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METHODOLOGICAL APPROACHES TO ASSESSING BEHAVIORAL MODELS OF ENTREPRENEURS IN INTERACTION WITH THE STATE

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Abstract. Methodological approaches to assessing entrepreneurial behavioral models in interactions with the state are examined. The study focuses on key factors influencing entrepreneurial behavior, including institutional trust, regulatory compliance, administrative burden, access to public services, adaptation to regulatory changes, and willingness to cooperate with government institutions. An integrated assessment framework combining quantitative indicators and survey methods is proposed to identify and classify different behavioral patterns among entrepreneurs. The proposed approach provides a methodological basis for improving state–business relations, reducing administrative barriers, and developing more effective policies to support entrepreneurship.

Keywords: entrepreneurship, entrepreneurial behavior, state–business interaction, institutional trust, regulatory compliance, administrative burden, public services, government support, business environment.

Annotatsiya. Tadbirkorlarning davlat bilan o'zaro munosabatlaridagi xulq-atvor modellarini baholashning metodologik yondashuvlari tadqiq etilgan. Tadqiqotda tadbirkorlik xulq-atvoriga ta'sir etuvchi asosiy omillar, jumladan, institutsional ishonch, me'yoriy-huquqiy talablarga rioya qilish, ma'muriy yuklama, davlat xizmatlaridan foydalanish imkoniyatlari, tartibga solish tizimidagi o'zgarishlarga moslashish hamda davlat institutlari bilan hamkorlik qilishga tayyorlik masalalariga alohida e'tibor qaratilgan. Tadbirkorlarning turli xulq-atvor modellarini aniqlash va tasniflash maqsadida miqdoriy ko'rsatkichlar hamda so'rovnomalar usullarini birlashtiruvchi kompleks baholash tizimi taklif etilgan. Taklif etilgan yondashuv davlat va biznes o'rtasidagi munosabatlarni takomillashtirish, ma'muriy tartib-taomillarni soddalashtirish hamda tadbirkorlikni qo'llab-quvvatlashga qaratilgan samarali siyosatni ishlab chiqish uchun metodologik asos bo'lib xizmat qiladi.

Kalit so'zlar: tadbirkorlik, tadbirkorlik xulq-atvori, davlat va biznes o'rtasidagi o'zaro munosabatlar, institutsional ishonch, me'yoriy-huquqiy talablarga rioya qilish, ma'muriy yuklama, davlat xizmatlari, davlat tomonidan qo'llab-quvvatlash, biznes muhiti.

Аннотация. Исследованы методологические подходы к оценке поведенческих моделей предпринимателей во взаимодействии с государством. Особое внимание уделено основным факторам, влияющим на предпринимательское поведение, включая институциональное доверие, соблюдение нормативно-правовых требований, административную нагрузку, доступность государственных услуг, адаптацию к изменениям в системе регулирования и готовность к сотрудничеству с государственными институтами. Для выявления и классификации различных поведенческих моделей предпринимателей предложена комплексная система оценки, объединяющая количественные показатели и методы анкетирования. Предложенный подход служит методологической основой для совершенствования взаимоотношений между государством и бизнесом, упрощения административных процедур и разработки эффективной политики поддержки предпринимательства.

Ключевые слова: предпринимательство, предпринимательское поведение, взаимодействие государства и бизнеса, институциональное доверие, соблюдение нормативно-правовых требований, административная нагрузка, государственные услуги, государственная поддержка, бизнес-среда.

INTRODUCTION

Entrepreneurship is an important driver of economic growth, employment, innovation, and investment. Business activity develops within a specific institutional environment in which interaction with government authorities plays a significant role. Taxation, licensing, inspections, registration, public procurement, government support programs, and digital public services directly influence entrepreneurial decisions and behavior.

Entrepreneurs respond to government regulation based on economic costs and benefits, as well as

institutional trust, perceived fairness, regulatory certainty, access to information, previous experience, and digital capabilities. Therefore, enterprises operating under similar institutional conditions may demonstrate different approaches to cooperation, compliance, and adaptation.

The relevance of this issue has increased with the development of digital government and regulatory simplification. The OECD notes that simplifying regulatory procedures can help reduce administrative burdens, particularly for small and young firms [1]. The World Bank's Business Ready framework also emphasizes that the business environment depends on the quality of regulations, public services, and operational efficiency [2].

These trends are particularly relevant to Uzbekistan. Recent reforms have focused on simplifying business procedures and expanding digital interaction between entrepreneurs and public institutions. In 2025–2026, measures were introduced to simplify administrative requirements, expand electronic services, and implement the "Starting a Business in 15 Minutes" principle [3; 4]. Such changes create new conditions for studying how entrepreneurs adapt to government policies and how their interaction patterns evolve.

The study aims to develop a methodological approach for assessing the behavioral models of entrepreneurs in their interactions with the state. Particular attention is given to institutional trust, regulatory compliance, administrative burden, the use of public services, participation in government support programs, adaptability, and willingness to cooperate.

The scientific novelty of the research lies in the development of an integrated assessment framework combining institutional, behavioral, and quantitative indicators. This approach allows different entrepreneurial behavioral patterns to be identified and provides a methodological basis for improving state–business interaction and simplifying administrative procedures.

LITERATURE REVIEW

The relationship between entrepreneurship and the institutional environment has been extensively examined within institutional economics, entrepreneurship theory, and behavioral research. Recent studies increasingly emphasize that entrepreneurial behavior is shaped not only by formal regulations but also by the quality of public institutions, regulatory efficiency, trust, and entrepreneurs' perceptions of the business environment.

Kirchler, Hoelzl, and Wahl [5] demonstrated that tax compliance should be understood through the interaction of enforcement mechanisms and voluntary compliance. Their approach is particularly relevant to the analysis of entrepreneurial behavior because it shows that compliance is influenced by both enforcement mechanisms and institutional factors. Trust in public institutions and perceptions of fairness can also influence entrepreneurs' willingness to comply with government requirements.

More recent research has strengthened the institutional perspective. Alvarez, Lopez, and Urbano [6] found that different institutional dimensions influence entrepreneurial activity at different stages of the entrepreneurial process. Their cross-country analysis indicates that regulatory conditions, social norms, and cultural-cognitive factors have different effects on potential, nascent, and new entrepreneurs. This suggests that behavioral assessment should account for the stage and context of entrepreneurial development.

The role of regulation has also received considerable attention in recent literature. Research published in Research Policy shows that regulatory costs and procedures can influence both the quantity and quality of entrepreneurship, while their effects may differ depending on institutional and individual-level conditions [7]. This finding supports the need to include perceived administrative burden and regulatory complexity as independent dimensions when evaluating entrepreneurs' behavioral responses to the state.

The relationship between formal institutions and entrepreneurship has been further examined by recent international research based on Global Entrepreneurship Monitor data. A study covering 101 countries found that regulatory efficiency and trade freedom are positively associated with ambitious entrepreneurship, demonstrating that institutional quality can affect the type and intensity of entrepreneurial activity [8].

Digitalization has become another important element of contemporary state–business relations. Recent research shows that digital governance can facilitate entrepreneurial activity by simplifying regulatory procedures. In particular, a 2025 study using longitudinal data from 74 countries found that e-government initiatives can help simplify regulatory procedures and improve institutional conditions [9].

Institutional trust is increasingly considered a separate determinant of entrepreneurial responses to government. Recent evidence from China indicates that government procurement can influence firms' risk-taking behavior through mechanisms associated with institutional trust, market access, credit availability, and risk-sharing [10]. In addition, research published in 2026 argues that institutional trust should be analyzed not only at the national level but also at the regional level because differences in local institutions and entrepreneurial ecosystems can significantly shape productive entrepreneurship [11].

Perceptions of fairness also represent an important behavioral factor. A 2025 study of solo entrepreneurs

demonstrated that perceived treatment by government agencies and other stakeholders is an important aspect of entrepreneurs' experience and can be linked to their well-being and performance [12]. This expands the traditional understanding of state–business interaction by showing that entrepreneurs' subjective evaluations of institutional treatment should be considered alongside objective regulatory indicators.

An important methodological development is represented by the World Bank's Business Ready (B-READY) framework. The 2025 methodology evaluates the business environment through three interconnected pillars: the regulatory framework, public services, and operational efficiency. It combines expert assessments with firm-level survey data, thereby linking formal institutional conditions with the practical experience of businesses [13]. For Uzbekistan, the B-READY 2025 assessment specifically measures business entry through regulatory quality, the availability of digital public services, transparency, and the time and cost required to register firms [14].

The reviewed literature demonstrates that existing approaches generally focus on individual elements of entrepreneurial behavior, such as regulatory compliance, institutional quality, administrative burden, digitalization, or trust. These factors are closely interconnected and may jointly determine how entrepreneurs respond to government institutions. Therefore, there is a methodological need for an integrated framework that combines objective institutional indicators with entrepreneurs' subjective perceptions and adaptive behavior.

Based on the reviewed literature, this study considers institutional trust, regulatory compliance, administrative burden, public service utilization, participation in government support programs, adaptability, and cooperative orientation as interconnected dimensions of entrepreneurial behavior. Such an approach provides a broader basis for identifying distinct behavioral models and evaluating the effectiveness of state–business interaction.

RESEARCH METHODOLOGY

The study uses an integrated approach to assess entrepreneurs' behavioral models in their interactions with the state. The analysis focuses on institutional trust, regulatory compliance, administrative burden, the use of public services, adaptability, and willingness to cooperate. Data can be collected through a structured questionnaire using a five-point Likert scale.

An integrated Entrepreneur–State Interaction Index (ESII) is used to summarize the selected indicators:

$$ESII = \sum_{i=1}^n w_i X_i$$

where X_i is the normalized indicator and w_i is its weight. Descriptive analysis, factor analysis, and cluster analysis are applied to identify the major behavioral patterns of entrepreneurs.

ANALYSIS AND RESULTS

The analysis demonstrates that behavioral interaction between entrepreneurs and the state should be considered within the broader development of the small-business sector and the changing institutional environment. Official statistics show that small businesses remain a major component of the Uzbek economy and therefore represent a significant group of economic actors whose interactions with government institutions directly affect the business environment.

According to the National Statistics Committee, the share of small businesses in Uzbekistan's GDP changed from 56.3% in 2021 to 52.2% in 2025. At the same time, the indicator reached 50.5% in the second quarter of 2026, compared with 45.6% in the first quarter of the same year [15]. This change should be interpreted in the context of the changing structure of economic output and the relative contribution of larger enterprises. Nevertheless, the substantial contribution of small businesses confirms the importance of effective mechanisms for their interaction with government institutions.

Table 1. Selected indicators of small-business development in Uzbekistan¹

Indicator	2021	2022	2023	2024	2025
Small-business share in GDP, %	56.3	54.3	53.8	53.5	52.2
Number of people employed in small businesses, thousand	10,080.6	10,131.1	10,373.3	10,538.6	11,183.4
Newly created small businesses, units	98,886	90,177	86,030	77,046	82,386

¹ Source: Author's compilation based on data from the National Statistics Committee of Uzbekistan [15–18].

Indicator	2021	2022	2023	2024	2025
Individual entrepreneurs, persons	217,207	239,069	242,849	283,866	298,831

The employment data provide additional evidence of the economic significance of entrepreneurship. The number of people employed in small businesses increased from 10.08 million in 2021 to 11.18 million in 2025, representing an increase of approximately 10.9%. The share of small businesses in total employment reached 74.9% in 2025 [16]. This means that government regulations concerning registration, taxation, employment, reporting, and access to public services affect a substantial proportion of the economically active population.

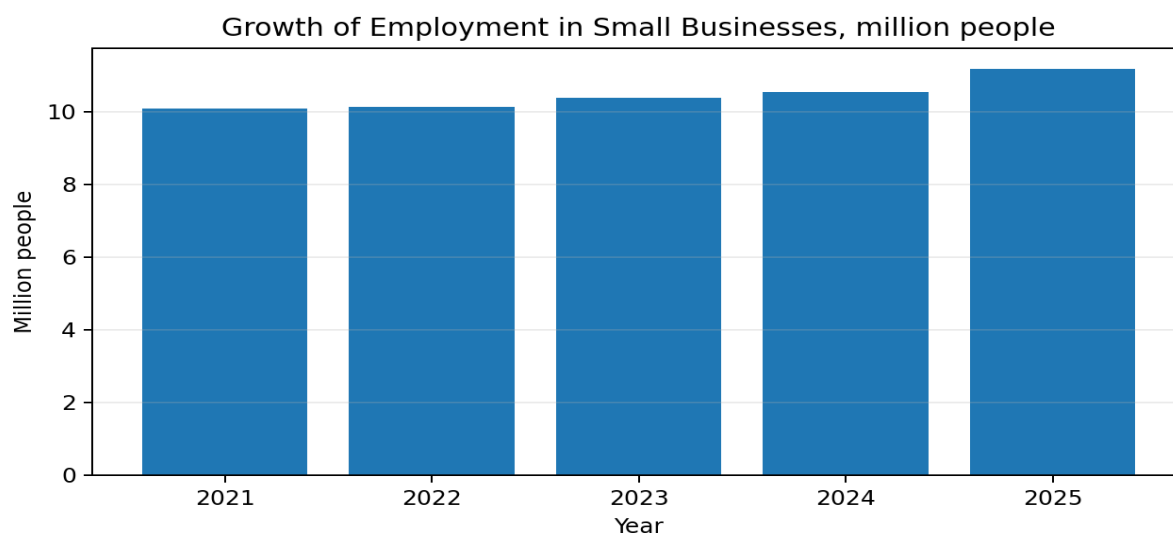


Figure 1. Growth of employment in small businesses, million people²

An important indicator of entrepreneurial activity is the number of newly created firms. In 2025, Uzbekistan registered 82,386 newly created small enterprises and microfirms, compared with 77,046 in 2024. Thus, the number increased by approximately 6.9% within one year [17]. The largest number was recorded in Tashkent city (18,450 firms), followed by Tashkent region (8,556) and Khorezm region (7,277). Tashkent city alone accounted for approximately 22.4% of all newly created small enterprises and microfirms in 2025 [17].

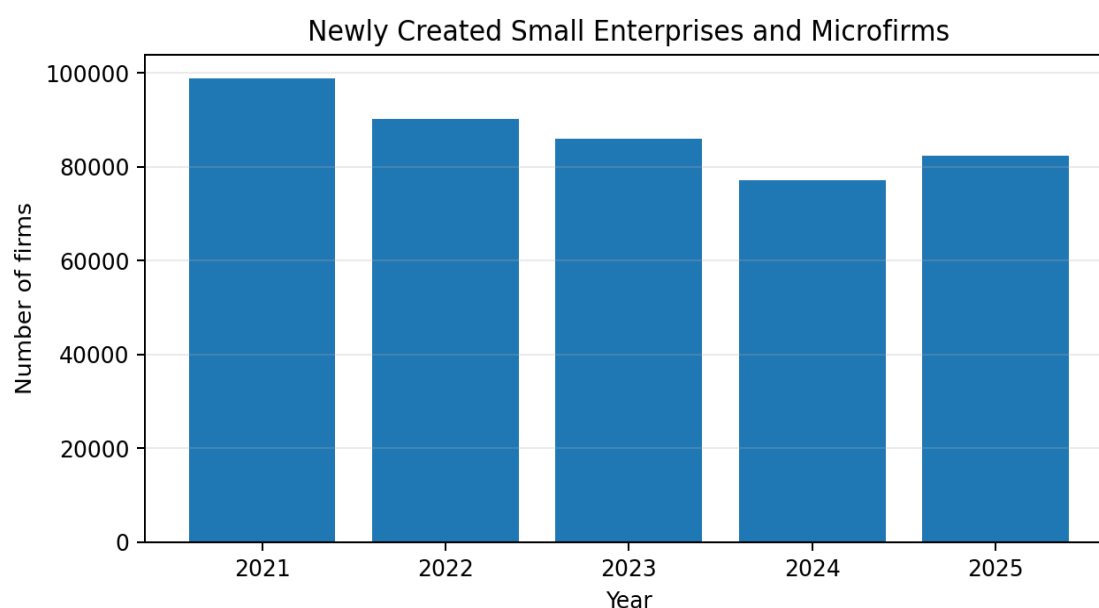


Figure 2. Newly created small enterprises and microfirms³

² Source: National Statistics Committee of Uzbekistan [16].

³ Source: National Statistics Committee of Uzbekistan [17].

The number of individual entrepreneurs also demonstrates an expanding entrepreneurial base. Official statistics indicate that the number of individual entrepreneurs increased from 283,866 in 2024 to 298,831 in 2025, representing growth of approximately 5.3% [18]. Retail trade remained the largest activity category, accounting for 144,231 individual entrepreneurs in 2025, while personal services accounted for 31,817 [18]. These structural differences are important for behavioral analysis because entrepreneurs operating in different sectors may face different regulatory requirements and consequently develop different interaction strategies with the state.

The institutional environment can be assessed using the World Bank's B-READY 2025 indicators. Uzbekistan received 91 points out of 100 for Business Entry. The three pillars of Business Entry were assessed at 93.10 points for the regulatory framework, 83.50 points for public services, and 95.59 points for operational efficiency [19].

Table 2. Uzbekistan's Business Entry assessment, B-READY 2025⁴

Dimension	Score out of 100
Regulatory framework	93.10
Public services	83.50
Operational efficiency	95.59
Overall Business Entry	91.00
Domestic firm registration time	4 days
Domestic firm registration cost	1% of GNI per capita

These indicators are significant for the behavioral models of entrepreneurs. The availability of electronic company registration, electronic payment of incorporation fees, electronic issuance of incorporation certificates, and automated exchange of company information between public agencies facilitates interaction with government bodies and simplifies administrative procedures [19]. Such institutional conditions can encourage adaptive and cooperative behavior because interaction becomes more predictable and less time-consuming.

The B-READY assessment also identifies opportunities for further improvement. Public services received 83.50 points, compared with 93.10 points for the regulatory framework. Information concerning publicly funded programs for SMEs and women entrepreneurs received 1 point out of a possible 4, while the availability of sex-disaggregated statistics on newly registered firms represents an additional area for development under the assessed indicator [19]. These findings highlight the importance of expanding access to information and encouraging participation in government support programs.

Tax administration provides another dimension for analyzing state–business interaction. Under B-READY 2025, Uzbekistan received 83.91 points for the operational efficiency of taxation. The score for the time required to prepare, file, and pay taxes was 9.04 out of 10, while the indicator concerning firms filing and paying taxes electronically received 8.62 out of 10. At the same time, the practical VAT refund indicator received 3.27 out of 10, highlighting opportunities for further improvement in tax administration [20].

4 Source: World Bank, B-READY 2025 [19].

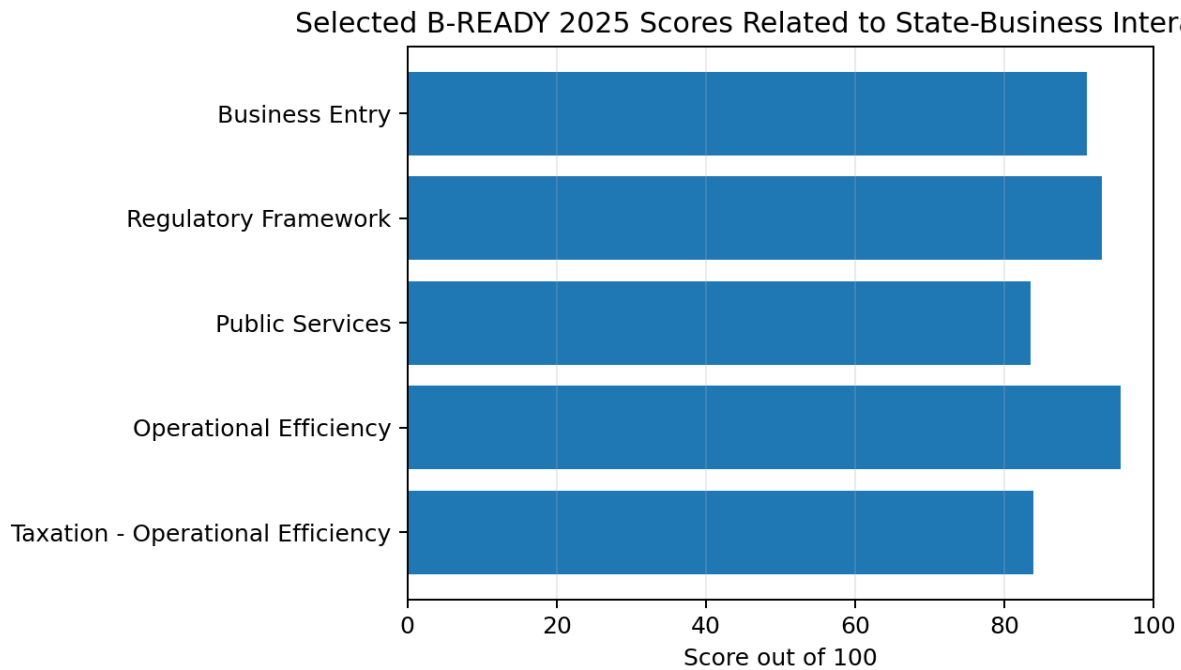


Figure 3. Selected B-READY 2025 scores related to state–business interaction⁵

The increasing role of small businesses in international economic activity provides another dimension of the analysis. According to official statistics, the share of small businesses in total exports increased from 34.1% in 2024 to 36.6% in 2025 [21]. Their share in imports increased from 49.8% to 53.6% over the same period [22]. These figures demonstrate that entrepreneurs are increasingly integrated into external economic relations, which raises the importance of interaction with customs, tax, certification, licensing, and other public institutions.

The results therefore indicate that entrepreneurial behavior should be evaluated through a comprehensive approach that considers both formal compliance and broader dimensions of interaction with the state. Such an assessment should consider entrepreneurs' ability to use digital government services, access support programs, respond to regulatory changes, and establish communication with public institutions. Official statistics provide evidence of the scale and continuing importance of the entrepreneurial sector, while the B-READY indicators demonstrate that the mechanisms of state–business interaction are increasingly digitalized and operationally efficient.

It is important to emphasize that the statistics presented above are proxy indicators of the entrepreneurial environment rather than direct measurements of individual behavioral models. The final identification of cooperative, adaptive, passive, and avoidance-oriented models requires primary survey data. Nevertheless, the statistical evidence provides a strong empirical context for applying the proposed Entrepreneur–State Interaction Index (ESII).

Overall, the findings support the methodological proposition that entrepreneurial behavior toward the state is shaped by a combination of institutional conditions and individual responses. Expanding entrepreneurship and digital public services creates opportunities for more efficient interaction, while further improvements in transparency and particular administrative procedures can contribute to continued institutional development.

CONCLUSION AND SUGGESTIONS

The study shows that entrepreneurs' interactions with the state are influenced by a combination of institutional, economic, and behavioral factors. Institutional trust, regulatory compliance, administrative burden, access to public services, digitalization, and the ability to adapt to regulatory changes play important roles in shaping entrepreneurial behavior.

The proposed methodological approach allows these factors to be assessed through a combination of quantitative indicators and survey-based measurements. The use of the Entrepreneur–State Interaction Index (ESII) provides an opportunity to identify differences in entrepreneurial behavior and classify entrepreneurs

⁵ Source: World Bank, B-READY 2025 [19; 20].

according to their interaction patterns.

The analysis of Uzbekistan demonstrates that the growing role of small businesses and the expansion of digital public services create new conditions for state–business interaction. At the same time, further improvements in service accessibility, transparency, and administrative procedures can contribute to continued institutional development.

Therefore, improving the predictability and transparency of regulations, simplifying administrative procedures, expanding accessible digital services, and strengthening communication between public institutions and entrepreneurs can contribute to more effective state–business relations. The proposed methodology can also be applied in future empirical studies to measure changes in entrepreneurial behavior and evaluate the effectiveness of regulatory reforms.

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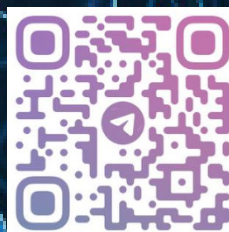
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