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STRATEGIC DIRECTIONS FOR BUSINESS DEVELOPMENT UNDER DIGITALIZATION AND SMART ENVIRONMENT CONDITIONS AT THE LOCAL LEVEL

Abstract

The rapid advancement of digital technologies has fundamentally transformed business operations, making digitalization a key determinant of enterprise adaptability, resilience, and competitiveness. These processes are particularly significant at the local level, where entrepreneurial activity is closely linked to the institutional capacity of communities, the development of digital infrastructure, and the quality of governance. The purpose of this article is to substantiate strategic directions for local business development under conditions of digitalization and the formation of a smart community environment.

The research is based on a comprehensive analytical approach that combines the analysis of scientific literature, statistical data, and the application of SWOT analysis. The study examines the transformation of local entrepreneurial activity, identifies the role of smart community environments in supporting business development, and assesses investment trends in digital and intangible assets at the regional level. Particular attention is paid to the uneven nature of business

digitalization and the structural constraints limiting comprehensive digital transformation.

The findings demonstrate that while local businesses increasingly adopt individual digital tools, the level of systematic digital transformation remains insufficient, largely due to limited investment resources, shortages of digital competencies, and uneven development of digital infrastructure. The formation of a smart community environment is shown to play a critical role in mitigating these challenges by integrating digital services, e-governance instruments, open data, and collaboration platforms that enhance interaction between businesses, local authorities, and communities. The results of the SWOT analysis reveal significant development potential for local businesses, provided that identified weaknesses and external risks are addressed through coordinated strategic actions.

The article proposes a system of strategic directions for local business development, including digital infrastructure modernization, enhancement of digital competencies, institutional coordination, integration of businesses into smart community environments, and a focus on resilience and adaptability under conditions of heightened uncertainty. The implementation of these strategic directions is expected to strengthen the role of local businesses in socio-economic development and to contribute to sustainable and long-term growth of local communities, particularly in crisis and post-crisis contexts.

Keywords

local business development; digitalization; smart community environment; digital infrastructure; business resilience; strategic management; SME digital transformation; local economic development

Problem statement

The rapid development of digital technologies has led to profound transformations in the functioning of modern business, granting digitalization

strategic importance as a key factor in enterprises' adaptation to dynamic socio-economic changes. These processes are particularly relevant at the local level, where entrepreneurial activity is closely linked to the institutional capacity of communities, the level of digital infrastructure development, and the quality of managerial decision-making. In this context, the formation of a smart community environment is viewed as a comprehensive integration of digital technologies, institutional mechanisms, and human capital, creating a new model of interaction, creating a new model of interaction between business, local authorities, and the community and forming favorable conditions for the development of the entrepreneurial sector.

In wartime conditions, the importance of digitalization and smart environments increases significantly, as local businesses operate under heightened uncertainty, risks, and resource constraints. Military challenges exacerbate issues related to business continuity, investment activity, and enterprise resilience, transforming digital tools and smart solutions into key instruments for sustaining economic activity at the community level. At the same time, the insufficient development of strategic approaches to local business development under crisis conditions highlights the need for further scholarly reflection on the role of digitalization and smart community environments as a foundation for shaping effective strategic directions of entrepreneurial development.

Analysis of recent research and publications

In contemporary academic research, digitalization is conceptualized as a systemic driver of economic transformation that reshapes business processes, management models, and value-creation mechanisms, while the digital economy is understood as a qualitatively new stage of economic relations in which data, digital platforms, and network interactions constitute core sources of business competitiveness [1–4]. Existing studies predominantly focus on corporate or sectoral levels of analysis, whereas the local dimension of business digitalization

and its interdependence with territorial institutional conditions remain insufficiently structured and empirically grounded.

A distinct research stream has emerged around the concept of smart environments (smart cities and smart communities), defined as the integration of digital, institutional, and social components of governance and economic activity, with the highest functional effectiveness observed at the local level [5–7]. At the same time, the literature on strategic management and digital transformation emphasizes the need to move from fragmented digital tool adoption toward coherent digital strategies and the advancement of business digital maturity [8–14]; however, the wartime context and the specific challenges of local-level governance, particularly in Ukraine, are still underrepresented. This gap underscores the relevance of examining strategic directions for local business development under conditions of digitalization and heightened uncertainty.

Purpose of the article

The purpose of this article is to substantiate strategic directions for business development at the local level under conditions of digitalization and the formation of a smart environment. The study focuses on analyzing the transformation of entrepreneurial activity at the local level, identifying the role of smart environments in supporting business development, and formulating strategic guidelines aimed at enhancing the adaptability and resilience of the entrepreneurial sector in conditions of heightened uncertainty.

Presentation of the main material of the study

Digitalization of local business is one of the key drivers of entrepreneurial transformation in contemporary conditions, as it determines enterprises' ability to adapt to changes in the market environment, ensure operational continuity, and generate competitive advantages. At the local level, digital transformation is inherently multidimensional and depends not only on firms' internal capacities but

also on the quality of the community's institutional environment, the level of digital infrastructure development, and the availability of electronic services [1; 2].

The case of Kirovohrad region illustrates a combination of adaptive trends and structural constraints in business digital development. Enterprises increasingly employ selected digital tools for communication, electronic services, and online management elements; however, comprehensive digital transformation of business processes remains limited. This situation necessitates an analysis of the investment dimension of digitalization, particularly investments in intangible assets and IT solutions. The dynamics of investments in intangible assets in Kirovohrad region indicate an unstable pattern of financing digital transformation processes (Table 1).

Table 1

Investments in intangible assets in Kirovohrad region (2021–2024)

Indicator	2021	2022	2023	2024
Investments in intangible assets (including IT), million UAH	86.3	47.0	85.1	89.9
Share of investments in intangible assets (software, IT), %	0.1	0.7	0.9	–

Note: Data on the share of investments in software and IT for 2024 are not available in open statistical sources.
Source: compiled by the author based on State Statistics Service of Ukraine yearbooks [12–15].

In recent years, digital technologies have been increasingly integrated into the business processes of small and medium-sized enterprises, which dominate at the local level. The use of cloud services, electronic document management, and online platforms for sales and customer communication contributes to lower transaction costs, expanded market access, and enhanced managerial flexibility, which is particularly important under wartime and economic challenges [3; 4]. Under such conditions, digitalization acquires not only an innovative but also an adaptive function, supporting operational resilience and sustaining economic activity within communities [5; 6].

At the same time, digitalization processes in local business remain uneven and largely fragmented, lacking coherent digital development strategies. Key constraints include shortages of digital skills among personnel, limited access to investment in intangible assets, and insufficient integration of businesses into local digital platforms and smart community initiatives. In this context, the role of local governments lies in creating a supportive institutional environment for business digital transformation through the development of electronic services, open data initiatives, and targeted support programs, which underscores the need for coordinated strategic directions for local business development within the framework of a smart community environment [7–10].

The formation of a smart community environment represents a critical factor in supporting local business development, as it integrates digital technologies, managerial instruments, and institutional mechanisms into a unified system of interaction among enterprises, local authorities, and the community. In academic research, smart environments are conceptualized as digital ecosystems that foster higher levels of economic activity, innovation, and adaptive capacity of local businesses [11; 12].

Core components of a smart environment include the development of electronic services, digital platforms, and the use of open data, which facilitate business access to administrative services, reduce regulatory barriers, and support evidence-based managerial decision-making. The implementation of electronic document management, digital registries, and online service provision contributes to lower transaction costs and the creation of a more favorable entrepreneurial climate, while the integration of open municipal data stimulates entrepreneurial initiatives and partnerships between businesses and local communities [1–15].

Under wartime conditions, the importance of smart environments increases substantially, as digital tools ensure the continuity of economic activity and enhance the resilience of local businesses. At the same time, the effectiveness of

smart initiatives depends on the coordination of key stakeholders and the existence of a coherent strategic vision for community development, which requires the alignment of technological solutions with human capital development and institutional capacity building. This substantiates the relevance of further analysis of internal and external factors shaping local business development within smart community environments through the application of SWOT analysis [1–15].

To substantiate strategic directions for local business development, the application of SWOT analysis is methodologically appropriate as a tool for systematizing internal and external factors related to digitalization and the functioning of smart community environments. In the local context, SWOT analysis enables the integration of assessments of internal business potential with the analysis of broader digital, institutional, and socio-economic transformations that shape entrepreneurial activity at the community level [10–12].

The strengths of local business development under digitalization include increasing organizational flexibility, the capacity of small and medium-sized enterprises to rapidly adapt business processes to digital formats, and the growing use of basic digital tools for management, communication, and sales. These characteristics are particularly relevant at the local level, where SMEs dominate the business structure and digital solutions allow firms to compensate for limited financial and human resources [1–3].

At the same time, weaknesses of digital development are associated with constrained access to financial resources for investment in digital technologies, shortages of digital skills among personnel, and the fragmented adoption of digital solutions in the absence of coherent digital development strategies. Such limitations hinder the transition from incremental digitalization to systemic digital transformation and restrict the effective integration of businesses into smart community environments [4–6].

Key opportunities for local business development arise from the expansion of

digital support programs for entrepreneurship, access to international financial and technical assistance, and the implementation of community-level smart initiatives as platforms for building local entrepreneurial ecosystems. The development of digital public services, open data, and partnership-based governance models creates additional opportunities for enhancing business competitiveness and innovation capacity at the local level [7–9].

At the same time, threats to digital development stem from high levels of external instability, wartime, energy, and cyber risks, as well as uneven territorial digital development. Under such conditions, the results of the SWOT analysis indicate the necessity of formulating strategic directions for local business development focused on integration into smart community environments and on strengthening digital capacity, adaptability, and resilience of the entrepreneurial sector as a foundation for sustainable local economic development [13–15].

The primary strategic direction for local business development is the advancement and modernization of the community's digital infrastructure, which establishes the basic conditions for integrating enterprises into a smart environment. This direction encompasses not only access to high-quality internet connectivity but also the creation of local digital platforms, electronic business support services, and online interaction tools between businesses and local authorities. The availability of such infrastructure reduces transaction costs, improves the transparency of administrative procedures, and strengthens the institutional framework for entrepreneurial activity at the local level [1–3].

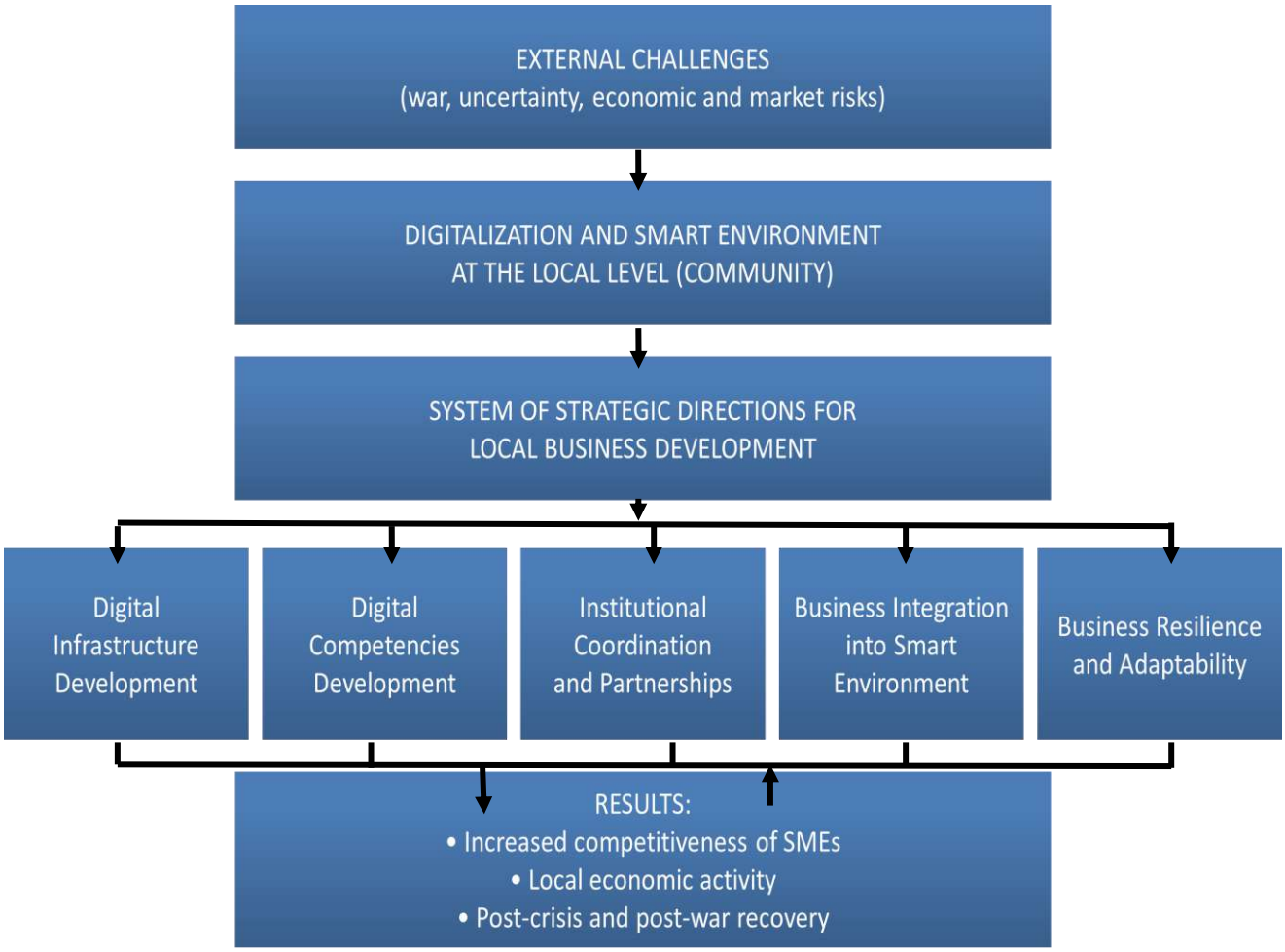


Figure 1. System of Strategic Directions for Local Business Development under Digitalization and Smart Environment Conditions

Source: compiled by the authors

The interrelationship between digital infrastructure, human capital development, institutional coordination, and resilience-oriented measures is summarized in the proposed system of strategic directions (Figure 1). As shown in Figure 1, these components should be implemented in a coordinated manner, since fragmented initiatives tend to generate limited effects and do not ensure sustainable integration of local businesses into the smart community environment [7–9].

Closely related to infrastructure development is the strategic priority of enhancing digital competencies among entrepreneurs and employees. Digital skills development should extend beyond basic technical proficiency and include mana-

gerial competencies related to digital planning, data analysis, and the implementation of digital business models. At the local level, this direction can be realized through targeted educational initiatives, cooperation with higher education institutions, and partnerships with business support organizations, which collectively contribute to increasing the digital maturity of the entrepreneurial sector [4–6].

Another strategic priority concerns institutional coordination and the development of partnerships within the community. Coordinated actions among local authorities, businesses, educational institutions, and civic organizations ensure the coherence of digital initiatives and enhance the effectiveness of smart solution implementation. In this context, digitalization and business support should be treated not as isolated policy measures but as complementary priorities embedded in the overall strategic development of the community, including the use of digital public services, open data, and collaboration platforms to form local business ecosystems and stimulate innovative initiatives [10–12].

A separate strategic emphasis should be placed on strengthening the resilience and adaptability of local businesses under conditions of heightened uncertainty. The implementation of digital solutions aimed at ensuring business continuity, increasing the flexibility of business processes, and enabling rapid responses to external shocks becomes particularly important in the context of crisis, post-crisis, and post-war recovery. Taken together, the identified strategic directions form a conceptual framework for integrating digitalization and smart community development, creating prerequisites for strengthening the role of local business in socio-economic development and supporting sustainable long-term growth of territories [13–15].

Conclusions

The results of the study demonstrate that digitalization is a key driver of business transformation at the local level, determining enterprises' ability to adapt to dynamic socio-economic changes and to operate under conditions of heightened

uncertainty. In the context of local economic systems, digital transformation is shaped not only by internal business capabilities but also by the quality of the institutional environment, the availability of digital infrastructure, and the capacity of local governance mechanisms to support entrepreneurial activity through digital tools and services. The formation of a smart community environment thus creates essential institutional and technological prerequisites for local business development by integrating digital services, e-governance solutions, and collaborative platforms that facilitate interaction among businesses, local authorities, and communities.

The findings of the SWOT analysis indicate significant potential for local business development, provided that systemic constraints related to insufficient digital competencies, limited investment resources, and uneven digital infrastructure development are effectively addressed. These limitations highlight the necessity of implementing integrated strategic directions focused on digital infrastructure development, institutional coordination, and the inclusion of businesses in smart community environments. The consistent realization of such strategic directions contributes to strengthening entrepreneurial resilience, enhancing adaptive capacity under conditions of uncertainty, and ensuring sustainable long-term socio-economic development of territories.

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