	46,8	35,4	5,8	39,5	95,9
Germany	42,4	33,9	1,0	19,6	92,7
Estonia	28,2	49,1	6,1	35,7	92,1
Ireland	55,0	37,4	16,4	13,9	94,1
Greece	22,3	42,7	-5,9	22,3	84,9
Spain	30,0	62,3	7,3	21,3	96,1
France	35,4	44,4	3,0	19,7	93,3
Croatia	24,5	50,1	-3,0	29,4	86,9
Italy	33,5	51,1	-2,4	19,2	91,1

Source: Eurostat (2025a; 2025b; 2025c; 2025d; 2025f)

This sample composition allowed us to cover both high-income economies with digital maturity and countries with dynamic processes of socio-economic transformation. The analysis was based on the average indicators for 2020-2024, which made it possible to neutralize the impact of short-term fluctuations and identify sustainable trends relevant to the formation of strategic decisions in the development policy of territorial communities.

The built multivariate regression model allowed us to assess the impact of key socio-economic and technological indicators on the level of GNI per capita. The model demonstrated a high level of explanatory power ($R^2 = 0.902$), which indicates that the variables taken into account can explain about 90% of the variation in the target indicator. Statistically significant indicators were the level of higher education and the digital accessibility index. The coefficient of higher education ($K = -0.7116$; $p = 0.0027$) has a negative relationship with the GNI. This result may be due to the structural features of the sample, where higher higher education enrollment rates are recorded mainly in lower-income countries. The index of digital accessibility ($K = 1.5288$; $p = 0.0249$) turned out to be a positive factor, indicating a 1% increase in digital accessibility and associated with an increase in GNI by ≈1.52 thousand euros. Other variables, such as population growth ($K = 0.4212$; $p = 0.2242$) and the share of renewable energy in final consumption ($K= -0.1924$; $p = 0.2662$), did not show a statistically significant impact on GNI during the study period. The regression equation was formed

according to the data in Appendix A to forecast GNI per capita depending on the selected variables:

$$Y= -70.5102- 0.7116X_1+ 0.4212X_2- 0.1924X_3+ 1.5288X_4$$

The multicollinearity test using VIF indicators did not reveal any critical correlations between the independent variables (VIF < 5 for all factors), which confirms the reliability of the model in terms of stability of estimates. Visual analysis of the regression dependencies confirmed the quantitative findings: digital accessibility shows a clear positive trend, while higher education enrollment has a stable downward slope relative to GNI.

Thus, the results show that community development in EU countries largely depends on a combination of digital infrastructure and socio-demographic characteristics. High digital accessibility turns out to be not only a technological advantage but also a powerful driver of economic growth, while the spread of higher education needs to be accompanied by effective economic policies to transform its potential into real incomes. The findings can serve as a basis for formulating sustainable development strategies that combine investments in digitalization with comprehensive economic and social support measures.

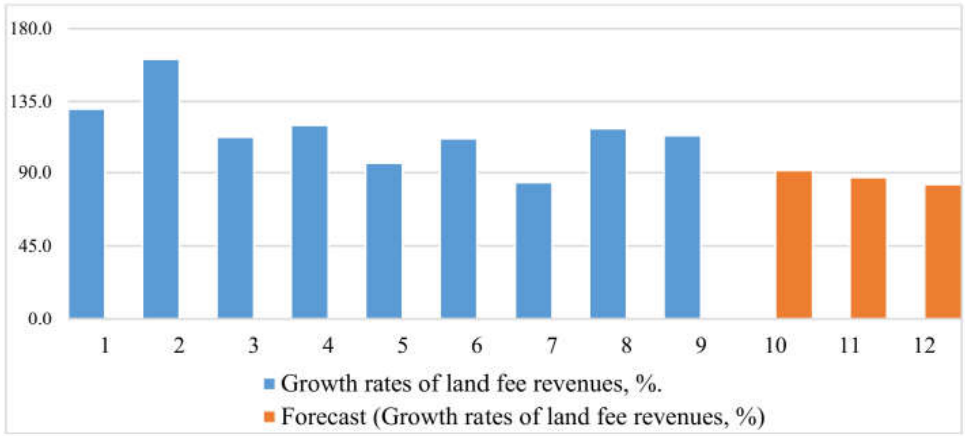
The transition from assessing the impact of socio-economic factors on the level of well-being in the EU to analyzing internal budgetary processes in Ukraine allows us to expand the scope of the study from pan-European patterns to the specifics of the development of territorial communities in the national dimension. While the regression model for a sample of 12 countries demonstrated that digital accessibility and structural features of the education system are determinants of GNI per capita growth, the Ukrainian context requires focusing on the real financial flows that form local budgets. It is through the combination of international and national cuts that a holistic picture emerges: sustainable economic growth is impossible without simultaneous development of the institutional capacity of communities and effective management of their revenues. Accordingly, the forecast analysis of tax revenues in Ukraine reveals the extent to which the challenges of digitalization, employment, and demographic changes are transforming into practical problems of budget policy at the level of territorial communities (Table 4).

Table 4. Rates of change in local budget revenues of territorial communities of Ukraine by main sources (2016-2024)

	Growth rates of actual personal income tax revenues, %	Growth rates of land fee revenues, %.
2016	123,1	130,3
2017	147,3	161,2
2018	139,3	113
2019	125,5	120,2
2020	119,8	95,9
2021	107,5	112
2022	119,4	83,8
2023	128,3	118,2
2024	93,8	113,9

Source: Decentralization (2025); MFU (2025)

Forecast calculations of the dynamics of revenues of local budgets of territorial communities of Ukraine based on trend extrapolation of statistical data for 2016-2024 (Decentralization, 2025; MFU, 2025) show differences in the trajectories of development of key sources of revenues (Figure 1). In particular, the growth rate of personal income tax revenues in the medium term (2025-2027) tends to gradually slow down and stabilize at around 100%, indicating that the limits of extensive growth have been reached without additional incentives from the labor market or income legalization policy.



Source: authors' own calculations

Figure 1. Forecast calculations of the dynamics of local budget revenues of territorial communities of Ukraine based on trend extrapolation of statistical data for 2016-2024

The forecast for land payments, on the other hand, shows a clear downward trend: from the projected 94.7% in 2025 to 84.5% in 2027, which signals the risks of underperformance of this source. These results indicate a structural asymmetry: PIT is gradually transforming into a relatively stable, though less dynamic, resource of local budgets, while land payments remain highly vulnerable to institutional and economic shocks.

In view of this, strategic planning of economic policy for the development of territorial communities should take into account the different potential and risks of individual revenue sources. While the previous stages of revenue management were mostly reactive, i.e., aimed at adapting to existing trends, the proposed forecasting approach opens up opportunities for moving to proactive strategies. This includes: adjusting the tax policy on land payments to minimize the decline in their fiscal role; introducing programs to support entrepreneurship and legalize labor relations to strengthen the PIT base; and diversifying the revenues of territorial communities through the development of alternative financing instruments. Thus, the results of the forecast confirm the need for a paradigm shift from short-term response to strategic management, which is consistent with the concept of sustainable financial development of communities in the context of current challenges.

A coordinated combination of the results of the regression analysis for EU countries and the forecast analysis of local budget revenues in Ukraine showed that the sustainable development of territorial communities depends on both macro factors (digital accessibility, structure of the educational environment, demographic trends) and the ability to effectively manage their own revenue sources at the micro level. While digitalization is the key driver of growth in the EU, in Ukraine, the critical condition is to stabilize personal income tax revenues and minimize the risks of falling land payments. Thus, the formation of strategic economic policy of communities should be based on the integration of global trends with local realities, which ensures the transition from reactive management practices to proactive and long-term planning.

Discussion

The results of the forecasting analysis emphasize the need to move to a strategic approach in the management of territorial communities in Ukraine. The current financial instability, staff shortages, and infrastructure destruction pose significant risks to the sustainable development of communities, but the active implementation of strategic tools can mitigate them.

The introduction of digital management platforms and e-services can increase the efficiency of resource use, while human capital development and youth engagement will contribute to the formation of competent communities capable of adapting to change (Kravchuk, 2025). Attracting international investment and

integration with national strategic initiatives create additional opportunities for community recovery and development.

The forecast analysis confirms the close relationship between the financial capacity of territorial communities, infrastructure development, and socioeconomic stability. In the global context, when local economies are increasingly integrated into global processes, strategic planning is of particular importance, as it requires a systematic approach, risk management, continuous monitoring of key performance indicators, and management training (Gandrita, 2023). The implementation of these measures allows territorial communities in Ukraine to move from short-term, reactive management to long-term development strategies that can adapt to global challenges and promote sustainable economic growth at the local and regional levels.

The effectiveness of strategic planning for the development of territorial communities largely depends on the quality of the forecasting analysis that serves as the basis for management decisions. In the context of dynamic socio-economic changes and the growing influence of globalization factors, there is a need to improve existing forecasting tools with the latest technological, methodological and organizational approaches. The proposed system of areas of improvement combines analytical, information and human resources with institutional and regulatory support, which allows for a comprehensive approach to the formation of community economic policy (Table 5). The use of the identified monitoring indicators will help to improve the accuracy of forecasts, the efficiency of management actions and the transparency of the planning process.

Table 5. Innovative approaches to improving forecasting tools in the management of territorial development

Area	Key activities	Expected result	Evaluation indicators
Methodological improvement	Integration of scenario forecasting; use of economic and mathematical models; multifactor indices	More accurate and comprehensive forecasts	Forecast accuracy rate (%); number of implemented methods; number of scenario models
Technological upgrades	BI systems; Big Data; AI; GIS analysis; automated dashboards	Increasing the speed and visibility of analysis	Data processing time (hours/day); level of automation (%); number of digital tools
Information integration	Single regional data bank; integration with national and international databases; real-time monitoring	Completeness and relevance of information	Number of integrated databases; frequency of data updates; information accessibility index

Organizational and personnel measures	Trainings for analysts; creation of interdisciplinary centers; engagement of external experts	Increased professional capacity	Number of trainings conducted; percentage of staff with advanced training; number of external experts
Institutional and regulatory support	Forecasting standards; public reporting; adaptive adjustment of plans	Transparency and flexibility of planning	Existence of approved standards (yes/no); number of public reports; number of adaptive changes in plans

Source: compiled by the authors

The system for improving forecasting tools in the economic policy of territorial community development involves a comprehensive approach that includes methodological, technological, information, personnel, and regulatory aspects. The proposed indicators allow for quantitative and qualitative assessment of progress in each area, which allows for timely identification of the effectiveness of the measures taken and adjustment of development strategies. This approach ensures the integration of modern analytical technologies, improves the accuracy of forecasts, strengthens human resources, and guarantees the transparency of the planning process, which is in line with European approaches to managing sustainable development of territories.

The results of the predictive analysis show that most territorial communities are at the stage of transition from predominantly reactive management to the formation of strategic planning elements. It has been found that the key factors for the success of this process are a combination of a long-term vision, increasing the competence of management personnel, and involving local stakeholders in decision-making (Ezeh *et al*., 2024). On this basis, it is advisable to outline recommendations that can serve as a roadmap for strengthening strategic approaches.

The development and implementation of comprehensive strategic development plans focused on achieving sustainable development goals, taking into account local resources, cultural characteristics, and socioeconomic needs, is of paramount importance. Equally important is the systematic training of management personnel, in particular in the use of modern methods of strategic analysis and scenario forecasting. It is also necessary to create institutional conditions for effective public participation, which will allow residents to directly influence the processes of planning, monitoring and evaluation of strategy implementation. Finally, the integration of digital technologies into the local governance system can ensure a higher level of transparency, efficiency and adaptability of decision-making, as well as expand the possibilities of modeling future development scenarios.

The implementation of these measures allows the country's territorial communities to move from short-term, reactive management to long-term

development strategies that can adapt to global challenges and promote sustainable economic growth at the local and regional levels.

Conclusion

Effective development of territorial communities in the current socio-economic environment requires a transition from reactive management to strategic, forecast-oriented planning. Important success factors include financial capacity, infrastructure development, digital accessibility, competence of management personnel, and active participation of citizens in decision-making. These elements are universally relevant to communities around the world, regardless of the level of economic development or political context.

A comparative analysis of international experience shows that the integration of econometric methods, scenario modeling, machine learning algorithms, and multidisciplinary approaches provides highly accurate forecasts and contributes to effective strategic planning at the local and regional levels. At the same time, global challenges such as political instability, uneven infrastructure development, resource scarcity, and climate change pose additional risks that require adaptive management solutions.

The study has shown that the development of territorial communities in modern conditions is determined by a multilevel combination of global trends and local budget realities. The regression analysis of EU data showed that digitalization, the structure of the educational environment, and demographic factors form the key drivers of welfare growth. At the same time, the forecast analysis of local budget revenues in Ukraine revealed unevenness and risks in the dynamics of tax revenues, particularly in the area of land payments and personal income tax, which directly affects the financial sustainability of communities. Therefore, the transition from reactive to strategic management requires an integration approach that combines the use of best international practices with national budgetary policy features, creating a basis for long-term planning and strengthening the institutional capacity of local governments.

The development and implementation of comprehensive strategic development plans, integration of modern digital technologies, systematic professional development of management personnel, and creation of conditions for active public participation form the basis for the long-term development of communities. This approach ensures transparency, flexibility and adaptability of management, stimulates innovation and increases the economic sustainability of communities in the global context.

The development of territorial communities around the world requires a transition from reactive management to strategic planning that combines long-term sustainable development strategies with local resources and socio-economic needs,

increasing the competence of management personnel through training in modern forecasting and digital analytics, integrating digital platforms and analytical tools for operational monitoring and decision-making, and actively engaging citizens and stakeholders in planning and evaluating real-world impacts. Implementation of these measures increases transparency, efficiency and flexibility of governance, promotes innovation and ensures sustainable economic growth of communities in the global context.

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Annex A

Timeline	Growth rates of land fee revenues, %	Forecast (Growth rates of land fee revenues, %)	Confidence interval (Growth rates of land fee revenues, %)
2016	130,3		
2017	161,2		
2018	113		
2019	120,2		
2020	95,9		
2021	112		
2022	83,8		
2023	118,2		
2024	113,9		
2025		91,34231983	34,07628613
2026		87,0205991	34,07643947
2027		82,69887837	34,07671208