

SYSTEMIC PROBLEMS OF TERRITORIAL-ADMINISTRATIVE GOVERNANCE AND THE ROLE OF DIGITAL PARTICIPATORY PLATFORMS (PARTICIPATORY BUDGETING, DIGITAL VOTING, E-SYSTEMS, AND LOCAL GOVERNMENT FEEDBACK APPLICATIONS) IN ENHANCING THE EFFECTIVENESS OF COMMUNITY STRATEGIC DEVELOPMENT PROGRAMS

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Introduction

A country's development does not always follow a clearly defined plan due to the constantly changing domestic and foreign policy environment. Consequently, the experience of other countries facing similar challenges can help determine the next steps. It is crucial to understand that strategic planning is a key factor in achieving goals. Equally important is analyzing the country's internal structural or administrative division to assess the efficiency of the established system. In any country, the system of administrative-territorial governance serves as a fundamental mechanism for implementing state policy and delivering public services; its effectiveness directly impacts economic development, social justice, and the quality of de-mocratic governance. The administrative-territorial reforms implemented in Armenia over the last decade – specifically the consolidation of communities – aimed to enhance the efficiency of local self-government; however, actual outcomes reveal deep-seated systemic issues manifesting as institutional weakness, a human capital crisis, limited financial autonomy, and a deficit of participatory democracy.

Methodology

The study employs a mixed-methods approach – combining qualitative and quantitative techniques – to ensure analytical depth and the reliability of the findings. A comprehensive analytical framework was used to conduct a comparative analysis of international experience, covering digital participatory governance models in Estonia, Finland, Germany, and Italy; this enabled the identification of best practices and opportunities for their adaptation to the Armenian context.

Literature review

From a scholarly perspective, strategic management theory concerns adapting to the realities of local self-government, border areas, and post-crisis development. In practice, it involves establishing effective linkages between community strategy, budgeting, state in-

vestments, digital services, and public participation. It is precisely this challenge that underscores the need to rethink local strategy as a comprehensive governance system capable of functioning both during wartime and within the horizon of recovery [OECD, 2021]. Conceptually, the strategic management of a community is best understood as a continuous process comprising the formulation of development goals, the selection of tools to achieve them, resource provision, implementation, monitoring, and the adjustment of decisions. Unlike traditional administrative planning, the strategic approach focuses not merely on a list of measures but, first and foremost, on the logic of transforming the community's condition. That is why it requires not just a strategy, but a complete cycle—spanning from analysis to KPIs and feedback [Kovaliv et al., 2022, 1002]. Alongside these structural developments, the COVID-19 pandemic served as an accelerator for digitalization processes—both within public administration in general and, specifically, in the field of education and training for public administration. Many universities and educational institutions rapidly adopted e-learning platforms, signaling the potential for long-term changes in the education of future civil servants [Moldovan et al., 2024, 79]. At the European level, key policy documents have highlighted digital transformation as a cornerstone of inclusive, transparent, and efficient governance. Notably, the Tallinn Declaration on eGovernment [2017] reaffirmed the EU's stance on e-government and recognized its role in addressing social, economic, and environmental challenges. The Declaration emphasizes the central role of individual rights—such as freedom of speech and privacy—and presents e-government as a means to empower citizens and businesses through improved digital services [Nemec et al., 2022]. These commitments are grounded in the European Union's overarching goal of boosting citizen trust and narrowing the so-called "democratic deficit," a situation where EU-level decisions often appear remote from the lives of ordinary citizens. However, digital transformation in public administration is not merely a matter of adopting new technologies. It entails rethinking organizational structures, shifting administrative cultures, and—frequently—reforming legal and regulatory frameworks. Scholars are increasingly focusing on the multifaceted implications of digital governance, including the ethical dilemmas surrounding automation, the balance between transparency and data protection, and the evolving discretion of "street-level bureaucrats" [Nemec et al., 2022]. In Germany, where the Online Access Act (OZG) was developed to convert all public services into digital formats by the end of 2022, progress has been uneven [Nagel, 2025, 160].

Fragmented IT solutions at state and municipal levels, combined with interoperability challenges, have hindered the seamless implementation of digital services. Open government principles have also gained prominence, as the EU Digital Agenda places strong emphasis on transparency, accountability, and citizen engagement. The Treaty on European Union explicitly calls for decisions to be taken as openly and as close to citizens as possible—a stance reinforced by policy frameworks such as the eGovernment Action Plan (2016–2020) and the "Path to the Digital Decade" [Villaplana et al., 2023]. However, the impact of

these measures varies across member states, reflecting the diverse administrative traditions and governance capacities within the EU. Digital transformation often relies on co-creation and collaboration among the public, private, and civil society sectors – a process facilitated by digital tools but also dependent on stakeholder demands and institutional readiness. Within this broader policy discussion, scholars have identified corruption and administrative inefficiency as potential obstacles that could hinder the transition to "Industry 4.0" and wider implementation of e-government initiatives [Nemec et al., 2022].

According to Kontogeorgis and Varotsis, [Traversa et al., 2024, 472] the country has historically ranked among the EU member states with low DESI scores due to financial, infrastructural, and administrative obstacles. However, European Union funding programs have served as a significant catalyst for the development of e-government. The modernization of Greece's e-government relies on political decisions—specifically political will, the adoption of new public administration standards, and tax or fiscal policy re-forms—and has been pursued more aggressively following the financial crisis. Greece's e-government trajectory also highlights the crucial role of user experience and cross-border mobility in shaping the adoption of e-government services. Despite the growing number of online services, user adoption remains uneven, underscoring the need for more user-centric design and stronger initiatives to improve digital literacy. The example of Finland and Estonia—where digital public services are primarily online and mobile government applications have become the norm—serves as a reference point for Greek policymakers, highlighting the importance of integrated digital solutions and legislative simplifications.

Italy offers a contrasting perspective on digital governance within the EU. The 2017 Tallinn Declaration prompted Italian policymakers to integrate e-government at local and regional levels. However, disparities in infrastructure and administrative capacity between northern and southern regions remain significant. These gaps threaten to exacerbate the digital divide that the National Recovery and Resilience Plan (NRRP) seeks to address [Traversa et al., 2024]. Developing a regional e-government indicator aligned with NRRP objectives enables Italian policymakers to better target interventions and monitor progress.

Romania's position at the bottom of the DESI ranking illustrates the challenges faced by new EU member states. Although the National Recovery and Resilience Plan (NRRP) sets ambitious goals for the green and digital transitions, the country continues to struggle with limited connectivity in rural areas, a lack of digital skills among the population, and low integration of digital technologies [Profiroiu et al., 2022, 132]. Public administration reforms are continuing, with a focus on modernizing interactions between citizens, suppliers, and public service beneficiaries. The example of the 2022 population and housing census—which shifted to digital methodologies—highlights both the potential and the learning curves facing Romania's administrative bodies. Germany's Online Access Act (OZG), initiated to fully digitize public services by the end of 2022, illustrates both the ambitions and

the complexities of digital reforms at the national level [Nagel, 2025, 155]. While Germany is known for its strong economy and well-developed infrastructure, its federal administrative structure complicates uniform implementation. Nagel (2025) reveals that by the end of 2022, only 19% of services slated for digitization were available online, and even those services varied significantly across the country's 11,000 municipalities. Fragmented IT solutions, the absence of a universal data standard, and strict data protection regulations collectively hindered progress. Although Switzerland is not an EU member, its digital transformation at the municipal level offers note-worthy insights into cross-sector collaboration and co-creation that resonate within the EU context. Switzerland's experience proves that digital transformation depends on stakeholder demand and administrative readiness.

Scientific novelty

A methodology for implementing digital platforms (participatory budgeting, digital voting, electronic systems, and local government feedback applications) has been presented as a mechanism to enhance the effectiveness of developing and implementing municipal strategic development programs.

Analysis

A comparative analysis of European experience makes it possible to present effective ways of addressing strategic management challenges. Polish documents, prepared with the participation of the OECD, emphasize the importance of strengthening the capacities of local self-government bodies and utilizing self-assessment tools to improve the quality of governance [OECD, 2025]. The German approach to integrated urban development concepts views them as a vital tool for urban development programs, combining spatial, infrastructural, and social planning. Estonia's experience demonstrates that digital governance operates effectively when based on trust, identification, interregistry interaction, and service convenience; official e-Estonia materials highlight that 100% of public services are available online 24/7, resulting in significant time savings [e-Estonia, 2023].

Table 1. Global Innovation Index in the Republic of Armenia, 2018–2025 [Global Innovation Index: <https://www.wipo.int/en/web/global-innovation-index>]

year	GII	Introduction of innovations	Crowding out of innovations
2018	68	94	50
2019	64	85	50
2020	61	83	47
2021	69	85	56
2022	80	82	73
2023	72	83	62
2024	63	79	55
2025	59	78	53

The Global Innovation Index Industrial Association Network (GIIIAN) brings together prominent organizations representing a vibrant ecosystem of companies and

private-sector entities, all focused on advancing innovation. The Global Innovation Index (GII) ranks countries based on their innovation capabilities using 80 indicators. It is calculated using two sub-indices: innovation inputs and innovation outputs. The innovation input sub-index, in turn, comprises five components: institutions, human capital and research, infrastructure, market sophistication, and business sophistication [Global Innovation Index 2025]. The Global Innovation Index (GII) 2025 ranks the most innovative economies and identifies the world's 100 innovation clusters. It highlights global innovation trends based on investment models, levels, technological advancements, and socio-economic impact. According to the analysis of the table, it can be noted that RA's position in the Global Innovation Index (GNI) underwent significant changes in 2018-2025. The analyzes show changes in innovation input and output rates. Also, conflicting trends are recorded: from the side of the Ministry of Economy, the rating of RA GNI for 2018-2022. It improved from 68th to 80th, after which there is a sharp decline in 2023-2025, falling to 59th place. On the other hand, the introduction of innovations is almost constantly decreasing, and the index of exclusion, although it increased in 2018-2022, still decreased from 73rd to 53rd in 2023-2025.

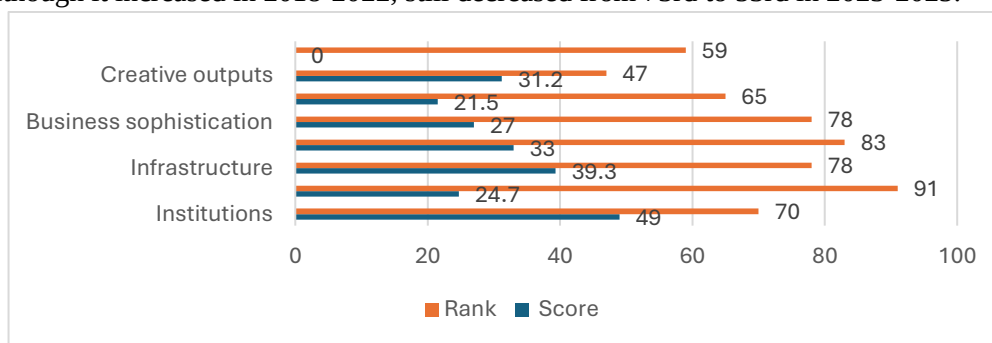


Figure 1. Armenia's position according to the seven components of the GII.

This inconsistency proves that there is a number of systemic problems in the field of innovation in Armenia, which are caused by the instability of the institutional environment, as well as the lack of long-term structures. The decrease in RA GNI rating after 2022 and the combined drop in the withdrawal index deserve special attention. The study of these indicators is important to evaluate the effectiveness of administrative territorial reforms, because the significant gap between the introduction and exclusion of innovations shows the weak capacities of knowledge transfer and absorption of innovations, which significantly affect the modernization process of administrative territorial administration. According to the figure, RA has occupied the highest position in the Global Innovation Index with 3 components: knowledge and technology, creative output and global innovation index. The e-Government Development Index represents the state of e-government development in United Nations member states. Along with assessing patterns of website development in a country, the e-Government Development Index includes access characteristics such as infrastruc-

ture and education levels to reflect how a country is using information technology to promote access and inclusion of its population. The e-Government Development Index is a composite measure of three important e-Government dimensions, namely online service delivery, telecommunications connectivity and human capacity.

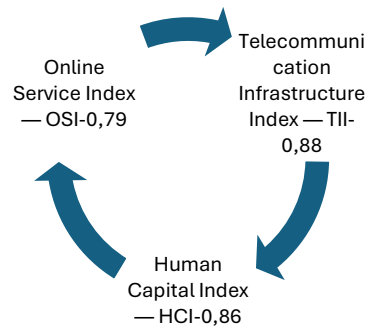


Figure 2. Components of the e-governance index in Armenia, 2025.

Based on the chart, it can be observed that Armenia's e-government index reflects relatively high figures, yet there is significant disparity among the components. The telecommunications infrastructure index and the human capital index stand at very high levels, demonstrating both the development of digital infrastructure and the population's digital literacy and educational attainment. While the online services index is high, it lags behind the other two, indicating that Armenia's digital infrastructure and human potential are not being fully utilized. This key discrepancy reveals that the fundamental challenge regarding Armenia's administrative-territorial reforms lies not in the educational or technological spheres, but rather in institutional capacities, political will, and approaches to service design.



Figure 3. Systemic issues of the RA administrative-territorial governance system

The diagram illustrates the logical model for overcoming systemic challenges in administrative-territorial governance, where the key solution lies in integrating digital participatory tools (participatory budgeting, digital voting, electronic systems, and feedback applica-

tions). Implementing these innovative mechanisms directly enhances the efficiency of formulating and executing municipal strategic development plans, ultimately leading to a "new quality of development" in territorial governance and community life. The provision of digital services by the state—specifically through the www.e-gov.am platform—helps reduce the time required for transactions with government bodies, which in turn encourages citizens to actively use such digital tools. A positive and efficient experience with digital services can foster greater trust in state institutions. Any state-provided service involving digital transformation must ensure ease of use and a high level of accessibility. In this context, digital trust plays a crucial role; it is defined by citizens' confidence in the reliability, security, and data protection capabilities of digital systems, processes, and technologies. The level of trust in digital systems in the Republic of Armenia is not yet sufficient, with concerns regarding personal data security and privacy being among the primary reasons.

Based on the analysis regarding Armenian communities, the adaptation of European experience should not be limited to the token borrowing of isolated practices; rather, it should be structured around four practical components:

- ✓ The first is integrated planning—a combination of strategy, budgeting, spatial priorities, logistics, and infrastructure investments.
- ✓ The second is participatory governance: transforming consultations, petitions, and the state budget into a regular mechanism for influencing strategic decisions.
- ✓ The third is digital maturity: a public KPI dashboard, digital consultations, open data, and project portfolio analysis.
- ✓ The fourth is inter-municipal and cross-border cooperation: a legislative initiative similar to the Law "On Cooperation of Territorial Communities" (modeled on the example of Ukraine), as well as coordination with regional and state priorities.

Conclusions

The analyses demonstrate that systemic issues within Armenia's administrative-territorial governance system—manifesting as institutional weakness, low government effectiveness, insufficient human capital development, a lack of knowledge-transfer mechanisms, and a crisis of participatory democracy—significantly hinder the effective implementation of community strategic development plans; furthermore, relatively high indicators for digital infrastructure and human capital do not translate into commensurate levels of online service quality or business development, a situation driven by "symbolic digitalization," wherein technological capabilities remain underutilized due to a lack of institutional coordination, interoperability, citizen engagement, and political will. Based on the above, it is proposed to implement a second phase of institutional reforms in administrative-territorial governance. This phase includes enhancing public administration efficiency, increasing funding for education and research, strengthening university-industry cooperation, and introducing an integrated methodology for digital participatory tools—mandating the use of

participatory budgeting, digital voting, and feedback mechanisms across all stages of municipal strategic planning based on "once-only," user-centric, and co-creation principles. Additionally, recommendations include developing digital infrastructure in remote communities, ensuring the active application of a unified interoperability framework, establishing effective inter-agency coordination mechanisms, implementing continuous digital literacy training programs for civil servants, strengthening legal liability and accountability mechanisms for local self-government bodies, and introducing municipal digital system for the periodic monitoring of maturity, which will enable not only the identification and resolution of existing systemic vulnerabilities but also the sustainable modernization of the administrative-territorial governance system and the inclusive and equitable development of communities. Based on this foundation, the key directions for improving the strategic management of community development can be formulated as follows:

1. First, it is necessary to create a dynamic investment portfolio prioritizing logistics, agricultural processing, small-scale industry, road services, tourism, and utility infrastructure.
2. Second, annual public reporting on strategy implementation—supported by a KPI dashboard—must be institutionalized.
3. Third, a mandatory link between strategic goals and budgetary programs needs to be established.
4. Fourth, digital participation tools must be expanded, shifting them from localized sections to a mechanism for managing priorities.
5. Fifth, the human resource capacities of executive bodies need to be strengthened in areas such as project management, donor relations, and spatial and analytical planning.
6. Sixth, it is recommended to introduce the practice of an annual "strategic audit," where results are compared not only against the plan but also against environmental risks.

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Systemic problems of territorial-administrative governance and the role of digital participatory platforms (participatory budgeting, digital voting, e-systems, and local government feedback applications) in enhancing the effectiveness of community strategic development programs

Key words: administrative-territorial governance, systemic issues, digital participatory platforms, strategic community development, digital transformation, participatory budgeting, public administration efficiency, local self-government.

Despite the reforms undertaken in Armenia to promote community consolidation and digital transformation, the systemic problems of the administrative-territorial governance system remain a complex combination of institutional weakness, a human capital crisis, limited financial autonomy, and a deficit of participatory democracy. This is evidenced by Armenia's low performance in the Global Innovation Index, the E-Government Development Index, and digital readiness assessments, particularly in the areas of knowledge transfer, university–industry collaboration, and government effectiveness. The purpose of this study is to analyze the methodological potential of implementing digital participation platforms (participatory budgeting, digital voting, electronic systems, and local government feedback applications) as instruments for improving the effectiveness of community strategic development programs. The study combines a comparative analysis of international experience with an analysis of assessment results from Armenian communities, employing a combination of qualitative methods (semi-structured interviews and document analysis) and quantitative methods (processing of indices and statistical data).