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DIGITAL TRANSFORMATION IN SMALL AND MEDIUM-SIZED ENTERPRISES

***Abstract:** this paper examines the role of digital transformation in the development of small and medium-sized enterprises (SMEs). Based on the analysis of empirical studies and international statistical data, the study identifies key areas of digital adoption and their implications for business performance. It is shown that digital technologies enhance firms' adaptability, support process optimization, and expand access to markets. At the same time, the effectiveness of digital transformation depends on the level of digital maturity, availability of skills and resources, and the quality of institutional support. The findings highlight the importance of integrated implementation approaches.*

***Keywords:** digital transformation, small and medium-sized enterprises, productivity, competitiveness, digitalisation, costs, business model.*

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ЦИФРОВАЯ ТРАНСФОРМАЦИЯ МАЛЫХ И СРЕДНИХ ПРЕДПРИЯТИЙ

***Аннотация:** в статье рассматривается роль цифровой трансформации в развитии малых и средних предприятий (МСП). На основе анализа эмпирических*

исследований и международных статистических данных в исследовании определены ключевые области внедрения цифровых технологий и их влияние на эффективность бизнеса. Показано, что цифровые технологии повышают адаптивность фирм, способствуют оптимизации процессов и расширяют доступ к рынкам. В то же время эффективность цифровой трансформации зависит от уровня цифровой зрелости, наличия навыков и ресурсов, а также качества институциональной поддержки. Полученные результаты подчеркивают важность комплексных подходов к реализации.

Ключевые слова: *цифровая трансформация, малые и средние предприятия, производительность, конкурентоспособность, цифровизация, затраты, бизнес-модель.*

In the current environment, the resilience of small and medium-sized enterprises (SMEs) is increasingly determined by their ability to rapidly adapt business processes, sales channels, and modes of customer interaction. At the same time, traditional growth mechanisms no longer consistently provide the flexibility and speed required to respond to market changes. Common responses to these challenges include automation, e-commerce, platform-based solutions, and digital business management services. However, their implementation is often fragmented and does not deliver the expected results without changes in organizational structures and management approaches. Therefore, the challenge lies not only in the diffusion of digital tools, but also in understanding the specific economic effects of digital transformation for SMEs and the conditions under which these effects become sustainable.

Digital transformation in SMEs involves changes in operation, marketing, customer service, and management processes. Its economic significance stems from the ability of digital technologies to help firms partially overcome constraints related to scale, market access, and resource limitations, while enhancing productivity and reducing costs.

OECD survey data suggest that firms primarily perceive digitalization as an economic tool. Among surveyed SMEs, 47% identified increasing domestic sales as a key

objective of adopting digital technologies, 41% pointed to expanding the customer base, and 40% emphasized process automation [3]. In addition, some companies associate digitalization with the search for new revenue streams and the reduction of certain operating costs.

One of the most significant economic effects of digital transformation is productivity growth. A World Bank report indicates that digital activity can lead to substantial improvements in business efficiency. In particular, for micro-enterprises with fewer than 10 employees, a one standard deviation increase in digital platform traffic is associated with an increase in labor productivity of more than 10% [1].

Digital transformation affects not only current performance indicators but also the market position of SMEs. A study by M. Skare, M. de las Mercedes de Obesso, and S. Ribeiro-Navarrete shows that digitalization is associated with an enhanced ability of SMEs to respond to key business challenges, including access to customers, increasing competition, rising costs, limited access to finance, and external shocks [2].

Table 1

Key Challenges Addressed through Digital Transformation in SMEs

Challenge	Effect of Digitalization
Access to customers	Improved via online channels
Competition	Better positioning and differentiation
Rising costs	Partial cost optimization
Lack of financing	Access to digital financial tools
External shocks	Increased adaptability

Overall, digital transformation serves as a strategic capability that strengthens SMEs' adaptability and supports more effective responses to a dynamic and uncertain business environment.

Digital transformation is constrained by limitations in time, skills, and resources. OECD evidence identifies key barriers to SME digitalization, including insufficient time for training, the costs of equipment and maintenance, and shortages of skilled labor and digital competencies [3]. These findings indicate that the economic benefits

of digital solutions do not materialize automatically. Without effective integration into core business operations, digitalization remains superficial and fails to generate significant efficiency gains. Consequently, for SMEs, success depends not only on the adoption of technologies, but also on managerial capabilities, continuous workforce development, and access to reliable support infrastructure.

This issue is particularly significant for the Russian economy given the scale of the SME sector. According to the Ministry of Economic Development of Russia, the total revenue of small and medium-sized enterprises reached 140.5 trillion RUB in 2023, while the number of SMEs increased to 6.35 million [4]. In this context, even efficiency gains among a portion of these firms can make a substantial contribution to overall economic performance. Consequently, the digital transformation of SMEs is important not only at the firm level, but also as a driver of entrepreneurial development, employment, and regional economic growth.

The practical significance of digitalization for Russian SMEs is clearly illustrated by platform-based solutions [4].

Table 2

Performance Indicators of the SME Digital Platform

Indicator	Value
Users	1.1 million
Service requests	7 million
Regions covered	89
Number of services	30+
Microfinancing volume (2024)	18.1 billion RUB
Average interest rate	7.5%

The analysis indicates that the economic effects of digital transformation in SMEs are multifaceted. These include increased sales and productivity, expanded access to customers and markets, partial reductions in operational and transaction costs, enhanced resilience to external shocks, and the creation of conditions for business model

innovation. However, the realization of these benefits depends on the quality of implementation, the level of digital maturity, the availability of human and managerial resources, and access to external support. If digitalization remains superficial and is not accompanied by changes in processes, competencies, and management practices, its economic impact remains limited.

Thus, digital transformation is one of the key drivers of efficiency and competitiveness in small and medium-sized enterprises. Its importance stems from its capacity to help SMEs partially overcome scale constraints, adapt more rapidly to market changes, optimize internal processes, and develop new revenue streams. However, digitalization should not be regarded as a universal solution in itself: sustainable economic outcomes are achieved when technology adoption is combined with capability development, business model transformation, and institutional support.

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