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THE ROLE OF SMALL AND MEDIUM-SIZED ENTERPRISES IN ENSURING SUSTAINABLE ECONOMIC GROWTH IN KAZAKHSTAN

The relevance of the study is determined by the need to ensure sustainable economic growth in Kazakhstan amid structural economic transformation, the growing role of digital technologies, and the increasing importance of small and medium-sized enterprises. The article examines SMEs as a key factor in economic diversification, employment growth, competition development, and the resilience of the national economic system, with particular attention to the impact of digitalization on entrepreneurial activity.

The purpose of the study is to assess the role of SMEs in Kazakhstan's sustainable economic growth and to quantitatively evaluate the impact of digitalization on SME development. The study applies economic-statistical and econometric methods. Growth rates, basic and chain indices of SME development were calculated, and an integral digitalization index was constructed using indicators of Internet penetration, digital literacy, cashless payments, and electronic public services. Regression models were developed to assess the relationship between digitalization and entrepreneurship development.

The results revealed a stable positive relationship between digitalization and the number of active SME entities. The study found that digital infrastructure, digital financial instruments, and electronic public services help reduce market entry barriers, improve business efficiency, and expand access to financial and public services. The conclusions emphasize the need for a comprehensive SME support policy focused on digital infrastructure, digital literacy, digital finance, and electronic public administration. The findings may be used in developing public policy measures to support entrepreneurship and sustainable economic growth in Kazakhstan.

Keywords: small and medium-sized enterprises, Kazakhstan, sustainable development, economic growth, entrepreneurial activity, digitalization, infrastructure, competitiveness, government support.

Кілт сөздер: шағын және орта кәсіпкерлік, Қазақстан, тұрақты даму, экономикалық өсу, кәсіпкерлік белсенділік, цифрландыру, инфрақұрылым, бәсекеге қабілеттілік, мемлекеттік қолдау.

Ключевые слова: малое и среднее предпринимательство, Казахстан, устойчивое развитие, экономический рост, предпринимательская активность, цифровизация, инфраструктура, конкурентоспособность, государственная поддержка.

Introduction. The relevance of the study is determined by the growing role of small and medium-sized enterprises (hereinafter referred to as SMEs) in ensuring sustainable economic growth amid the structural transformation of the economy, intensifying global competition, and the active development of digital technologies. In modern conditions, SMEs are regarded as one of the key elements of the economic system, contributing to economic diversification, job creation, increased innovation activity, regional development, and the formation of a competitive environment. For Kazakhstan, the development of SMEs is of particular importance in the context of reducing dependence on the raw materials sector, expanding non-resource-based sources of growth, and transitioning to a model of sustainable and inclusive economic development.

In recent years, Kazakhstan has demonstrated positive dynamics in the development of the entrepreneurial sector, accompanied by an increase in the number of SME entities and the expansion of their participation in the economy. At the same time, structural constraints persist, related to territorial

differentiation, access to finance, the level of digital infrastructure, administrative barriers, and differences in the digital readiness of entrepreneurs. This requires a comprehensive scientific analysis of the factors determining SME development and its contribution to sustainable economic growth.

Digitalization of the economy is becoming particularly significant in modern conditions, acting as an important factor in the transformation of entrepreneurial activity. The spread of Internet technologies, the development of digital financial instruments, and the introduction of electronic public services create new conditions for doing business, reduce transaction costs, simplify interaction with government authorities, and expand entrepreneurs' access to markets. In this regard, the study of the impact of digitalization on SME development and the assessment of its significance for sustainable economic growth in Kazakhstan are becoming highly relevant.

The scientific novelty of the study lies in the application of an integral digitalization index to assess the impact of digital transformation on SME development, as well as in the use of econometric modelling to identify the nature of the relationship between digital factors and the dynamics of entrepreneurial activity. The practical significance of the study is determined by the possibility of using the results obtained in the development of public policy in the field of entrepreneurship support, digitalization of the economy, and ensuring sustainable economic development in the Republic of Kazakhstan.

The purpose of the study is to identify the factors determining the development of small and medium-sized enterprises in Kazakhstan and to assess the impact of digitalization on entrepreneurial activity in the context of sustainable economic growth.

To achieve this purpose, the following objectives were defined: to examine theoretical approaches to determining the role of SMEs in ensuring sustainable economic development; to analyze the dynamics of small and medium-sized enterprise development in Kazakhstan; to identify the main digital factors influencing entrepreneurial activity; to construct an integral digitalization index based on relevant indicators; and to assess the relationship between the level of digitalization and SME development using economic-statistical and econometric methods.

The information base of the study consisted of official statistical data from the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, analytical materials on the development of small and medium-sized enterprises, as well as open data characterizing the level of digitalization of the economy, the development of Internet infrastructure, digital literacy, cashless payments, and electronic public services.

The methodological basis of the study comprised methods of systemic and comparative analysis, generalization of scientific literature, economic-statistical analysis, the index method, and correlation and regression analysis. Growth rates, basic and chain indices were used to assess the dynamics of SME development. To summarize digital factors, an integral digitalization index was constructed based on the standardization of initial indicators. Econometric modelling was applied to assess the nature of the relationship between the level of digitalization and the number of active SME entities.

Literature review. Contemporary foreign literature generally considers SMEs as one of the key mechanisms of sustainable growth, most often in connection with digital transformation, innovation, institutions, and access to infrastructure. In the systematic review by Marcela Marçal Alves Pinto Mick et al. (2024), it is shown that for SMEs, digital transformation is no longer limited to the introduction of individual technologies. The researchers emphasize the need for comprehensive roadmaps that integrate digitalization and sustainability [1]. Empirical studies of recent years confirm that the impact of digitalization on SME performance is generally positive, but not always linear. Thus, Tripathi and Singh (2024), analyzing a sample of SMEs in Saudi Arabia, showed that awareness of digital transformation and readiness for it statistically improve business performance, while skills, intention to use technologies, and government support act as mediating factors [2]. At the same time, Chen et al. (2024) draw attention to the fact that digitalization improves SME performance only up to a certain level, after which, in the case of weak alignment between technologies and business strategy, returns may decline. Technological and business alignment, as well as external social capital, act as positive moderators [3].

Other authors associate SME digitalization with competitiveness and productivity. A study of manufacturing SMEs in Portugal shows that a higher level of digital maturity is associated with better indicators of labour productivity and export productivity; therefore, digital maturity becomes a factor not only of operational efficiency but also of the sustainability of the market positions of businesses (Agostinho da Silva & Carlos Capela, 2025) [4]. This position is complemented by the review by Bella, R.L.F. et al. (2024), in which SMEs are considered central participants in the processes of both sustainability and

digitalization, directly linking the future of the sector with its ability to combine digital solutions and the principles of sustainable development [5].

For countries with transition and developing economies, the institutional context is also important. Munir (2025), studying 27 Muslim countries, shows that institutional quality and digital infrastructure have a positive impact on the creation of new businesses. The author concludes that government reforms and digital investments need to be combined in order to achieve the goals of inclusive growth [6]. A similar conclusion is presented in the work of Jude Edeh (2025), which describes that, for SMEs in transition economies, export performance is strengthened when infrastructure, digitalization, and innovation capabilities are combined [7].

In Kazakhstani studies, two main groups of research can be distinguished. The first group is devoted to the general role of SMEs in the national economy and measures for their support. Ashimova Zh.R. (2025) considers SMEs as a key component of Kazakhstan's economic structure, emphasizing their role in employment, innovation, and the formation of a competitive environment [8]. Dosmambetova (2024) analyzes the existing measures of support for small and medium-sized businesses in Kazakhstan, including financial and non-financial instruments, which is important for understanding the institutional conditions for the sustainable growth of the sector [9]. Special attention should also be paid to the work of Kazbekova D. (2024), based on Kazakhstani data on mechanisms for stimulating SME growth in the manufacturing industry of Kazakhstan. The study identifies expenditures on technological innovation, the level of innovation activity, wages, and investment in fixed capital as significant factors, and proposes a scenario-based approach and a set of mechanisms for state stimulation [10]. Tsakalerou M. (2025), developing the Kazakhstan Digital Readiness Index, shows that although Kazakhstan's overall digital readiness is close to the European average, sharp differences remain within the country across individual dimensions, with digital public services being a particularly strong area [11]. Susanne Fehlings (2025), studying small businesses in Kazakhstan and Georgia, shows that Kazakhstani small entrepreneurs adapted to post-COVID shocks through online sales, fintech, and Instagram commerce. Thus, digitalization acts not only as a factor of growth but also as a mechanism of business resilience to external shocks [12].

Studies in related areas of innovative entrepreneurship in Kazakhstan are also of interest. Bauyrzhan M. Yedgenov (2025), based on data from 140 commercialization projects, demonstrates the significance of financing, co-financing, and capital investment for the commercial success of scientific projects, indirectly confirming the importance of the innovation environment and investment mechanisms for the expansion of the entrepreneurial sector [13].

It can be noted that foreign studies are dominated by three consistent conclusions: digitalization usually enhances SME performance; the institutional and infrastructural environment is critically important for entrepreneurial activity; and sustainable growth requires not only the quantitative expansion of the sector but also the growth of its digital maturity. Kazakhstani publications confirm these provisions, but they focus either on describing SME dynamics and support measures or on separate aspects of digitalization and innovation.

Thus, contemporary literature still lacks sufficient research in which the role of SMEs in ensuring sustainable economic growth in Kazakhstan is assessed comprehensively, with simultaneous consideration of macroeconomic dynamics, digital infrastructure, digital finance, and electronic government.

The main part. Small and medium-sized enterprises are one of the key elements of the resilience of the economy of the Republic of Kazakhstan, as they ensure the diversification of the economic structure, the expansion of employment, the development of a competitive environment, and an increase in the adaptability of the economy to external shocks. Under conditions of digital transformation, the importance of SMEs is increasing, since digital tools reduce barriers to market entry, expand access to financial and public services, and create new opportunities for the development of entrepreneurial activity.

The indicators of Kazakhstan's macroeconomic resilience for 2015-2025 are characterized by multidirectional dynamics. During the period under review, the country's economy demonstrated recovery after crisis phenomena, including the downturn of 2020, while the influence of inflationary processes, changes in the debt burden, and fluctuations in the current account persisted. These factors form the external and internal framework of the resilience of the economy of the Republic of Kazakhstan, within which the small and medium-sized enterprise sector develops and the role of digitalization increases [14].

Government support for business, including tax incentives, a reduction in the regulatory burden, simplified registration of individual entrepreneurs, as well as expanded access to credit resources, helped SMEs overcome the crisis year of 2020 and resume growth. The growth in output in 2021-2022 was

supported by the migration of companies from Russia, which peaked in 2022, as well as by the introduction of a moratorium on inspections of SMEs for the period from January 1, 2020 to January 1, 2024, which reduced the administrative burden on business (Figure 1).

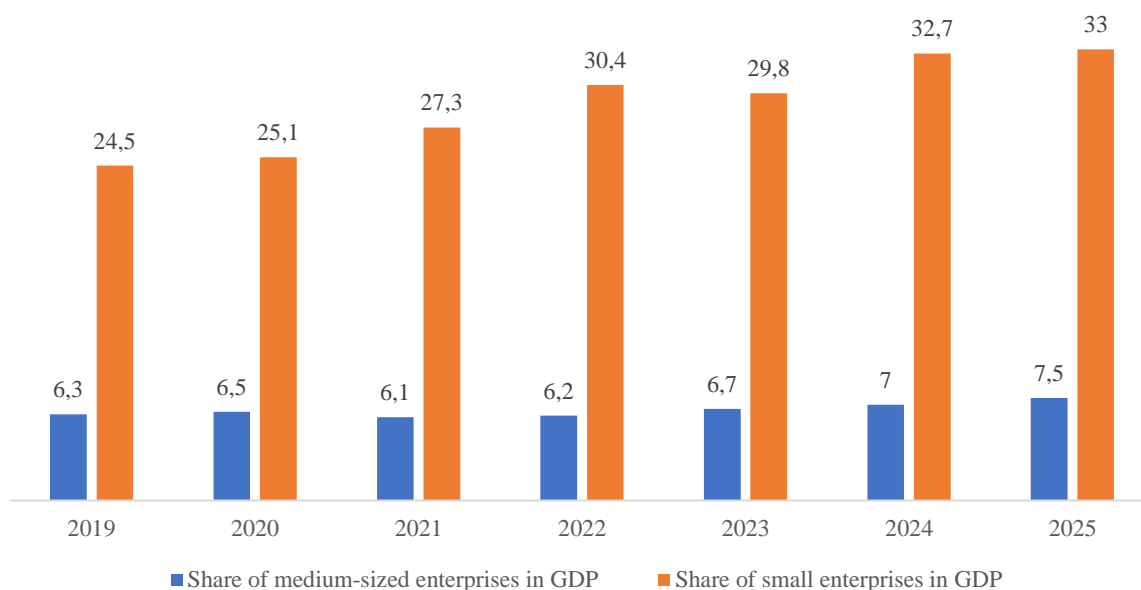


Figure – 1. **Growth in economic activity of the SME sector, %***

*Compiled by the authors based on source [14]

The growth of economic activity in the SME sector led to an increase in the share of gross value added generated by SMEs in the economy to 39.7% in 2024, compared with 30.8% of GDP in 2019. In accordance with the Concept for SME Development in Kazakhstan, its share in GDP should reach 36% in 2026.

In the structure of SMEs, the largest share is represented by individual entrepreneurs (69.7%) and small enterprises (17.5%); peasant farms account for 12.6%, while legal entities of medium-sized entrepreneurship account for 0.2% (Figure 2).

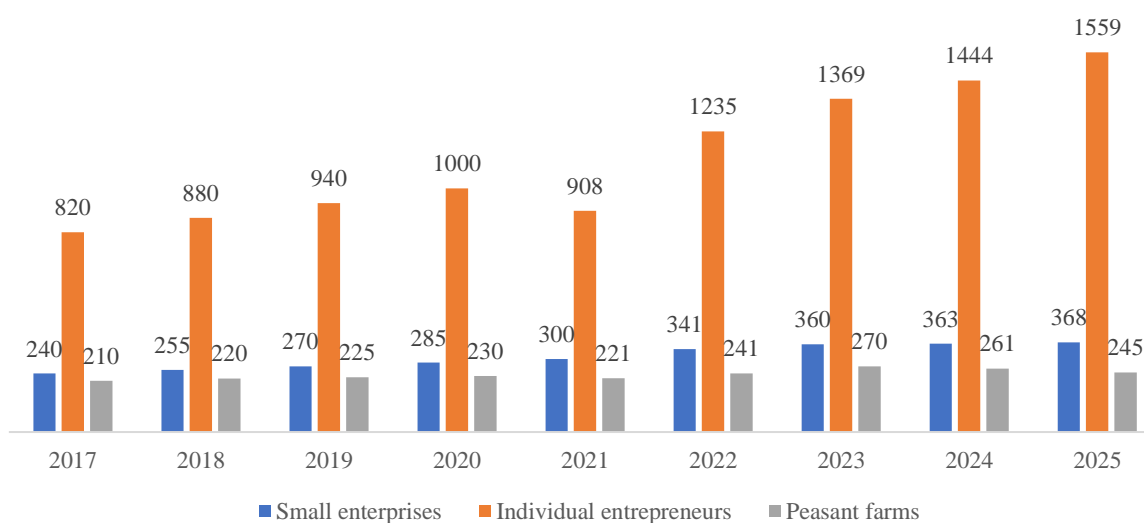


Figure – 2. **Dynamics of active SMEs for the period 2017-2025, thousand units***

*Compiled by the authors based on source [14, 15]

Extending the time series from 2017 makes it possible to identify a stable upward trend in the number of SME entities in Kazakhstan, especially in the segment of individual entrepreneurs. The analysis of

official data shows that over the period 2017-2025, the number of active entities increased by 1.7 times, from 1.27 million to 2.17 million units.

During the analyzed period, the number of individual entrepreneurs more than doubled, reflecting a structural shift towards flexible forms of employment and the development of self-employment, the share of which consistently exceeds 70%, reflecting the development of self-employment and the digital economy. The dynamics of small enterprises also demonstrate gradual growth, whereas the peasant farm sector is characterized by more moderate and unstable dynamics associated with the institutional and sectoral features of the agricultural sector.

Medium-sized businesses have higher growth potential compared with small businesses due to their larger scale, which allows them to use resources more efficiently, introduce innovations, and scale up production. The analysis of the dynamics of SME entities in the Republic of Kazakhstan for 2017-2025 shows a stable growth trend with an average annual growth rate of 6.9%.

At the same time, the dynamics of SME development are characterized by high volatility. Despite a temporary decline in 2021 caused by post-crisis effects, the subsequent period was characterized by accelerated recovery and expansion of entrepreneurial activity.

The dynamics of SME entities in the Republic of Kazakhstan demonstrate a close relationship with the processes of digital transformation of the economy. The growth of basic indices, reaching 171.3% by 2025, reflects not only the quantitative expansion of the SME sector but also qualitative changes associated with the introduction of digital technologies into entrepreneurial activity.

The steady growth of basic indices indicates that the digital environment contributes to the long-term expansion of the entrepreneurial sector. The impact of digitalization is particularly noticeable in the post-pandemic period, when the introduction of online services accelerated, e-commerce expanded, and the transition of businesses to digital channels intensified.

Chain indices reflect the response of SMEs to external shocks and digital adaptation, showing annual fluctuations as well as short-term dynamics and the influence of crisis processes. In 2021, the chain index amounted to 89.6%, reflecting a decline associated with the consequences of the crisis and the need for digital transformation. In 2022, the indicator increased to 129.7%, which was due to the mass transition of businesses to online formats, the development of digital services, and government support for digitalization. In 2023-2025, stabilization of the dynamics is observed, which may indicate a transition from extensive growth to a more qualitative development of digital business.

The application of basic and chain indices makes it possible to obtain a comprehensive understanding of SME development: basic indices capture the strategic growth trajectory, while chain indices identify cyclical fluctuations and adaptation processes in the economy (Figure 3).



Figure – 3. Comparison of basic and chain indices of the dynamics of SME entities in the RK, %*
 *Compiled by the authors based on the calculations performed

A comparative analysis of the basic and chain indices of the dynamics of SME entities in the Republic of Kazakhstan shows that the long-term development trend is characterized by stable growth, as confirmed by an increase in the basic index to 171.3% in 2025. Chain indices reflect significant volatility in short-term dynamics, including a decline in 2021 and subsequent recovery in 2022, indicating the high sensitivity of the SME sector to external economic shocks and institutional changes.

The comparison of basic and chain indices of SME dynamics with the processes of economic digitalization makes it possible to conclude that digital transformation is a key factor in the growth of entrepreneurial activity in Kazakhstan. The long-term growth of the SME sector is driven by the expansion of digital infrastructure, the development of platform-based solutions, and the reduction of institutional barriers for business. At the same time, short-term fluctuations reflected in chain indices demonstrate the adaptability of the entrepreneurial sector to external shocks, with digitalization acting as an instrument for rapid recovery and increasing business resilience.

Digitalization forms a new model of entrepreneurship based on flexibility, technological advancement, and a high degree of integration into the digital economy, strengthening the role of SMEs as a key driver of sustainable socio-economic development in the Republic of Kazakhstan.

To assess the impact of digitalization on entrepreneurial activity, an econometric model may be used, in which the number of active SME entities serves as the dependent variable, while indicators of digital infrastructure, digital finance, and electronic government are used as factors:

X1 – share of Internet users;

X2 – indicator of fintech development, for example, the share of cashless payments;

X3 – intensity of eGov use, for example, the number of electronic public services provided (Table 1).

Table – 1

Indicators characterizing the resilience of SMEs amid the digitalization of the economy*

Year	SMEs, thousand	Internet, %	Digital literacy, %	Cashless payments, %	eGov services, million tenge
2018	1355	81,3	79,6	48	12
2019	1435	82,5	80,3	60	15
2020	1515	85,0	82,0	67	20
2021	1357	92,9	87,3	75	24
2022	1760	93,5	88,0	82	28
2023	2042	94,2	89,5	86	30
2024	2029	95,0	90,0	89	32
2025	2176	96,0	91,0	92	34

*Compiled by the authors based on source [14]

$$MSPt = \beta_0 + \beta_1INTt + \beta_2FINT + \beta_3EGOVt + \varepsilon t \quad (1)$$

where:

MSPt – number of active entities;

INTt – share of Internet users, %;

FINT – fintech indicator;

eGOVt – indicator of the digitalization of public services.

Each indicator is standardized using a z-score:

$$z_i = \frac{x_i - \bar{x}}{\sigma} \quad (2)$$

where:

x_i – value of the indicator in year i ;

\bar{x} – average value of the indicator for the entire period;

σ – standard deviation.

The average values were calculated as follows:

1) Internet:

$$\bar{x}INT = 81,3 + 82,5 + 85,0 + 92,9 + 93,5 + 94,2 + 95,0 + 96,0 / 8 = 90,05 \quad (3)$$

$$\sigma INT = 5,82 \quad (4)$$

2) Digital literacy:

$$\bar{x}DIG = 79,6 + 80,3 + 82,0 + 87,3 + 88,0 + 89,5 + 90,0 + 91,0 / 8 = 85,96 \quad (5)$$

$$\sigma DIG = 4,45 \quad (6)$$

3) Cashless payments:

$$\bar{x}FIN = 48 + 60 + 67 + 75 + 82 + 86 + 89 + 92 / 8 = 74,88 \quad (7)$$

$$\sigma FIN = 15,25 \quad (8)$$

4) eGov services:

$$\bar{x}eGOV = 12 + 15 + 20 + 24 + 28 + 30 + 32 + 34 / 8 = 24,38 \quad (9)$$

$$\sigma eGOV = 8,09 \quad (10)$$

Based on the standardized values of the initial indicators, an integral digitalization index was constructed. The value of IDIG consistently increased from -1.56 in 2018 to 1.12 in 2025, reflecting the strengthening of the digital transformation of the economy during the period under review. The use of an integral index makes it possible, on the one hand, to reduce the problem of multicollinearity and, on the other hand, to obtain a generalized quantitative assessment of the impact of digital transformation on entrepreneurial activity.

In order to quantitatively assess the impact of digitalization on the development of entrepreneurial activity, regression analysis was applied, within which the digitalization index is considered as the explanatory variable, while the number of active SME entities is used as the dependent variable (Table 2).

Table – 2

Results of the regression analysis of the impact of digitalization on SMEs*

Variable	Coefficient β	Std.Error	t-statistic	p-value	Explanation
Constant	-505,8	165,2	-3,06	0,036	Baseline level when the factors take zero values
Internet (INT)	19,7	5,8	3,39	0,028	A 1% increase in Internet use leads to an increase of 19.7 thousand SMEs
Fintech (FIN)	13,6	3,7	3,68	0,021	Growth in cashless payments strengthens the SME sector
eGOV (EGOV)	10,4	3,1	3,35	0,030	The development of eGov reduces barriers for business

*Compiled by the authors based on the calculations performed

Although the constructed model with separate digital factors demonstrates high explanatory power, potential multicollinearity between variables reflecting different aspects of a single digitalization process should be taken into account. In this regard, the use of an integral indicator is justified, as it makes it possible to summarize the impact of digital transformation on entrepreneurial activity. The construction of such an

indicator, namely the digitalization index, reduces the dimensionality of the model, eliminates excessive correlation among factors, and allows for a more robust and compact assessment of the impact of the digital environment on SME development.

To move towards a more generalized assessment of the relationship between the digital transformation of the economy and the dynamics of SME entities, an alternative model specification was considered, in which the combined impact of digital factors is represented through a single integral digitalization index. Based on the calculations obtained, the model takes the following form:

$$MSP = 1015 + 455 \times IDIG \quad (11)$$

Econometric modelling showed that digitalization has a statistically significant impact on SME development in the Republic of Kazakhstan. The development of digital financial technologies and the spread of the Internet have the most substantial effect, as confirmed by positive and significant regression coefficients. For example, in 2024, the volume of e-commerce services in Kazakhstan reached KZT 2,443.4 billion, while the Government for Citizens provided more than 22 million public services, confirming the growth of the digital business environment.

The coefficient of determination $R^2 = 0.95$ indicates the high explanatory power of the model. Approximately 95% of the variation in the number of SMEs is explained by digital factors, which indicates the significance of digital transformation as a driver of entrepreneurial activity growth. The adjusted R^2 was 0.94, the F-statistic was 46.2, and the p-value (F) was 0.001. The coefficient for the digitalization index was 455, and its statistical significance increased to $p < 0.01$, indicating the high robustness of the obtained relationship.

The integral digitalization index serves as an effective tool for the quantitative assessment of the impact of digital transformation on entrepreneurship development. The higher the level of digitalization of the economy, the greater the number of active SME entities, since an increase in the integral digitalization index by one conventional unit leads to an increase in the number of SMEs by approximately 455 thousand units.

For the further development of SMEs based on digitalization, it is advisable to implement the following measures:

1) it is necessary to continue developing digital infrastructure, especially in rural and peripheral areas, where limited access to high-speed Internet constrains entrepreneurial activity and intensifies territorial disparities;

2) measures aimed at improving the digital literacy of the population and entrepreneurs should be strengthened. Particular attention should be paid to training SME entities in the use of digital platforms, electronic document management, online banking, marketplaces, and cybersecurity tools;

3) it is important to expand digital financial instruments, including simplified access to online lending, digital payment services, fintech solutions, and alternative financing platforms, which is particularly important for start-up entrepreneurs and microbusinesses;

4) the electronic government ecosystem should be improved by further reducing administrative procedures, transferring permitting and registration processes into a fully digital format, and integrating public services based on the one-stop-shop principle;

5) targeted measures to support the digital transformation of SMEs should be developed, including subsidies for digital solutions, tax incentives for the implementation of IT products, grant support for the automation of business processes, and the development of regional digital support centres for entrepreneurship;

6) to improve the validity of public policy, it is recommended to introduce a system for regular monitoring of the relationship between the level of digitalization and SME development based on integral indices, correlation and regression analysis, and scenario forecasting.

Thus, the further expansion of the digital environment should be considered a strategic condition for SME growth, improving business competitiveness, and strengthening the resilience of Kazakhstan's economy as a whole.

Conclusion. The conducted study confirms that SMEs are one of the key factors in ensuring sustainable economic growth in the Republic of Kazakhstan. The analysis of the dynamics of the number of active SME entities, basic and chain indices, as well as macroeconomic indicators, showed a stable trend

towards the expansion of the entrepreneurial sector, despite short-term fluctuations caused by external economic shocks and crisis phenomena.

It was established that SMEs perform a system-forming function in the economy, contributing to the diversification of the economic structure, job creation, regional development, and greater flexibility of the economic system. The contribution of SMEs to the formation of domestic demand, the reduction of dependence on raw-material industries, and the development of a competitive environment is particularly significant. Econometric analysis made it possible to identify a close relationship between the development of digitalization and the growth of entrepreneurial activity. The constructed models showed that digital transformation, including the development of Internet infrastructure, digital financial instruments, and electronic public administration, has a statistically significant positive impact on the increase in the number of SME entities. This provides an understanding that a new digital entrepreneurial environment is being formed, in which barriers to market entry are reduced and the efficiency of doing business is improved. At the same time, structural constraints on SME development were identified, including territorial heterogeneity, differences in the level of digital accessibility, and dependence on macroeconomic conditions, indicating the need to move towards a more differentiated and spatially oriented entrepreneurship support policy.

The novelty of the study lies in the comprehensive assessment of the role of SMEs in ensuring sustainable economic growth in Kazakhstan, taking into account digitalization factors, as well as in the application of an integral digitalization index for the quantitative assessment of the impact of digital transformation on the development of entrepreneurial activity. The practical significance of the results obtained lies in the possibility of using them in the development of measures for state support of SMEs, the development of digital infrastructure, the expansion of digital financial instruments, and the improvement of electronic public administration.

Promising areas for further research include conducting a regional analysis of the impact of digitalization on SME development, assessing sectoral differences in entrepreneurial activity, and constructing forecasting models for SME development taking into account macroeconomic, institutional, and digital factors.

Thus, SMEs should be considered not only as an element of the economic system, but also as a strategic resource for sustainable development, capable of ensuring long-term economic growth, the adaptability of the economy, and an increase in its competitiveness under conditions of digital transformation.

REFERENCES

1. Mick M.M.A.P., Kovaleski J.L., Chirolu D.M.G. Sustainable Digital Transformation Roadmaps for SMEs: A Systematic Literature Review // *Sustainability*. – 2024. – №19(16). – 8551 p. – DOI: 10.3390/su16198551
2. Tripathi A., Singh A. SMEs Awareness and Preparation for Digital Transformation: Exploring Business Opportunities for Entrepreneurs in Saudi Arabia's Ha'il Region // *Sustainability*. – 2024. – №9(16). – 3831 p. – DOI: 10.3390/su16093831
3. Chen X., Zhang X., Cai Z., Chen J. The Non-Linear Impact of Digitalization on the Performance of SMEs: A Hypothesis Test Based on the Digitalization Paradox // *Systems*. – 2024. – №4(12). – 139 p. – DOI: 10.3390/systems12040139
4. Da Silva A., Duarte de Almeida I., Dionisio A., Rabadão C., Capela C. How digital technologies enhance competitiveness in manufacturing SMEs // *Journal of Innovation and Entrepreneurship*. – 2025. – №14. – 103 p. – DOI: 10.1186/s13731-025-00576-8
5. Bella R.L.F., Leal Filho W., Sigahi T.F.A.C., Rampasso I.S., Quelhas O.L.G., Bella L.F., Marcondes de Moraes G.H.S., Anholon R. Small- and Medium-Sized Enterprises: Trends and Future Perspectives for Sustainability and Digitalization in Germany // *Sustainability*. – 2024. – №16(16). – 6900 p. – DOI: 10.3390/su16166900
6. Munir S. Accelerating entrepreneurial ecosystems in Muslim-majority countries: the impact of institutional quality, digital infrastructure, and economic factors on new business formation // *Future Business Journal*. – 2025. – №11. – 219 p. – DOI: 10.1186/s43093-025-00647-y

7. Edeh J., Olarewaju A.D., Kusi S.Y. What drives SME export intensity in transition economies? The role of infrastructure, digitalisation and innovation capabilities // *Technological Forecasting and Social Change*. – 2025. – №215. – 124123 p. – DOI: 10.1016/j.techfore.2025.124123
8. Ашимова Ж.Р., Абитов Ж.З., Абитова Д.З., Уристе́мбек А.М. Анализ проблем и перспектив развития малого и среднего предпринимательства в Республике Казахстан // *Теоретическая экономика*. – 2025. – №1. – С. 56–71. – DOI: 10.52957/2221-3260-2025-1-56-71
9. Досмамбетова Г.А. Анализ и перспективы развития мер поддержки малого и среднего бизнеса в Казахстане // *The scientific heritage*. – 2024. – №151. – DOI: 10.5281/zenodo.14555984
10. Kazbekova D., Petrova M., Sushchenko O., Belgibayeva A., Mitkov M. Mechanisms of Stimulation of Small- and Medium-Sized Entrepreneurship: The Experience of Kazakhstan // *Journal of Risk and Financial Management*. – 2024. – №7(17). – 257 p. – DOI: 10.3390/jrfm17070257
11. Tsakalerou M., Batyrbek B., Bekzhan A., Askerova S., Khamitova A., Mobayo J.O. Tailoring digital transformation: A customized DESI framework for economic and societal growth // *Telematics and Informatics Reports*. – 2025. – №19. – DOI: 10.1016/j.teler.2025.100244
12. Fehlings S., Karrar H.H., Rudaz P. Small businesses and new adaptation capacities in Georgia and Kazakhstan // *World Development*. – 2025. – №191. – 106993 p. – DOI: 10.1016/j.worlddev.2025.106993
13. Yedgenov B., Alibekova G., Mynbayeva E., Kozhakhmetova A. Determinants of effective commercialization of scientific projects: Empirical evidence from Kazakhstan // *Journal of Open Innovation: Technology, Market, and Complexity*. – 2025. – №4(11). – DOI: 10.1016/j.joitmc.2025.100683
14. Бюро национальной статистики Агентства по стратегическому планированию и реформам Республики Казахстан. – URL: <https://stat.gov.kz>
15. Игенбекова С. Малый и средний бизнес Казахстана: перспективы и вызовы. – URL: <https://halykfinance.kz/analiticheskiy-centr/malyy-i-sredniy-biznes-kazahstana-perspektivy-i-vyzovy.html?lang=ru>

REFERENCES

1. Mick M.M.A.P., Kovaleski J.L., Chirolu D.M.G. Sustainable Digital Transformation Roadmaps for SMEs: A Systematic Literature Review // *Sustainability*. – 2024. – №19(16). – 8551 p. – DOI: 10.3390/su16198551
2. Tripathi A., Singh A. SMEs Awareness and Preparation for Digital Transformation: Exploring Business Opportunities for Entrepreneurs in Saudi Arabia's Ha'il Region // *Sustainability*. – 2024. – №9(16). – 3831 p. – DOI: 10.3390/su16093831
3. Chen X., Zhang X., Cai Z., Chen J. The Non-Linear Impact of Digitalization on the Performance of SMEs: A Hypothesis Test Based on the Digitalization Paradox // *Systems*. – 2024. – №4(12). – 139 p. – DOI: 10.3390/systems12040139
4. Da Silva A., Duarte de Almeida I., Dionisio A., Rabadão C., Capela C. How digital technologies enhance competitiveness in manufacturing SMEs // *Journal of Innovation and Entrepreneurship*. – 2025. – №14. – 103 p. – DOI: 10.1186/s13731-025-00576-8
5. Bella R.L.F., Leal Filho W., Sigahi T.F.A.C., Rampasso I.S., Quelhas O.L.G., Bella L.F., Marcondes de Moraes G.H.S., Anholon R. Small- and Medium-Sized Enterprises: Trends and Future Perspectives for Sustainability and Digitalization in Germany // *Sustainability*. – 2024. – №16(16). – 6900 p. – DOI: 10.3390/su16166900
6. Munir S. Accelerating entrepreneurial ecosystems in Muslim-majority countries: the impact of institutional quality, digital infrastructure, and economic factors on new business formation // *Future Business Journal*. – 2025. – №11. – 219 p. – DOI: 10.1186/s43093-025-00647-y
7. Edeh J., Olarewaju A.D., Kusi S.Y. What drives SME export intensity in transition economies? The role of infrastructure, digitalisation and innovation capabilities // *Technological Forecasting and Social Change*. – 2025. – №215. – 124123 p. – DOI: 10.1016/j.techfore.2025.124123
8. Ashimova Zh., Abitov Zh., Abitova D., Uristembek A. Analiz problem i perspektiv razvitiya malogo i srednego predprinimatel'stva v Respublike Kazahstan [Analysis of problems and prospects for the development of small and medium-sized enterprises in the Republic of Kazakhstan] // *Teoreticheskaja jekonomika*. – 2025. – №1. – С. 56–71. – DOI: 10.52957/2221-3260-2025-1-56-71 [in Russian]

9. Dosmambetova G. Analiz i perspektivy razvitiya mer podderzhki malogo i srednego biznesa v Kazahstane [Analysis and prospects for the development of support measures for small and medium-sized businesses in Kazakhstan] // The scientific heritage. – 2024. – №151. – DOI: 10.5281/zenodo.14555984 [in Russian]
10. Kazbekova D., Petrova M., Sushchenko O., Belgibayeva A., Mitkov M. Mechanisms of Stimulation of Small- and Medium-Sized Entrepreneurship: The Experience of Kazakhstan // Journal of Risk and Financial Management. – 2024. – №7(17). – 257 p. – DOI: 10.3390/jrfm17070257
11. Tsakalerou M., Batyrbek B., Bekzhan A., Askerova S., Khamitova A., Mobayo J.O. Tailoring digital transformation: A customized DESI framework for economic and societal growth // Telematics and Informatics Reports. – 2025. – №19. – DOI: 10.1016/j.teler.2025.100244
12. Fehlings S., Karrar H.H., Rudaz P. Small businesses and new adaptation capacities in Georgia and Kazakhstan // World Development. – 2025. – №191. – 106993 p. – DOI: 10.1016/j.worlddev.2025.106993
13. Yedgenov B., Alibekova G., Mynbayeva E., Kozhakhmetova A. Determinants of effective commercialization of scientific projects: Empirical evidence from Kazakhstan // Journal of Open Innovation: Technology, Market, and Complexity. – 2025. – №4(11). – DOI: 10.1016/j.joitmc.2025.100683
14. Bjuro nacional'noj statistiki Agentstva po strategicheskomu planirovaniyu i reformam Respubliki Kazahstan. [Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan]. – URL: <https://stat.gov.kz> [in Russian]
15. Igenbekova S. Malyj i srednij biznes Kazahstana: perspektivy i vyzovy [Small and medium-sized business in Kazakhstan: prospects and challenges]. – URL: <https://halykfinance.kz/analiticheskiy-centr/malyy-i-srednij-biznes-kazahstana-perspektivy-i-vyzovy.html?lang=ru> [in Russian]

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ҚАЗАҚСТАНДА ТҰРАҚТЫ ЭКОНОМИКАЛЫҚ ӨСУДІ ҚАМТАМАСЫЗ ЕТУДЕГІ ШАҒЫН ЖӘНЕ ОРТА КӘСІПкерліктің рөлі

Аннотация

Зерттеудің өзектілігі Қазақстанда экономиканың құрылымдық трансформациясы, цифрлық технологиялардың рөлінің артуы және шағын және орта кәсіпкерліктің маңыздылығының күшеюі жағдайында тұрақты экономикалық өсуді қамтамасыз ету қажеттілігімен негізделеді. Мақалада шағын және орта кәсіпкерлік экономиканы әртараптандырудың, жұмыспен қамтуды арттырудың, бәсекелестік ортаны дамытудың және ұлттық экономикалық жүйенің тұрақтылығын нығайтудың маңызды факторы ретінде қарастырылады. Ерекше назар цифрландырудың кәсіпкерлік белсенділікке ықпалына аударылады.

Зерттеудің мақсаты – Қазақстанның тұрақты экономикалық өсуін қамтамасыз етудегі шағын және орта кәсіпкерліктің рөлін бағалау, сондай-ақ цифрландырудың шағын және орта кәсіпкерліктің дамуына әсерін сандық тұрғыдан айқындау. Зерттеу барысында экономикалық-статистикалық және эконометрикалық талдау әдістері қолданылды. Шағын және орта кәсіпкерліктің даму қарқыны, базистік және тізбекті индекстері есептелді, сондай-ақ интернеттің таралуы, цифрлық сауаттылық, қолма-қол ақшасыз төлемдер және электрондық мемлекеттік қызметтер көрсеткіштері негізінде интегралды цифрландыру индексі құрастырылды. Цифрландыру мен кәсіпкерліктің дамуы арасындағы байланысты бағалау үшін регрессиялық модельдер әзірленді.

Зерттеу нәтижелері цифрландыру деңгейі мен жұмыс істеп тұрған шағын және орта кәсіпкерлік субъектілерінің саны арасында тұрақты оң байланыстың бар екенін көрсетті. Цифрлық инфрақұрылым, цифрлық қаржы құралдары және электрондық мемлекеттік қызметтер нарыққа кіру кедергілерін азайтуға, бизнестің тиімділігін арттыруға, сондай-ақ қаржылық және мемлекеттік қызметтерге қолжетімділікті кеңейтуге ықпал ететіні анықталды.

Қорытындыда шағын және орта кәсіпкерлікті қолдаудың цифрлық инфрақұрылымды дамытуға, цифрлық сауаттылықты арттыруға, цифрлық қаржыны кеңейтуге және электрондық мемлекеттік басқаруды жетілдіруге бағытталған кешенді саясатын қалыптастыру қажеттілігі негізделеді. Зерттеу нәтижелері Қазақстанда кәсіпкерлікті қолдау және тұрақты экономикалық өсуді қамтамасыз ету жөніндегі мемлекеттік саясат шараларын әзірлеуде пайдаланылуы мүмкін.

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РОЛЬ МАЛОГО И СРЕДНЕГО ПРЕДПРИНИМАТЕЛЬСТВА В ОБЕСПЕЧЕНИИ УСТОЙЧИВОГО ЭКОНОМИЧЕСКОГО РОСТА В КАЗАХСТАНЕ

Аннотация

Актуальность исследования обусловлена необходимостью обеспечения устойчивого экономического роста в Казахстане в условиях структурной трансформации экономики, возрастающей роли цифровых технологий и усиления значения малого и среднего предпринимательства. В статье малое и среднее предпринимательство рассматривается как один из ключевых факторов диверсификации экономики, роста занятости, развития конкурентной среды и повышения устойчивости национальной экономической системы. Особое внимание уделено влиянию цифровизации на предпринимательскую активность.

Целью исследования является оценка роли малого и среднего предпринимательства в обеспечении устойчивого экономического роста Казахстана, а также количественное определение влияния цифровизации на развитие сектора МСП. В исследовании применены экономико-статистические и эконометрические методы анализа. Были рассчитаны темпы роста, базисные и цепные индексы развития малого и среднего предпринимательства, а также сформирован интегральный индекс цифровизации на основе показателей распространения Интернета, цифровой грамотности, безналичных платежей и электронных государственных услуг. Для оценки взаимосвязи между цифровизацией и развитием предпринимательства были построены регрессионные модели.

Результаты исследования выявили устойчивую положительную связь между уровнем цифровизации и количеством действующих субъектов малого и среднего предпринимательства. Установлено, что цифровая инфраструктура, цифровые финансовые инструменты и электронные государственные услуги способствуют снижению барьеров входа на рынок, повышению эффективности бизнеса, а также расширению доступа к финансовым и государственным услугам.

В заключении обоснована необходимость формирования комплексной политики поддержки малого и среднего предпринимательства, ориентированной на развитие цифровой инфраструктуры, повышение цифровой грамотности, расширение цифровых финансовых инструментов и совершенствование электронного государственного управления. Полученные результаты могут быть использованы при разработке мер государственной политики по поддержке предпринимательства и обеспечению устойчивого экономического роста в Казахстане.

