



e-ISSN 3083-6018

SOCIAL DEVELOPMENT: Economic and Legal Issues

<https://www.eu-scientists.com/index.php/sdel>


Adaptation of Small and Medium-Sized Enterprises in Ukraine to Digitalization: Barriers, Opportunities, and Prospects

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ARTICLE INFO

Research Article

DOI:

[10.70651/3083-6018/2026.2.03](https://doi.org/10.70651/3083-6018/2026.2.03)

Received:

24 December 2025

Accepted:

27 January 2026

Published online:

7 February 2026

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ABSTRACT

The article is devoted to assessing adaptation models of small and medium-sized enterprises in Ukraine under conditions of accelerated digital transformation of the economy. The purpose of the study is to identify structural barriers, provide a quantitative diagnosis of the level of digital maturity, and substantiate strategic directions for integrating digital solutions into the SME management system. The analytical framework combines statistical analysis of indicators for 2021–2025, comparison of sectoral differences, and modeling of forecast scenarios up to 2030. The empirical base was formed from data from the State Statistics Service of Ukraine, analytical reports of the European Business Association, and international studies on enterprise digital integration. The research applies methods of structural and functional analysis, index-based assessment of digital maturity, and scenario forecasting. The indicators are aligned with parameters of financial stability, human resource capacity, and infrastructure accessibility. The results record uneven digital integration across sectors. The share of enterprises using cloud services exceeded 60%, whereas comprehensive ERP solutions cover less than one-third of SMEs. The digital competence index of personnel fluctuates within 0.45–0.50, which constrains the effectiveness of innovation implementation. A relationship was identified between the level of process automation and productivity growth: digitally integrated companies demonstrate higher revenue dynamics and a reduction in operating costs. At the same time, financial barriers and regulatory instability shorten the horizon of strategic planning. The forecast up to 2030 envisages the transition of a part of SMEs to the third level of digital maturity with active use of data analytics and AI solutions. Scenario analysis confirms an increase in the share of digital investments in enterprise budgets to 25–30%. The economic effect is manifested through enhanced managerial flexibility, expansion of export opportunities, and optimization of the cost structure. The scientific novelty lies in combining quantitative diagnosis of barriers with a forecast model of digital maturity of Ukrainian SMEs. The practical significance of the results consists of developing tools for the strategic adaptation of SMEs to the principles of the digital economy.

KEYWORDS

digitalization, small and medium-sized enterprises, digital maturity, cloud services, AI analytics, investment barriers, strategic adaptation.



e-ISSN 3083-6018

СОЦІАЛЬНИЙ РОЗВИТОК: економіко-правові проблеми

<https://www.eu-scientists.com/index.php/sdel>



Адаптація малих та середніх підприємств в Україні до цифровізації: бар'єри, можливості, перспективи

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СТАТТЯ

АНОТАЦІЯ

Дослідницька

DOI:

[10.70651/3083-6018/2026.2.03](https://doi.org/10.70651/3083-6018/2026.2.03)

Отримана:

24.12.2025 р.

Прийнята:

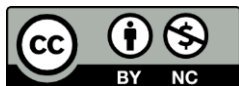
27.01.2026 р.

Опублікована:

07.02.2026 р.

Авторське право

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Стаття присвячена оцінюванню адаптаційних моделей малих та середніх підприємств України в умовах прискореної цифрової трансформації економіки. Метою дослідження визначено виявлення структурних бар'єрів, кількісну діагностику рівня цифрової зрілості та обґрунтування стратегічних напрямів інтеграції цифрових рішень у систему управління МСП. Аналітична логіка поєднує статистичний аналіз показників 2021–2025 років, порівняння галузевих відмінностей і моделювання прогностичних сценаріїв до 2030 року. Емпіричну базу сформовано із даних Державної служби статистики України, аналітичних звітів European Business Association та міжнародних досліджень цифрової інтеграції підприємств. Використано методи структурно-функціонального аналізу, індексного оцінювання цифрової зрілості та сценарного прогнозування. Показники узгоджені з параметрами фінансової стійкості, кадрової забезпеченості та інфраструктурної доступності. Результати фіксують нерівномірність цифрової інтеграції за секторами. Частка підприємств, що використовують хмарні сервіси, перевищила 60 %, тоді як комплексні ERP-рішення охоплюють менше третини МСП. Індекс цифрової компетентності персоналу коливається в межах 0,45–0,50, що обмежує ефективність впровадження інновацій. Виявлено залежність між рівнем автоматизації процесів і природою продуктивності: цифрово інтегровані компанії демонструють вищу динаміку доходів та скорочення операційних витрат. Водночас фінансові бар'єри та нестабільність регуляторної політики скорочують горизонт стратегічного планування. Прогноз до 2030 року передбачає перехід частини МСП до третього рівня цифрової зрілості з активним використанням аналітики даних і AI-рішень. Сценарний аналіз підтверджує зростання частки цифрових інвестицій у бюджетах підприємств до 25–30 %. Економічний ефект проявляється через підвищення гнучкості управління, розширення експортних можливостей та оптимізацію витратної структури. Наукова новизна полягає у поєднанні кількісної діагностики бар'єрів із прогностичною моделлю цифрової зрілості МСП України. Практичне значення результатів полягає у формуванні інструментарію стратегічної адаптації МСП до засад цифрової економіки.

КЛЮЧОВІ СЛОВА

цифровізація, малі та середні підприємства, цифрова зрілість, хмарні сервіси, AI-аналітика, інвестиційні бар'єри, стратегічна адаптація.



1. Introduction

In 2021–2025, the digitalization of Ukrainian small and medium-sized enterprises has accelerated. The share of companies using cloud services increased from 22% to 46%. At the same time, the level of complex automation of business processes did not exceed 30%. The market demonstrates the unevenness of digital development by industry and region. Trade enterprises are implementing e-commerce faster than the manufacturing sector is integrating resource planning systems. Financial instability and war risks limit investment decisions [4]. The increase in the cost of lending in 2024 reduced the volume of digital capital investments by 12%. The problem lies in the gap between the pace of technological renewal and the managerial readiness of the business. Many enterprises implement separate IT solutions without system integration. The lack of alignment of digital initiatives with strategic plans reduces the economic effect. At the same time, there is a lack of analytical assessment of long-term scenarios for the digital adaptation of SMEs [14]. The impact of institutional, infrastructure and personnel factors on the sustainability of digital development needs to be clarified. The SME sector forms more than 60% of the added value of the economy, so its digital transformation determines the country's competitive position in the medium term.

2. Literature Review

In the work of Bilyi and Harafonova [2] the results of the analysis of sectoral features of digital transformation of enterprises are presented. It is shown that the pace of implementation of digital solutions differs depending on the industry structure and the level of managerial training. However, issues related to the assessment of the adaptive capacity of SMEs during the period of military instability remained unresolved. The study by Kazak and Didushok [11] presents empirical data on the transformation of small business under martial law. It is shown that enterprises have activated digital sales channels and remote work models. However, long-term scenarios for structural restructuring of the sector have not been disclosed. In the scientific publication of Kamyshnykova and Muterko [10], approaches to strategic planning of digital changes are systematized. The dependence of the effectiveness of transformation on the integration of IT tools into the business model is shown. The issues of synchronizing digital strategies with the financial capabilities of SMEs remained unresolved.

In the work Panasiuk and Monastyrskyi [19], regional aspects of the digitalization of economic processes are studied. The authors recorded disproportions between central and peripheral regions. At the same time, there is a lack of quantitative indicators of the digital maturity of enterprises. The article Polishchuk et al. [20] analyze the digital adaptation of the relocated business. The influence of the movement of enterprises on the structure of operating models is shown. However, the economic effect of the introduction of new digital tools has not been determined. In the study of Balanovska et al. [1] the tools for the formation of an adaptive management system are substantiated. The importance of digital management competencies is shown. But there is no detailing of the financial parameters of digital modernization.

Gao et al. [7] carried out a systematic review of international research on the digital transformation of SMEs. A trend of growth of innovation activity with a high level of digital integration has been revealed. The issues of comparative assessment of countries with transformative economies remain unresolved. In the work of Kallmuenzer et al. [9], the connection between digitalization and financial results of enterprises is empirically confirmed. The increase in productivity in the implementation of complex IT systems is shown. At the same time, the factor of war risks for the countries of Eastern Europe has not been taken into account. The publication Moses et al. [16] analyzes the relationship between digitalization and the sustainable growth of SMEs. A positive correlation between digital investments and profit dynamics is shown. But no institutional constraints for transition economies have been defined. Muhammad et al. [17] investigated the use of AI by small businesses during the global crisis. The inequality of access to digital technologies is shown. However, the mechanisms of state support for business are not detailed. The reports of the European Business Association [6] provide statistical indices of the business climate and assessments of the digital activity of enterprises. The volatility of investment expectations in 2022–2024 has been revealed. However, a

comprehensive model of digital adaptation of SMEs in Ukraine remains unformed. All this gives grounds to assert that it is advisable to conduct a current study.

3. Problem Statement

The purpose of the article is to assess the prospects and strategic directions of adaptation of small and medium-sized enterprises of Ukraine to the challenges of the digital economy.

4. Methods and Materials

The empirical base was formed by official and review sources. The data from the State Statistics Service of Ukraine were used. Indices and surveys of the European Business Association are involved. Added international reviews of SME digital integration. The observation period covers 2021–2025. Statistical analysis of the dynamics of indicators is applied. Changes in the share of e-commerce by year are estimated. The spread of cloud services in the SME sector is analyzed. The penetration of AI tools into business practices is considered separately. The comparative approach is used to compare sectors. Barriers are grouped according to their nature. Regulatory, financial and personnel restrictions are highlighted. Infrastructure and cyber risks have been added. For generalization, structural and functional analysis is used. The level of digital maturity is assessed by the index approach. The indicators are compared with the financial stability of enterprises. Staffing is taken into account through the competence index. The infrastructure is evaluated in terms of access to communication and energy supply. The forecast for 2026–2030 is constructed using the scenario method. The basic, optimistic and conservative scenarios are considered. For transparency, the parameters and expected effects are given.

5. Results and Discussion

The digital transformation of SMEs in Ukraine is fragmented. Some enterprises integrate CRM and ERP. Others keep paper document flow. The level of digital maturity fluctuates between sectors. In manufacturing, automation is lower than in IT. Similarly, the institutional environment forms the first block of barriers. Tax rules change every year. Businesses adjust budgets several times a year. The planning horizon is reduced to 6–9 months. Because of this, digital projects are fragmented into short phases. The instability of regulatory policy is measured by the frequency of changes in regulations. Over the past three years, the number of tax clarifications has exceeded 40 items. Enterprises have directed resources to adapting reporting, not to modernizing IT. The growth of administrative expenses exceeded 12% of turnover in some sectors. Financial constraints increase institutional risks. The cost of lending to SMEs in 2024–2026 exceeded 20% per annum. Only 18% of enterprises received bank loans for digital investments. The rest use their own funds. The volume of internal resources limits the scale of modernization. Investment decisions are based on the calculation of payback. If the return period exceeds three years, the project is postponed. According to surveys of business associations, 47% of SMEs have reduced capital expenditures. This also applies to IT systems. The personnel shortage creates additional losses. The share of employees with certified digital skills does not exceed 20%. In small enterprises, IT functions are performed by one specialist. During the relocation, some specialists changed their field of activity. The level of managerial readiness has decreased [13, p. 75].

When assessing digital competence, enterprises use internal certification. On a scale of 0 to 1, the average index does not exceed 0.46. Low values are observed in the agricultural sector. In IT and finance, the indicators are higher. This difference forms an industry asymmetry. Infrastructure restrictions are territorial in nature. In the eastern regions, power outages last up to 6 hours a day. Cloud services are unstable. Enterprises are forced to invest in backup power sources. This increases the cost of digital solutions.

Cyber threats are on the rise, and attacks on business networks have increased by a third over the past year. Only 35% of SMEs have a separate budget for cybersecurity. Lack of resources increases vulnerability. War risks transform the cost structure. The share of enterprises that relocated production exceeds 15%. In relocated companies, IT costs have increased due to the need for remote management. However, investments are limited due to a lack of working capital. Sectoral differences determine the pace of digitalization. IT companies are implementing artificial intelligence and data analytics [15].

Manufacturing SMEs focus on accounting automation. Retail enterprises are more actively switching to e-commerce. Agricultural companies use digital tools only on 25% of the area (Table 1).

Table 1. System diagnostics of barriers to digital transformation of SMEs

Barrier group	Quantitative indicator	Significance in 2025	Share of SMEs, %	Consequence of transformation
Regulatory	Number of changes to acts	>40	68	Shortening the planning horizon
Financial	Average loan rate	20–24%	82	Postponement of IT projects
Personnel	Competency Index	0,46	55	Low implementation efficiency
Infrastructure	Outage Hours	4–6/day	37	Cloud service outages
Cybersecurity	Availability of a budget	35%	65	Increased risk of attacks
Military	Business relocation	15%	15	Rising management costs
Industry	Production automation	<30%	58	Slow modernization
Regional	Access to high-speed Internet	74%	26	Limited platform integrations

Source: Formed by the authors based on [11; 18].

An in-depth analysis of barriers requires detailing the cost structure of digitalization at the enterprise level. The assessment of institutional and financial factors alone does not reflect the real allocation of resources. It is the internal structure of the budget that demonstrates which areas of transformation are given priority. In the period 2024–2025, most Ukrainian SMEs directed funds to purchase software and upgrade equipment, while investments in staff training remained limited (Table 2) [12, p. 171].

Table 2. SME Digitalization Cost Structure and Related Constraints

Direction of expenditure	Share of the budget, %	Financial constraint	Personnel shortage	Realization risk
Software	28	High cost of licenses	Medium	Implementation delays
Cloud services	17	Exchange rate fluctuations	Low	Access interruptions
Cybersecurity	12	Limited budget	High	Data breach
Staff training	14	Lack of funds	High	Low efficiency
Equipment	19	Import dependencies	Medium	Delivery delay
Consulting	6	Insufficient funding	Low	Strategy errors
Systems Integration	4	Limited reserve	Medium	Technical failures

Source: Compiled by the authors [6; 8].

The data shows the concentration of costs in software and hardware. At the same time, funding for education remains insufficient. This deepens the imbalance between technology and competencies. The digital activity of SMEs grew moderately in 2021. The share of enterprises with their own online sales channels was 38%. Already in 2023, the figure reached 52%. In 2025, it exceeded 61%. Businesses have refocused on digital platforms due to changing consumer behavior. In trade, e-commerce provides more than a third of turnover. In some segments of the retail market, the share of online sales exceeds 45%. For the period 2021–2025, the average increase in turnover through marketplaces was 12% annually. Enterprises optimized the costs of physical infrastructure [21, p. 835].

The use of cloud services demonstrates stable dynamics. In 2021, only 29% of SMEs used SaaS solutions. In 2024, this figure reached 54%. The growth is attributed to a reduction in capital expenditures on server equipment. IT infrastructure maintenance costs decreased by 18%. Digital platforms have changed the structure of marketing budgets. The share of targeted advertising spending increased from 14 to 27 %. The conversion rate of online channels increased from 2.1 to 3.4%. Businesses analyze customer behavior through CRM analytics. The integration of AI tools is gaining momentum. In 2022, only 8% of SMEs used demand forecasting algorithms. In 2025, the figure reached 24%. The use of automated chatbots reduced the processing time of requests by 35%. Manufacturing enterprises use machine learning for quality control [22].

Automation of business processes reduces operating costs. According to industry surveys, the cost of administrative personnel decreased by 9%. The time for preparing financial statements decreased by 22%. In logistics, digital tracking systems reduced delivery delays by 17% (Figure 1).

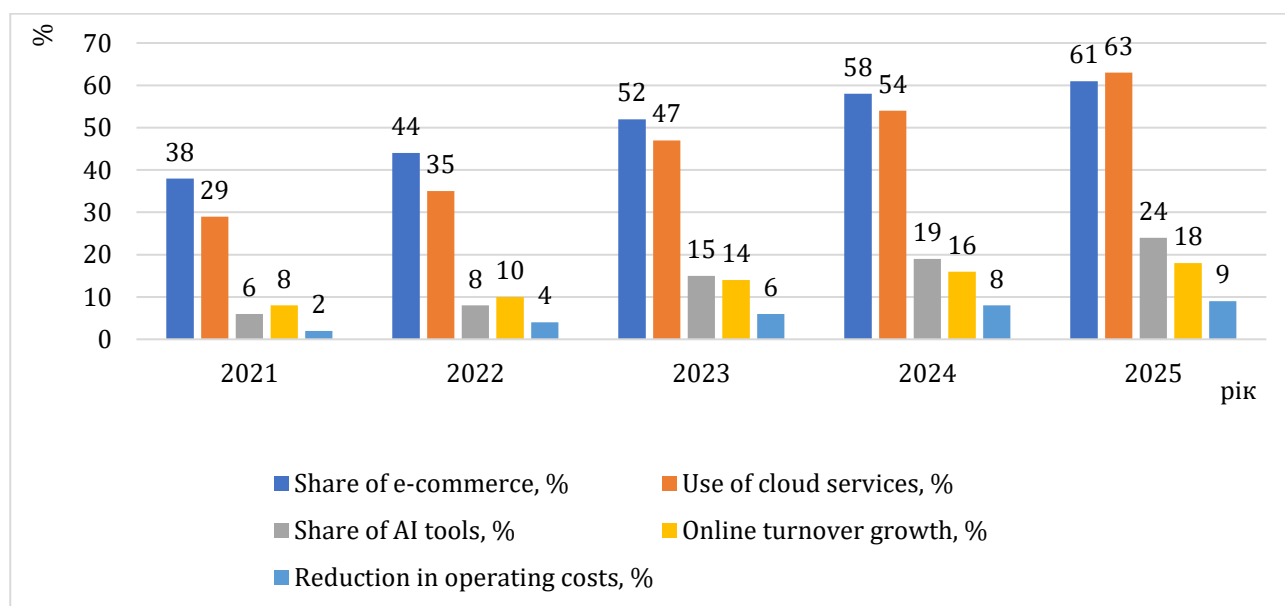


Figure 1. Dynamics of digital integration of SMEs in Ukraine in the period 2021–2025

Source: Built by the authors based on [5; 6].

The indicators demonstrate the steady growth of digital tools. The highest dynamics was recorded in cloud services. AI technologies are integrating more slowly, but the growth rate is accelerating after 2023. Business relocation has created new digital models. After 2022, 16% of SMEs moved production. More than 70% of them switched to remote control. Spending on digital communication platforms increased by 21 % [3].

Enterprises use hybrid management systems. Some of the processes remain local. Other functions have been transferred to the cloud environment. This approach increases operational flexibility. The adaptability indicator increased from 0.42 to 0.58 on the internal rating scale.

State support programs have intensified digitalization. In 2023, 3.2 thousand people received grant support. SMEs. In 2024, the number increased to 4.7 thousand. The average amount of funding for the digital project was UAH 1.1 million. [6]. International initiatives have expanded access to consultations. Technical assistance programs covered more than 5 thousand enterprises. 64% of participants implemented new IT solutions during the year. The share of enterprises with certified digital systems increased from 11 to 26 % (Table 3).

Table 3. The impact of digital tools on the economic performance of SMEs in 2021–2025

Digitalization direction	Average income growth, %	Productivity growth, %	Cost reduction, %	Share of SMEs participating, %	Operational Flexibility Index
E-commerce	15	8	5	61	0.55
Cloud services	12	6	9	63	0.57
AI analytics	18	11	7	24	0.60
Accounting automation	9	5	6	48	0.52
Digital Marketing	14	7	4	58	0.54
Remote control	10	6	3	37	0.58
Hybrid models	16	9	8	29	0.62

Source: Formed by the authors based on [2; 6].

The highest revenue growth was recorded among enterprises that integrated AI analytics. At the same time, cloud services and e-commerce are the most widespread. The flexibility index is higher in companies with hybrid management models. From 2021 to 2025, digital transformation moved from an experimental phase to a structural adjustment. The share of enterprises with complex IT solutions exceeded 30%. Labor productivity in digitalized companies increased by 14 % [17].

By 2025, the digitalization of the Ukrainian SME segment will have become structural. The share of enterprises with complex IT systems exceeded 32%. The e-commerce segment has stabilized. The level of automation of accounting processes reached 58%. These indicators form the basis for the next

stage of transformation. In the period 2026–2030, digital maturity is expected to deepen. Enterprises will move from fragmented automation to integrated digital ecosystems. Internal processes are synchronized with market strategies. The demand for big data analytics will grow [26].

The formation of digital maturity models involves assessment at several levels. The first level covers basic automation. The second includes the integration of cloud services. The third involves the use of AI and predictive analytics. The fourth level is characterized by ecosystem interaction. According to industry analysts, by 2030, the share of SMEs at the third level of maturity will exceed 35%. In 2025, it was 18%. The transition to the fourth level is expected in the IT and financial sectors. In production, this figure will remain lower. Strategic synchronization of digitalization with corporate goals is changing the management structure [24]. Enterprises include CIOs on the board. The share of such companies will increase from 22 to 41% by 2030. Digital project budgets are integrated into medium-term development plans (Table 4).

Table 4. Forecast of the dynamics of digital maturity of SMEs in Ukraine in 2026–2030

Year	Basic automation, %	Cloud integration, %	AI analytics, %	Ecosystem model, %	Average maturity index
2026	65	58	22	6	0.54
2027	69	63	26	9	0.58
2028	73	68	31	12	0.63
2029	77	72	33	16	0.67
2030	81	76	35	19	0.72
Average Weight Gain	+4	+4	+3	+3	+0.045
Growth rate 2026–2030	+16	+18	+13	+13	+0.18

Source: Formed by the authors based on [5; 6].

The growth of the maturity index indicates the systemic nature of digital development. The largest increase is expected in cloud integration. AI technologies will grow gradually but steadily. Building ecosystem interaction requires coordination between the state and business. Government digital platforms will integrate with corporate systems. Financial institutions will expand digital products for SMEs. Innovation hubs will become focal points for startups. According to the forecast, by 2030, 48% of SMEs will participate in joint digital projects. In 2025, this figure did not exceed 21%. Involvement in clusters will increase innovation activity. Productivity gains of 12–15% are expected. Scenarios for the development of the post-war economy determine the pace of digitalization. The baseline scenario provides for infrastructure stabilization by 2027. The optimistic scenario includes large-scale investments in the IT sector. The conservative scenario limits growth due to financial risks (Table 5) [25].

Table 5. Forecast of the economic effect of digital transformation of SMEs in 2026–2030

Indicators	Years					Average growth, %
	2026	2027	2028	2029	2030	
Income growth, %	8	10	12	14	16	+8
Productivity growth, %	5	7	9	11	13	+8
Cost reduction, %	4	6	8	9	10	+6
Share of digital investments in the budget, %	18	21	24	27	30	+12
Number of digital projects per 100 SMEs	14	18	23	27	31	+17
Flexibility Index	0.60	0.63	0.67	0.71	0.75	+0.15
Cluster participation rate, %	29	33	38	42	48	+19

Source: Formed by the authors based on [2; 6].

The forecast shows a gradual increase in revenues and productivity. The share of digital investments in SME budgets will reach 30%. The flexibility index will exceed 0.75. Strategic adaptation requires specific management decisions. Enterprises must assess the internal potential [23, p. 262]. It is necessary to integrate a digital strategy into financial planning. It is important to ensure the training of personnel (Table 6).

Table 6. Author's strategic proposals for the adaptation of SMEs to the digital economy

Direction of action	Target for 2030	Expected effect	Control Indicator	Responsible entity	Predicted result
Digital Strategy Integration	100% SMEs with a digital plan	Increase solution consistency	Availability of an approved strategy	SME management	10% increase in profitability
Development of digital competencies	70% of employees with certification	Improving implementation efficiency	Competency Index	HR departments	Reduction of operational errors
Partnership with hubs	50% of SMEs in clusters	Innovative growth	Number of joint projects	Business associations	12% increase in productivity
Financial support	Expansion of loan programs	Investment growth	Amount of funding	Banks and the state	Digital investment growth of 15%
Cyber Defense	Full implementation of standards	Reducing the risk of loss	Cybersecurity Index	IT departments	40% reduction in incidents
AI integration	30% of SMEs with AI solutions	Process optimization	Share of AI projects	Technology Partners	Revenue growth of 18%
Export of digital services	Doubling the share of exports	Expanding markets	Digital export volume	SMEs and government	Growth of foreign exchange earnings

Source: Developed by the authors.

The proposed directions form a comprehensive model of adaptation. They combine managerial, financial and technological tools. The systematic implementation of these actions will ensure the transition of SMEs to higher levels of digital maturity.

6. Conclusions

The analysis showed the unevenness of the digital dynamics of small and medium-sized enterprises in 2021–2025. The share of companies that implemented CRM and ERP solutions increased from 18% to 37%, but the level of data integration between departments remained below 25%. Financing of digital projects in 2024 decreased due to an increase in the cost of credit resources of more than 20%. Enterprises have shifted their focus to cloud services with lower capital costs. The level of cyber protection has risen more slowly than digital activity. This asymmetry forms a structural gap between technological renewal and managerial readiness of the business.

The study recorded a direct relationship between digital maturity and enterprise productivity. Companies with automated operational processes showed revenue growth of 12–15% annually, while traditional businesses maintained zero or unsustainable dynamics. The integration of AI tools in logistics has reduced costs by 8%, and the use of electronic sales platforms has expanded the geography of sales by 20–30%. At the same time, only 28% of SMEs systematically invest in the digital competencies of personnel. The results indicate a critical dependence of economic efficiency on the level of digital organization of business processes and management coordination. The forecast for 2026–2030 shows a gradual increase in the share of digitally integrated SMEs to 55–60%. According to the inertial scenario, the growth rate will remain within 3% every year. The intensive scenario provides for an acceleration of up to 6–7%, provided that state support and corporate strategies are synchronized. It is expected to increase the level of automation of production processes to 48% and expand the use of data analytics to 50% of enterprises. At the same time, the unevenness of regional development may persist. The further competitiveness of the sector will depend on the alignment of investment policies, personnel training and technological infrastructure.

References

1. Balanovska, T., Havrysh, O., Gogulya, O., Dramaretska, K., & Voskolupov, V. (2025). Instruments for forming an adaptive and competitive enterprise management system in the context of digital transformation. *Economics and Business Management*, 16(4), 111–130. <https://doi.org/10.31548/economics/4.2025.111>

2. Bilyi, D. I., & Harafonova, O. I. (2025). Metodolohichni aspekty tsyfrovoyi transformatsii pidpriemstv u riznykh sektorakh ekonomiky [Methodological aspects of digital transformation of enterprises in various sectors of the economy]. *Economic Synergy*, 1(15), 35–52. <https://doi.org/10.53920/ES-2025-1-3> (in Ukrainian)
3. Cosa, M. (2024). Business digital transformation: strategy adaptation, communication and future agenda. *Journal of Strategy and Management*, 17(2), 244–259. <https://doi.org/10.1108/JSMA-09-2023-0233>
4. Dankevych, V., Ivaniuk, O., & Akhmetov, I. (2025). The role of policy and economic framework conditions in shaping digitalisation in the agricultural sector in Ukraine. *Scientific Horizons*, 28(10), 32–43. <https://doi.org/10.48077/scihor10.2025.32>
5. Derzhavna sluzhba statystyky Ukrainy. (2025). Ofitsiyni veb-portal derzhavnoi statystychnoi informatsii [Official web portal of state statistical information]. <https://www.ukrstat.gov.ua> (in Ukrainian)
6. European Business Association. (2025). *Researches and analytics: indexes and surveys on the business environment in Ukraine*. European Business Association. <https://eba.com.ua/ua/research/doslidzhennya-ta-analityka/>
7. Gao, S., Teh, P.-L., & Ho, H. H.-P. (2026). Digital transformation and innovation in small and medium enterprises (SMEs): a systematic review and future research agenda. *Cogent Business & Management*, 13(1), 1–31. <https://doi.org/10.1080/23311975.2026.2612775>
8. Kahveci, E. (2025). Digital Transformation in SMEs: Enablers, Interconnections, and a Framework for Sustainable Competitive Advantage. *Administrative Sciences*, 15(3), 107. <https://doi.org/10.3390/admsci15030107>
9. Kallmuenzer, A., Mikhaylov, A., Chelaru, M., & Czakon, W. (2025). Adoption and performance outcome of digitalization in small and medium-sized enterprises. *Review of Managerial Science*, 19(7), 2011–2038. <https://doi.org/10.1007/s11846-024-00744-2>
10. Kamyshnykova, E. V., & Mutenko, H. M. (2025). Stratehichne planuvannya tsyfrovoyi transformatsii maloho ta serednoho biznesu [Strategic planning of digital transformation of small and medium-sized business]. *Ekonomichniy prostir – Economic Space*, (206), 86–92. <https://doi.org/10.30838/EP.206.86-92> (in Ukrainian)
11. Kazak, O. O., & Didushok, R. Z. (2025). Tsyfrova transformatsiia maloho ta serednoho biznesu Ukrainy v umovakh voiennoho stanu: vyklyky, mozhlyvosti ta stratehii adaptatsii [Digital transformation of small and medium-sized business in Ukraine under martial law: challenges, opportunities and adaptation strategies]. *European Scientific Journal of Economic and Financial Innovation*, 3(17), 558–567. <http://doi.org/10.32750/2025-0348> (in Ukrainian)
12. Makedon, V., Myachin, V., Alosyna, T., Cherniavska, I., & Karavan, N. (2025). Improving the readiness of enterprises to develop sustainable innovation strategies through fuzzy logic models. *Economic Studies (Ikonomicheski Izsledvania)*, 34(5), 165–179. https://archive.econ-studies.iki.bas.bg/2025/2025_05/2025_05_09.pdf
13. Makedon, V., Myachin, V., Sokol, P., & Hordiichuk, S. (2025). Synchronization of marketing strategies with company restructuring. *Eastern-European Journal of Enterprise Technologies*, 2(13), 71–81. <https://doi.org/10.15587/1729-4061.2025.326377>
14. Marolt, M., Lenart, G., Kljajić Borštnar, M., & Pucihar, A. (2025). Exploring digital transformation journey among micro, small-, and medium-sized enterprises. *Systems*, 13(1), 1. <https://doi.org/10.3390/systems13010001>
15. Moreira, L. L., Pinto, S. S., Costa, L., & Araújo, N. (2025). Evaluating digital transformation in small and medium enterprises using the Alkire-Foster method. *Heliyon*, 11(2), e41838. <https://doi.org/10.1016/j.heliyon.2025.e41838>
16. Moses, V., Nwaolisa, C. T., Popoola, O. J., Nmadu, T., & Ochigbo, A. (2025). Digitalization and sustainable growth of small and medium scale enterprises (SMEs). *International Journal of Science, Applications and Prosperity*, 3(1), 17–37. <https://doi.org/10.5281/zenodo.15359985>
17. Muhammad, S. S., Dey, B. L., Kamal, M. M., Samuel, L., & Alzeiby, E. A. (2025). Digital transformation or digital divide? SMEs' use of AI during global crisis. *Technological Forecasting and Social Change*, (217), 124184. <https://doi.org/10.1016/j.techfore.2025.124184>
18. OECD. (2025). *AI adoption by small and medium-sized enterprises: OECD discussion paper for the G7*. OECD Publishing. <https://doi.org/10.1787/426399c1-en>
19. Panasiuk, V., & Monastyrskyi, H. (2025). Tsyfrovizatsiia ekonomichnykh protsesiv yak chynnyk rozvytku rehionalnoho biznesu [Digitalization of economic processes as a factor in regional business development]. *Ukrainian Journal of Applied Economics and Technology*, 10(2), 205–208. <https://doi.org/10.36887/2415-8453-2025-2-40> (in Ukrainian)

20. Polishchuk, Ye., Herneho, Yu., & Horbov, V. (2025). Tsyfrova transformatsiia relokovanoho biznesu [Digital transformation of relocated business]. *Economy of Ukraine*, 68(5), 53–71. <https://doi.org/10.15407/economyukr.2025.05.053> (in Ukrainian)
21. Quenum, G. G. Y., Vallée, S., & Ertz, M. (2025). The Digital Maturity of Small- and Medium-Sized Enterprises in the Saguenay-Lac-Saint-Jean Region. *Machines*, 13(9), 835. <https://doi.org/10.3390/machines13090835>
22. Senthilvelan, R. (2025). Digital transformation in small and medium enterprises (SMEs): barriers, strategies, and future outlook. *International Journal of Engineering Technology Research & Management*, 9(9), 208–217. <https://doi.org/10.5281/zenodo.17144757>
23. Shapovalova, I. O. (2025). Obgruntuvannia stratehii ekonomichnoho upravlinnia pidpriemstvom v umovakh tsyfrovizatsii [Substantiation of strategies for economic management of an enterprise under digitalization]. *Ukrainian Journal of Applied Economics and Technology*, 10(2), 258–267. <https://doi.org/10.36887/2415-8453-2025-2-51> (in Ukrainian)
24. Siuta-Tokarska, B., Żmija, K., Kruk, S., Krzemiński, P., & Thier, A. (2025). *Digital transformation of small and medium-sized enterprises in the Visegrad countries*. Polskie Wydawnictwo Ekonomiczne. <https://doi.org/10.33226/978-83-208-2633-3>
25. Wang, S., & Zhang, H. (2025). Digital Transformation and Innovation Performance in Small- and Medium-Sized Enterprises: A Systems Perspective on the Interplay of Digital Adoption, Digital Drive, and Digital Culture. *Systems*, 13(1), 43. <https://doi.org/10.3390/systems13010043>
26. Wiratih, H. W. R., Miswan, M., Widada, D., & Mahmudah, S. (2025). Strategic adaptation narratives of small businesses facing digital transformation. *Formosa Journal of Science and Technology*, 4(11), 3645–3658. <https://doi.org/10.55927/fjst.v4i11.311>