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¹Q University, Almaty, Kazakhstan;

² Central Asian Innovation University, Shymkent, Kazakhstan.

E-mail: Kambarov.bakytzan@bk.ru

DEVELOPMENT OF SMALL AND MEDIUM-SIZED ENTERPRISES IN ALMATY: ECOSYSTEM FACTORS AND STRUCTURAL DYNAMICS

Beisenbayeva Azhar — Candidate of Economic Sciences, Associate Professor, Q University, Kazakhstan,

E-mail: azhar.kakimovna@mail.ru, ORCID: <https://orcid.org/0000-0002-0535-6087>;

Kambarov Bakytzan — Senior Lecturer, Central Asian Innovation University, Shymkent, Kazakhstan,

E-mail: Kambarov.bakytzan@bk.ru, ORCID: <https://orcid.org/0009-0007-8480-694X>;

Samenova Nesibeli — Senior Lecturer, Central Asian Innovation University, Shymkent, Kazakhstan,

E-mail: nesibeli.samenova@mail.ru, ORCID: <https://orcid.org/0009-0000-0232-9852>.

Abstract. The article is devoted to the analysis of the state and development trends of small and medium-sized enterprises (SMEs) in Almaty as the largest business and financial center of the Republic of Kazakhstan. The purpose of the study is to comprehensively diagnose the parameters of the business sector of a megalopolis, identify the factors and constraints of growth, as well as to substantiate the directions for improving support measures and business infrastructure. The empirical base is based on official statistics from the Bureau of National Statistics for 2023-2024, supplemented by analytical materials from the OECD and the World Bank on SME policy and ecosystem development. Methodologically, the work is based on comparative-analytical and structural approaches; descriptive analysis of dynamics, calculation of share concentration indicators and the specific indicator "output per 1 employee" are used to compare Almaty with the national average. The results show that in Kazakhstan in 2024 there was a moderate expansion of the business base and employment with higher dynamics of value output, which requires a distinction between nominal and real changes. Geographically, the increased concentration of entrepreneurship in the largest agglomerations has been revealed. Almaty accumulates a significant share of operating entities and

those employed in SMEs, while its share in output is noticeably higher than the share in employment, which indicates a higher "graduation saturation" of the urban business sector. It is concluded that it is necessary to shift the focus of urban policy from quantitative growth to increasing the sustainability and scalability of SMEs through the development of financial instruments, digital services, competencies and support infrastructure.

Keywords: small and medium-sized enterprises, entrepreneurial ecosystem, Almaty, employment in SMEs, SME output, structural dynamics, government support measures

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¹Q University, Алматы, Қазақстан;

²Орталық Азия инновациялық университеті, Шымкент, Қазақстан.

E-mail: Kambarov.bakytzan@bk.ru

АЛМАТЫДА ШАҒЫН ЖӘНЕ ОРТА КӘСІПКЕРЛІКТІ ДАМУ: ЭКОЖҮЙЕЛІК ФАКТОРЛАР ЖӘНЕ ҚҰРЫЛЫМДЫҚ ДИНАМИКА

Бейсенбаева Ажар — экономика ғылымдарының кандидаты, қауымдастырылған профессор, Q University, Алматы, Қазақстан,

E-mail: azhar.kakimovna@mail.ru, ORCID: <https://orcid.org/0000-0002-0535-6087>;

Қамбаров Бахытжан — аға оқытушы, Орталық Азия инновациялық университеті, Шымкент, Қазақстан,

E-mail: Kambarov.bakytzan@bk.ru, ORCID: <https://orcid.org/0009-0007-8480-694X>;

Саменова Несибели — аға оқытушы, Орталық Азия инновациялық университеті, Шымкент, Қазақстан,

E-mail: nesibeli.samenova@mail.ru, ORCID: <https://orcid.org/0009-0000-0232-9852>.

Аннотация. Мақала Қазақстан Республикасының ірі іскерлік және қаржы орталығы ретінде Алматы қаласындағы шағын және орта кәсіпкерліктің (ШОБ) жай-күйі мен даму үрдістерін талдауға арналған. Зерттеудің мақсаты — мегаполистің кәсіпкерлік секторының параметрлерін кешенді диагностикалау, өсу факторлары мен шектеулерін анықтау, сондай-ақ қолдау шаралары мен кәсіпкерлік инфрақұрылымды жетілдіру бағыттарын негіздеу. Эмпирикалық база ЭЫДҰ мен Дүниежүзілік банктің ШОБ саясаты және экожүйені дамыту жөніндегі аналитикалық материалдарымен толықтырылған Ұлттық статистика бюросының 2023-2024 жылдарға арналған ресми статистикасы негізінде құрылған. Әдістемелік тұрғыдан жұмыс салыстырмалы-талдамалық және құрылымдық тәсілдерге сүйенеді; динамиканың

дескриптивтік талдауы, шоғырланудың үлестік индикаторларын және Алматыны орташа республикалық деңгеймен салыстыру үшін "1 жұмыспен қамтылғандарға шығарылым" үлестік көрсеткішін есептеу қолданылады. Нәтижелер Қазақстанда 2024 жылы Номиналды және нақты өзгерістердің аражігін ажыратуды талап ететін құндық шығарылымның неғұрлым жоғары динамикасымен кәсіпкерлік база мен жұмыспен қамтудың қалыпты кеңеюі байқалғанын көрсетеді. Аумақтық бөліністе ірі агломерацияларда кәсіпкерліктің күшейтілген шоғырлануы анықталды. Алматы жұмыс істеп тұрған субъектілердің және шок-та жұмыспен қамтылғандардың елеулі үлесін жинақтайды, бұл ретте оның шығарылымдағы үлесі жұмыспен қамтудағы үлесінен едәуір жоғары, бұл қалалық кәсіпкерлік сектордың неғұрлым жоғары "бітіру қанықтылығын" көрсетеді. Қаржы құралдарын, цифрлық сервистерді, құзыреттер мен қолдау инфрақұрылымын дамыту арқылы ШОБ тұрақтылығы мен ауқымдылығын арттыруға қалалық саясаттың екпінін сандық өсуден ауыстыру қажеттілігі туралы қорытынды жасалды.

Түйін сөздер: шағын және орта кәсіпкерлік, Кәсіпкерлік экожүйе, Алматы, ШОБ жұмыспен қамту, ШОБ шығару, құрылымдық динамика, мемлекеттік қолдау шаралары

© Бейсенбаева А.¹, Камбаров Б.^{2*}, Саменова Н.², 2026.

¹Q University, Алматы, Қазақстан;

²Центрально Азиатский инновационный университет, Шымкент, Қазақстан.

E-mail: Kambarov.bakytzan@bk.ru

РАЗВИТИЕ МАЛОГО И СРЕДНЕГО ПРЕДПРИНИМАТЕЛЬСТВА В АЛМАТЫ: ЭКОСИСТЕМНЫЕ ФАКТОРЫ И СТРУКТУРНАЯ ДИНАМИКА

Бейсенбаева Ажар — кандидат экономических наук, ассоциированный профессор, Q University, Алматы, Қазақстан,

E-mail: azhar.kakimovna@mail.ru, ORCID: <https://orcid.org/0000-0002-0535-6087>;

Камбаров Бахытжан — старший преподаватель, Центрально Азиатский инновационный университет, Шымкент, Қазақстан,

E-mail: Kambarov.bakytzan@bk.ru, ORCID: <https://orcid.org/0009-0007-8480-694X>;

Саменова Несибели — старший преподаватель, Центрально Азиатский инновационный университет, Шымкент, Қазақстан,

E-mail: nesibeli.samenova@mail.ru, ORCID: <https://orcid.org/0009-0000-0232-9852>.

Аннотация. Статья посвящена анализу состояния и тенденций развития малого и среднего предпринимательства (МСП) в городе Алматы как крупнейшем деловом и финансовом центре Республики Казахстан. Цель исследования заключается в комплексной диагностике параметров предпринимательского сектора мегаполиса, выявлении факторов и ограничений роста, а также в обосновании направлений совершенствования мер поддержки и предпринимательской инфраструктуры. Эмпирическая

база сформирована на основе официальной статистики Бюро национальной статистики за 2023–2024 гг., дополненной аналитическими материалами ОЭСР и Всемирного банка по политике МСП и экосистемному развитию. Методологически работа опирается на сравнительно-аналитический и структурный подходы; применяются дескриптивный анализ динамики, расчёт долевых индикаторов концентрации и удельного показателя «выпуск на 1 занятого» для сопоставления Алматы со среднереспубликанским уровнем. Результаты показывают, что в Казахстане в 2024 году наблюдалось умеренное расширение предпринимательской базы и занятости при более высокой динамике стоимостного выпуска, что требует разграничения номинальных и реальных изменений. В территориальном разрезе выявлена усиленная концентрация предпринимательства в крупнейших агломерациях. Алматы аккумулирует значимую долю действующих субъектов и занятых в МСП, при этом его доля в выпуске заметно выше доли в занятости, что указывает на более высокую «выпускную насыщенность» городского предпринимательского сектора. Сделан вывод о необходимости смещения акцента городской политики от количественного роста к повышению устойчивости и масштабируемости МСП через развитие финансовых инструментов, цифровых сервисов, компетенций и инфраструктуры поддержки.

Ключевые слова: малое и среднее предпринимательство, предпринимательская экосистема, Алматы, занятость в МСП, выпуск МСП, структурная динамика, меры государственной поддержки

Introduction. Entrepreneurship in Almaty occupies a key place in the economy of Kazakhstan, as the city acts as the largest business and financial center of the country, concentrating a significant share of small and medium-sized businesses (SMEs) and employment in SMEs in the regional context (Bureau of National Statistics, 2025). In the context of slowing global growth, increased competition for investment and the volatility of the external environment, the importance of sustainable development of an urban entrepreneurial ecosystem capable of supporting employment, expanding the tax base and forming new value chains is increasing (World Bank, 2023; OECD, 2023a).

The modern research agenda increasingly considers entrepreneurship through the prism of an "entrepreneurial ecosystem" - a set of interrelated actors, institutions and resources that provide conditions for productive entrepreneurship in a particular territory (Stam, 2015; Stam and van de Ven, 2021). This is especially important for Almaty, as the city's entrepreneurial dynamics are simultaneously determined by the high potential of the service economy and innovation, but also face persistent barriers such as administrative costs, limited access to finance, and gaps in support infrastructure (OECD, 2018; OECD, 2023a). An additional factor of change is digital transformation: digital technologies are changing the logic of value creation, reducing transaction costs and at the same time increasing the requirements for competencies, data and digital security (Nambisan, 2017; OECD, 2021a). In the

territorial dimension, digital "affordances" enhance the role of the city as a platform for generating entrepreneurial opportunities and accelerate the formation of new ecosystem connections (Autio et al., 2018).

The relevance of the study is also determined by the need to move from a general description of the state of SMEs to a more accurate diagnosis of structural changes: what types of activities form the "core" of Almaty entrepreneurship, how the ratio of trade, production and technology segments is changing, what support tools really increase the sustainability of companies and the ability to scale (OECD, 2021b; OECD, 2023a). Entrepreneurship inclusivity remains an important dimension: expanding business entry opportunities and reducing barriers for different population groups enhance the socio-economic sustainability of the urban economy (OECD/European Commission, 2023).

The purpose of the article is a comprehensive analysis of the state and trends of entrepreneurship development in Almaty, identification of key factors and limitations of growth, as well as substantiation of directions for improving measures to support and develop entrepreneurial infrastructure. To achieve the goal, the following tasks have been set: (1) to characterize the current parameters of the Almaty business sector and its sectoral structure; (2) identify the factors influencing the entrepreneurial activity and sustainability of SMEs, including financial, institutional and infrastructural components (Urbano et al., 2019); (3) analyze the practical effectiveness of existing support tools and identify the "bottlenecks" of the urban business ecosystem; (4) to propose recommendations for the development of entrepreneurship, taking into account the specifics of Almaty, including digital services, access to finance, human capital development and support for innovative entrepreneurship (Nambisan, 2017; OECD, 2021a).

The object of the study is the business sector of Almaty, the subject is the economic, institutional and infrastructural conditions of its development, as well as mechanisms to support and stimulate entrepreneurial activity. The methodological basis of the article includes a comparative analytical approach, elements of structural analysis, generalization of statistical data and the results of analytical reviews, as well as logical and economic modeling of cause-and-effect relationships between urban conditions and business dynamics (Stam and van de Ven, 2021; OECD, 2023a). The practical significance of the study lies in the possibility of using the conclusions and recommendations when adjusting urban SME development policies and tools to increase business activity in segments with high potential for value creation (OECD, 2018; Bureau of National Statistics, 2024).

Literature Review. In modern economic theory, entrepreneurship is considered as one of the key mechanisms for the structural transformation of the economy, increasing productivity and creating jobs. Classical approaches associate entrepreneurial activity with innovation and "creative destruction", through which new markets arise and industry structures are updated (Schumpeter, 1934). At the same time, empirical studies show that the impact of entrepreneurship on growth is heterogeneous: the results depend on the quality of institutions and which forms

of entrepreneurship dominate the economy (Baumol, 1990; North, 1990). In this logic, institutional conditions are particularly important - predictability of rules, protection of property rights, access to markets and financing - which determine whether entrepreneurial activity will be productive and scalable (Urbano et al., 2019).

In the second half of the 2000s - 2020s, the "ecosystem" perspective intensified in the literature: entrepreneurship is explained not only by the characteristics of individual firms or entrepreneurs, but also by the configuration of the urban/regional environment. The concept of an entrepreneurial ecosystem emphasizes the role of interconnected actors (firms, universities, investors, development institutions), resources, and institutions that jointly create conditions for business launch and growth (Isenberg, 2010; Stam, 2015). At the same time, an ecosystem is understood as a set of complementary elements (human capital, finance, markets, networks, culture, institutions), and the effectiveness of the system is determined by the consistency of these elements and the availability of mechanisms for "assembling" opportunities into sustainable business models (Stam and van de Ven, 2021). In an urban context, the ecosystem approach is particularly relevant because agglomeration effects (market density, demand diversity, concentration of competencies and connections) increase the likelihood of discovering opportunities and accelerate knowledge sharing.

A separate layer of research is devoted to the "growth" problems of SMEs: most small firms remain micro and small, while contributions to productivity and exports are more often provided by limited groups of companies capable of scaling. Therefore, support policy is increasingly shifting its focus from quantitative growth in the number of SMEs to increasing their sustainability and productivity, developing managerial competencies, innovativeness and internationalization (OECD, 2023a). From the point of view of practical policy, this means the need for differentiated tools - some measures are effective for start-up and survival (registration, basic infrastructure, access to microfinance), others for growth (scaling, access to long-term capital, acceleration, technology vouchers, access to foreign markets).

Digital transformation has been an important "end-to-end" factor in recent years. Research on digital entrepreneurship highlights that digital technologies are changing the nature of entrepreneurial uncertainty, accelerating product and business model experimentation, and creating new channels of access to markets and data (Nambisan, 2017). At the ecosystem level, digitalization enhances the role of platforms and networks, creating "digital affordances" (opportunities) that entrepreneurs can use to rapidly expand the market and rebuild value chains (Autio et al., 2018). At the same time, the risk of a digital divide remains: small firms often lag behind in digital skills, cybersecurity and technology adoption, which reduces their competitiveness (OECD, 2021a). Therefore, when analyzing the entrepreneurship of a large city (including Almaty), digitalization should be considered as both a source of opportunities and a barrier requiring institutional and infrastructural support.

A separate area of literature is related to inclusive entrepreneurship: policies aimed at involving underrepresented groups (women, youth, migrants, people with disabilities, etc.) make it possible to expand the entrepreneurial base and increase social sustainability, but require special tools such as mentoring, targeted financial products, and reducing "hidden" barriers to entry (OECD/European Commission, 2023). This is especially important for a megalopolis, since the diversity of human capital and professional trajectories increases the potential of "entrepreneurship opportunities", but at the same time increases the requirements for the quality of urban support infrastructure.

The Kazakh context in international literature and analytics is most often described through a combination of progress in the formation of an SME support system and continuing challenges related to productivity, innovation and growth entrepreneurship. The OECD Review of SME Policy in Kazakhstan highlights achievements in institutionalizing support and improving the business environment, but highlights the need to strengthen tools focused on innovative and high-potential companies, skills development, business services, and SME linkages with large investors and supply chains. For the empirical part of the study (in the context of Almaty), official statistical observations on SMEs are an important basis: for example, the summary materials of the Bureau of National Statistics provide indicators on the number of SMEs, employment and output, including individual data on the city of Almaty. International entrepreneurship monitoring (for example, GEM reports) is useful as an external comparative background, which allows interpreting urban dynamics in a broader context of motivations, barriers, and entrepreneurial expectations.

Thus, the literature forms several practical conclusions for the study of entrepreneurship in Almaty: (1) entrepreneurship should be analyzed not only in terms of quantitative indicators, but also through the quality of the institutional and ecosystem environment; (2) the key task of urban policy is to support productive and growing entrepreneurship, and not only to expand the "number of subjects"; (3) Digital transformation is a mandatory measurement of the analysis, as it affects the competitiveness of SMEs and the structure of urban markets; (4) The inclusivity of entrepreneurship requires special support mechanisms and can enhance the sustainability of the urban economy if the tools are set up correctly.

Materials and Methods. The empirical basis of the study is based on official statistics on small and medium-sized enterprises (SMEs), highlighting indicators for the city of Almaty: the number of SMEs, employment in the sector, output (volume of products/services) and structure by type of economic activity (Bureau of National Statistics, 2024; Bureau of National Statistics, 2025). Analytical materials on SME policy and business ecosystems (OECD, 2018; OECD, 2023) were used to compare and interpret the results. Additionally, public data from development institutions on business support measures (Damu Entrepreneurship Development Fund, 2024) were involved.

The empirical basis of the study is based on official statistics on small and

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Four groups of indicators are used in the work:

- the number of registered/active SMEs;
- Employment in SMEs;
- SME release;
- Sectoral distribution of SMEs by type of activity (Bureau of National Statistics, 2024; Bureau of National Statistics, 2025).

To assess entrepreneurship support, aggregated program parameters (coverage and scale of support) are taken into account according to development institutes (Damu Entrepreneurship Development Fund, 2024).

The following methods are used:

- descriptive analysis and dynamics analysis (growth rates, comparison of periods);
- Structural analysis (changes in industry shares and shifts);
- Comparative analysis (comparing urban dynamics with general trends);
- Qualitative interpretation of results through an entrepreneurial ecosystem approach that links SME performance to institutional and resource conditions (Stam, 2015; Stam and van de Ven, 2021).

Limitations are related to the aggregated nature of statistics and the limited availability of indicators of the "quality" of entrepreneurship (for example, productivity, firm survival). To increase the validity of the conclusions, a comparison of several interrelated indicators and reliance on the international analytical framework (OECD, 2023) were applied.

Results. This section presents the results of an empirical analysis of the state and dynamics of small and medium-sized enterprises (SMEs) in Almaty in comparison with national indicators and other cities of national importance. The analysis is based on official statistical data from the Bureau of National Statistics for 2023-2024 (in terms of output) and on the conditions as of January 1, 2024 and January 1, 2025 (in terms of the number of SMEs and employment). The main focus is on identifying changes in the scale of the business sector (registered and operating entities), its social significance (employment) and economic contribution (output), as well as calculating derived indicators of concentration and conditional "graduation saturation" (Bureau of National Statistics, 2025).

The results are structured in a tabular data format with subsequent interpretation and conclusions for each table. This approach ensures comparability of indicators over time and in a territorial context, and also allows us to highlight the features of

the entrepreneurial development of Almaty as the largest urban agglomeration in Kazakhstan (Bureau of National Statistics, 2025).

Before presenting regional differences and focusing on the city of Almaty, it is advisable to fix the national context reflecting the basic parameters and general dynamics of the SME sector in Kazakhstan. In this regard, Table 1 summarizes the key indicators for the country as a whole: the number of registered and operating SMEs (as of 01.01.2024 and 01.01.2025), the number of employees in SMEs (on the same dates), as well as the output of SMEs in January–December 2023 and January–December 2024. The data make it possible to assess the scale of the sector, changes in entrepreneurial activity and the contribution of SMEs to the economy at the national level, which forms the basis for subsequent comparison with the indicators of Almaty and other cities of national significance (Bureau of National Statistics, 2025).

Table 1 — Key indicators of SMEs in the Republic of Kazakhstan (comparison of 01.01.2024 and 01.01.2025; issue - January–December 2023/2024)

Indicator	01.01.2024 / 2023	01.01.2025 / 2024	Change	Change, %
Registered SME entities, units.	2 178 951	2 262 392	+83 441	+3,8
The current subjects of SMEs, units.	2 002 199	2 071 657	+69 458	+3,5
Number of employees in SMEs, people	4 326 316	4 422 058	+95 742	+2,2
Output of products by SMEs, million tenge	68 710 494	81 920 046	+13 209 552	+19,2*
Source: Bureau of National Statistics (2025). * The nominal dynamics is calculated according to the table; at the same time, the statistical publication separately indicates an increase in output at comparable prices by 11.5% (including CPI).				

Table 1 captures the national dynamics of the small and medium-sized enterprises (SMEs) sector in four key dimensions: the scale of the business base (registered and active entities), the social function (employment) and the economic contribution (output). The data are compared as of 01.01.2024/01.01.2025 (for subjects and employment) and for January–December 2023/2024 (for release) (Bureau of National Statistics, 2025).

The number of registered SMEs increased from 2,178,951 to 2,262,392 (+3.8%), and the number of operating ones increased from 2,002,199 to 2,071,657 (+3.5%). This configuration indicates a positive trend in entrepreneurial activity, but the growth of existing entities is slightly lagging behind the growth of registered ones (Bureau of National Statistics, 2025).

Additionally, this is reflected in a slight decrease in the proportion of active among registered users: $\approx 91.9\% \rightarrow \approx 91.6\%$ (calculated according to the table). Meaningfully, this may reflect the acceleration of registration of new units in the presence of natural “filtering” (not all registered ones switch to stable operations) or time lags between registration and entry into actual activity (Bureau of National Statistics, 2025).

The number of employees in SMEs increased from 4,326,316 to 4,422,058

(+2.2%). The employment growth rate is lower than the growth rate of the number of active entities (+3.5%), which indirectly indicates the predominance of micro and small forms of employment and/or the expansion of the sector through companies with relatively small staff (Bureau of National Statistics, 2025).

This is confirmed by the calculated indicator “employed per 1 active entity” (conditional average number): $\approx 2.16 \rightarrow \approx 2.13$ people, that is, a slight decrease ($\approx -1.2\%$). Interpreted for the article, this means that the quantitative expansion of entrepreneurship outstrips employment growth, which means that it becomes important to analyze the quality of growth: productivity, survival, and scaling (Bureau of National Statistics, 2025).

The output of SMEs increased from 68,710,494 to 81,920,046 million tenge, that is, by +19.2% in nominal terms (calculated according to the table). At the same time, the statistical publication separately indicates that the growth in comparable prices amounted to 11.5% (including CPI). Consequently, about a part of the increase in nominal output is explained by the price factor, and a correct economic interpretation should be based on real dynamics (Bureau of National Statistics, 2025).

For additional diagnostics, conditional specific indicators can be used (with a reservation about aggregation): output per employee (nominally) increases from about ≈ 15.9 to ≈ 18.5 million tenge/person. (calculation based on the table data). However, this indicator should be interpreted cautiously, since output is measured in value terms and depends on industry structure and price dynamics (Bureau of National Statistics, 2025).

After fixing the national trends (Table 1), the next stage of the analysis is the transition to territorial differentiation of entrepreneurial activity in the largest urban agglomerations. In this context, cities of national importance (Astana, Almaty, Shymkent) are of particular interest, which, on the one hand, accumulate a significant share of SMEs, and on the other, form different models of entrepreneurial development due to the scale of the market, institutional environment and agglomeration effects.

Table 2 shows the comparative dynamics of registered and operating SMEs in these cities as of 01.01.2024 and 01.01.2025, as well as the growth rates for the period under review. These tables allow us to: (1) determine the relative concentration of entrepreneurship in the largest centers; (2) compare the growth rate of the business base; (3) highlight Almaty's position in the structure of urban entrepreneurship in Kazakhstan as the country's largest business hub (Bureau of National Statistics, 2025).

Table 2 — Number of registered and operating SMEs in cities of national significance (01.01.2024 and 01.01.2025)

Territory	Registered, 01.01.2024	Registered, 01.01.2025	Δ , %	Current ones, 01.01.2024	Current ones, 01.01.2025	Δ , %
Astana	254 999	279 854	+9,7	227 386	248 284	+9,2

Almaty	381 950	417 039	+9,2	340 132	367 784	+8,1
Almaty	139 018	147 878	+6,4	128 526	137 114	+6,7

Source: Bureau of National Statistics (2025).

Table 2 shows that entrepreneurial activity in cities of national importance is characterized, on the one hand, by a high concentration of SMEs, and, on the other, by a significant heterogeneity in the pace of expansion of the entrepreneurial base.

In absolute terms, Almaty forms the largest entrepreneurial array among the cities under consideration: as of 01.01.2025, 417,039 SMEs were registered, of which 367,784 are active. For comparison, 279,854 SMEs are registered in Astana and 248,284 operate, while in Shymkent - 147,878 and 137,114, respectively (Bureau of National Statistics, 2025).

The concentration of entrepreneurship in Almaty empirically confirms its function as the most capacious urban market, where high effective demand, developed infrastructure and close business ties are combined, creating institutionally and economically favorable conditions for the entry and functioning of businesses.

In relative terms, Astana shows the highest growth rates: the number of registered SMEs increased by +9.7%, operating by +9.2%. In Almaty, the increase was +9.2% for registered and +8.1% for operating entities, while in Shymkent, the growth rates were lower than +6.4% and +6.7% accordingly (Bureau of National Statistics, 2025).

At the same time, the analysis of absolute changes shows that Almaty provided the greatest contribution to the expansion of the business base: the increase in registered entities amounted to +35 089 (381 950 → 417 039), current ones +27 652 (340 132 → 367 784). In Astana, the increase was +24,855 registered and +20,898 active entities, in Shymkent, +8,860 and +8,588, respectively (calculated according to the table; Bureau of National Statistics, 2025). Thus, Astana demonstrates a higher growth rate in relative terms, while Almaty provides the maximum increase in the business base in absolute terms.

The comparison of the share of active entities among those registered as a conditional indicator of the actual activity of the business base is significantly significant. Calculations show that in Astana this indicator decreased from ≈89.2% to ≈88.7%, in Almaty - from ≈89.1% to ≈88.2%, while in Shymkent there is a higher and more stable level: ≈92.5% → ≈92.7% (calculated according to the table; Bureau of National Statistics, 2025).

Consequently, with a smaller scale of the sector and more moderate growth rates, Shymkent is characterized by a higher proportion of actually operating entities, while in Almaty and Astana there is a slight decrease in this ratio. This dynamic may reflect more intensive registration processes in the largest agglomerations (including the "backlog" of new registrations that do not immediately become sustainable), as well as a more competitive environment and increased "selectivity" of the urban market, where some registrations are not converted into stable functioning (Bureau of National Statistics, 2025).

The growth rates of SMEs in Almaty and Astana (about 8-10%) significantly exceed the national growth of existing SMEs (+3.5% according to Table 1), which indicates an accelerated concentration of entrepreneurial activity in the largest urban centers and confirms their role as key "growth poles" of entrepreneurship in the national economy (Bureau of National Statistics, 2025).

After analyzing the scale of the entrepreneurial base in cities of national importance (Table 2), it is advisable to proceed to assessing the socio-economic "weight" of entrepreneurship, that is, its contribution to employment and output. Such a transition is fundamentally important, since the same growth rates in the number of SMEs can be accompanied by different employment dynamics and different levels of output, reflecting differences in industry structure, productivity, and the degree of concentration of business activity in large agglomerations.

In this logic, Table 3 compares cities of national importance according to two key indicators: the number of people employed in SMEs (as of 01.01.2024 and 01.01.2025) and the output of SMEs (for January–December 2023 and January–December 2024). The presented data allow: (1) to assess the role of SMEs as an employer in each city; (2) to identify differences in the economic contribution of SMEs in value terms; (3) to determine the specifics of output dynamics, taking into account the need to distinguish nominal and real changes (Bureau of National Statistics, 2025).

Table 3 —Employment and output of SMEs in cities of republican significance (01.01.2024/01.01.2025; output - January–December 2023/2024)

Territory	Employed in SMEs, 01.01.2024 (people)	Employed in SMEs, 01.01.2025 (people)	Δ , %	SME output 2023, million tenge	SME output 2024, million tenge	Δ , %
Astana	515 502	528 217	+2,5	14 720 400	15 834 563	+7,6
Almaty	949 253	972 080	+2,4	19 256 180	24 878 670	+29,2
Almaty	233 360	244 622	+4,8	2 670 111	3 482 042	+30,4

Source: Bureau of National Statistics (2025).

Table 3 allows us to compare cities of national importance by two key parameters reflecting the socio-economic contribution of the SME sector.: (1) the number of employees in SMEs (as of 01.01.2024 and 01.01.2025) and (2) the output of SMEs (for January–December 2023 and January–December 2024). Such a comparison makes it possible to assess not only the scale of entrepreneurship as an employer, but also the cost effectiveness of entrepreneurial activity in large agglomerations (Bureau of National Statistics, 2025).

In terms of absolute employment, the SME sector of Almaty occupies a leading position: as of 01.01.2025, 972,080 people were employed in SMEs in the city, which significantly exceeds the similar indicators of Astana (528,217 people) and Shymkent (244,622 people) (Bureau of National Statistics, 2025).

At the same time, the rates of employment growth in SMEs in Almaty (+2.4%) and Astana (+2.5%) are almost identical, indicating similar dynamics of

employment expansion in the two largest urban centers. Employment growth is higher in Shymkent (+4.8%), but this effect should be interpreted based on a lower baseline (Bureau of National Statistics, 2025).

In value terms, the output of Almaty SMEs in 2024 amounted to 24,878,670 million tenge (\approx 24.9 trillion tenge), which exceeds the output of Astana SMEs (15,834,563 million tenge) and is many times higher than Shymkent (3,482,042 million tenge) (Bureau of National Statistics, 2025).

This configuration indicates a high concentration of entrepreneurial economic activity in Almaty and confirms the role of the metropolis as the largest hub of business services and trade, where a significant part of business operations is expressed in large value movements.

A comparison of 2023 and 2024 demonstrates the heterogeneity of output dynamics: in Astana, the increase was +7.6%, while in Almaty +29.2%, and in Shymkent +30.4% (Bureau of National Statistics, 2025).

However, these dynamics characterize the nominal change in output. The statistical publication separately records that in the Republic of Kazakhstan, the output of SMEs in 2024 increased by 11.5% in comparable prices (including CPI). Consequently, the interpretation of urban growth rates, especially in the case of high nominal values, should take into account the influence of price factors and industry structure, since part of the increase may be due to inflationary effects (Bureau of National Statistics, 2025).

Comparing employment growth and output growth allows us to identify an important pattern: with close employment growth rates (\approx 2.4–2.5%), Almaty demonstrates significantly higher output growth (+29.2% in nominal terms) than Astana (+7.6%). This indicates possible differences in the structure of entrepreneurship (the share of trade and high-turnover services), the degree of concentration of large SMEs, and the value capacity of markets (Bureau of National Statistics, 2025).

Shymkent is characterized by a combination of higher employment dynamics (+4.8%) and significant nominal output growth (+30.4%), which may reflect a phase of accelerated expansion of entrepreneurial activity with a low baseline, but this hypothesis requires clarification in a structural context (for example, by type of activity) (Bureau of National Statistics, 2025).

To deepen the interpretation of the results presented in Tables 1-3, it is necessary to move from absolute levels (number of subjects, employment, output) to derived, comparable indicators that allow us to assess the concentration of entrepreneurial activity and correlate the economic contribution of SMEs with the scale of employment. This approach is important because identical or similar values of employment and the number of subjects may be accompanied by different output values, reflecting differences in industry structure, market value capacity, and relative productivity of the business sector.

In this regard, Table 4 presents the shares of Almaty calculated on the basis of official aggregated data in national indicators (in operating subjects of SMEs,

employment of SMEs and output of SMEs), as well as the specific indicator "output of SMEs per 1 employee". These tables make it possible to quantify how the economic result of Almaty's entrepreneurship correlates with its contribution to employment and the scale of the entrepreneurial base, thereby providing a more informed assessment of the specifics of the metropolis as a leading business and service center in Kazakhstan (Bureau of National Statistics, 2025).

Table 4 — Derived indicators (shares and "output per 1 employee")

Indicator	Almaty	Republic of Kazakhstan
Share in existing SME entities (01.01.2025), %	17,8	100,0
Share of SME employment (01.01.2025), %	22,0	100,0
Share in SME output (2024), %	30,4	100,0
SME output per 1 employee (2024 / employment as of 01.01.2025), million tenge/person.	25,6	18,5
The note was compiled by the authors		

Table 4 presents derived indicators calculated on the basis of published aggregated data, and allows us to move from describing the absolute scale of SMEs (subjects, employment, output) to assessing the concentration of economic output and the conditional "output saturation" of entrepreneurship in Almaty in comparison with the average level in the Republic of Kazakhstan (Bureau of National Statistics, 2025).

A comparison of the shares shows that Almaty accumulates 17.8% of the country's existing SME entities, generates 22.0% of SME employment and provides 30.4% of SME output in 2024 (Bureau of National Statistics, 2025).

This configuration demonstrates a persistent imbalance: the economic contribution of Almaty entrepreneurship in value terms significantly exceeds its contribution to employment. From a methodological point of view, this means that the entrepreneurial sector of a megalopolis is characterized by a higher concentration of turnover/added value per unit of labor compared to the national average. This result is usually consistent with agglomeration effects and the dominance of high-value activities in the structure of the urban economy (trade, financial and professional services, logistics and business services), which leads to the formation of large output with comparable employment (Bureau of National Statistics, 2025).

The estimated indicator of SME output per employee (in terms of "output/employment") is ≈ 25.6 million tenge/person for Almaty, while the average for Kazakhstan is ≈ 18.5 million tenge/person (Bureau of National Statistics, 2025). The excess of this indicator in Almaty over the national average is a quantitative confirmation that the entrepreneurial activity of the metropolis has a higher value "density" of the result. In the interpretation for the article, this is consistent with the role of Almaty as the largest business and service center, where financial infrastructure, professional services and solvent demand are concentrated, ensuring high turnover in the SME sector.

At the same time, a methodological limitation should be emphasized: the "output per 1 employee" indicator is calculated from aggregated data and reflects cost rather

than technological productivity; its value is significantly influenced by the industry structure, differences in price dynamics and the share of high-turnover activities. Therefore, it should be considered as an indicator of comparative graduation rate, and not as a direct analogue of the labor productivity indicator in a strict econometric sense (Bureau of National Statistics, 2025).

Discussion. The results presented in Tables 1-4 allow us to characterize the development of small and medium-sized enterprises in 2024 as a process combining a moderate expansion of the quantitative parameters of the sector and a more pronounced increase in value output, while increasing the territorial concentration of entrepreneurial activity in the largest urban agglomerations, primarily in Almaty (Bureau of National Statistics, 2025). At the national level, an increase in the number of registered (+3.8%) and active (+3.5%) SMEs, as well as an increase in employment (+2.2%) indicate a steady but moderate expansion of the business base. This dynamic indicates the continued stable role of SMEs as an important segment of the economy and the labor market (Bureau of National Statistics, 2025).

At the same time, the increase in output in nominal terms (+19.2%) significantly outstrips the dynamics of employment and the number of operating entities. Taking into account the fact that the official source records an increase in output at 11.5% in comparable prices, it becomes obvious that a significant part of the increase is due to price factors (Bureau of National Statistics, 2025). This is fundamentally important for scientific interpretation: the growth of the "mass" of the sector (number of subjects, employment) reflects extensive expansion, while intensive changes (real output, structural shifts, conditional productivity) require separate analysis and cannot be directly derived from nominal indicators.

A comparative analysis of cities of national significance confirms that Almaty forms the largest entrepreneurial array: 417,039 registered and 367,784 operating SMEs as of 01.01.2025. With similar growth rates to Astana, it is Almaty that provides the largest absolute increase in the business base (Bureau of National Statistics, 2025). This configuration corresponds to the provisions of the theory of agglomeration advantages and entrepreneurial ecosystems, according to which the concentration of demand, infrastructure, business networks and human capital reduces transaction costs and increases the likelihood of sustainable business operation (Stam, 2015; Stam and van de Ven, 2021).

A slight decrease in the share of active entities among those registered in Almaty and Astana can be interpreted as the result of more intensive registration processes while simultaneously operating market selection mechanisms in a competitive urban environment. In this context, the growth of registrations is not identical to the growth of sustainable entrepreneurship, which is important for assessing the effectiveness of urban policies to support SMEs. Almaty retains its leadership in terms of the number of employees in SMEs (972,080 people as of 01.01.2025), however, key conclusions arise when comparing employment and output. The output of SMEs in the city in 2024 amounted to 24,878,670 million tenge, which is significantly higher than in other cities (Bureau of National Statistics, 2025).

Derived indicators reinforce this interpretation: Almaty's share in SME output (30.4%) is significantly higher than the share in employment (22.0%), and the indicator "output per 1 employed" (25.6 million tenge/person) exceeds the national average (18.5 million tenge/person). Such a disparity indicates a higher cost "saturation" entrepreneurship of the metropolis. The likely factors are:

- the predominance of high-turnover and service-oriented activities;
- Concentration of financial and business infrastructure;
- Performing "nodal" functions in national value chains.

At the same time, it should be emphasized that the indicator "output per 1 employee" is aggregated and cost-based, and therefore cannot be interpreted as a strict indicator of labor productivity without deflation and industry decomposition (Bureau of National Statistics, 2025).

The results of the study allow us to conclude that for Almaty, the key task is not so much to further increase the number of SMEs, but rather to ensure the quality and sustainability of growth. In the logic of entrepreneurial ecosystems, this implies the development of interrelated elements of the environment - access to finance, human capital, support institutions, market infrastructure, and business networks (Stam, 2015; Stam and van de Ven, 2021).

Practical implications include the need to:

- improve tools to support scalable companies;
- stimulating technological and innovative activity;
- development of export orientation of SMEs;
- Improving the quality of urban business infrastructure.

Thus, the revealed concentration of economic output in a megacity requires a shift in policy emphasis from quantitative expansion to creating conditions for sustainable and productive business models.

The limitations of this analysis are due to the use of aggregated statistical data. To deepen the conclusions, it is advisable to:

- deflate urban output by type of activity;
- perform the sectoral decomposition of employment and output of SMEs;
- supplement the analysis with indicators of survival, investment activity and innovation dynamics of enterprises.

The expansion of the empirical base will make it possible to more accurately assess the structural features of Almaty's entrepreneurship and determine the directions of its long-term transformation.

Conclusion. The analysis showed that the development of small and medium-sized enterprises in the Republic of Kazakhstan in 2024 was characterized by a moderate increase in the number of subjects and employment with a more pronounced dynamics of value output. At the national level, there has been an increase in the number of registered and operating SMEs, as well as an increase in employment, which confirms the sustainable role of the sector in shaping economic activity and the labor market. At the same time, a comparison of nominal and real

output indicators indicates the need for a careful interpretation of the dynamics, taking into account price factors.

The territorial analysis revealed an increased concentration of entrepreneurial activity in the largest urban agglomerations. Almaty holds a leading position in terms of the number of SMEs, employment and output, forming a significant share of the national value result. At the same time, the city's share in SME output significantly exceeds its share in employment, which indicates a higher "graduation saturation" of the business sector of the metropolis and confirms its status as a key business and service center of the country.

The results obtained allow us to conclude that the further development of entrepreneurship in Almaty and other large cities should be focused not only on the quantitative expansion of the business base, but also on improving the quality of growth - sustainability, productivity and the ability of enterprises to scale. Strategically, this involves improving the institutional environment, developing tools to support growing companies, stimulating innovation and strengthening urban business infrastructure.

Thus, the identified trends confirm that SMEs remain one of the key factors of Kazakhstan's economic dynamics, and the concentration of entrepreneurial activity in the largest agglomerations creates both additional growth opportunities and new challenges for regional and urban economic policy.

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