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SPATIAL CONCENTRATION AND REGIONAL DISPARITIES IN SMALL AND MEDIUM ENTREPRENEURSHIP DEVELOPMENT: EVIDENCE FROM THE REPUBLIC OF BELARUS, 2019–2024

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Abstract

This article investigates regional disparities in the development of small and medium entrepreneurship (SME) in the Republic of Belarus over the period 2019–2024, with particular attention to the alignment between observed SME dynamics and the regional development priorities set out in the Program of Social and Economic Development of the Republic of Belarus for 2026–2030. Using official statistical data from the National Statistical Committee of the Republic of Belarus on the gross value added (GVA) generated by micro-, small-, and medium-sized organizations and by individual entrepreneurs, the study applies economic-statistical analysis, comparative analysis, and descriptive synthesis at both the regional and district levels to assess how SME activity has evolved since the conclusion of the previous socio-economic development cycle. The analysis shows that regional SME development in Belarus is characterized by high spatial concentration: Minsk and the Minsk region account for a disproportionate share of SME gross value added, while the remaining regions display considerable internal heterogeneity, with regional-level performance driven less by uniform regional trends than by the presence or absence of a small number of high-performing districts. A subset of districts associated with large anchor enterprises or favorable logistics, most notably in the Vitebsk region, shows improvement even where broader regional indicators are declining, whereas a substantial number of peripheral districts, including several named as priorities in the Program of Social and Economic Development of the Republic of Belarus for 2026–2030, show worse performance in 2024 than in 2015 or 2019. These findings indicate only partial alignment between the Program's designated priority districts and the districts that have, in practice, achieved positive SME dynamics. The study concludes that the spatial concentration of SME activity in Belarus reflects not only population density and administrative status, but also the presence of anchor enterprises, logistical accessibility, and the institutional capacity of local authorities, and it offers an empirical basis for refining regional SME support measures within the Program.

Keywords:

small and medium entrepreneurship; regional development; spatial concentration; regional disparities; Belarus

Authors' individual contribution:

Conceptualization — I.M.; Methodology — I.M.; Data Collection — I.M.; Data Analysis — I.M.; Interpretation — I.M.; Writing — Original Draft — I.M.; Writing — Review & Editing — I.M.; Visualization — I.M.

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The Author declares that there is no conflict of interest.

1. Introduction

Speaking at the second session of the Seventh All–Belarusian People's Assembly during his Address to the Belarusian Nation and the National Assembly, President of the Republic of Belarus A.G. Lukashenko outlined 10 economic challenges facing the country, particularly regional development (President of the Republic of Belarus, 2025). He further stated that «the most important task is to stop the outflow of people from the regions and relieve congestion in the capital and regional centers. This issue must be resolved through revolutionary methods, definitively and without debate, otherwise we will depopulate the country. We will pull everything into Minsk and the regional centers» (President of the Republic of Belarus, 2025).

In the Republic of Belarus, the All–Belarusian People's Assembly approved the Program for the Socio–Economic Development of the Republic of Belarus for 2026–2030 (Ministry of Economy of the Republic of Belarus, 2025). This document notes that a number of systemic imbalances persist in the Republic of Belarus, in particular, «the insufficient use of the potential of the private sector, which flexibly responds to market changes and promotes economic growth, for import substitution, localization of production, and self–sufficiency».

This Program identifies several development priorities for the next five years, including strong regions (priority 5), the goal of which is to «create equal employment opportunities and quality of life for the population in each region» (Ministry of Economy of the Republic of Belarus, 2025).

Small and medium entrepreneurship (SME) play a significant role in the development of regions in any country worldwide: they create local jobs, diversify regional tax bases, and are frequently more responsive to local market conditions than large enterprises, whose investment decisions are typically made at the national or corporate level rather than the regional one. This determined the choice of topic and focus of the study.

At the same time, regional economic activity of any kind, including SME activity, is rarely distributed evenly across a country's territory. It tends to concentrate where firms and workers benefit

from proximity to one another, a pattern long documented in the regional and urban economics literature (Duranton & Puga, 2004). For the Republic of Belarus, where the capital and a small number of regional centers historically account for a disproportionate share of economic activity, this raises the empirical question of whether SME development follows the same concentrated pattern as the broader economy, or whether it instead offsets regional imbalances by taking root in areas underserved by large enterprises. This question motivates the regional and district-level focus of the present study.

The purpose of this study was to analyze SME development in the regions of the Republic of Belarus. The objective of the study is to conduct a comparative analysis of SME development across regions of the Republic of Belarus. The scientific hypothesis of the study is to justify the active development of SME in the regions based on an analysis of the share of SME in macro-indicators across regions, as well as an analysis of the direct regional development of SME.

The theoretical significance of studying SMEs in the regions of Belarus lies in expanding scientific understanding of regional SME development and its role in regional economic development indicators. The practical significance of studying regional SME in Belarus lies in substantiating the appropriateness of regional development priorities in the Social and Economic Development Program of the Republic of Belarus for 2026–2030. A key unresolved issue in the field of regional SME development is the interrelationship between SME development and effective regional development in Belarus, which this article aims to address. The article includes a literature review on the topic of the study, an analytical section, results, and conclusions.

2. Literature Review

A.Yu. Matsegor and A.E. Suglobov rightly note that «small and medium entrepreneurship make a significant contribution to the national economy, create jobs, and contribute to the growth of national wealth. Therefore, the development of entrepreneurship in the regions is an important area of state policy» (Matsegor & Suglobov, 2023). From our point of view, this statement is very important, however, the direction of state policy under consideration is only one of its elements, and rather, it is conducive, but not important.

In turn, A.R. Khamidullina states that «in the current conditions of economic instability and sanctions pressure, the development of SME is of particular importance...» (Khamidullina, 2024). We believe that SME development is of little importance amid economic instability and sanctions pressure, as it is not a critical factor in economic growth. SME development is only particularly important in terms of job preservation and revenue generation at various levels.

Reviewing the scientific interpretations of the concept of «small and medium entrepreneurship» presented in the works of foreign and domestic scholars, F.M. Dzhuraev and M.M. Ziyaev offer their own definition, emphasizing its regional component and defining it as «small and medium entrepreneurship —a set of economically independent, organizationally flexible, and territorially oriented business entities that ensure the development of the regional economy» (Juraev, & Ziyaev, 2026). Undoubtedly, the authors' fair definition has merit. However, the narrow scope of their concept fails to capture the full role that SMEs play in any country.

Analyzing the factors and trends of the structural transformation of the small and medium-sized business sector in the region, O.A. Inevatova, A.S. Silenko, and E.O. Mikhailova note that «a developed small and medium entrepreneurship sector contributes to increased tax revenues, higher household incomes, and the stimulation of innovation and scientific and technological progress, which together form a sustainable foundation for the socioeconomic development of the country and its regions» (Inevatova et al., 2026). From our point of view, the authors' idea that SMEs contribute to an increase in the population's income is not entirely correct, since an increase in the population's income depends not only on SME developed.

L.V. Glezman, examining the development of SME in the new conditions of the regional space, rightly notes that «the development of SME organizations is largely determined by regional factors and conditions» (Glezman, 2022). From our point of view, given the centralized state regulation of the economy without allowing for the possibility of separate regional regulations of SME development, this conclusion is not entirely correct.

We agree with S.F. Salikhova's opinion that «a high level of development of small and medium entrepreneurship is an undeniable competitive advantage for any region and, as a rule, indicates a favorable business climate and high investment potential of the territories» (Salikhova, 2022). In this case, the author's opinion coincides with ours, since SMEs are a competitive advantage for any region, but depending on its specialization.

Since the Republic of Belarus is largely an agricultural country, the opinion of M. Beckmann, M. Garkisch & A. Zeyen, that «small and medium-sized enterprises (SMEs) play an important role in ensuring growth and sustainable development, especially in rural areas where multinational corporations are absent» (Beckmann, Garkisch, & Zeyen, 2023) is quite interesting. At the same time, in the absence of multinational corporations in the regions of Belarus, SMEs may play an important role in ensuring growth, but most often in providing employment.

We agree with the opinion of P. McCann, & R. Ortega-Argilés, who assert that «that SMEs and entrepreneurs are an important driver of the regional socio-economic system, they should be involved in the process of setting-up, implementation, and evaluation of smart specialization policies»

(McCann, & Ortega-Argilés, 2016). Some elements of smart specialization are observed in the Republic of Belarus, for example, in terms of interaction between the regional entrepreneurial community and regional authorities.

T. Makkonen, & B. Leick, examining the challenges and opportunities of locating small and medium-sized enterprises in border regions, state that «SMEs in border regions do benefit from cross-border cooperation opportunities» (Makkonen, & Leick, 2020). However, in our opinion, this is not entirely true, since five of the seven regions of Belarus are border regions and no particular differentiation in SME development was identified.

A. Ndrejoni conclusion that «SMEs constitute the region's economic backbone, but face persistent barriers, including limited access to finance, a complex tax system, institutional inefficiencies, and a shortage of skilled labor» is clearly surprising (Ndrejoni, 2025). This raises the question: If SMEs are the region's economic backbone, why do they face so many barriers, which are typically addressed through government support?

In our view, the most mature approach to regional SME development is that of McCann, P., & Ortega-Argilés, R. (2016). While smart specialization is based, in particular, on SMEs, there are certain challenges that could be explored in future articles.

3. Materials and Methods

This study employs a descriptive, quantitative research design grounded in the premise that small and medium entrepreneurship (SME) is one of the primary drivers of territorial development, economic diversification, and social stability at the regional level. Within this design, the study pursues two specific objectives: first, to identify the role of SME in regional development indicators of the Republic of Belarus; and second, to compare SME development trends across the country's regions and, at a more granular level, across its administrative districts over time.

The unit of analysis is the region (oblast) of the Republic of Belarus and, for a more granular assessment, the administrative district (raion), including the districts of the capital city. The core sampling period is 2019–2024, which corresponds to the interval between the conclusion of the previous socio-economic development program and the launch of the Program of Social and Economic Development of the Republic of Belarus for 2026–2030, and it applies to all regions of Belarus and to the SME category as a whole. For district-level comparisons, the time frame was extended back to 2015–2016 in order to assess trends over a full decade rather than over a single five-year program cycle.

The study relies exclusively on secondary statistical data published by the National Statistical Committee of the Republic of Belarus (Belstat). Regional-level indicators, specifically the shares of

gross value added (GVA) generated by micro-organizations, small organizations, medium-sized organizations, and individual entrepreneurs in gross regional product (GRP), were obtained through Belstat's interactive statistical data portal for the years 2019–2024. District-level indicators of SME development were drawn from Belstat's 2026 structural statistics release and were cross-referenced against Belstat's 2016 report on small and medium entrepreneurship in the Republic of Belarus in order to establish a consistent baseline for longer-term, district-level comparison.

Data processing and analysis combined economic-statistical analysis with descriptive and comparative synthesis. Regional-level GVA shares were normalized and standardized to allow comparison across regions and over time, while district-level indicators for 2024 were compared against their 2019 and 2015 values in order to classify districts as showing positive or negative SME development trends. The resulting district-level classifications were then cross-tabulated against the priority districts and regional groupings identified in the Program of Social and Economic Development of the Republic of Belarus for 2026–2030, including the Pripyat Polesie districts and the Minsk Industrial Belt, to assess the degree of alignment between stated policy priorities and observed statistical outcomes. All calculations and data visualizations were performed using Microsoft Excel software.

4. Results

The analysis of the share of GVA of SMEs in the gross regional product in the Republic of Belarus showed the leadership of Minsk (2019 - 44, 2024 - 39.9%) with a decreasing indicator in all regions of Belarus compared to 2019, except for the Vitebsk region (2019 - 18.7; 2024 - 19%). At the same time, with a general decline, there is an increase in the share of GVA of medium-sized organizations in the Minsk region (2019 - 9.3; 2024 - 9.6%); microorganisms of the Mogilev region (2019 - 4.7; 2024 - 4.8%); small organizations of the Gomel region (2019 – 4.0; 2024 – 4.1%) and the Vitebsk region (2019 – 5.2; 2024 – 7.0%) (Fig. 1 - 7) (National Statistical Committee of the Republic of Belarus, 2026).

A closer reading of Figure 1 shows that the regional ranking of SME GVA shares remained stable throughout 2019–2024, with the city of Minsk, Minsk region, and Mogilev region consistently occupying the top three positions and Gomel region persistently at the bottom. The year-by-year trajectory, however, reveals a pronounced dip rather than a smooth decline: shares fell sharply in every region between 2020 and 2021 — for instance, from 44.0% to 37.2% in the city of Minsk and from 32.3% to 25.9% in Minsk region — before partially recovering from 2022 onward. By 2024, most regions had regained only part of the ground lost during this trough; the share for the city of Minsk (39.9%) remained 4.1 percentage points below its 2019 level, and Grodno region recorded the

sharpest overall decline among all regions, falling from 19.6% to 16.5% (–3.1 p.p.), while Vitebsk region was the only region to end the period essentially at its starting level (18.7% to 19.0%, +0.3 p.p.).

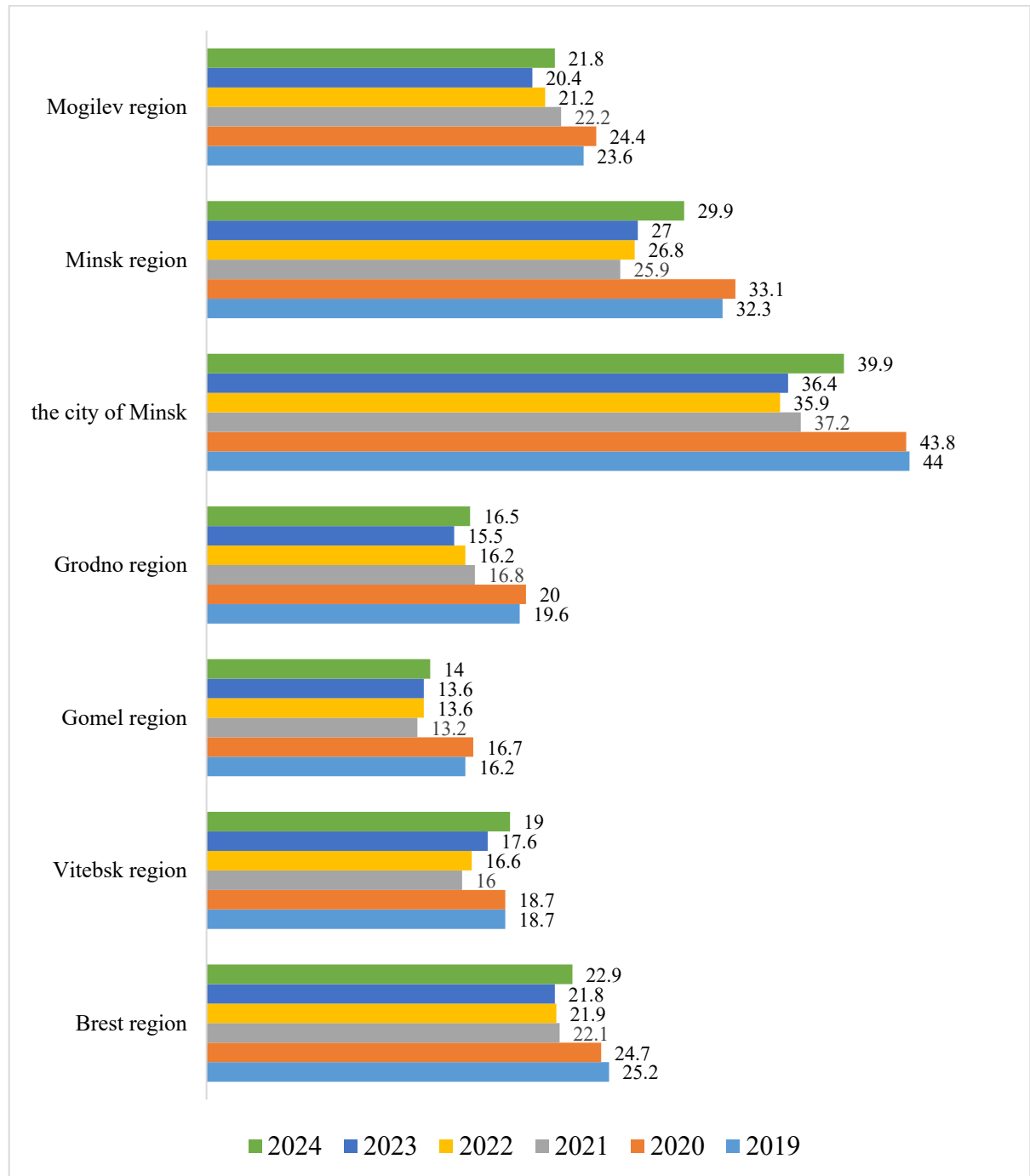


Figure 1. Share of GVA of small and medium-sized businesses in GRP in the Republic of Belarus by region in 2019–2024, %

Source: author's own development based on National Statistical Committee of the Republic of Belarus, 2026

Figure 2, which isolates the contribution of micro-, small-, and medium-sized legal entities from that of individual entrepreneurs, follows the same U-shaped trajectory as Figure 1 but with smaller amplitude. Comparing 2019 and 2024, Vitebsk region is again the only region to show a net increase (from 15.8% to 17.1%, +1.3 p.p.), while the city of Minsk fell from 39.7% to 37.9% (–1.8

p.p.) and Gomel region from 13.3% to 12.0% (−1.3 p.p.). Because the gap between Figures 1 and 2 corresponds to the individual-entrepreneur share, the fact that the decline in Figure 2 for the city of Minsk (−1.8 p.p.) was markedly smaller than its decline in Figure 1 (−4.1 p.p.) indicates that a disproportionate share of the capital's overall SME contraction is attributable to individual entrepreneurs rather than to registered legal entities — a pattern examined further in connection with Figure 7 below.

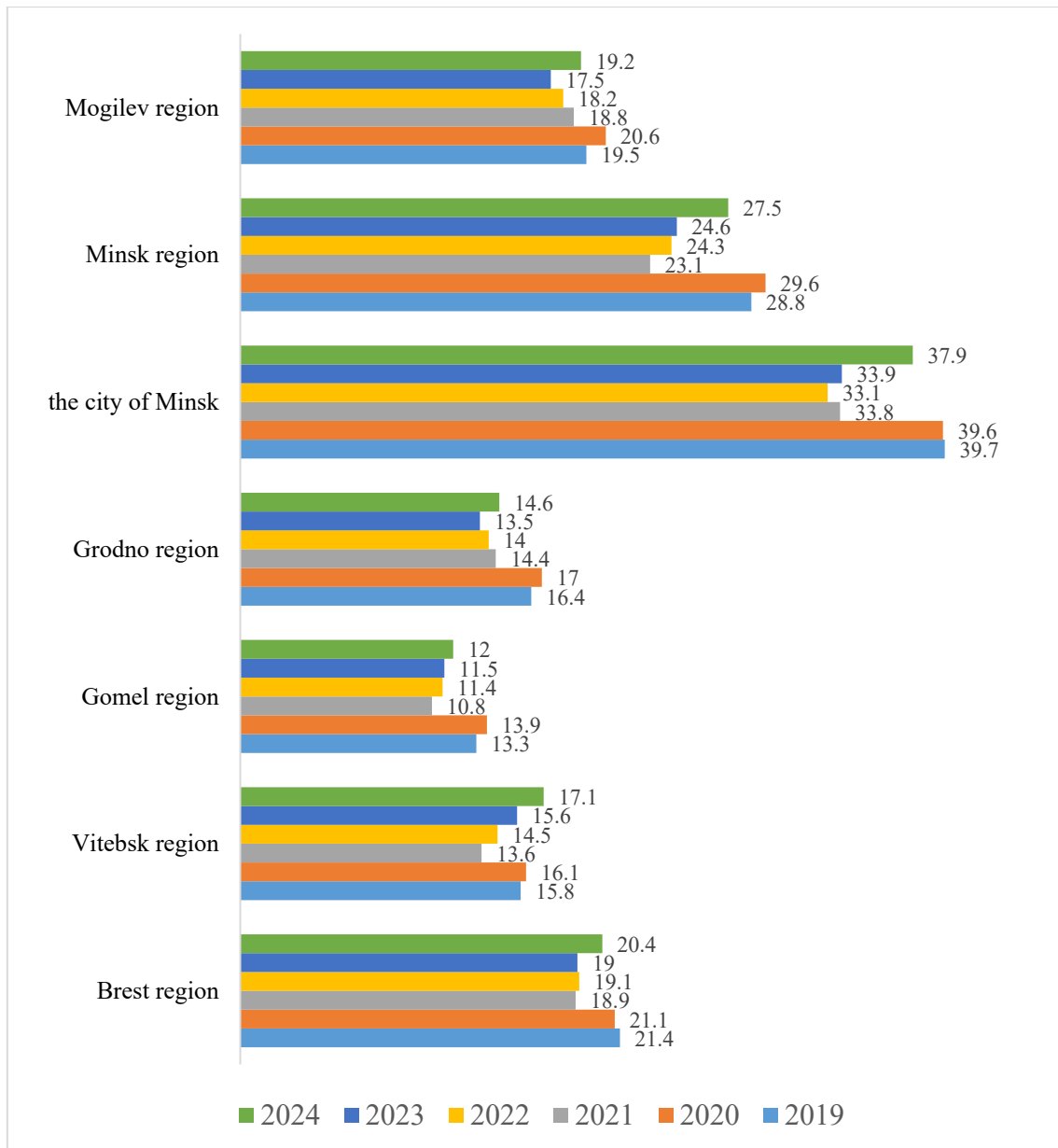
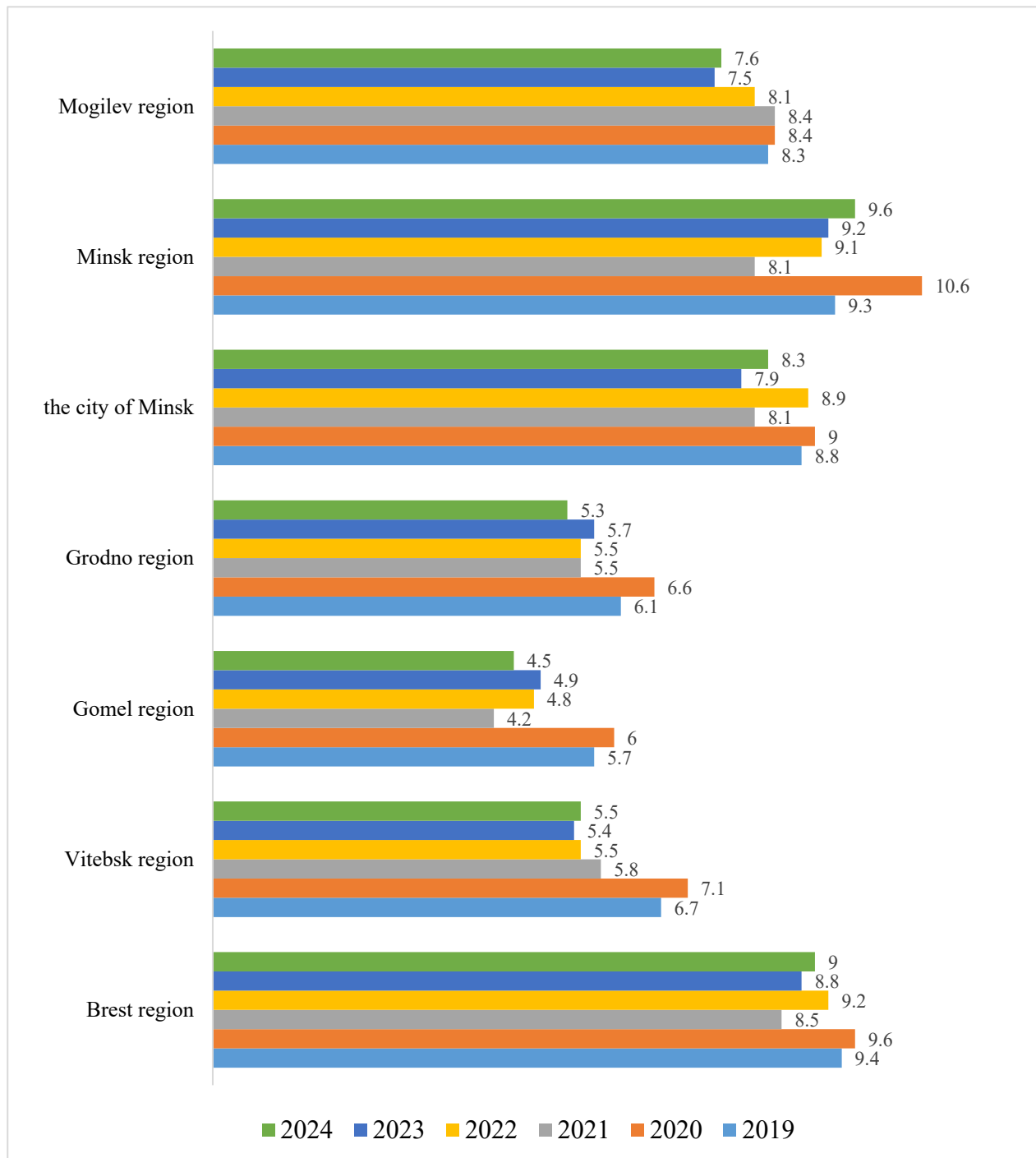


Figure 2. Share of GVA of micro-organizations, small and medium-sized organizations in GRP in the Republic of Belarus by region in the period 2019–2024, %

Source: author's own development based on National Statistical Committee of the Republic of Belarus, 2026

Medium-sized organizations (Figure 3) proved the most stable of the four organizational categories, with changes across all regions confined to a narrow band of −1.2 to +0.3 percentage points between 2019 and 2024. Minsk region was the only region in which medium-sized

organizations increased their share of GRP (from 9.3% to 9.6%), a result that, combined with the region's comparatively moderate overall SME decline in Figure 1, suggests that medium-sized



enterprises around the capital have been relatively resilient. Gomel and Vitebsk regions recorded the largest declines in this category (both –1.2 p.p.), consistent with their weaker performance in Figures 1 and 2.

Figure 3. Share of GVA of medium-sized organizations in GRP across the territory of the Republic of Belarus by region in the period 2019–2024, %

Source: author's own development based on National Statistical Committee of the Republic of Belarus, 2026

Figure 4, which aggregates micro- and small organizations, shows more differentiated regional dynamics than the medium-sized segment considered separately. Vitebsk region stands out with one of the largest increases recorded across all seven figures, rising from 9.1% to 11.6% (+2.5 p.p.); read together with Figure 6 below, this growth appears concentrated in small rather than micro-sized firms. Minsk region recorded the largest decline in this category (19.5% to 17.9%, –1.6 p.p.), while Mogilev and Gomel regions were comparatively stable (+0.4 p.p. and –0.1 p.p., respectively).

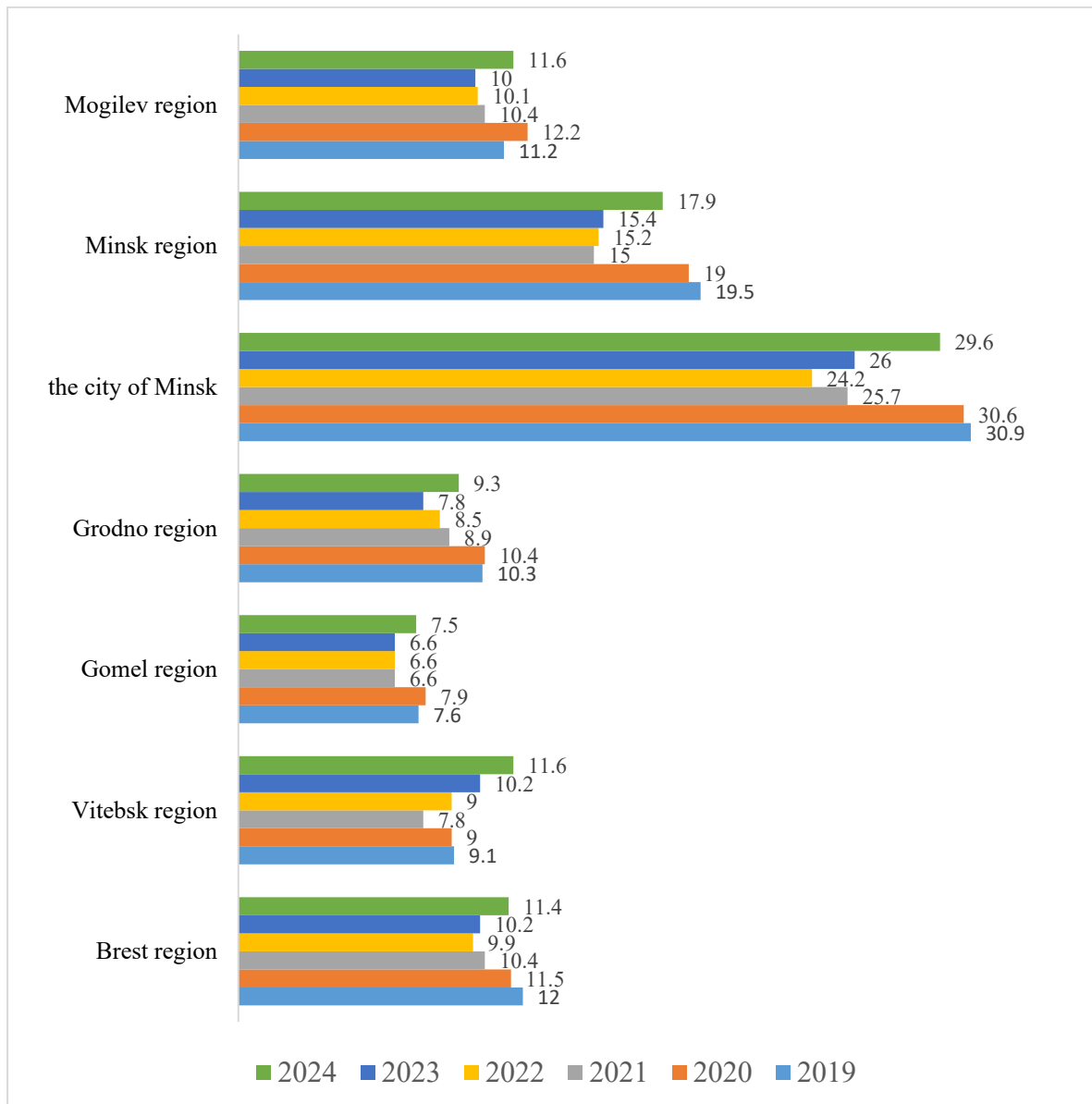


Figure 4. Share of GVA of micro- and small organizations in GRP in the Republic of Belarus by region in the period 2019–2024, %

Source: author's own development based on National Statistical Committee of the Republic of Belarus, 2026

The microorganization segment (Figure 5) shows the smallest absolute movements of any organizational category, with five of the seven regions changing by less than one percentage point between 2019 and 2024. The city of Minsk recorded the largest decline (13.1% to 11.8%, –1.3 p.p.), consistent with its overall contraction across Figures 1, 2, and 4, whereas Vitebsk region increased

from 3.9% to 4.6% (+0.7 p.p.), mirroring the positive trend already visible for this region in Figures 1, 2, and 4.

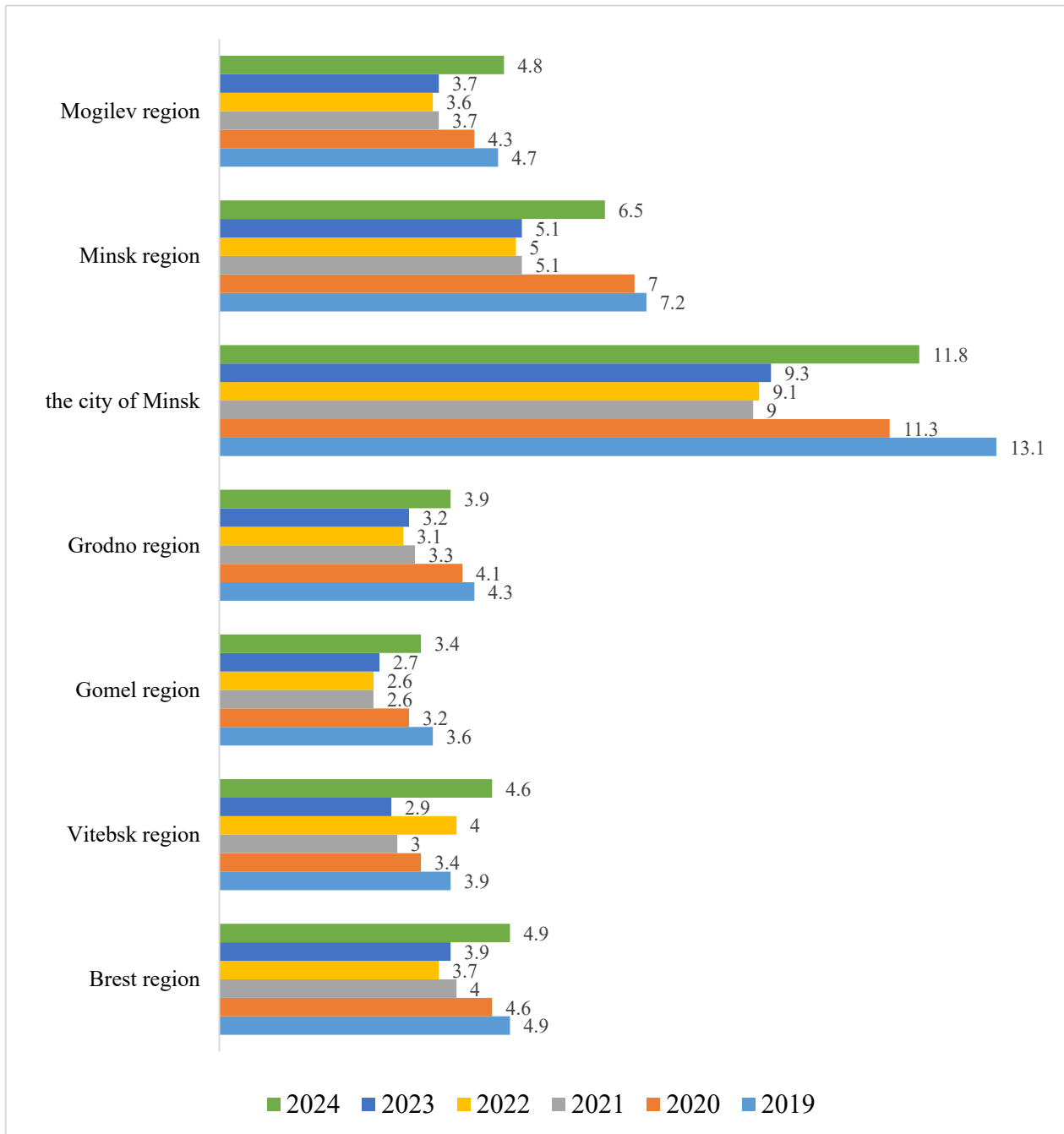


Figure 5. Share of GVA of microorganizations in GRP across the territory of the Republic of Belarus by region in the period 2019–2024, %

Source: author's own development based on National Statistical Committee of the Republic of Belarus, 2026

Small organizations (Figure 6) reveal the sharpest regional divergence among the seven figures. Vitebsk region's share rose markedly over the period, reaching 7.0% in 2024 from 5.2% in 2019 (+1.8 p.p.) — the second-largest increase recorded in any of the seven figures, after Vitebsk's own performance in Figure 4. The share for the city of Minsk was unchanged over the period as a whole (17.8% in both 2019 and 2024), even though it fell as low as 15.1% in 2022 before recovering,

indicating that the pandemic-era dip documented in Figure 1 was concentrated in small rather than micro- or medium-sized organizations in the capital.

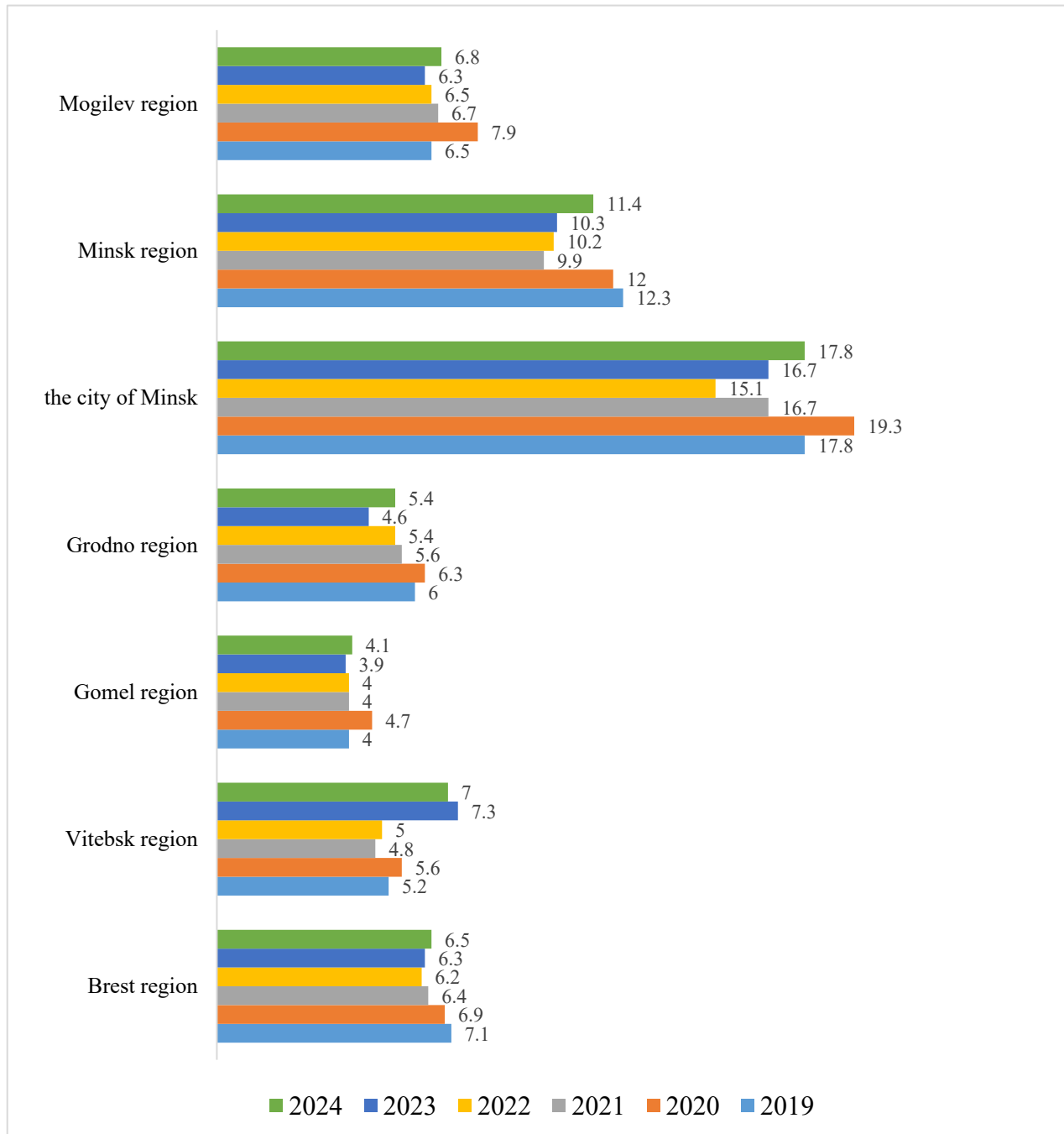


Figure 6. Share of GVA of small organizations in GRP across the territory of the Republic of Belarus by region in the period 2019–2024, %

Source: author's own development based on National Statistical Committee of the Republic of Belarus, 2026

Figure 7 presents the only pattern that is fully consistent across all seven regions: the share of individual entrepreneurs in GRP declined without exception between 2019 and 2024, from a range of 2.9%–4.3% to a narrower range of 1.9%–2.6%. The decline was steepest, in both absolute and relative terms, in the city of Minsk, where the individual-entrepreneur share fell from 4.3% to 2.0% — a drop of more than half — while Mogilev (4.1% to 2.6%) and Brest (3.8% to 2.5%) regions recorded the next-largest

reductions. Because this decline is universal rather than region-specific, it is unlikely to reflect purely local economic conditions; a more plausible explanation is a nationwide shift in business-registration behavior, whereby individual entrepreneurs increasingly convert to, or are absorbed into, small legal-entity forms, a possibility consistent with the relative resilience of the small-organization category documented in Figure 6 over the same period. This also explains why the city of Minsk's overall SME decline in Figure 1 (−4.1 p.p.) was substantially larger than its decline among registered legal entities alone in Figure 2 (−1.8 p.p.): the erosion of individual entrepreneurship, rather than of registered SME activity as such, accounts for most of the capital's apparent contraction.

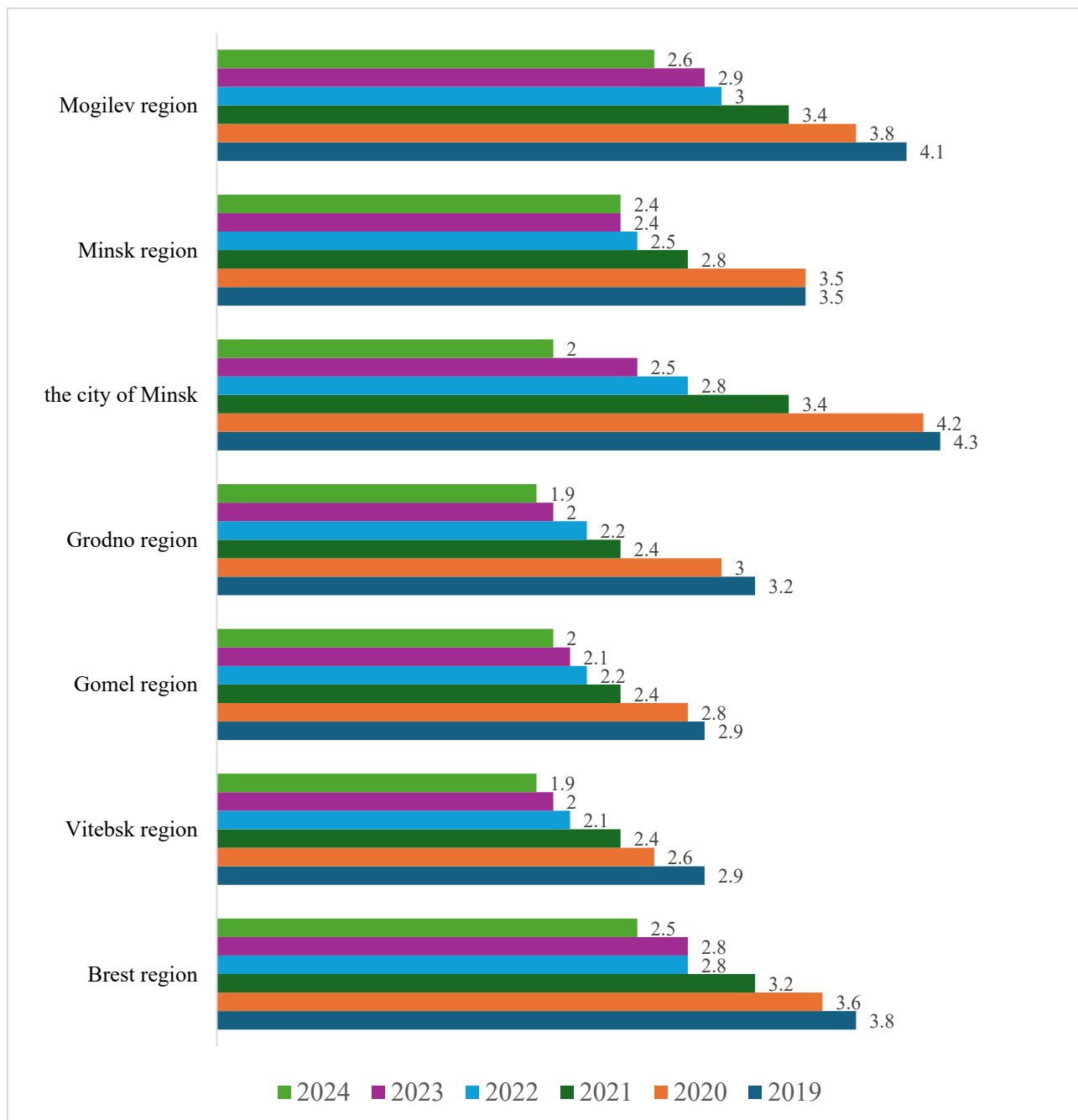


Figure 7. Share of GVA of individual entrepreneurs in GRP across the territory of the Republic of Belarus by region in the period 2019–2024, %

Source: author's own development based on National Statistical Committee of the Republic of Belarus, 2026

The analysis showed that, from 2006 to 2024, certain districts of Belarus had the worst performance in terms of SME development. The Rossonsky, Ushachsky, Sharkovshchinsky, Berestovitsky, Dyatlovsky, Zelva, Khotsimsky, Kirovsky, and Kruglyansky districts had worse performance in 2024 than in 2015 (National Statistical Committee of the Republic of Belarus, 2026; National Statistical Committee of the Republic of Belarus, 2016). According to the analysis, business support infrastructure entities do not play a significant role in the development of these districts.

At the same time, positive trends are also observed. For example, Kobrin, Braslav, Polotsk, Rechitsa, and other districts are showing undeniable positive trends.

An analysis of SME development in the regional and capital city districts revealed that, compared to 2015, the Gomel, Grodno, and Mogilev districts have shown negative growth trends. Positive trends are observed in the remaining districts.

Program for the Socioeconomic Development of the Republic of Belarus for 2026–2030 Priority 5 - Strong Regions - highlights several districts where SMEs require close attention. The program under consideration includes specific measures in parts of the Pripyat Polesie region (Brest and Gomel regions). Specifically, «the following objectives are envisaged: implementing investment projects to create new production facilities, increase the processing of local raw materials, and modernize existing facilities in the Gantsevichi, Luninets, Pinsk, Stolin, Yelsk, Lelchitsy, Zhitkovichi, Kalinkovichi, and Petrikovsky districts» (Ministry of Economy of the Republic of Belarus, 2025).

The analysis showed that, by the end of 2024, only the Pinsk, Stolin, Lelchitsy, Kalinkovichi, and Petrikov districts showed a positive trend in SME development compared to 2019.

Also, as part of the development of the Minsk Industrial Belt, the program in question «provides for... increasing the competitiveness of industrial complexes in the Borisov, Dzerzhinsky, Molodechno, Slutsk, Smolevichi, Stolbtsy, and Soligorsk districts» (Ministry of Economy of the Republic of Belarus, 2025). The analysis showed that, by the end of 2024, only the Dzerzhinsky, Smolevichi, and Soligorsk districts showed a positive trend in SME development compared to 2019.

5. Discussion

Thus, based on the above analysis, we can identify positive and negative trends in SME development in various regions of the Republic of Belarus.

At the end of the study, we can put forward an assumption that confirms our initial hypothesis about the positive development of SMEs in the regions of Belarus without taking into account various factors. However, taking these factors into account provides a more specific picture of regional SME

development. The high share of SME GVA in Minsk is due to population density and high income levels, which is consistent with the broader agglomeration-economies literature explaining why firms and workers cluster where sharing, matching, and learning effects are strongest (Duranton & Puga, 2004). In the outlying areas, development is constrained by a shortage of skilled labor and remoteness from sales markets. Regions where SMEs are engaged in high-value-added manufacturing are more resilient to crises, which aligns with findings that regional economic structure conditions the capacity of territories to absorb and recover from recessionary shocks (Martin, 2012).

Thus, there is an imbalance between regions caused by low levels of entrepreneurial activity among the population. This may be due to this, as well as to the inability or reluctance of entrepreneurs or entrepreneurial-minded residents from other regions to join, as well as the weak efforts of regional government bodies to attract these groups. It may also be due to the impossibility of pursuing entrepreneurial activity due to a lack of various resources in the region, including a skilled workforce, poor logistics, and other factors. Conversely, dependence on trading SMEs makes a region's economy vulnerable to logistical disruptions or declines in consumer demand.

The study shows that resources alone are not the only driver of SME development. The Vitebsk region demonstrates good results, which, however, is most likely due to the presence of a large oil refinery, with which SMEs operate in collaboration. This pattern is consistent with research on single-industry, or "monotown," territories, where the performance of surrounding small business is closely tied to the fortunes of a dominant city-forming enterprise, for better or worse (Rubtsov & Litvinenko, 2020). While an oil refinery is certainly more local in nature than a transnational corporation, on the scale of Belarus, it is one of two systemically important refineries in the oil refining industry, and the SMEs clustered around it resemble the satellite enterprises described in that literature more than they resemble a diversified regional entrepreneurial base.

In our view, these factors are the same throughout Belarus, with the exception of different population sizes in different regions. However, a smaller population does not necessarily indicate lower quantitative development of SMEs, and vice versa. Since the «one-stop shop» principle has been standardized across all regions of the Republic of Belarus, it is the entrepreneurial spirit of the region's population or invited entrepreneurs that can solve the problem of activating SMEs in the regions. This is broadly in line with the entrepreneurial ecosystem approach, which holds that once basic formal institutions and services are in place, further progress in regional entrepreneurship depends chiefly on the interdependent actors and factors, including entrepreneurial culture, networks, and local leadership, that make productive entrepreneurship possible (Stam, 2015). These research areas may be promising for future scientific conclusions and studies.

6. Conclusion

This study set out to examine how small and medium entrepreneurship has developed across the regions and districts of the Republic of Belarus between 2019 and 2024, and to assess the extent to which this development aligns with the regional priorities set out in the Program of Social and Economic Development of the Republic of Belarus for 2026–2030. Drawing on official regional- and district-level statistics, the analysis points to a pattern of high spatial concentration around Minsk, considerable heterogeneity among the remaining regions, and only partial correspondence between the districts formally designated as priorities and those that have, in practice, shown positive dynamics. The conclusions below summarize the study's main findings and set out their implications for regional policy, the limitations of the analysis, and directions for future research.

1. SME development at the regional level shows overall positive dynamics between 2015 and 2024, but this aggregate trend conceals substantial internal variation. A small number of districts, clustered around the capital and around a handful of anchor enterprises, account for most of the improvement, while a considerable number of peripheral districts — including the Rossonsky, Ushachsky, Sharkovshchinsky, Berestovitsky, Dyatlovsky, Zelva, Khotsimsky, Kirovsky, and Kruglyansky districts — performed worse in 2024 than in 2015. This divergence indicates that national- or even regional-level averages are of limited use for policy purposes, and that district-level monitoring should become a standard component of SME statistics going forward.

2. Regional SME development in the Republic of Belarus is marked by high spatial concentration: more than 30% of all SMEs are traditionally located in the capital and the largest regional centers, with the city of Minsk alone accounting for roughly 40% of SME gross value added in gross regional product throughout 2019–2024, despite a modest decline from 44% in 2019 to 39.9% in 2024. While this pattern is consistent with the general logic of agglomeration economies, it also means that regional development policy cannot treat the capital's performance — or its gradual relative decline — as representative of conditions in outlying districts, where the underlying picture is considerably more mixed.

3. Statistical data on SME development across regions largely support the regional priorities set out in the Program for Socioeconomic Development of the Republic of Belarus for 2026–2030, though the alignment is only partial. Among the districts singled out for priority support under the Pripyat Polesie initiative, only the Pinsk, Stolin, Lelchitsy, Kalinkovichi, and Petrikov districts had, by the end of 2024, achieved positive SME dynamics relative to 2019, while the Gantsevichi, Luninets, Yelsk, and Zhitkovichi districts had not; similarly, under the Minsk Industrial Belt initiative, only the Dzerzhinsky, Smolevichi, and Soligorsk districts showed improvement, while the Borisov, Molodechno, Slutsk, and Stolbtsy districts did not. This roughly even split between success

and stagnation within the very districts the Program identifies as priorities indicates that formal priority status alone has not yet been sufficient to reverse unfavorable trends, and that the instruments used to support these districts may need to be reassessed and differentiated on a case-by-case basis.

4. For government bodies and regional authorities, practical recommendations arising from these findings include, in particular: (a) expanding financial support for SMEs specifically in the lagging districts identified above, rather than distributing it uniformly across all priority zones; (b) reducing administrative barriers to new business registration and operation, especially in districts furthest from Minsk; (c) cultivating entrepreneurial initiative among the population through targeted training, mentorship, and outreach programs; and (d) directing support disproportionately toward districts whose statistical performance has not yet responded to their formal priority status, rather than continuing to allocate resources evenly across all designated priority districts regardless of demonstrated results.

5. Two limitations of the study should be noted. First, there is a lag in the relevance of the data, as regional statistical digests are published with a delay and do not always preserve full comparability with the previous reporting period, which constrains the precision of year-on-year comparisons. Second, the analysis relies on official aggregated statistics at the regional and district level rather than firm-level survey data, which limits insight into the specific mechanisms — such as individual entrepreneurial decisions, financing constraints, or local administrative practices — that underlie the district-level differences documented here. Future studies with access to firm-level or survey data could help disentangle these mechanisms more precisely.

6. Promising directions for future scientific and practical research include the digital transformation of regional SMEs, particularly the extent to which e-commerce and digital services can offset the disadvantages of peripheral location; closer study of the regional entrepreneurial community, including qualitative and survey-based work examining why entrepreneurial activity takes root in some districts but not in others with seemingly comparable formal conditions; and comparative research on the design of regional support instruments, so as to identify which specific measures — financial, administrative, or institutional — are most effective in the districts that have so far failed to respond to priority status.

7. Taken together, these findings indicate that regional SME development in Belarus is shaped jointly by agglomeration effects around the capital, dependence on individual anchor enterprises in a subset of outlying regions such as Vitebsk, and the uneven activation of entrepreneurial potential elsewhere. This heterogeneity suggests that a uniform, one-size-fits-all approach to regional SME policy is unlikely to be effective across all districts, and that policy design should instead distinguish

between agglomeration-driven regions, enterprise-dependent regions, and regions where the binding constraint is primarily a shortage of entrepreneurial activity itself.

8. Beyond its immediate policy relevance, the study contributes to the broader regional economics literature on small and medium entrepreneurship in post-Soviet and transition economies by demonstrating, with district-level statistical evidence, how agglomeration economies, enterprise dependence, and entrepreneurial-ecosystem dynamics can operate simultaneously within a single national economy — a pattern that may also be relevant to other centrally coordinated economies pursuing similarly structured regional development programs.

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Ethics Approval / Informed Consent Statement

This study did not require ethics committee approval, as it did not involve human or animal subjects.

Data Availability Statement

The data supporting the results of this study are publicly available from the National Statistical Committee of the Republic of Belarus at: <https://dataportal.belstat.gov.by/osids/rubric-info/10623>.

Generative AI Use Disclosure

No generative AI tools were used in the preparation of this manuscript.

Reference List

- Beckmann, M., Garkisch, M., & Zeyen, A. (2023). Together we are strong? A systematic literature review on how SMEs use relation-based collaboration to operate in rural areas. *Journal of Small Business & Entrepreneurship*, 35(4), 515-549.
- Duranton, G., & Puga, D. (2004). Micro-foundations of urban agglomeration economies. In V. Henderson & J. F. Thisse (Eds.), *Handbook of Regional and Urban Economics* (Vol. 4, pp. 2063–2117). Elsevier. [https://doi.org/10.1016/S1574-0080\(04\)80005-1](https://doi.org/10.1016/S1574-0080(04)80005-1)
- Glezman, L. V. (2022). Development of small and medium-sized business in a new regional environment. *Journal of Economics, Entrepreneurship and Law*, 12(7), 1855-1868. <https://doi.org/10.18334/epp.12.7.115120>
- Inevatova, O.A., Mikhailova, E.O. & Silenko A.S. (2026). Factors and trends of structural transformation of the small and medium entrepreneurship sector in the region. *Economics*, (1 (56)), 4-13.
- Juraev, F. M., & Ziyaev, M. M. (2026). To theoretical aspects of small and medium entrepreneurship in the regional economy. *Bulletin of the Tajik State University of Law, Business and Politics. Social Sciences Series*, 107 (2), 70–80. <https://doi.org/10.24412/3005-8023-2026-2-70-80>
- Khamidullina, A.R. (2024). The role of small and medium entrepreneurship in the socio-economic development of the Orenburg region. *Natural Sciences and Humanities*, (6 (56)), 727-732.

- Martin, R. (2012). Regional economic resilience, hysteresis and recessionary shocks. *Journal of Economic Geography*, 12(1), 1–32. <https://doi.org/10.1093/jeg/lbr019>
- Matsegor, A.Y. & Suglobov, A.E. (2023). Supporting Entrepreneurship in the Regions as a Key Factor in Ensuring Economic Security. *Bulletin of Eurasian Science*, 15 (2S), 48.
- McCann, P., & Ortega-Argilés, R. (2016). Smart specialisation, entrepreneurship and SMEs: issues and challenges for a results-oriented EU regional policy. *Small business economics*, 46(4), 537-552.
- Makkonen, T., & Leick, B. (2020). Locational challenges and opportunities for SMEs in border regions. *European Planning Studies*, 28(10), 2078-2098.
- Ministry of Economy of the Republic of Belarus. (2025). Program of Socioeconomic Development of the Republic of Belarus for 2026–2030. Minsk. <https://economy.gov.by/ru/pser2030-ru/>
- National Statistical Committee of the Republic of Belarus. (2016). Small and medium entrepreneurship in the Republic of Belarus. https://www.belstat.gov.by/ofitsialnaya-statistika/publications/izdania/public_compilation/index_5272/?sphrase_id=2712782
- National Statistical Committee of the Republic of Belarus. (2026). Structural statistics, including statistics of small and medium-sized businesses. <https://dataportal.belstat.gov.by/osids/rubric-info/10623>
- Ndregjoni, A. (2025). Small and medium enterprises in the Western Balkans: Development, challenges, and prospects. *Revista Economicus*, 24(2).
- President of the Republic of Belarus. (2025). Address by the President of the Republic of Belarus A.G. Lukashenko to the Belarusian people and the National Assembly of the Republic of Belarus «Time for Concrete Actions». <https://president.gov.by/ru/events/vtoroe-zasedanie-vii-vsebelorusskogo-narodnogo-sobrania>
- Rubtsov, G., & Litvinenko, A. (2020). Development of single-industry towns as a factor of economic and regional growth. *E3S Web of Conferences*, 208, 08005. <https://doi.org/10.1051/e3sconf/202020808005>
- Salikhova, S.F. (2022). Development of small business in the new reality: regional opportunities and limitations. *Economics, Entrepreneurship and Law*, 12 (12), 3189-3204.
- Stam, E. (2015). Entrepreneurial ecosystems and regional policy: A sympathetic critique. *European Planning Studies*, 23(9), 1759–1769. <https://doi.org/10.1080/09654313.2015.1061484>

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ШАҒЫН ЖӘНЕ ОРТА КӘСІПКЕРЛІКТІ ДАМУДАҒЫ КЕҢІСТІКТІК ШОҒЫРЛАНУ МЕН АЙМАҚТЫҚ СӘЙКЕССІЗДІКТЕР: БЕЛАРУСЬ РЕСПУБЛИКАСЫНЫҢ ТӘЖІРИБЕСІ, 2019–2024 ЖЖ.

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Түйін:

Бұл мақалада 2019–2024 жылдар аралығында Беларусь Республикасында шағын және орта кәсіпкерлікті (ШОК) дамытудағы аймақтық сәйкессіздіктер зерттеледі, атап айтқанда, байқалған ШОК динамикасы мен Беларусь Республикасының 2026–2030 жылдарға арналған әлеуметтік-экономикалық даму бағдарламасында белгіленген аймақтық даму басымдықтарының сәйкестігіне ерекше назар аударылады. Беларусь Республикасының Ұлттық статистика комитетінің микро-, шағын және орта ұйымдар, сондай-ақ жеке кәсіпкерлер құратын жалпы қосылған құн (ЖҚҚ) туралы ресми статистикалық деректеріне сүйене отырып, зерттеуде ШОК қызметінің алдыңғы әлеуметтік-экономикалық даму циклі аяқталғаннан кейін қалай дамығанын бағалау үшін экономикалық-статистикалық талдау, салыстырмалы талдау және сипаттамалық синтез аймақтық және аудандық деңгейлерде қолданылады.

Талдау көрсеткендей, Беларусьтегі ШОК-ты аймақтық дамыту жоғары кеңістіктік шоғырланумен сипатталады: Минск қаласы мен Минск облысына ШОК-тың ЖҚҚ-ындағы үлесінің тым көп бөлігі тиесілі, ал қалған аймақтар айтарлықтай ішкі әркелкілікті көрсетеді, бұл ретте аймақтық деңгейдегі көрсеткіштер бірыңғай аймақтық үрдістерге емес, жоғары көрсеткішті аудандардың шағын санының болуына немесе болмауына байланысты анықталады. Ірі қала құраушы кәсіпорындармен немесе қолайлы логистикамен байланысты аудандардың бір бөлігі, ең алдымен Витебск облысында, кең аймақтық көрсеткіштер нашарлап жатқан жағдайда да жақсаруды көрсетеді, ал шеткі аудандардың едәуір бөлігі, соның ішінде Беларусь Республикасының 2026–2030 жылдарға арналған әлеуметтік-экономикалық даму бағдарламасында басым деп аталған бірнеше аудан, 2024 жылы 2015 немесе 2019 жылмен салыстырғанда нашар нәтиже көрсетеді. Бұл нәтижелер Бағдарламада белгіленген басым аудандар мен іс жүзінде оң ШОК динамикасына қол жеткізген аудандар арасында тек ішінара сәйкестік бар екенін көрсетеді.

Зерттеу қорытындысында Беларусьтегі ШОК қызметінің кеңістіктік шоғырлануы тек халық тығыздығы мен әкімшілік мәртебеге ғана емес, сонымен қатар қала құраушы кәсіпорындардың болуына, логистикалық қолжетімділікке және жергілікті билік органдарының институционалдық әлеуетіне де байланысты екені атап өтіледі, бұл Бағдарлама аясында аймақтық ШОК қолдау шараларын жетілдіру үшін эмпирикалық негіз ұсынады.

Түйін сөздер: шағын және орта кәсіпкерлік; аймақтық даму; кеңістіктік шоғырлану; аймақтық сәйкессіздіктер; Беларусь

Автор туралы мәлімет

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ПРОСТРАНСТВЕННАЯ КОНЦЕНТРАЦИЯ И РЕГИОНАЛЬНЫЕ ДИСПРОПОРЦИИ В РАЗВИТИИ МАЛОГО И СРЕДНЕГО ПРЕДПРИНИМАТЕЛЬСТВА: ОПЫТ РЕСПУБЛИКИ БЕЛАРУСЬ, 2019–2024 ГГ.

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Аннотация:

В статье исследуются региональные диспропорции в развитии малого и среднего предпринимательства (МСП) в Республике Беларусь за период 2019–2024 гг., с особым вниманием к соответствию между наблюдаемой динамикой МСП и приоритетами регионального развития, закреплёнными в Программе социально-экономического развития Республики Беларусь на 2026–2030 годы. Опираясь на официальные статистические данные Национального статистического комитета Республики Беларусь о валовой добавленной стоимости (ВДС), создаваемой микро-, малыми и средними организациями, а также индивидуальными предпринимателями, в исследовании применяются экономико-статистический анализ, сравнительный анализ и описательный синтез на региональном и районном уровнях для оценки того, как развивалась деятельность МСП после завершения предыдущего цикла социально-экономического развития.

Анализ показывает, что региональное развитие МСП в Беларуси характеризуется высокой пространственной концентрацией: на Минск и Минскую область приходится непропорционально большая доля НДС МСП, тогда как остальные регионы демонстрируют значительную внутреннюю неоднородность, при этом показатели на региональном уровне определяются не столько едиными региональными тенденциями, сколько наличием или отсутствием небольшого числа районов с высокими показателями. Ряд районов, связанных с крупными градообразующими предприятиями или благоприятной логистикой, прежде всего в Витебской области, демонстрирует улучшение показателей даже на фоне ухудшения более широких региональных индикаторов, тогда как значительное число периферийных районов, включая несколько районов, отнесённых к приоритетным в Программе социально-экономического развития Республики Беларусь на 2026–2030 годы, показывают в 2024 году худшие результаты, чем в 2015 или 2019 годах. Эти результаты свидетельствуют лишь о частичном соответствии между приоритетными районами, определёнными Программой, и районами, фактически достигшими положительной динамики МСП.

Исследование приходит к выводу, что пространственная концентрация деятельности МСП в Беларуси обусловлена не только плотностью населения и административным статусом, но также наличием градообразующих предприятий, логистической доступностью и институциональным потенциалом местных органов власти, и предлагает эмпирическую основу для уточнения мер поддержки МСП в рамках Программы на региональном уровне.

Ключевые слова: малое и среднее предпринимательство; региональное развитие; пространственная концентрация; региональные диспропорции; Беларусь

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DEVELOPMENT OF A DIGITAL INCLUSION MODEL FOR ENHANCING CITIZEN E-PARTICIPATION IN PUBLIC GOVERNANCE: A CONCEPTUAL FRAMEWORK FOR KAZAKHSTAN

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Abstract

Digital government can widen opportunities for citizens to obtain information, express views, and contribute to public decisions. However, the availability of online platforms does not guarantee equal or meaningful participation. Citizens may remain excluded because of unreliable access, limited digital skills, inaccessible interfaces, low trust, weak civic confidence, or the expectation that public institutions will not respond. This article develops a Digital Inclusion–e-Participation in Governance (DI-EPG) model for analysing these interrelated barriers in Kazakhstan and comparable digitalising states. The model is constructed through a theory-driven synthesis of digital inequality, technology acceptance, civic efficacy, e-participation, and responsive-governance literature, supplemented by analysis of Kazakhstan’s digital-government context. It treats citizen digital inclusion as a multidimensional capability comprising meaningful access, digital skills, accessibility and usability, trust and digital safety, and perceived relevance and motivation. The model proposes that these dimensions influence e-information, e-consultation, and e-decision-making both directly and indirectly through civic efficacy and participation readiness. Institutional responsiveness is positioned as both a direct determinant of continued participation and a moderator of the relationship between readiness and actual participation. The article specifies testable hypotheses, measurement indicators, and an empirical validation design using a multilingual citizen survey, structural equation modelling, and follow-up interviews. The proposed framework shifts attention from the mere provision of digital channels to citizens’ practical ability to use them and to see evidence that their participation matters.

Keywords:

digital inclusion; e-participation; public governance; digital divide; institutional responsiveness; civic efficacy; Kazakhstan

Authors' individual contribution:

Conceptualization, validation, supervision, project administration, and review & editing – A.A.; investigation, literature synthesis,

visualization, and original draft – M.M.; methodology and final approval – A.A., M.M.

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The Authors declare that there is no conflict of interest.

1. Introduction

Digital government has moved from being a supplementary service channel to becoming part of the ordinary relationship between citizens and public institutions. Portals, mobile applications, open-data resources, online consultations, petition systems, and digital appeal mechanisms allow citizens to interact with government without being physically present. These tools can lower the time and financial costs of participation, broaden access to public information, and create new routes for citizens whose voices are rarely heard through conventional meetings or formal organisations. Yet the same shift can also produce a quieter form of exclusion. When participation is increasingly organised through digital channels, a citizen who cannot access, understand, trust, or effectively use those channels may be formally included but practically absent.

This distinction is especially important in countries that have achieved rapid progress in digital public-service delivery. Kazakhstan ranked twenty-fourth among 193 United Nations Member States in the 2024 E-Government Development Index, with an index value of 0.9009 (United Nations Department of Economic and Social Affairs [UN DESA], 2024). The country has developed a broad digital-government ecosystem that includes eGov.kz, eGov Mobile, Open Government resources, and e-Otinish, a unified platform through which individuals and organisations can submit and track appeals. These developments demonstrate substantial institutional and technical capacity. They do not, however, answer a different question: which citizens are able and willing to use digital channels to take part in governance, and under what conditions does their participation become meaningful?

Research on the digital divide has progressively moved beyond a simple distinction between people who are connected and those who are not. Contemporary approaches examine differences in the quality of access, skills, patterns of use, and the social outcomes that people obtain from technology (Helsper, 2021; van Dijk, 2020). A person may own a smartphone yet depend on limited mobile data, struggle to authenticate on a government platform, avoid online participation because of privacy concerns, or lack confidence that a contribution will influence an administrative or policy process. These constraints are cumulative. They shape not only whether a citizen can open a platform but also whether the citizen can understand an issue, formulate a view, submit it successfully, and remain engaged after receiving or not receiving a response.

The e-participation literature has developed useful classifications of participation activities, actors, technologies, and policy stages (Macintosh, 2004; Medaglia, 2012; Sæbø et al., 2008). The United Nations commonly distinguishes e-information, e-consultation, and e-decision-making. These levels capture a progression from receiving public information to communicating views and, at the most demanding level, contributing to decisions. Nevertheless, many e-participation models begin with an available platform or a participatory process and pay less attention to the unequal capabilities citizens bring to that process. Conversely, digital inclusion research often measures general internet use or socioeconomic outcomes without connecting those capabilities to specific forms of public participation.

This article addresses that gap by developing a Digital Inclusion–e-Participation in Governance (DI-EPG) model. The central argument is that citizen e-participation depends on more than access and skills. It emerges from the interaction of five inclusion dimensions: meaningful access, digital skills, accessibility and usability, trust and digital safety, and relevance and motivation with citizens' sense of civic efficacy and the responsiveness of public institutions. The model therefore links the citizen side of inclusion to the institutional side of participation.

The article makes three contributions. First, it integrates digital inclusion and e-participation into one explanatory framework rather than treating them as separate policy areas. Second, it introduces institutional responsiveness as a mechanism that can either convert initial participation into sustained engagement or reinforce withdrawal and distrust. Third, it provides an operational measurement design suitable for empirical testing in Kazakhstan through a multilingual survey and follow-up interviews. The framework is presented as a self-contained scholarly contribution and as a model that can be adapted to other digitalising public administrations.

2. Literature Review

2.1. Digital inclusion as a multidimensional capability. Early digital-divide research concentrated on physical access to computers and the Internet. This focus was understandable when connectivity and device ownership were scarce. Over time, however, access became a necessary but insufficient explanation of digital inequality. Norris (2001) showed that information poverty and civic engagement are intertwined with access inequalities, while van Dijk (2020) describes access as a sequential process involving motivation, material access, skills, and usage. Helsper (2021) similarly argues that digital inequalities are embedded in existing social inequalities and become significant through the benefits and harms people experience in different areas of life. Warschauer (2003)

emphasises that meaningful access depends on physical, digital, human, and social resources rather than hardware alone.

This broader perspective changes how digital inclusion should be measured. A household may be technically connected while several members share one device. A rural user may have mobile coverage but experience unstable speed or high data costs. A citizen with sufficient income and equipment may still face barriers because a public platform is not available in a preferred language, is incompatible with assistive technology, or uses administrative terminology that is difficult to understand. Digital inclusion is therefore not a binary status. It is a practical capability to use digital systems in ways that serve a person's goals.

The capability approach provides a useful normative basis for this interpretation. Sen (1999) distinguishes resources from the real freedoms people have to achieve valued outcomes. Applied to digital governance, the relevant outcome is not merely possession of a connected device. It is the genuine opportunity to obtain public information, communicate with authorities, join consultations, and influence decisions without disproportionate cost or risk. This approach also draws attention to conversion factors: personal characteristics, social conditions, and institutional arrangements that determine whether a resource becomes a usable opportunity.

Digital inequality can also be self-reinforcing. People with stronger social, educational, and economic resources often use technology in ways that generate additional benefits, while disadvantaged groups may encounter repeated failures or low-value uses (Ragnedda et al., 2022). In governance, this pattern may mean that already active and well-resourced citizens dominate digital consultations, while groups most affected by public decisions remain less visible. A digital channel may therefore increase the total number of contributions without improving representativeness.

2.2. Citizen e-participation in public governance. E-participation refers to the use of information and communication technologies to support citizen involvement in public affairs and government processes. It covers a wide range of activities: accessing information, commenting on draft policies, signing petitions, reporting local problems, submitting appeals, joining online deliberation, and contributing to public decisions. Macintosh (2004) proposed the influential categories of e-enabling, e-engaging, and e-empowering, while the United Nations framework distinguishes e-information, e-consultation, and e-decision-making. These categories are not simply technological stages. They indicate different distributions of information, voice, and influence.

E-information is the foundation of participation because citizens need timely, understandable, and accessible information before they can form a view. E-consultation creates channels through which citizens can submit opinions, complaints, proposals, or feedback. E-decision-making goes

further by linking citizen input to agenda setting, policy choice, budgeting, rulemaking, or other decisions. In practice, many government platforms are strong in information provision and transactional services but weaker in showing how citizen contributions affect decisions (Le Blanc, 2020).

The literature also shows that participation is shaped by actors, institutions, rules, technologies, and the policy context rather than by platforms alone (Sæbø et al., 2008). Earlier work distinguishes managerial, consultative, and participatory patterns of online state-citizen interaction (Chadwick & May, 2003), while later studies describe citizen co-production and citizen-sourcing as extensions of digital governance (Linders, 2012; Nam, 2012). Comparative evidence also links e-government development with the diffusion of e-democracy practices (Lee et al., 2011). Medaglia (2012) found that e-participation research had expanded but remained fragmented across disciplines and frequently concentrated on projects rather than cumulative theory. Sussha and Grönlund (2012) similarly called for greater conceptual clarity and systematic development of the field. A citizen-centred model should therefore explain both participation capability and the institutional conditions under which participation is recognised.

Technology-acceptance theories offer part of this explanation. Perceived usefulness and ease of use influence whether individuals adopt a system (Davis, 1989), while performance expectancy, effort expectancy, social influence, and facilitating conditions shape use intentions in the unified theory of acceptance and use of technology (Venkatesh et al., 2003). E-government research further identifies trust and perceived risk as central to citizens' willingness to use online public services (Bélanger & Carter, 2008; Carter & Bélanger, 2005). These theories are useful but do not fully capture the civic nature of e-participation. A platform may be easy to use and still attract little participation if citizens see no reason to contribute or believe that authorities will disregard their input.

2.3. Civic efficacy and institutional responsiveness. Civic efficacy refers to the belief that a person understands public affairs sufficiently to participate and that participation can have an effect. The distinction between internal efficacy (confidence in one's own competence) and external efficacy (belief that authorities are responsive) is grounded in classic political-efficacy research (Campbell et al., 1954; Niemi et al., 1991). In the DI-EPG model, internal civic efficacy is measured as an individual psychological belief, whereas institutional responsiveness is measured as an assessment of observable or expected organisational behaviour, including acknowledgement, timeliness, explanation, and visible follow-up. The constructs are therefore theoretically related but not interchangeable, and their discriminant validity will be tested empirically. In a digital environment, civic efficacy is partly shaped by digital capability. Citizens who cannot navigate information,

evaluate sources, or complete an online procedure are less likely to feel competent to participate. At the same time, competence alone is unlikely to sustain engagement when public bodies appear unresponsive.

Institutional responsiveness is therefore a critical link between participation opportunities and participation outcomes. Responsiveness can be observed in acknowledgement of submissions, clarity and timeliness of replies, publication of consultation results, explanation of how contributions were used, and visible changes following citizen input. Government response behaviour can influence whether citizens return to a platform, recommend it to others, or withdraw from future participation. The OECD (2020) stresses that meaningful citizen participation requires a clear link to decision-making and feedback to participants. Without that link, digital engagement risks becoming a one-way collection of views.

The distinction between service interaction and governance participation is also important. A citizen may regularly use e-government to obtain a certificate or make a payment but never engage in a consultation or policy discussion. Service use can develop familiarity and trust, yet it does not automatically produce civic participation. The DI-EPG model therefore treats prior e-service experience as a control and facilitating factor rather than as evidence of e-participation itself.

2.4. Kazakhstan's digital-governance context. Kazakhstan provides a relevant setting for examining the transition from digital service delivery to inclusive digital participation. The national e-government portal was officially launched in 2006 and the wider ecosystem now includes eGov Mobile, open-data and Open Government resources, and the e-Otinish system (Government of Kazakhstan, 2026a; Amanbek et al., 2018). Official guidance describes e-Otinish as a unified channel through which users can submit and track appeals, review interaction histories, evaluate response quality, complain about execution, and, where applicable, file claims with the courts (Electronic Government of Kazakhstan, 2026). The presence of these channels means that the main research problem is no longer whether a digital interface exists. It is whether different groups of citizens can convert those interfaces into effective participation.

Kazakhstan's large territory, uneven settlement patterns, linguistic diversity, and differences in age, education, disability status, and digital experience make a multidimensional approach particularly relevant. National statistics monitor Internet use, household connectivity, and digital literacy, but aggregate connectivity indicators may conceal barriers experienced during specific governance tasks. A citizen who can communicate through social media may still find a formal consultation difficult. A user who can obtain a service through a mobile application may not know where draft policies are published or how consultation outcomes are reported.

The institutional design of participation also matters. E-Otinish is primarily structured around appeals, complaints, and applications, while broader participatory governance includes consultation, deliberation, agenda setting, and co-creation. These activities require not only a submission mechanism but also comprehensible public information, transparent procedures, and feedback on influence. The proposed model is intended to identify where the participation chain breaks: before access, during interaction, or after a contribution reaches the institution.

2.5. International benchmarks and transferable practices. International comparison shows why digital-government maturity and inclusive participation should be assessed separately. In the 2024 United Nations survey, Kazakhstan ranked 24th on the E-Government Development Index (EGDI), with a score of 0.9009, and 27th on the E-Participation Index (EPI), with a score of 0.8493. The leading digital-government systems also recorded higher participation scores: Denmark had an EGDI of 0.9847 and an EPI of 0.9863; Estonia, 0.9727 and 0.9589; Singapore, 0.9691 and 0.9589; and the Republic of Korea, 0.9679 and 0.9726 (United Nations Department of Economic and Social Affairs [UN DESA], 2024). These figures do not establish that a particular platform causes participation. They do, however, show the value of examining the participation layer separately from the maturity of online services.

The OECD's 2025 Digital Government Index provides a second point of comparison. The OECD average rose from 0.61 in 2023 to 0.70 in 2025, while the average for the user-driven dimension rose from 0.61 to 0.71. This dimension is directly relevant to digital inclusion because it assesses whether governments involve users in co-design and testing, use feedback mechanisms, and take strategic and operational measures to address the digital divide. The highest user-driven scores were recorded by Australia (0.95), Portugal (0.94), the United Kingdom (0.93), Korea (0.91), and Chile (0.90) (Organisation for Economic Co-operation and Development [OECD], 2026). The benchmark therefore treats inclusion as a feature of public-sector capability, not simply as a household connectivity issue.

Table 1. International practices relevant to the DI-EPG model

Practice	Official evidence	DI-EPG linkage and lesson for Kazakhstan
Estonia: collective proposals	The official citizen-initiative route allows collective proposals to be submitted to parliament once the applicable eligibility and signature requirements are met. The revised manuscript avoids relying on a sitting-review news item for the operative rules and directs readers to official platform and legislative documentation.	A clear threshold and a formal route to parliament can strengthen relevance, civic efficacy, and confidence that participation reaches a decision-making body. Eligibility, status, and the next procedural step should be visible from the start.

Taiwan: Public Policy Online Participation Platform	The official Directions for Implementing Online Participation in Public Policy specify the procedural conditions for proposals and require a comprehensive response explaining whether public input was adopted and why in the circumstances defined by the Directions (National Development Council, 2018).	Time limits and public reasons turn “responsiveness” into a measurable institutional commitment. Kazakhstan could publish comparable response standards for consultations and collective proposals, with transparent explanations for acceptance, partial adoption, or rejection.
Republic of Korea: e-People and People’s Idea Box	Official ACRC documentation describes e-People as a cross-agency channel for petitions, complaints, proposals, and administrative requests. The revised text uses the source to demonstrate routing and institutional integration and does not treat submission volume alone as evidence of meaningful participation.	A common routing layer can reduce the burden of finding the responsible agency and can support cross-agency analysis. The scale of submissions is useful operational evidence, but volume should be assessed together with response quality, inclusion, and policy consequences.
United Kingdom: assisted digital and accessibility standards	Government service guidance requires support for users who lack access, skills, confidence, trust, or motivation. Support may be provided by phone, in person, or through webchat and should be based on user research. Public-sector websites and apps are expected to meet WCAG 2.2 AA and publish an accessibility statement (Government Digital Service, 2024, 2025).	Assistance and accessibility are treated as core service requirements rather than optional outreach. This maps directly to meaningful access, digital skills, accessibility and usability, and trust. Equivalent support should be available in the user’s preferred language and through non-digital channels where necessary.

Source: Compiled by the authors.

The cases in Table 1 differ in legal tradition and administrative structure, but they converge on a small set of design principles: a formal connection between citizen input and a competent authority; published thresholds and timelines; reasons for institutional decisions; assisted and accessible channels; and reliable routing across agencies. These principles support the DI-EPG model’s emphasis on both citizen capability and institutional responsiveness. They should be adapted rather than copied. In Kazakhstan, adaptation would need to reflect Kazakh- and Russian-language use, rural connectivity, disability-related needs, the relationship between e-Otinish and the Open Government portals, data-protection requirements, and existing administrative procedures.

3. Materials and Methods

This article uses theory-driven conceptual model development. The process consisted of four stages. First, the core phenomenon was defined as citizens’ meaningful use of digital channels to

participate in public governance, rather than general Internet use or routine digital service consumption. Second, established literature on digital inequality, technology acceptance, e-government trust, civic efficacy, e-participation, and responsive governance was synthesised to identify recurring explanatory mechanisms. Third, the mechanisms were organised into citizen-level capabilities, a mediating readiness mechanism, an institutional condition, and participation outcomes. Fourth, each construct was translated into measurable indicators and testable relationships suitable for subsequent empirical validation.

The approach is integrative rather than a claim of exhaustive systematic review. Foundational and recent peer-reviewed studies were combined with international policy frameworks and official information on Kazakhstan's digital-government environment. International benchmarking used official UN and OECD indices together with government documentation from Estonia, Taiwan, the Republic of Korea, and the United Kingdom. The cases were selected purposively because they represent different mechanisms relevant to the model: a formal route for collective proposals, time-bound public responses, cross-agency complaint and idea routing, and assisted digital and accessibility requirements. They are used to identify transferable design principles, not to rank whole governance systems. A construct was retained when it met three criteria: it represented a theoretically distinct barrier or enabler; it could plausibly influence participation; and it could be measured at the citizen or institutional level.

The resulting DI-EPG model contains one multidimensional antecedent construct (citizen digital inclusion), one mediating mechanism (civic efficacy and participation readiness), one institutional construct (responsiveness), and one multidimensional outcome (citizen e-participation). Socio-demographic conditions, place of residence, disability-related needs, preferred language, and prior e-government experience are included as controls and grouping variables.

4. Results and Discussion

4.1. Proposed Digital Inclusion–e-Participation in Governance Model

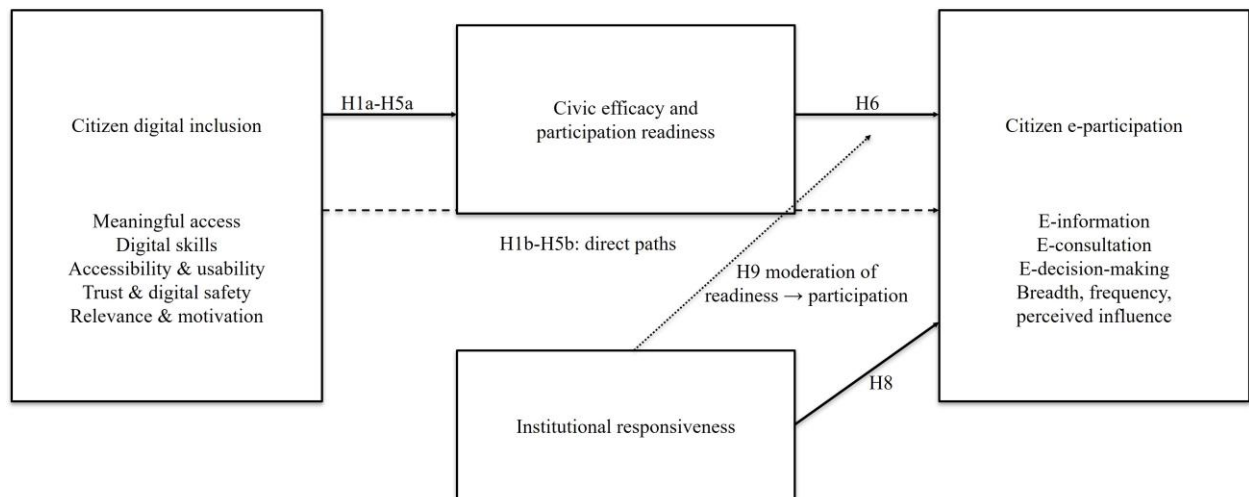


Figure 1. Proposed Digital Inclusion–e-Participation in Governance (DI-EPG) model.

4.1.1. Citizen digital inclusion. Meaningful access is the reliable and affordable availability of an appropriate device, connection, authentication method, and private setting for participation. The word meaningful is important. Occasional connectivity or access through a shared device may be adequate for reading news but inadequate for preparing a detailed submission, attaching documents, or following a consultation over time. Measurement should therefore cover reliability, affordability, device suitability, authentication access, and the ability to participate without depending on another person.

Digital skills refer to operational, informational, communicative, and protective capabilities. Operational skills include navigating a platform, uploading documents, and completing authentication. Information skills include locating official materials, understanding their relevance, and distinguishing authoritative information. Communicative skills involve expressing a view clearly and using the appropriate channel. Protective skills include recognising fraud, managing personal data, and understanding the consequences of online disclosure.

Accessibility and usability concern whether a platform can be used by people with different abilities, languages, devices, and levels of experience. This dimension includes compatibility with assistive technologies, readable layouts, clear navigation, plain language, mobile optimisation, error recovery, and availability in Kazakh and Russian. Accessibility is not a specialised feature for a small group; it is part of general service quality and determines whether citizens can participate independently.

Trust and digital safety combine confidence in the platform, the institution, and the handling of personal data. Citizens may avoid participation when they fear misuse of information, identity exposure, fraud, retaliation, or ineffective protection of personal data. Trust is particularly important

when the contribution concerns a complaint, criticism of an authority, or a sensitive local issue. The construct should distinguish trust in technical security from trust in institutional fairness and integrity.

Relevance and motivation capture whether citizens know that a participatory opportunity exists, understand why it matters, and see the expected effort as worthwhile. Motivation is shaped by personal interest, the perceived importance of the issue, social encouragement, available time, and previous participation experience. This dimension prevents the model from treating non-use as a purely technical problem. Some citizens possess access and skills but do not participate because opportunities are poorly communicated or seem disconnected from everyday concerns.

Taken together, the five dimensions form citizen digital inclusion for governance. They are related but non-interchangeable. Strong skills do not compensate for inaccessible design, and reliable Internet does not compensate for fear that personal data will be mishandled. For empirical analysis, the dimensions should first be tested separately. A higher-order inclusion construct may be estimated if the measurement model demonstrates adequate reliability, validity, and conceptual fit.

4.1.2. Civic efficacy and participation readiness. Civic efficacy and participation readiness explain how inclusion capability becomes action. Internal civic efficacy reflects confidence in understanding a public issue, forming a view, and communicating it through an official channel. Participation readiness adds the immediate willingness and intention to act when a relevant opportunity appears. Digital inclusion is expected to strengthen efficacy because citizens who can find information, navigate systems, and manage risks are more likely to feel capable of participation. Efficacy, in turn, should increase the probability of actual participation.

The mediator is necessary because capability does not always lead directly to behaviour. A digitally skilled citizen may still feel that policy processes are too complex or that only experts should contribute. Conversely, a highly motivated citizen with modest technical skills may seek assistance and participate. To avoid an asymmetric specification, the revised model estimates both mediated and direct paths for each of the five inclusion dimensions. The dimension-level model is tested first. A higher-order citizen-digital-inclusion construct and an aggregate mediation path are estimated only if reliability, convergent validity, discriminant validity, and higher-order model fit are adequate. This two-tier strategy makes the level of analysis explicit and prevents the aggregate hypothesis from being treated as unconditional.

4.1.3. Institutional responsiveness. Institutional responsiveness refers to citizens' experience or reasonable expectation that public bodies acknowledge, consider, and respond to digital contributions. It includes timely acknowledgement, understandable replies, procedural transparency,

publication of consultation summaries, explanation of accepted and rejected proposals, and evidence that contributions can influence decisions. Responsiveness is positioned in the model in two ways.

First, it has a direct effect on participation. Citizens are more likely to continue using a channel when previous engagement produced a clear response. Second, it moderates the relationship between readiness and actual participation. When institutions are perceived as responsive, a willing citizen has a stronger reason to act. When institutions are perceived as unresponsive, even citizens with strong access, skills, and civic confidence may decide that participation is not worth the effort. This interaction reflects a central principle of the model: inclusive participation is jointly produced by citizen capability and institutional behaviour.

4.1.4. Citizen e-participation outcomes. Citizen e-participation is measured across e-information, e-consultation, and e-decision-making. E-information includes searching for and using official information to understand public issues, budgets, draft regulations, programmes, or local plans. E-consultation includes submitting feedback, appeals, complaints, comments, proposals, survey responses, or petitions. E-decision-making includes participation in processes where citizen input is visibly linked to priorities, resource allocation, rulemaking, or collective decisions.

The outcome should capture more than whether a person has ever used a platform. Relevant indicators include breadth of activities, frequency, recent participation, completion of intended tasks, perceived quality of interaction, and perceived influence. Measuring influence is difficult because citizens may not know how a decision was made. It should therefore be assessed through transparent feedback and perceived consideration, not through an unsupported claim that an individual contribution caused a policy outcome.

4.1.5. Research hypotheses. The model generates the following hypotheses for empirical testing:

H1a. Meaningful access positively affects civic efficacy and participation readiness.

H1b. Meaningful access positively affects citizen e-participation.

H2a. Digital skills positively affect civic efficacy and participation readiness.

H2b. Digital skills positively affect citizen e-participation.

H3a. Accessibility and usability positively affect civic efficacy and participation readiness.

H3b. Accessibility and usability positively affect citizen e-participation.

H4a. Trust and perceived digital safety positively affect civic efficacy and participation readiness.

H4b. Trust and perceived digital safety positively affect citizen e-participation.

H5a. Perceived relevance and motivation positively affect civic efficacy and participation readiness.

H5b. Perceived relevance and motivation positively affect citizen e-participation.

H6. Civic efficacy and participation readiness positively affect citizen e-participation.

H7a-H7e. Civic efficacy and participation readiness mediate the relationship between each digital-inclusion dimension and citizen e-participation.

H7f. Conditional on support for a valid higher-order citizen-digital-inclusion construct, civic efficacy and participation readiness mediate the relationship between aggregate citizen digital inclusion and e-participation.

H8. Perceived institutional responsiveness positively affects citizen e-participation.

H9. Institutional responsiveness strengthens the positive relationship between participation readiness and actual e-participation.

RQ1. Do the structural relationships vary across age, urban-rural residence, disability-related accessibility needs, preferred language, and previous e-government experience? Multigroup comparisons are exploratory and will be interpreted only where subgroup sample sizes and measurement invariance are adequate.

4.2. Operationalisation and Empirical Validation Plan

The proposed model can be validated through an explanatory sequential mixed-method design. The quantitative phase should survey adult residents of Kazakhstan who have used the Internet during the previous twelve months. Requiring prior use of a government platform is not recommended for the full sample because complete non-use may itself be an inclusion outcome. A screening question can distinguish non-users, service-only users, and citizens with participation experience.

A target sample of 800-1,000 completed responses is proposed, with the final minimum determined through an a priori power analysis based on the number of predictors, expected effect sizes, significance level, desired statistical power, and planned interaction tests. Quotas or stratification should cover region, urban and rural residence, age, gender, and preferred survey language. For multigroup analysis, the study will aim for at least 120 usable cases in each substantively important comparison group; groups falling below this threshold will be analysed descriptively or combined only where theoretically justified. Measurement invariance will be assessed before comparing structural paths. Additional attention should be given to older adults, people with disabilities, low-income households, and residents of remote settlements because a purely online convenience sample would systematically underrepresent the groups most relevant to a digital inclusion study. Data collection should therefore combine online recruitment with assisted or interviewer-supported completion where ethically and practically possible.

The questionnaire should be developed in English and translated into Kazakh and Russian through forward translation, expert review, and back-translation. A panel of public-administration, information-systems, accessibility, and survey-method experts should assess content validity. Cognitive interviews with approximately 8–12 citizens can identify ambiguous wording, followed by a pilot survey of 30–50 respondents. All participation should be voluntary, based on informed consent, and approved under the applicable university research-ethics process before data collection.

Most latent constructs can be measured with five-point agreement scales. To reduce acquiescence bias, the revised instrument includes a small number of carefully tested reverse-worded items; reverse coding will be applied only to those items. Negatively embedded wording has been removed (for example, “Internet access is affordable for me” replaces a double-negative formulation). Actual participation is measured through yes/no and frequency items with a stated 12-month reference period rather than agreement scales. Attitudinal items are separated from behavioural indicators, and questions conditional on prior participation include screening filters and a “not applicable” option. The item on distinguishing official from fraudulent platforms is assigned to the protective digital-skills domain rather than the trust scale. Near-duplicate readiness and relevance items have been differentiated or removed. Analysis can proceed in four stages: descriptive profiling and non-response assessment; reliability, convergent validity, discriminant validity, and common-method checks; structural model estimation; and exploratory multigroup or interaction analysis.

The qualitative phase should include approximately 15–25 semi-structured interviews selected from contrasting survey profiles. Useful contrasts include citizens with strong skills but low participation, citizens with high motivation but weak access, and previous participants who report high or low institutional responsiveness. Interviews should explore the specific point at which participation became difficult, how citizens interpreted institutional responses, and which changes would make them participate again. The qualitative evidence can explain statistical relationships and reveal barriers not adequately captured by predefined survey items.

Table 2. Proposed constructs and indicative measurement domains

Construct	Indicative domains	Primary theoretical basis
Meaningful access	Reliable connection; affordable data; suitable device; access to authentication; private and independent use	van Dijk (2020); Warschauer (2003)
Digital skills	Navigation; information search and evaluation; form completion; online communication; digital safety	Helsper (2021); van Dijk (2020)

Construct	Indicative domains	Primary theoretical basis
Accessibility and usability	Language availability; mobile compatibility; readable content; assistive-technology support; error recovery	W3C (2023); UNDP (2024)
Trust and digital safety	Platform security; data protection; institutional fairness; absence of fear; confidence in identity handling	Bélanger and Carter (2008); Carter and Bélanger (2005)
Relevance and motivation	Awareness; issue importance; perceived usefulness; time and effort; intention to participate	Davis (1989); Venkatesh et al. (2003)
Civic efficacy/readiness	Confidence to understand, formulate, submit, and defend a view; intention to act	Sen (1999); OECD (2020)
Institutional responsiveness	Acknowledgement; timeliness; clarity; transparent consideration; visible follow-up	OECD (2020); Le Blanc (2020)
Citizen e-participation	E-information; e-consultation; e-decision-making; breadth; frequency; perceived influence	Macintosh (2004); UN DESA (2024)

Source: Compiled by the authors based on the theoretical sources cited in the table.

5. DISCUSSION

The DI-EPG model reframes digital inclusion as part of democratic and administrative capacity. The usual policy sequence build a platform, publish information, invite citizens to participate, assumes that citizens can convert technical availability into effective action. The proposed framework shows why this sequence often fails. Each step requires resources and confidence: a reliable connection, a suitable device, the ability to understand the issue, an accessible interface, trust in the process, motivation to contribute, and an expectation of response. Weakness at any point can interrupt participation.

The model also helps distinguish two types of failure that are often combined. Citizen-side exclusion occurs when people cannot or do not feel able to participate. Institution-side exclusion occurs when a system accepts a submission but does not provide a meaningful route for consideration and feedback. A government may improve the first problem through connectivity, skills training, plain language, assisted digital support, and accessible design. It must address the second through procedural commitments: response standards, publication of consultation outcomes, explanation of decisions, and clear evidence of how participation is connected to governance.

For Kazakhstan, this distinction can support a shift from measuring the volume of digital services and submissions to evaluating the inclusiveness and consequences of participation. High national e-government performance provides a strong foundation, but it may coexist with unequal experiences across regions and social groups. The international benchmarks reinforce this point: Kazakhstan's

2024 EGDI score was very high, while its EPI remained below the scores of several digital-government leaders. The model therefore suggests that evaluation should compare who participates, which channels they use, whether they complete the process, how they evaluate the response, and whether they participate again. The country cases further show that participation quality is shaped by procedural details such as routing, support, deadlines, and published reasons, not by portal availability alone.

The proposed mediation and moderation mechanisms are particularly important. Civic efficacy explains why two citizens with similar technical resources may behave differently, while institutional responsiveness explains why initial participation may or may not become sustained participation. These mechanisms also create actionable policy levers. Skills programmes can include civic and information literacy rather than only operational instruction. Public bodies can improve participation not only by redesigning interfaces but by improving the visibility and quality of follow-up.

The model has limitations. It is conceptual and requires empirical validation. Its dimensions may operate differently across policy fields, levels of government, and types of participation. Appeals and complaints are not identical to deliberative consultation or participatory budgeting. Cross-sectional data would limit causal inference, and self-reported behaviour may be affected by recall and social-desirability bias. Future studies should compare platforms, combine survey responses with administrative or usability data where lawful and ethical, and examine changes over time.

Implications for Public Governance

The framework produces several practical implications for public bodies. First, participation platforms should be evaluated through inclusion audits that combine connectivity, language, accessibility, usability, trust, and response quality. A platform that meets technical availability targets may still exclude citizens through complex authentication, unclear terminology, poor mobile design, or inaccessible documents.

Second, digital-skills initiatives should be connected to real governance tasks. Training can include how to locate a draft regulation, interpret a public budget, submit an appeal, protect personal data, and follow the status of a contribution. Assisted digital participation points at Citizen Service Centres, libraries, universities, or community organisations can help citizens without making them permanently dependent on intermediaries. Consistent with the United Kingdom's assisted digital approach, support should be designed from user research and offered through more than one channel, including in-person and telephone assistance where appropriate.

Third, public institutions should publish participation feedback in a consistent format: what was asked, who participated, which proposals were accepted or rejected, why decisions were made, and

what happens next. Even when a proposal cannot be adopted, a clear explanation signals respect and can preserve willingness to participate. Estonia and Taiwan illustrate how thresholds, responsible authorities, response periods, and reasons can be made part of the procedure rather than left to informal practice. Comparable standards in Kazakhstan could include a visible case owner, a published response deadline, status tracking, and a reasoned closing statement.

Fourth, participation data should be disaggregated, with appropriate privacy protection, by region, age, language, disability-related needs, and channel. The goal is not to profile individuals but to identify groups that are missing from digital participation and to offer alternative channels. Hybrid participation should remain available where digital-only processes would create exclusion.

Finally, the DI-EPG model can be used as a diagnostic dashboard. Low access scores call for infrastructure or affordability measures; low skill scores call for training and support; low accessibility scores call for redesign; low trust scores call for stronger safeguards and communication; low responsiveness scores call for institutional and procedural reform. This makes the model useful not only for academic testing but for prioritising interventions.

6. Conclusion

Digital channels can broaden citizen participation in public governance only when citizens have the practical capability to use them and institutions demonstrate that participation is recognised. The DI-EPG model connects these two sides. It defines digital inclusion through meaningful access, skills, accessibility and usability, trust and safety, and relevance and motivation; explains action through civic efficacy and readiness; and places institutional responsiveness at the centre of sustained participation. E-participation is then assessed across information, consultation, and decision-making rather than reduced to portal visits or service transactions.

For Kazakhstan, the model offers a way to build on advanced digital-government infrastructure while examining who remains excluded and why. Its empirical validation can produce evidence for more accessible platforms, targeted capability development, transparent feedback, and hybrid participation channels. The broader implication is straightforward: a digitally available government is not necessarily a digitally inclusive government. Inclusion is achieved when citizens can participate independently, safely, and with a reasonable expectation that their contribution will be considered.

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Ethics Approval / Informed Consent Statement

This conceptual article does not report research involving human participants. Ethical approval and informed consent will be obtained before the proposed survey and interviews are conducted.

Data Availability Statement

No new dataset was generated. All numerical benchmarks are drawn from publicly available sources cited in the manuscript.

Generative AI Use Disclosure

Generative AI tools were used to assist language refinement, document structuring, and formatting.

Supplementary Material

Supplementary Material S1 contains the revised draft survey instrument proposed for future empirical validation of the DI-EPG model. The revision separates behavioural and attitudinal blocks, adds screening and not-applicable options, introduces a limited number of reverse-worded items, removes double-negative wording, assigns protective-skill items to the digital-skills construct, and eliminates near-duplicate indicators. The instrument has not yet been psychometrically validated.

Reference List

- Amanbek, Y., Balgayev, I., Batyrkhanov, K., & Tan, M. (2018). Adoption of e-government in the Republic of Kazakhstan. arXiv. <https://doi.org/10.48550/arXiv.1802.06951>
- Anti-Corruption and Civil Rights Commission. (2022, April 15). ACRC is committed to resolve 20 million civil complaints yearly filed with the Commission. https://www.acrc.go.kr/board.es?act=view&bid=62&list_no=38675&mid=a20301000000&nPage=9&tag=
- Bélanger, F., & Carter, L. (2008). Trust and risk in e-government adoption. *The Journal of Strategic Information Systems*, 17(2), 165–176. <https://doi.org/10.1016/j.jsis.2007.12.002>
- Campbell, A., Gurin, G., & Miller, W. E. (1954). The voter decides. Row, Peterson.
- Carter, L., & Bélanger, F. (2005). The utilization of e-government services: Citizen trust, innovation and acceptance factors. *Information Systems Journal*, 15(1), 5–25. <https://doi.org/10.1111/j.1365-2575.2005.00183.x>
- Chadwick, A., & May, C. (2003). Interaction between states and citizens in the age of the Internet: ‘E-government’ in the United States, Britain, and the European Union. *Governance*, 16(2), 271–300. <https://doi.org/10.1111/1468-0491.00216>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Electronic Government of Kazakhstan. (2026). Electronic appeals: How to submit and track an appeal through e-Otinish. Official e-government portal of the Republic of Kazakhstan.
- Government Digital Service. (2024, September 30). Understanding accessibility requirements for public sector bodies. GOV.UK. <https://www.gov.uk/guidance/accessibility-requirements-for-public-sector-websites-and-apps>

- Government Digital Service. (2025, December 18). Assisted digital support: An introduction. GOV.UK. <https://www.gov.uk/service-manual/helping-people-to-use-your-service/assisted-digital-support-introduction>
- Government of Kazakhstan. (2026a). Digitalisation: The eGov.kz portal was officially launched on 12 April 2006. Official government portal of the Republic of Kazakhstan.
- Helsper, E. J. (2021). *The digital disconnect: The social causes and consequences of digital inequalities*. SAGE.
- Le Blanc, D. (2020). E-participation: A quick overview of recent qualitative trends (DESA Working Paper No. 163). United Nations Department of Economic and Social Affairs.
- Lee, C.-P., Chang, K., & Berry, F. S. (2011). Testing the development and diffusion of e-government and e-democracy: A global perspective. *Public Administration Review*, 71(3), 444–454. <https://doi.org/10.1111/j.1540-6210.2011.02228.x>
- Linders, D. (2012). From e-government to we-government: Defining a typology for citizen coproduction in the age of social media. *Government Information Quarterly*, 29(4), 446–454. <https://doi.org/10.1016/j.giq.2012.06.003>
- Macintosh, A. (2004). Characterizing e-participation in policy-making. In Proceedings of the 37th Annual Hawaii International Conference on System Sciences. IEEE. <https://doi.org/10.1109/HICSS.2004.1265300>
- Medaglia, R. (2012). eParticipation research: Moving characterization forward (2006–2011). *Government Information Quarterly*, 29(3), 346–360. <https://doi.org/10.1016/j.giq.2012.02.010>
- Nam, T. (2012). Suggesting frameworks of citizen-sourcing via Government 2.0. *Government Information Quarterly*, 29(1), 12–20. <https://doi.org/10.1016/j.giq.2011.07.005>
- National Development Council. (2018, April 11). Directions for implementing online participation in public policy. <https://theme.ndc.gov.tw/lawout/EngLawContent.aspx?KW=%E8%A1%8C%E6%94%BF&id=62&lan=E>
- Niemi, R. G., Craig, S. C., & Mattei, F. (1991). Measuring internal political efficacy in the 1988 National Election Study. *American Political Science Review*, 85(4), 1407–1413. <https://doi.org/10.2307/1963953>
- Norris, P. (2001). *Digital divide: Civic engagement, information poverty, and the Internet worldwide*. Cambridge University Press.
- Organisation for Economic Co-operation and Development. (2020). Innovative citizen participation and new democratic institutions: Catching the deliberative wave. OECD Publishing. <https://doi.org/10.1787/339306da-en>
- Organisation for Economic Co-operation and Development. (2026). Digital Government Index and Open, Useful and Re-usable Data Index: 2025 results and key findings (OECD Working Papers on Public Governance No. 90). OECD Publishing. <https://doi.org/10.1787/6347ec74-en>
- Ragnedda, M., Rui, M. L., & Addeo, F. (2022). The self-reinforcing effect of digital and social exclusion: The inequality loop. *Telematics and Informatics*, 72, 101852. <https://doi.org/10.1016/j.tele.2022.101852>

- Riigikogu. (2025, November 20). Riigikogu discussed the development of civil society and the role of collective proposals. <https://www.riigikogu.ee/en/sitting-reviews/riigikogu-discussed-the-development-of-civil-society-and-the-role-of-collective-proposals/>
- Sen, A. (1999). Development as freedom. Alfred A. Knopf.
- Susha, I., & Grönlund, Å. (2012). eParticipation research: Systematizing the field. *Government Information Quarterly*, 29(3), 373–382. <https://doi.org/10.1016/j.giq.2011.11.005>
- Sæbø, Ø., Rose, J., & Flak, L. S. (2008). The shape of eParticipation: Characterizing an emerging research area. *Government Information Quarterly*, 25(3), 400–428. <https://doi.org/10.1016/j.giq.2007.04.007>
- United Nations Department of Economic and Social Affairs. (2024). UN e-government survey 2024: Accelerating digital transformation for sustainable development. United Nations.
- United Nations Development Programme. (2024). Digital inclusion in a dynamic world. UNDP.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478. <https://doi.org/10.2307/30036540>
- Warschauer, M. (2003). Technology and social inclusion: Rethinking the digital divide. MIT Press.
- World Wide Web Consortium. (2023). *Web Content Accessibility Guidelines (WCAG) 2.2*. <https://www.w3.org/TR/WCAG22/>

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АЗАМАТТАРДЫҢ МЕМЛЕКЕТТІК БАСҚАРУҒА ЭЛЕКТРОНДЫҚ ҚАТЫСУЫН АРТТЫРУҒА АРНАЛҒАН ЦИФРЛЫҚ ИНКЛЮЗИЯ МОДЕЛІН ӘЗІРЛЕУ: ҚАЗАҚСТАНҒА АРНАЛҒАН ТҰЖЫРЫМДАМАЛЫҚ НЕГІЗ

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Аңдатпа:

Цифрлық мемлекет азаматтарға ақпарат алуға, пікір білдіруге және қоғамдық шешімдерді әзірлеуге қатысуға кең мүмкіндік береді. Алайда онлайн-платформалардың болуы тең әрі мазмұнды қатысуға автоматты түрде кепілдік бермейді. Тұрақсыз қолжетімділік, цифрлық дағдылардың жеткіліксіздігі, интерфейстердің қолайсыздығы, сенімнің төмендігі, азаматтық ықпалға күмән немесе мемлекеттік органдардың жауап беретініне сенбеу цифрлық шеттетуді сақтауы мүмкін. Бұл мақала Қазақстандағы және цифрландыру үдерісі белсенді жүріп жатқан ұқсас елдердегі өзара байланысты кедергілерді талдауға арналған «Цифрлық инклюзия – мемлекеттік басқаруға электрондық қатысу» (DI-EPG) моделін ұсынады. Модель цифрлық теңсіздік, технологияны қабылдау, азаматтық тиімділік, электрондық қатысу және жауапты мемлекеттік басқару жөніндегі зерттеулерді теориялық тұрғыдан біріктіру және Қазақстанның цифрлық мемлекеттік контекстін талдау арқылы әзірленді. Азаматтардың цифрлық инклюзиясы мағыналы қолжетімділікті, цифрлық дағдыларды, қолжетімділік пен пайдалануға ыңғайлылықты, сенім мен цифрлық қауіпсіздікті, сондай-ақ өзектілік пен уәжді қамтитын көпөлшемді мүмкіндік ретінде қарастырылады. Бұл құрамдастар электрондық ақпараттануға, электрондық консультацияға және электрондық шешім қабылдауға тікелей әрі азаматтық тиімділік пен қатысуға дайындық арқылы жанама әсер етеді деп болжанады. Институционалдық жауаптылық тұрақты қатысудың тікелей факторы және дайындықтан нақты қатысуға өтуді күшейтетін шарт ретінде енгізілген. Мақалада тексерілетін гипотезалар, өлшеу көрсеткіштері және көптілді сауалнама, құрылымдық теңдеулерді модельдеу мен кейінгі сұхбаттарға негізделген эмпирикалық тексеру дизайны ұсынылады. Ұсынылған модель цифрлық арналардың жай ғана болуынан азаматтардың оларды іс жүзінде пайдалану қабілетіне және өз қатысуының маңызды екеніне көз жеткізуіне назар аударады.

Түйін сөздер: цифрлық инклюзия; электрондық қатысу; мемлекеттік басқару; цифрлық теңсіздік; институционалдық жауаптылық; азаматтық тиімділік; Қазақстан

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РАЗРАБОТКА МОДЕЛИ ЦИФРОВОЙ ИНКЛЮЗИИ ДЛЯ РАСШИРЕНИЯ ЭЛЕКТРОННОГО УЧАСТИЯ ГРАЖДАН В ГОСУДАРСТВЕННОМ УПРАВЛЕНИИ: КОНЦЕПТУАЛЬНАЯ ОСНОВА ДЛЯ КАЗАХСТАНА

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Аннотация:

Цифровое государство расширяет возможности граждан получать информацию, выражать мнение и участвовать в принятии публичных решений. Однако само наличие онлайн-платформ не обеспечивает равного и содержательного участия. Исключение может сохраняться из-за нестабильного доступа, недостаточных цифровых навыков, недоступных интерфейсов, низкого доверия, слабой гражданской уверенности или ожидания, что государственные органы не отреагируют. В статье разрабатывается модель «Цифровая инклюзия – электронное участие в государственном управлении» (DI-EPG), предназначенная для анализа взаимосвязанных барьеров в Казахстане и других странах, проходящих активную цифровизацию. Модель сформирована на основе теоретического синтеза исследований цифрового неравенства, принятия технологий, гражданской эффективности, электронного участия и отзывчивого управления с учетом казахстанского контекста цифрового государства. Цифровая инклюзия рассматривается как многомерная способность, включающая содержательный доступ, цифровые навыки, доступность и удобство использования, доверие и цифровую безопасность, а также воспринимаемую значимость и мотивацию. Предполагается, что эти компоненты влияют на электронное информирование, консультирование и участие в принятии решений непосредственно и опосредованно через гражданскую эффективность и готовность к участию. Институциональная отзывчивость выступает прямым фактором устойчивого участия и модератором перехода от готовности к фактическому участию. Предложены проверяемые гипотезы, показатели измерения и дизайн эмпирической проверки с использованием многоязычного опроса, моделирования структурными уравнениями и последующих интервью. Предлагаемая модель смещает акцент с простого наличия цифровых каналов на практическую способность граждан пользоваться ими и видеть подтверждение того, что их участие имеет значение.

Ключевые слова: цифровая инклюзия; электронное участие; государственное управление; цифровое неравенство; институциональная отзывчивость; гражданская эффективность; Казахстан

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Supplementary Material S1

Draft Survey Instrument for Empirical Validation of the DI-EPG Model

Purpose and administration

This instrument is designed for a future empirical study of digital inclusion and citizen e-participation in public governance. Items should be translated and back-translated into the study languages, reviewed by subject and accessibility experts, tested through cognitive interviews, and piloted before full deployment.

Unless otherwise stated, respondents may answer the construct items on a five-point agreement scale from 1 (strongly disagree) to 5 (strongly agree). Behavioural participation items should use a defined reference period, such as the previous 12 months. For items 31-35, include 'Not applicable / no previous experience' and use skip logic. Items 36-44 use the stated frequency, count, or perceived-influence formats rather than the agreement scale.

Suggested background variables

- Age group
- Gender (with prefer-not-to-answer option)
- Region and urban/rural residence
- Highest education
- Employment status
- Household income band (optional)
- Disability-related accessibility requirements (optional)
- Primary language for public-service interaction
- Frequency of Internet and e-government use
- Digital participation activity during the previous 12 months

Proposed questionnaire items

Construct	Draft item
Meaningful access	1. I have reliable Internet access when I need to use a government platform.
Meaningful access	2. Internet access is affordable enough for me to participate in public matters online.
Meaningful access	3. I have a device that is suitable for completing government participation tasks.

Construct	Draft item
Meaningful access	4. I can use the required identification or authentication method without assistance.
Meaningful access	5. I can participate online in a sufficiently private and safe setting.
Digital skills	6. I can find official information about a public issue or proposed decision.
Digital skills	7. I can judge whether online government information is current and authoritative.
Digital skills	8. I can complete and submit an online form or appeal without assistance.
Digital skills	9. I can clearly express my opinion or proposal through a digital channel.
Digital skills	10. I know how to protect my personal information when interacting with government online.
Accessibility and usability	11. Government participation platforms are available in the language I prefer to use.
Accessibility and usability	12. The instructions on government platforms are easy for me to understand.
Accessibility and usability	13. Government participation platforms work well on the device I normally use.
Accessibility and usability	14. I can recover from an error or find help when a digital procedure is difficult.
Accessibility and usability	15. The design of government platforms accommodates my accessibility needs.
Trust and digital safety	16. I trust official digital participation platforms to protect my personal data.
Trust and digital safety	17. I believe my identity is handled securely when I submit a contribution.
Trust and digital safety	18. I feel safe expressing a respectful critical opinion through an official digital channel.
Trust and digital safety	19. I trust public institutions to treat online contributions fairly.
Digital skills (protective)	20. I can distinguish official participation platforms from fraudulent or unofficial sites.
Relevance and motivation	21. I know where to find opportunities to comment on public issues that affect me.

Construct	Draft item
Relevance and motivation	22. Online participation can be useful for addressing issues in my community.
Relevance and motivation	23. The effort required to participate online is worthwhile.
Relevance and motivation	24. I am interested in receiving notifications about relevant consultations or decisions.
Relevance and motivation	25. I am willing to invest time in digital participation when an issue is relevant to me.
Civic efficacy and readiness	26. I am confident that I can understand the main points of a public proposal.
Civic efficacy and readiness	27. I am capable of preparing a meaningful comment, appeal, or proposal.
Civic efficacy and readiness	28. I know which public body or platform should receive my contribution.
Civic efficacy and readiness	29. I am ready to prepare and submit a contribution through an official digital channel when a public decision affects me.
Civic efficacy and readiness	30. Citizens like me can contribute useful knowledge to public decision-making.
Institutional responsiveness	31. Public bodies acknowledge digital submissions within a reasonable time.
Institutional responsiveness	32. Responses from public bodies are clear and address the main point raised.
Institutional responsiveness	33. Consultation results explain how citizen views were considered.
Institutional responsiveness	34. Public bodies provide reasons when a citizen proposal cannot be accepted.
Institutional responsiveness	35. Previous experience gives me confidence that online participation is taken seriously.
Citizen e-participation: e-information	36. During the previous 12 months, how often did you use official online information to understand a public policy, budget, programme, or local issue? Response: Never / Once / 2-3 / 4-6 / 7+ times.
Citizen e-participation: e-information	37. During the previous 12 months, how often did you use official online information to compare options or prepare for participation in a public issue? Response: Never / Once / 2-3 / 4-6 / 7+ times.

Construct	Draft item
Citizen e-participation: e-consultation	38. During the previous 12 months, how often did you submit an online appeal, complaint, proposal, comment, or consultation response? Response: Never / Once / 2-3 / 4-6 / 7+ times.
Citizen e-participation: e-consultation	39. During the previous 12 months, how often did you follow the status or published outcome of a digital submission or consultation? Response: Never / Once / 2-3 / 4-6 / 7+ times.
Citizen e-participation: e-decision-making	40. During the previous 12 months, how often did you take part in an official online process in which citizens could help shape a public decision or priority? Response: Never / Once / 2-3 / 4-6 / 7+ times.
Citizen e-participation: e-decision-making	41. During the previous 12 months, how often did you vote, rank options, allocate priorities, or otherwise contribute to an official digital decision-making process? Response: Never / Once / 2-3 / 4-6 / 7+ times.
Citizen e-participation: breadth	42. During the previous 12 months, how many types of official digital participation did you use: e-information, e-consultation, and e-decision-making? Response: None / One / Two / All three.
Citizen e-participation: frequency	43. Overall, how often did you use official digital channels to participate in public issues or decisions during the previous 12 months? Response: Never / Once / A few times / About monthly / More than monthly.
Citizen e-participation: perceived influence	44. Thinking about your most recent digital participation experience, to what extent do you believe your contribution influenced the institutional response, public discussion, or decision? Response: Not at all / A little / Somewhat / Quite a lot / A great deal / Not applicable.

Scoring and validation notes

- Reverse-code only explicitly reverse-worded items retained after cognitive testing.
- Assess content validity, item clarity, missingness, floor/ceiling effects, and internal consistency.
- Use exploratory and confirmatory factor analysis before testing structural relations.
- Test measurement invariance across language, age, region, and other policy-relevant groups where sample size permits.
- Retain or revise items based on evidence rather than solely on initial theoretical assignment.

- For items 31-35, use skip logic and code 'Not applicable / no previous experience' as missing, not as the scale midpoint.
- Keep items 36-44 in their stated behavioural response formats; do not combine them automatically with agreement-scale items.
- Assess e-information, e-consultation, e-decision-making, breadth, frequency, and perceived influence separately before testing a higher-order citizen e-participation construct.

FREE ECONOMIC ZONES AS AN INSTRUMENT OF STATE GOVERNANCE IN ENSURING ENERGY SECURITY: COMPARATIVE ANALYSIS OF INTERNATIONAL PRACTICE AND IMPLICATIONS FOR UKRAINE

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Abstract

The growing vulnerability of national energy systems to geopolitical instability, climate change, and volatile energy markets prompted states to seek non-conventional governance instruments to reinforce energy security. Simultaneously, free economic zones (FEZs) are undergoing a paradigm shift – from trade-logistical enclaves to sophisticated tools of structural industrial and infrastructure policy.

This article aims to identify and systematise mechanisms through which FEZs can purposefully shape national energy security architecture and to develop conceptual approaches to adapting the most effective international models to Ukrainian conditions, particularly in the context of post-war reconstruction.

The study employs comparative public administration analysis, institutional design theory, systems analysis, and case study methodology. Three distinct governance models – the Asian dirigiste model (China, South Korea, UAE), African context case, the North American market-oriented model (USA, Canada), and the European regulated transformation model (Poland, Estonia, Netherlands) – are examined through structured cross-case comparison.

The analysis reveals a key typological feature of effective FEZ solutions in the energy security domain: the principle of "dual asymmetry" – combining asymmetric regulatory conditions (preferential regimes for investment attraction) with asymmetric obligations for residents regarding localisation and technology transfer. A conceptual model of "Energy Special Recovery Zone" (ESRZ) for Ukraine is proposed, incorporating a three-tier governance structure, differentiated incentive packages, and an "energy obligation" mechanism.

Post-war Ukraine possesses a unique "window of opportunity" to create next-generation FEZs simultaneously oriented toward foreign investment attraction, technology transfer, and energy autonomy reinforcement. The ESRZ model bridges EU accession commitments with urgent national energy resilience imperatives.

Keywords:

Free economic zones; energy security; renewable energy; post-war reconstruction; institutional design; technology sovereignty

Authors' individual contribution:

Conceptualization — L.A.; Methodology — O.A.; Data Collection — O.A.; Data Analysis — L.A., O.A.; Interpretation — L.A., O.A.; Writing — Original Draft — L.A., O.A.; Writing — Review & Editing — L.A., O.A.; Visualization — L.A.

Declaration of conflicting interests:

The Authors declare that there is no conflict of interest.

1. Introduction

The intersection of energy security and special economic zone governance represents one of the most underexplored territories in contemporary public administration scholarship. While the literature on free economic zones (FEZs) is extensive, the overwhelming majority of studies conceptualise these instruments primarily through the lens of trade facilitation, foreign direct investment (FDI) attraction, and employment generation (UNCTAD, 2019). Conversely, energy security research traditionally focused on supply diversification, strategic reserves, and geopolitical risk management, rarely engaging with the spatial and institutional dimensions of FEZ governance (Yergin, 2020).

This analytical gap acquired particular practical urgency in the wake of several converging global developments. First, the global energy transition is generating massive demand for localised manufacturing of renewable energy equipment – solar panels, wind turbines, battery storage systems, and hydrogen production facilities – creating new comparative advantages for countries capable of offering competitive industrial platforms. Second, Russia's full-scale invasion of Ukraine in 2022 demonstrated, with unprecedented severity, how energy infrastructure vulnerability can be weaponised as an instrument of coercion, fundamentally reshaping ‘calculations’ and concerns of energy security among European states and beyond (IEA, 2022). Third, accelerating decarbonisation agenda embedded in the European Green Deal creates both obligations and opportunities for candidate countries like Ukraine, where FEZ policy must be reconciled with EU state-aid rules and sectoral decarbonisation targets (European Commission, 2021).

Against this backdrop, the central research question of this article is formulated as follows: under what conditions and through what mechanisms can free economic zones function as effective instruments of state governance aimed at reinforcing national energy security? To address this question, we conduct a comparative analysis of international FEZ practice across three distinct governance models, identify the structural characteristics of successful energy-oriented FEZs, and develop an original conceptual framework – the Energy Special Recovery Zone (ESRZ) – tailored to Ukraine's post-war institutional and energy context.

Accordingly, the purpose of this article is to identify the institutional mechanisms through which free economic zones can contribute to national energy security and to develop an adaptive governance model suitable for Ukraine's post-war reconstruction and energy transition. The study tests the hypothesis that free economic zones contribute to energy security not merely through investment attraction but through institutional arrangements that combine preferential regulatory regimes with mandatory obligations regarding localisation, technology transfer, and infrastructure participation. Such a configuration creates stronger energy-security outcomes than conventional investment-oriented FEZ models.

Scientific novelty of the study lies in the development of the concept of dual asymmetry and its operationalisation through the proposed Energy Special Recovery Zone (ESRZ) model designed specifically for post-war reconstruction conditions. The article makes three principal contributions to the literature. First, it proposes and operationalises the concept of "dual asymmetry" as the defining governance characteristic of effective energy-oriented FEZs. Second, it develops a structured comparative typology of FEZ-energy security linkages across governance systems that have not been previously analysed in conjunction. Third, it articulates a policy-relevant institutional model specifically designed for post-conflict energy infrastructure reconstruction contexts.

2. Literature Review

The theoretical foundations of this study draw from three intersecting bodies of scholarship: comparative public administration, energy governance theory, and institutional economics. The economics of special economic zones (SEZ) generated a substantial and contested discourse. In particular, the recent work of Aggarwal (2022) represents one of few attempts to theorise FEZs as instruments of industrial policy, yet energy dimensions remain peripheral. Some earlier, Farole and Moberg (2017), within African context, presented the evidence that special economic zones evolved into integrated, tech-driven regional economic hubs in the twenty-first century from cheap-labor, export-processing enclaves. Global value chains (GVCs), digital innovation, and sustainable development goals are driving this transition, while many zones still have trouble generating spillovers into larger local economies. Pigliucci et al. (2025), in their monographic work, made a strong attempt to summarise challenges and benefits of SEZs for territorial development. Zeng (2021) traces the evolution of Special Economic Zones (SEZs) and asserts that since the first modern zone was established in Shannon, Ireland, SEZs have undergone numerous changes, from their original "enclave" nature to the current "Economic Zone 5.0", which is well-integrated with urban development and built on emerging digital technologies. Zeng (2021) asserts that although special economic zones are commonplace around the world, their effects on the economy and structural

transformation are not always consistent. Among the many lessons learned from successful special economic zone programmes, the key elements include a strategic location, integration of zone strategy with the overall development strategy, understanding the market and leveraging comparative advantage, and, most importantly, ensuring that zones are 'special' in terms of a business-friendly environment - especially a sound legal and regulatory framework and an embodiment of sustainability and resiliency towards various external shocks (Karolyi, et al., 2026). This is particularly crucially important at the background of recent global energy security shocks generated by war in Ukraine and to even higher extent – hostilities in the Middle East and Iran' international politics. Al-Sarihi (2026) argues that the 2026 conflict involving Iran and the resulting disruption in the Strait of Hormuz are reshaping the global energy landscape.

Energy security scholarship, actually, developed several influential conceptual frameworks. Yergin (2020) emphasises the primacy of supply diversity and market resilience. Strojny et al. (2023) offer a conceptual overview of energy security. The primary disparities in how energy security is perceived have been identified, and it has been noted that the "supply concept" of energy security is being replaced by an approach that views energy as a factor that initiates profound changes in social systems by altering consumption patterns, lowering energy consumption, and compelling changes in economic systems by enforcing environmental and energy efficiency standards.

Figure 1 below shows quantitative statistical data for publications on energy security, broken down into two time periods within the range of 2005-2022. As can be seen from the diagram, after 2015 discussions of energy security intensified sharply.

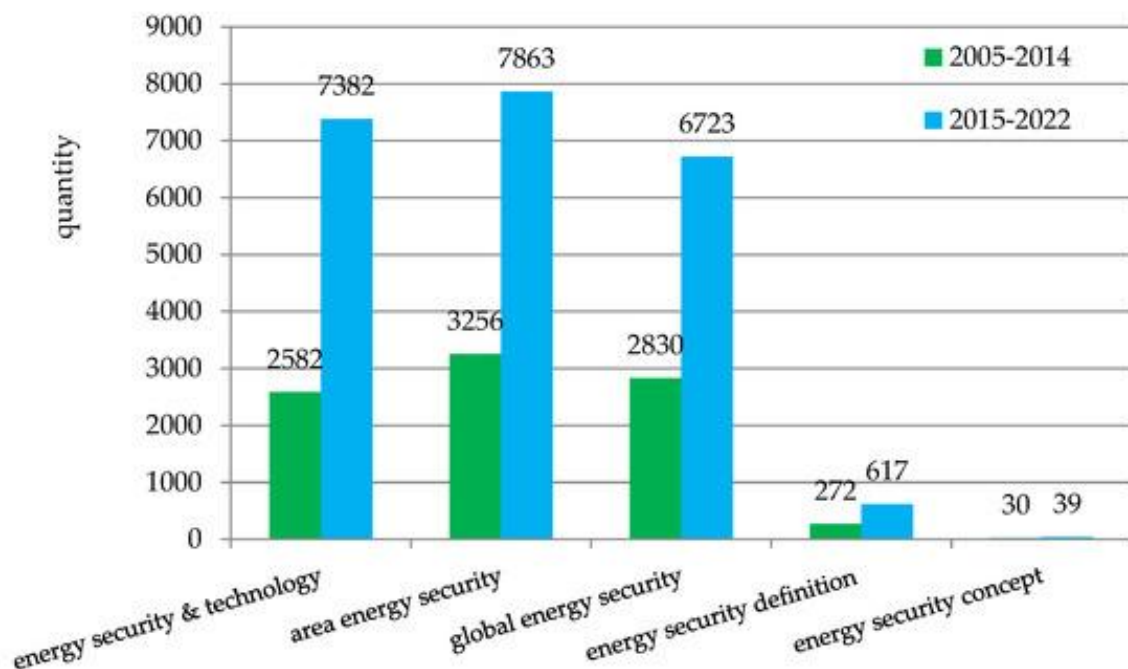


Figure 1. Publications on energy security, broken down into time periods adopted

Source: Strojny et al. (2023)

An interesting approach was suggested by Siksnyte-Butkiene (2023). The author found that the current perception of energy security consists of seven main components, namely: Availability, Affordability, Environmental Impact, Social Impact, Geopolitical Relationships, Government Effectiveness and Technological Development. Moreover, it is asserted that interdisciplinary approach has replaced a traditional understanding of energy security in recent years.

The theoretical bridge between FEZs and energy governance is most compellingly constructed through the lens of institutional economics. Gong and Tiague (2026) conducted empirical analysis based on a panel of 53 African countries for the period of 2000-2022. The authors found that SEZs significantly reduce energy poverty. Moreover, technology parks and industrial zones are claimed as those having the most effects on lowering energy poverty. The intersection of geographically bound economic development and energy security highlights a need for policy innovation. Key dynamics actually include the following three domains (Michoud & Hafner, 2021; Dagar et al., 2024):

1. Infrastructure Bottlenecks: Many emerging economies struggle to maintain uninterrupted power supplies within economic enclaves, which undermines investment benefits.
2. Renewable Integration: SEZs are increasingly acting as testing grounds for green energy projects, such as solar microgrids, designed to reduce dependency on volatile fossil fuel markets.
3. Energy Transition: The modernization of grid infrastructure and the expansion of interconnectors help distribute power efficiently to energy-intensive industries.

The argument that industrial policy succeeds when it creates mechanisms for strategic collaboration between the state and the private sector (Landesmann, 2025; Giordano et al., 2025) – embedding reciprocal performance obligations – provides the theoretical foundation for the "dual asymmetry" concept developed in this article.

The post-conflict economic reconstruction literature adds an additional analytical layer relevant to the Ukrainian case. Addison et al. (2002) demonstrate that post-conflict settings present both severe institutional challenges and unique windows for structural transformation, as the destruction of legacy infrastructure may actually remove incumbent resistance to new technological and regulatory frameworks. This "reconstruction advantage" is a key premise of the ESRZ model proposed below.

Taken together, the reviewed literature demonstrates that FEZs were examined predominantly through the lenses of investment attraction, industrial development, governance efficiency, and regional economic transformation, while energy-security research has primarily focused on infrastructure resilience, diversification, energy transitions, and institutional coordination. A separate body of post-conflict reconstruction research emphasizes institutional rebuilding, investment mobilization, and regulatory adaptation under conditions of fiscal and infrastructural constraints.

However, these strands of scholarship remain insufficiently integrated. In particular, the existing literature does not provide a governance framework that simultaneously considers the institutional design of free economic zones, energy-security objectives, and the specific requirements of post-conflict recovery. This gap is especially significant namely for countries such as Ukraine, where reconstruction, energy-system resilience, investment mobilisation, and European regulatory alignment must be addressed concurrently. The present study addresses this gap by bringing these previously separated analytical dimensions into a common comparative framework and by using the identified institutional patterns to develop the Energy Special Recovery Zone (ESRZ) model.

3. Materials and Methods

This study employs a qualitative comparative case analysis (QCCA) methodology, supplemented by systematic document analysis and policy mapping. The methodological design is intended to identify and compare institutional mechanisms through which free economic zones (FEZs) can contribute to energy security rather than to estimate a statistically generalisable causal effect of FEZs across countries. Accordingly, the unit of analysis is the institutional configuration of a FEZ or FEZ-related development regime and its mechanisms of interaction with energy-security objectives.

Case Selection Strategy

Case selection strategy is purposive, and theory driven. Cases were selected to represent analytically distinct governance archetypes in the relationship between FEZ policy and energy security while providing sufficient documentary evidence for systematic comparison. Four inclusion criteria were applied. First, the selected case had to involve a geographically or institutionally differentiated economic-zone regime, including special economic zones, free zones, investment zones, or functionally equivalent spatial development arrangements. Second, the case had to demonstrate an identifiable connection between zone governance and energy-related objectives, infrastructure, investment, technology development, or energy resilience. Third, sufficient primary and secondary documentary evidence had to be available to reconstruct the institutional arrangements of the case. Fourth, the case had to provide evidence relevant to at least three of the analytical dimensions specified in Table 1, thereby enabling meaningful cross-case comparison. Cases were excluded when the zone was designed exclusively for conventional trade or customs facilitation without an identifiable energy-related dimension, when publicly available evidence was insufficient to establish the relevant governance mechanisms, or when the available evidence did not permit the case to be examined using the common analytical framework. The selection prioritised analytical relevance and institutional variation rather than the representativeness of individual countries.

The Asian dirigiste model is represented by China (Shenzhen Special Economic Zone and Hainan Free Trade Port), South Korea (Saemangeum Special Economic Zone), and the UAE (Masdar City Free Zone). These cases were selected because they exemplify state-led, strategically designed FEZs with explicit energy-security or energy-transition objectives embedded in their development strategies and institutional arrangements.

The North American market-oriented model draws on the United States (Opportunity Zones with energy investment components under the Tax Cuts and Jobs Act 2017) and Canada (Atlantic Canada regional development zones and related investment-support arrangements). These cases illustrate how fiscal incentive architectures can mobilize private capital toward energy infrastructure in designated spatial units without the same degree of direct state industrial programming characteristic of the Asian model.

The European regulated transformation model is analyzed through Poland (Special Economic Zones transformed under the 2018 Act on Supporting New Investments), Estonia (Ülemiste City technology zone) and the Netherlands (Rotterdam Climate Bond and Maasvlakte II port-industrial complex). These cases demonstrate the integration of zone-related development policy with supranational decarbonization frameworks and provide a particularly relevant reference architecture for Ukraine's EU accession trajectory.

Data Sources and Analytical Procedure

Primary data sources include official zone legislation and development plans, investment promotion agency reports, regulatory documents, and energy-sector filings. Secondary sources encompass peer-reviewed academic publications, reports of international organizations, and policy evaluations produced by governmental and intergovernmental institutions. The use of multiple source categories enabled triangulation of institutional characteristics and reduced reliance on single-source interpretations. Comparative analysis followed a structured multi-stage procedure. In the first stage, documentary materials for each case were reviewed to identify institutional arrangements connecting FEZ governance with energy-related objectives. In the second stage, relevant evidence was coded according to a common analytical matrix derived from the literature on energy governance, institutional economics, public administration, and special economic zone management. Coding was conducted at the level of institutional mechanisms rather than isolated descriptive facts. For each case, the analysis recorded the presence, form, and relative strength of governance arrangements corresponding to the dimensions presented in Table 1.

Table 1. Analytical Framework for Comparative Case Analysis

Dimension	Operational Indicator
Governance architecture	Degree of state involvement, governance structure, coordination mechanisms
Energy mandate explicitness	Presence of energy-security objectives in legislation and development strategies
Incentive design	Tax incentives, regulatory preferences, infrastructure support mechanisms
Technology obligation mechanisms	Local content requirements, technology transfer provisions, R&D commitments
Energy security outcomes	Contribution to energy resilience, localisation effects, renewable generation capacity, grid stability

Source: developed by the authors

In the third stage, within-case analysis was used to reconstruct how the identified mechanisms operated in their respective institutional environments. Particular attention was given to the relationship between regulatory incentives offered to zone residents and obligations imposed on them in exchange for preferential treatment. In the fourth stage, the coded cases were compared across governance models in order to identify recurring mechanisms and meaningful differences. The comparison, therefore, proceeded from case-level coding to within-model synthesis and subsequently to cross-model comparison.

The comparison protocol was based on a common set of questions applied to every case: (1) Who exercises strategic and operational authority within the zone? (2) Are energy-security or energy-transition objectives explicitly incorporated into the zone's institutional mandate? (3) What forms of regulatory, fiscal, or infrastructural incentives are available to residents? (4) Are residents subject to localization, technology-transfer, infrastructure, renewable-energy, or energy-efficiency obligations? (5) What observable energy-related outcomes or mechanisms are documented? Applying the same questions across cases provided a consistent basis for comparison despite differences in national institutional systems.

Analytical framework was designed to ensure systematic comparability across heterogeneous governance environments. The selected cases differ substantially in institutional traditions, state-market relations, regulatory regimes, and energy-policy architectures; consequently, the purpose of comparison was not to establish direct causal equivalence between countries but to identify recurring institutional mechanisms and configurations. This approach follows the logic of qualitative comparative case analysis by examining how similar governance mechanisms operate under different institutional conditions.

Analytical Dimensions and Operationalization

The comparative analysis is structured around five dimensions: (1) governance architecture; (2) energy mandate explicitness; (3) incentive design; (4) technology obligation mechanisms; and (5) measurable energy-security outcomes. These dimensions were selected according to two criteria: their relevance for explaining how FEZ governance can influence energy-security objectives and their applicability across different governance systems. For coding purposes, each dimension was examined through observable institutional indicators. Governance architecture was assessed through the degree of state involvement, the distribution of decision-making authority, and the presence of coordination mechanisms. Energy mandate explicitness was identified through references to energy security, renewable energy, energy transition, infrastructure resilience, or related objectives in legislation, master plans, and development strategies. Incentive design was examined through tax incentives, regulatory preferences, infrastructure support, financing arrangements, and permitting advantages. Technology obligation mechanisms were identified through local-content requirements, technology-transfer provisions, R&D commitments, skills-development requirements, renewable-energy obligations, and infrastructure participation requirements. Energy-security outcomes were assessed through documented contributions to energy resilience, localization, renewable-generation capacity, technology diffusion, grid stability, or energy-access improvement.

The operationalization of the analytical framework is presented in Table 2.

Table 2. Case Selection and Coding Protocol for Comparative Analysis

Analytical element	Specification
Unit of analysis	Institutional configuration of a FEZ or functionally equivalent zone-related development regime and its mechanisms of interaction with energy-security objectives
Case inclusion criteria	(1) differentiated economic-zone regime; (2) identifiable connection with energy security, energy infrastructure, energy transition, or related objectives; (3) sufficient documentary evidence; (4) applicability of at least three dimensions of the analytical framework
Case exclusion criteria	Zones limited to conventional trade/customs facilitation without an identifiable energy dimension; cases with insufficient documentary evidence; cases for which the common analytical framework could not be applied
Coding approach	Structured qualitative coding of documentary evidence using the five dimensions and operational indicators specified in Table 1
Coding focus	Institutional mechanisms, including governance arrangements, energy mandates, incentives, resident obligations, technology-transfer mechanisms, and documented energy-related outcomes
Within-case analysis	Reconstruction of the institutional configuration and identification of mechanisms linking FEZ governance to energy-related objectives
Cross-case comparison	Comparison of coded mechanisms across cases and subsequent synthesis by governance model; emphasis on recurring institutional patterns rather than direct causal equivalence

Comparison protocol	The same five analytical dimensions and common questions regarding authority, energy mandate, incentives, obligations, and outcomes were applied to each case
Evidence triangulation	Cross-checking of legislation, development plans, governmental and institutional reports, regulatory documents, peer-reviewed studies, and international-organisation reports where available
Construct validity	Analytical dimensions derived from established FEZ, energy governance, institutional economics, and public administration literature and applied consistently across cases
Reliability	Use of a predefined coding matrix, common operational definitions, and a standardised comparison protocol
Scope of inference	Analytical transferability rather than statistical generalisation; findings are interpreted as recurring institutional mechanisms conditioned by national institutional and regulatory contexts

Source: developed by the authors

Validity, Reliability and Scope of Inference

Several procedures were used to strengthen comparative analysis' validity and reliability. Construct validity was supported by deriving the analytical dimensions from established literature on FEZ governance, energy security, institutional economics, and comparative public administration, and by applying the same operational definitions across cases. Source triangulation was used to cross-check institutional claims against legislation, official development documents, institutional reports, and peer-reviewed research wherever such sources were available. Reliability was enhanced through the use of a predefined analytical matrix and a common comparison protocol. The coding framework was applied consistently across the selected cases, with evidence recorded according to the same five dimensions and corresponding indicators. Interpretive judgments were retained at the mechanism level and were not converted into numerical effect sizes unless numerical estimates were reported in the underlying empirical studies. This distinction is important because the cases and supporting empirical studies differ in their dependent variables, samples, model specifications, and estimation techniques.

The study consequently implies analytical rather than statistical generalization. Its findings identify institutional mechanisms that may be transferable across settings, but they do not imply that individual FEZ models produce identical effects in different countries. Transferability depends on institutional capacity, regulatory architecture, fiscal resources, infrastructure conditions, energy-system configuration, and geopolitical context. This distinction is particularly relevant to the proposed Energy Special Recovery Zone (ESRZ), which is developed as a context-sensitive institutional model for Ukraine rather than as a universally applicable FEZ template.

The analytical framework allows identification of institutional patterns that transcend national differences while preserving the contextual specificity of individual cases. Rather than evaluating the overall economic performance of individual FEZs, the study focuses specifically on mechanisms

linking zone governance arrangements to energy-security objectives. The findings derived from this framework form the basis for the development of the proposed Energy Special Recovery Zone (ESRZ) model for Ukraine.

4. Results

The Asian Dirigiste Model: Strategic Energy Sovereignty through FEZs

The Asian dirigiste model represents the most explicit deployment of FEZs as instruments of energy security architecture. China's approach is paradigmatic: the Shenzhen SEZ and its successors were progressively reoriented from labour-cost arbitrage platforms toward high-technology manufacturing clusters, with renewable energy equipment – particularly photovoltaic panels and lithium-ion battery supply chains – constituting the dominant industrial focus by the 2010s (Naughton, 2021). By 2023, China's SEZ-hosted manufacturers accounted for approximately 80% of global solar panel production capacity (IRENA, 2023), representing a deliberate state strategy to achieve technological sovereignty in the energy transition supply chain.

South Korea's Saemangeum zone articulates a more explicit energy security mandate: the zone's master plan designates 2,100 hectares specifically for offshore wind manufacturing and hydrogen energy infrastructure, with resident obligations including minimum local content ratios of 40% for components and mandatory contribution to the national grid through a feed-in arrangement (KOTRA, 2022). This architecture embodies what we term "dual asymmetry": preferential tax treatment and streamlined permitting (asymmetric regulation favouring investors) are paired with supply-chain localisation and grid contribution requirements (asymmetric obligations creating national energy security benefits).

Table 3. Long-term Regression Coefficients (β) of Public Governance Quality within SEZs on Energy Infrastructure Investments

Public Governance Metric within SEZ	Long-term Regression Coefficient (β) on Energy Infrastructure Investment	Statistical Significance (p -value)
Government Effectiveness	+0.385	<0.01 (highly significant)
Regulatory Quality	+0.312	<0.01 (highly significant)
Corruption Control	+0.241	<0.05 (significant)

The UAE's Masdar City Free Zone offers particularly instructive case of energy security objectives embedded in zone design at the physical infrastructure level. The zone operates on a near-zero-carbon energy budget through mandatory on-site renewable generation, creating a living laboratory for energy technologies while simultaneously demonstrating the commercial viability of zero-carbon industrial operations (Cugurullo, 2016). Masdar's governance model – in which a

sovereign wealth fund (Mubadala) acts as both zone developer and anchor investor – illustrates how state capital can absorb the initial risk of energy technology demonstration at scale.

Peng et al. (2024) provide new empirical insights from ASEAN. The research presents multi-country research utilizing the CS-ARDL (Cross-Sectionally Augmented Autoregressive Distributed Lag) and FMOLS regression models. The article presents an analysis of the performance of industrial SEZs in ASEAN countries (Vietnam, Indonesia, Malaysia, and Thailand) in the context of attracting private investment in energy infrastructure. The study directly measures the impact of World Bank governance metrics - Government Effectiveness, Regulatory Quality, and Corruption Control. The results demonstrate that SEZs provide the maximum contribution to energy security only with high regulatory environment indicators. Transparent governance in the zones reduces risks for long-term energy contracts (PPAs). Modelling reveals a direct long-term correlation between improved public governance within SEZs and private capital inflows into energy supply diversification and security projects (see Table 3). The regression coefficients presented in Table 3 are drawn from the independent empirical study of Peng et al. (2024) and are used here as supporting evidence for the governance-energy investment relationship identified in the comparative analysis. They should not be interpreted as coefficients estimated within the present study or as directly comparable effect sizes across the cases considered below. The underlying studies differ in their dependent variables, geographical coverage, model specifications, samples, and estimation techniques. Therefore, coefficients reported in Tables 3-5 are interpreted within the methodological context of their respective source studies and are used to identify the direction and relative significance of particular governance mechanisms rather than to establish a common statistical scale of effects.

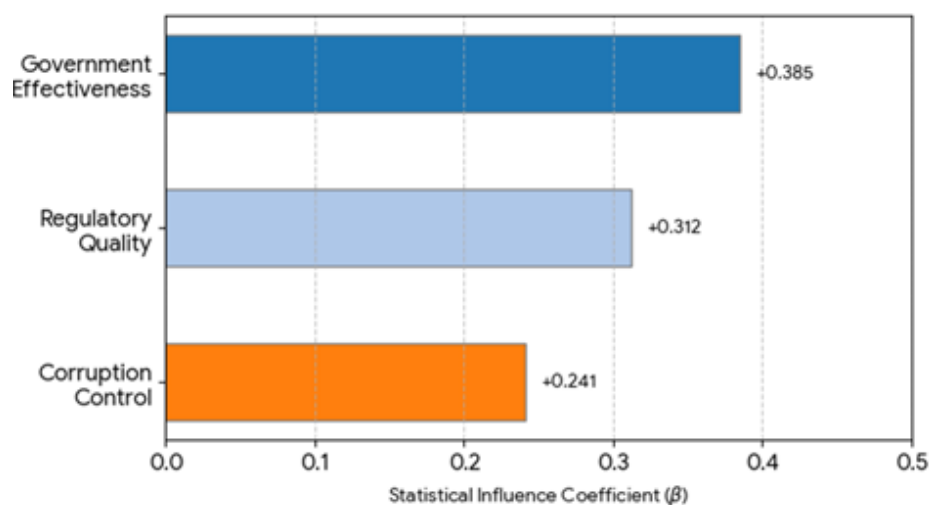


Figure 2. Impact of SEZ Public Governance Metrics on Energy Infrastructure Investment via Long-term Regression Coefficients (β)

Source: developed based on econometric model estimations from Peng et al. (2024)

Using numerical data from the econometric models of this case, we can visualize the strength of influence of various public governance factors in the SEZ on the provision of energy investments, which constitutes an important channel through which energy-system stability and energy security may be strengthened (see Fig. 2).

African context

The African Developmental Model, outlined by Gong and Tiaque, uses FEZs to mitigate energy poverty by anchoring regional grid stability and accelerating decentralized renewable energy deployment (Gong et al., 2026). Econometric modelling indicates that Industrial Zones provide the strongest impact on reducing energy poverty ($\beta = -0.420$) when combined with strategic public management of grid infrastructure. The South African Atlantis Special Economic Zone (ASEZ) exemplifies this, focusing on Greentech manufacturing and localized storage to build operational resilience within the Southern African Power Pool (Anyanwu et al., 2026).

The study examines how the creation of SEZs through foreign direct investment (FDI) and clean technology transfer influences energy supply security and the mitigation of energy shortages (components of energy security). The authors emphasize that the key driver of effectiveness is the institutional quality of public administration (policy for providing targeted incentives, monitoring investor compliance with infrastructure obligations, and coordination between agencies). Without effective government regulation, zones become isolated "enclaves" and fail to provide synergies for the national energy system. The study calculates the impact (elasticity coefficients) of different zone types on reducing energy poverty and improving the energy security of the population (see Table 4).

Table 4. Statistical Impact and Elasticity Coefficients of Various SEZ Types on Regional Energy Poverty Reduction (2000–2022).

Type of Economic Zone	Statistical Impact Coefficient (Impact on Reducing Energy Poverty)	Key Governance Channel
Industrial Zones	-0.42 (strongest)	Strategic grid infrastructure planning
Technology Parks	-0.28	Renewable technology diffusion (R&D)
Free Trade Zones	-0.15 (weakest)	Customs facilitation for energy equipment import

Source: adapted from Gong and Tiague (2026)

The coefficients reported in Table 4 originate from the independent empirical analysis of Gong and Tiague (2026). Their inclusion serves to provide complementary evidence concerning the relationship between governance-related arrangements and energy-sector outcomes. As this study employs a different empirical design, dependent variable, geographical coverage, and estimation framework from Peng et al. (2024), its coefficients are not directly comparable with those reported in

Table 2. The values are, thus, interpreted as study-specific empirical evidence supporting institutional mechanisms rather than as observations on a common comparative regression scale.

The North American Market-Oriented Model: Fiscal Architecture and Private Capital Mobilisation

The North American approach diverges fundamentally from the Asian model in its reliance on fiscal incentive design rather than direct state industrial programming. The US Opportunity Zone programme, created under the 2017 Tax Cuts and Jobs Act, designates over 8,700 low-income census tracts as eligible for preferential capital gains treatment on invested capital (Theodos et al., 2020). While the programme was not designed with explicit energy security objectives, empirical analysis reveals that renewable energy projects – particularly utility-scale solar and wind installations – have emerged as the dominant investment category in rural Opportunity Zones, driven by the synergy between capital gains deferral and renewable energy tax credits (NOVOGRADAC, 2022).

This market-driven convergence leads to important theoretical insight: even without explicit energy mandates in FEZ legislation, well-designed fiscal architectures can generate substantial energy security co-benefits when placed in regulatory environments that price externalities appropriately. The limitation of this model, however, is its dependence on mature capital markets and sophisticated tax planning infrastructure – conditions absent in post-conflict contexts. Furthermore, without localisation obligations, the energy security benefits remain primarily in the form of generation capacity addition rather than supply-chain development or technology sovereignty.

Canada's regional development zone approach offers a partial corrective: the Atlantic Canada zones explicitly incorporate technology transfer obligations and skills development requirements as conditions of public investment support, creating a hybrid model closer to the Asian archetype while preserving market price-discovery mechanisms (Atlantic Canada Opportunities Agency (ACOA) ACOA, 2021).

The European Regulated Transformation Model: FEZs as Decarbonisation Pilots

The European model is distinguished by the integration of FEZ policy within supranational regulatory frameworks – specifically, EU state-aid rules, the Emissions Trading System (ETS), and the Green Deal sectoral mandates. This integration simultaneously constrains the scope of permissible FEZ incentives and creates powerful co-incentive structures through carbon pricing and green taxonomy financing advantages.

Recent quantitative assessments of framework inherent in European Regulated Transformation Model, emphasise measurable impact of targeted governance over purely fiscal incentives. A comprehensive panel study conducted by the Centre for European Policy Studies

(CEPS) analysed the restructuring of EU industrial and special economic zones in transitioning coal regions (such as Poland's Katowice SEZ and the Wielkopolska zone) (Kustova et al., 2021). The study measured how public governance mechanisms - specifically the deployment of "flanking measures" (targeted EU-funded technological grants and carbon emission credit shielding) - influenced private capital allocation toward low-carbon technologies and grid stability.

Table 5. Statistical Impact Coefficients of EU FEZ Governance Interventions on Low-Carbon Energy Transition (Fixed-Effects Estimates)

EU Mechanism	Governance within FEZ	Estimated Coefficient on Capacity Decarbonization	Impact on Energy /	Statistical Significance (\(p\)-value)	Primary Target	Operational
Targeted R&D Grants	Technology &	+0.412		<0.01 (highly significant)	Photovoltaic parks & smart grid infrastructure	
Carbon Shielding & Flanking Measures	ETS	+0.295		<0.01 (highly significant)	Energy storage & heavy industry fuel-switching	
Simplified Permitting	Environmental	+0.184		<0.05 (significant)	Distributed biomass and localized grid connections	

Source: developed by the authors based on: Kustova et al. (2021), Zavorská et al. (2023)

The econometric framework applied fixed-effects models to track investment shifts. The results proved that when zone management coupled infrastructure streamlined-permitting with strict EU taxonomy compliance, the marginal efficiency of clean energy transition investments increased significantly. Specifically, public management interventions designed to subsidize green technology R&D facilities within the zones yielded the highest statistical correlation with long-term regional energy self-sufficiency (Zavorská et al., 2023).

Table 5 summarizes the estimated impact coefficients of these specialized European governance interventions on accelerating regional low-carbon energy security capacity.

The empirical estimates presented in Table 4 are derived from independent studies by Kustova et al. (2021) and Zavorská et al. (2023). These studies examine energy-related outcomes in different geographical and institutional settings and employ distinct empirical specifications and estimation approaches. Consequently, their coefficients should not be interpreted as directly comparable effect sizes with those reported in Tables 2 and 3. Their role in the present analysis is evidentiary: they demonstrate how specific institutional, regulatory, or governance factors have been associated with energy-related outcomes in the respective empirical contexts.

This statistical distribution reveals a critical structural lesson for the European model: within tight supranational regulatory constraints, the state's role pivots from a direct capital provider to a risk-mitigating coordinator. By utilizing EU structural funds to subsidize the technological

"premium" of renewable installations rather than offering raw corporate tax exemptions, FEZ governance effectively aligns local energy security targets with broader continental decarbonization mandates.

Poland's post-2018 SEZ reform is particularly representative for Ukraine's EU accession context. The transformation of 14 separate special economic zones into a unified Polish Investment Zone (PIZ) resolved longstanding fragmentation problems while maintaining differentiated regional investment intensity maps tied to development disparities (PAIH, 2022). Crucially, the reformed PIZ explicitly prioritises investments in renewable energy manufacturing, energy storage, and smart grid technologies through an uplifted incentive coefficient – a mechanism that effectively embeds energy security preferences into the zone's investment incentive architecture without violating EU state-aid constraints.

The Netherlands' Rotterdam Climate Bond illustrates a distinct but complementary mechanism: green bonds issued by the port authority fund decarbonisation infrastructure in the Maasvlakte II industrial zone, creating a financial architecture that channels capital market sustainability preferences into energy security investments without requiring direct public expenditure (Port of Rotterdam, 2021). This model is particularly relevant for Ukraine, where fiscal space for public investment is severely constrained by war financing obligations and reconstruction debt.

Estonia's Ülemiste City zone demonstrates the energy security benefits of data centre-oriented FEZ development: the concentration of digital infrastructure creates significant and predictable electricity demand, justifying dedicated renewable energy generation investments that would not be commercially viable at the individual firm level. This "demand aggregation" mechanism is a distinctive feature of the European model and has direct applicability to Ukraine's significant potential as a data centre hub for EU digital infrastructure resilience.

Comparative Synthesis: The Principle of Dual Asymmetry

Cross-case analysis reveals that the most energy-security-effective FEZs across all three governance models share a structural characteristic that we define as "dual asymmetry." This principle has two complementary dimensions. The first dimension – regulatory asymmetry – refers to deliberate creation of more permissive, simplified, or incentivised regulatory environment within the zone compared to the surrounding territory. This asymmetry is the classical FEZ mechanism, designed to attract investment by lowering transaction costs and improving return expectations.

The second dimension – obligation asymmetry – is less frequently theorised but proves equally essential for energy security outcomes. Obligation asymmetry refers to the imposition of specific performance requirements on zone residents that generate positive externalities for the

national energy system: i) minimum renewable energy generation ratios, ii) local content requirements for energy equipment manufacturing, iii) mandatory technology licensing to domestic firms, iv) grid contribution obligations, or v) energy efficiency performance standards. Without this second dimension, FEZs function purely as fiscal expenditure instruments generating investment without structural energy security transformation. Table 6 presents appropriate comparative analysis.

Table 6. Comparative Analysis of FEZ Governance Models and Energy Security Outcomes

Dimension	Asian Dirigiste	N. American Market	European Regulated
Primary FEZ objective	Industrial policy & tech sovereignty	Investment & employment	Decarbonisation & EU integration
Energy mandate explicitness	High (explicit)	Low (emergent)	Medium (embedded in criteria)
Regulatory asymmetry	Strong tax & permit relief	Tax credit stacking	Reduced compliance costs
Obligation asymmetry	Strong (localisation + grid)	Weak (market-driven)	Medium (ETS + taxonomy aligned)
Technology transfer mechanism	Explicit JV requirements	None / market-driven	Skills and IP licensing clauses
State capital role	Dominant (SWF/SOE)	Marginal (co-investment)	Moderate (de-risking finance)
Dual asymmetry score Energy security outcome quality	High Structural / supply chain	Low Additive / generation	Medium–High Systemic / transition-aligned

Source: compiled by the authors based on UNCTAD (2019), IEA (2022), KOTRA (2022), PAIH (2022).

The Energy Special Recovery Zone (ESRZ) Model for Ukraine

Ukraine's post-war context exhibits several structural characteristics that collectively define a unique institutional opportunity for FEZ-driven energy security reconstruction. On the demand side, the systematic targeting of energy infrastructure by Russian forces has destroyed estimated 50% of generation capacity, creating an unprecedented reconstruction agenda (World Bank, 2023). On the supply side, Ukraine possesses one of the highest renewable energy potential in Europe – technically exploitable solar capacity of 400 GW and wind capacity of 320 GW – yet this potential remains largely untapped due to grid instability, financing constraints, and regulatory uncertainty (IRENA, 2023).

Drawing on the comparative analysis above, we propose the Energy Special Recovery Zone (ESRZ) as a hybrid institutional model that selectively combines elements of all three governance archetypes while adapting them to Ukraine's specific legal, institutional, and geopolitical constraints. The ESRZ model rests on four structural pillars.

The first pillar is a three-tier governance architecture. At the national level, a dedicated ESRZ Supervisory Authority – operating under dual accountability to the Cabinet of Ministers and the Energy Regulator (NEURC) – establishes performance frameworks and allocates public co-investment. At the zone level, an independent Zone Development Agency (ZDA) manages day-to-day operations with a governance board incorporating municipal authorities, resident firms, civil society representatives, and EU accession monitoring observers. At the resident level, a self-governing Residents' Council participates in collective energy infrastructure management decisions, creating the strategic collaboration mechanism identified by Rodrik (Rodrik as cited in Lee, 2022; Razumei, et al., 2025) as essential for effective industrial policy.

The second pillar is a differentiated incentive architecture structured around technology contribution tiers. Tier 1 residents – producing core renewable energy components (cells, turbine blades, electrolyzers) with minimum 40% local content – receive the maximum incentive package: 10-year corporate income tax exemption, VAT exemption on imported capital equipment, and priority grid connection. Tier 2 residents – integrating and deploying renewable energy systems – receive a 5-year tax holiday and expedited permitting. Tier 3 residents – providing ancillary services (logistics, maintenance, digital services) – receive streamlined regulatory processing without fiscal exemptions. This tiered structure ensures that the greatest public subsidy flows toward activities generating the greatest supply-chain and technology sovereignty benefits.

Table 7. ESRZ Institutional Architecture: Key Parameters

Parameter	Specification
Zone type	Energy Special Recovery Zone (ESRZ)
Minimum zone area	500 ha (greenfield) / 200 ha (brownfield industrial)
Governance structure	National Authority → Zone Development Agency → Residents' Council
Resident tiers	3 tiers based on technology localisation depth
Max. incentive duration (Tier 1)	10 years CIT exemption + VAT relief on capital equipment
Energy Obligation Mechanism	Levy of 2–5% of incentive value → local grid modernisation fund
Technology transfer requirement	IP licensing to domestic firms at regulated royalty rates (Tier 1)
EU compliance	Designed within GBER + TCTF boundaries
Monitoring mechanism	Annual KPI review: MW installed, local content %, jobs, grid stability
Target regions (priority)	Kharkiv, Mykolaiv, Zaporizhzhia, Dnipropetrovsk oblasts

Source: developed by the authors.

The third pillar is the Energy Obligation Mechanism (EOM): a mandatory contribution by all ESRZ residents to the local distribution network proportional to their installed generation capacity or energy consumption, funded through a levy on preferential incentive savings. EOM proceeds finance grid modernisation investments within the zone's service area, ensuring that FEZ development

actively strengthens rather than strains local energy infrastructure – a critical concern in post-conflict grid environments characterised by severe distribution network damage.

The fourth pillar is EU accession alignment architecture. All ESRZ incentive mechanisms are designed within the boundaries of EU state-aid block exemption regulations (particularly the General Block Exemption Regulation and the Temporary Crisis and Transition Framework), ensuring that preferential treatment survives the transition to EU membership without requiring renegotiation. This forward compatibility is a critical institutional advantage absent in Ukraine's existing industrial park and special economic zone legislation.

Key parameters of ESRZ institutional architecture are summarized in Table 7.

5. Discussion

Institutional Constraints and Practical Limitations of ESRZ Implementation in Ukraine

The ESRZ model proposed in this article engages with several live tensions in the literature that warrant explicit discussion. The first concerns the fundamental paradox of post-conflict institutional design: the destruction of legacy infrastructure simultaneously creates both an acute energy security emergency and a structural opportunity to bypass the incumbent-resistance dynamics that have slowed energy transitions in states without recent infrastructure shocks. Ukraine's situation – where Goumagias et al. (2022) would predict severe "reconstruction path dependency" toward pre-war infrastructure configurations – instead presents conditions closer to what we term a "forced transition window," in which the absence of functional legacy systems removes the primary political economy obstacle to new technology adoption.

The second tension concerns the compatibility of dual asymmetry with EU state-aid rules. Preliminary legal analysis suggests that the incentive architecture outlined in Table 3 can be structured within existing block exemption frameworks, particularly the Regional Aid Guidelines and the Climate, Environmental Protection and Energy Aid Guidelines (European Commission, 2022). However, the EOM – a novel mechanism in EU FEZ practice – requires careful legal engineering to avoid classification as a parafiscal charge creating market distortions. From a legal-institutional perspective, the principal risks concern the design of tax exemptions, preferential financing, infrastructure support, and other selective advantages provided to ESRZ residents. Their compatibility with the EU State aid acquis will depend on the objective and proportionality of each measure, its geographical and sectoral scope, the conditions attached to the support, and the applicable rules for regional, environmental, and energy-related State aid. The ESRZ framework should incorporate State aid compliance at the design stage, with individual incentive instruments assessed according to the relevant exemption, notification, and monitoring requirements rather than treated as

automatically permissible under the zone's special status. This dimension warrants dedicated legal scholarship beyond the scope of this article.

The third tension involves the political economy of FEZ site selection in a wartime and immediate post-war context. The priority regions identified above – Kharkiv, Mykolaiv, Zaporizhzhia, Dnipropetrovsk – correspond to areas of high reconstruction need and renewable energy potential, but also represent security-risk environments that may deter private investment irrespective of incentive generosity. Resolution of this tension likely requires the participation of multilateral development finance institutions (EBRD, IFC, DFC) as anchor co-investors providing political risk insurance and first-loss capital facilities – an institutional layer not fully elaborated in the ESRZ model as presented but critical for practical implementation.

Finally, the article acknowledges that the evidence base for energy security outcomes attributable specifically to FEZ mechanisms remains thin. The causal identification challenges are substantial: FEZs typically operate in conjunction with other industrial and energy policies, making isolating their contribution methodologically difficult. The comparative analysis presented here is primarily mechanism-tracing rather than impact evaluation. Rigorous quasi-experimental assessment of FEZ-energy security linkages – ideally exploiting the staggered rollout of zone programmes as natural experiments – represents a significant priority for future research.

Meanwhile, although the ESRZ model demonstrates substantial potential as a governance instrument for post-war energy reconstruction, its practical implementation in Ukraine faces several institutional constraints that distinguish the Ukrainian case from the international examples examined above. First, security risks remain the most significant source of uncertainty. Unlike the majority of successful FEZs analysed in this study, Ukraine continues to operate under conditions of ongoing military threats. Potential investors may perceive energy-oriented industrial zones as strategic targets, which increases insurance costs, lengthens investment horizons, and reduces expected returns. Second, governance effectiveness represents a critical determinant of success. Comparative evidence from ASEAN and African cases demonstrates that the positive effects of economic zones on energy development depend heavily on regulatory quality, administrative capacity, and corruption control. Without transparent governance mechanisms, preferential regimes may generate rent-seeking behaviour rather than productive investment. Third, financial constraints may limit the state's ability to provide large-scale incentives comparable to those employed in East Asian developmental models. Given the substantial fiscal burden associated with reconstruction and defence expenditures, the Ukrainian government will likely depend on blended financing mechanisms involving international financial institutions, development banks, and private investors (Petrukha, et al., 2026). Fourth, Ukraine's future integration into the European Union creates additional regulatory constraints. While

EU accession provides access to financial resources and institutional support, it simultaneously restricts the use of certain industrial-policy instruments through state-aid and competition regulations. Consequently, ESRZ incentives must remain compatible with evolving EU regulatory frameworks.

Finally, infrastructure asymmetries between regions may produce uneven implementation outcomes. Regions with greater logistical connectivity, transmission capacity, and industrial traditions are likely to attract investment more rapidly than territories experiencing severe infrastructure damage.

Adaptive ESRZ Framework

The comparative analysis further suggests that the effectiveness of energy-oriented economic zones depends not only on the design of incentives and obligations but also on their capacity to adapt to changing external conditions. International experience demonstrates that geopolitical shocks, market volatility, technological disruptions, and regulatory transformations may significantly alter the performance of zone-based development strategies. To account for these uncertainties, the proposed ESRZ model incorporates an Adaptive Resilience Coefficient (ARC), which reflects the ability of the institutional framework to maintain effectiveness under changing environmental conditions:

$$ARC = \alpha E + \beta G + \gamma F + \delta R \quad (1)$$

where:

E = energy infrastructure resilience;

G = governance effectiveness;

F = financial sustainability;

R = regulatory compatibility with EU requirements;

subject to: $\alpha + \beta + \gamma + \delta = 1$

The components of ARC are defined conceptually rather than treated as empirically calibrated indicators in the present study. Energy resilience (E) refers to the capacity of the zone's energy infrastructure to absorb, withstand, and recover from disruptions and may be operationalised in future empirical research through indicators such as infrastructure redundancy, reserve capacity, diversification of energy sources, and recovery time following disruptions. Governance adaptability (G) captures the capacity of public institutions and zone-management bodies to adjust regulatory and administrative arrangements in response to changing energy, technological, and geopolitical conditions; potential indicators include regulatory response time, institutional coordination capacity,

and the frequency or effectiveness of policy adjustments. Financial sustainability (F) refers to the capacity to maintain energy-related investments and zone incentives without generating unsustainable fiscal exposure and may be assessed through indicators such as investment continuity, fiscal burden, private co-financing, and revenue stability. Regulatory readiness (R) denotes the capacity to comply with and adapt to evolving domestic and EU regulatory requirements, including energy, environmental, investment, and state-aid rules; possible indicators include compliance costs, regulatory adjustment time, and the degree of alignment with applicable EU requirements.

The weights α , β , γ , and δ are not empirically estimated in the present study. They are introduced as adjustable parameters reflecting the relative importance assigned to each dimension in a future empirical application. Accordingly, the ARC should be understood at this stage as an indicative analytical construct rather than as a validated composite index. Future research may calibrate the weights using expert elicitation, statistical techniques, or empirical performance data, depending on the availability and quality of observations.

The overall performance of an Energy Special Recovery Zone may, therefore, be expressed as:

$$ESRZ_{Performance} = DAS \times ARC \quad (2)$$

where DAS represents the Dual Asymmetry Score reflecting the balance between regulatory incentives and resident obligations.

This formulation introduces a dynamic dimension into the ESRZ framework. While the Dual Asymmetry Score captures the structural quality of institutional design, the Adaptive Resilience Coefficient reflects the capacity of the model to respond to unforeseen shocks, security challenges, financial disruptions, and regulatory changes. Consequently, the framework may be adjusted over time without altering its fundamental governance architecture.

At the present conceptual stage, this expression is not used to generate empirical performance score for ESRZ. Rather, it specifies proposed analytical relationship between structural governance condition represented by DAS and adaptive capacity represented by ARC. Its empirical application would require prior operationalisation and calibration of both components using observed data.

The comparative evidence examined in this study suggests that the effectiveness of energy-oriented free economic zones depends not only on the balance between incentives and obligations but also on the ability of governance arrangements to adapt to changing external conditions. In post-conflict environments, institutional performance may be affected by security threats, regulatory transformations, fiscal constraints, and infrastructure disruptions. Therefore, the ESRZ model should

be understood not as a static institutional design but as an adaptive governance framework capable of maintaining functionality under conditions of uncertainty. Figure 3 illustrates the interaction between the principle of dual asymmetry and the proposed adaptive resilience mechanism that collectively determine long-term energy security outcomes.

The adaptive governance framework presented above demonstrates that the sustainability of energy-oriented economic zones depends on the simultaneous presence of two complementary components. The first component is the institutional architecture of dual asymmetry, which creates incentives for investment while ensuring the generation of broader public benefits through localisation, technology transfer, and infrastructure participation. The second component is institutional resilience, which enables the governance system to absorb external shocks and adjust to changing economic, political, and regulatory conditions. Together, these elements create a flexible policy instrument capable of supporting both post-war reconstruction and long-term energy transformation.

Overall, the findings indicate that the proposed ESRZ model should be viewed as a dynamic governance mechanism rather than a conventional special economic zone. Its effectiveness will ultimately depend on the interaction between regulatory design, governance quality, financial sustainability, and security conditions. While the model requires further empirical validation, it provides a theoretically grounded and policy-relevant framework for aligning investment attraction, industrial development, and energy security objectives within a single institutional architecture.

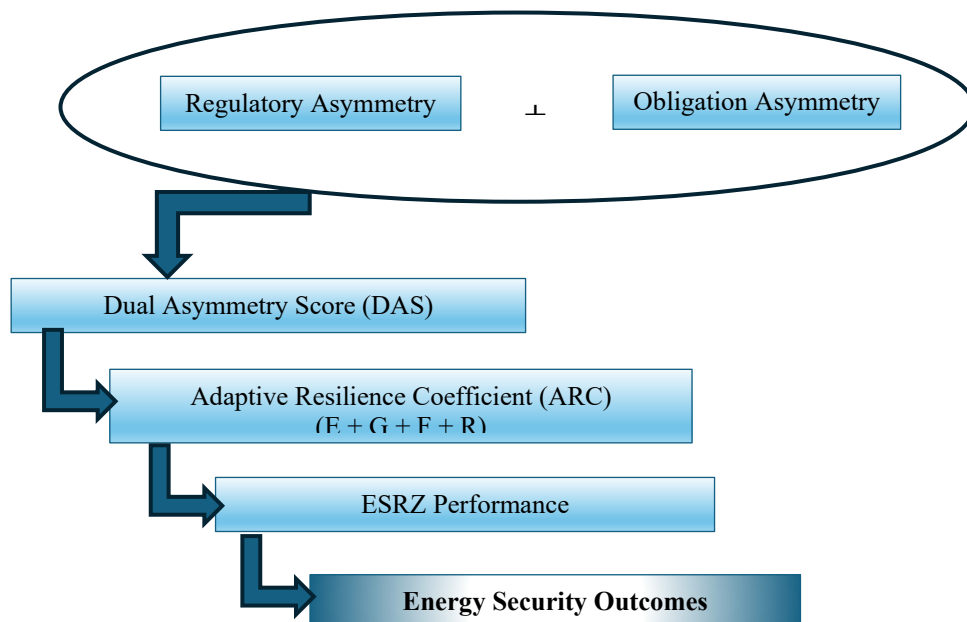


Figure 3. Adaptive ESRZ Governance Model: Interaction Between Dual Asymmetry, Institutional Resilience and Energy Security Outcomes

Source: developed by the authors

6. Conclusion

The presented study examined the role of free economic zones as instruments of state governance in strengthening energy security through a comparative analysis of international experience. The findings demonstrate that FEZs can contribute to energy security not only through investment attraction but also through institutional mechanisms that promote technology transfer, industrial localisation, renewable energy deployment, and infrastructure modernisation. Comparative analysis allowed identification of common governance characteristics shared by the most successful energy-oriented zones across different institutional environments. This characteristic, conceptualised in the article as the principle of dual asymmetry, combines preferential regulatory conditions designed to attract investors with specific obligations that generate positive externalities for the national energy system. Although the intensity and implementation mechanisms vary across governance models, the presence of both dimensions emerges as a recurring institutional pattern in cases associated with stronger and more sustainable energy-security outcomes.

Based on these findings, the article proposed the Energy Special Recovery Zone (ESRZ) model tailored to the specific needs of post-war Ukraine. The proposed framework integrates a three-tier governance structure, differentiated incentive mechanisms, technology-transfer obligations, and an Energy Obligation Mechanism intended to support local grid resilience. In contrast to traditional free economic zones focused primarily on export promotion, the ESRZ model seeks to align investment attraction with broader objectives of energy autonomy, technological sovereignty, and infrastructure recovery.

At the same time, the study acknowledges several limitations. The proposed model remains conceptual and has not yet been tested through empirical implementation. Furthermore, the effectiveness of ESRZs in Ukraine may be influenced by security risks, institutional capacity, fiscal constraints, regional disparities, and evolving European Union regulatory requirements. To address these uncertainties, the article introduced an Adaptive Resilience Coefficient (ARC) as a conceptual mechanism for accommodating changing external conditions and improving the model's long-term flexibility. The broader significance of this research extends beyond the Ukrainian case. As energy security, industrial competitiveness, and geopolitical resilience become increasingly interconnected, governments are likely to seek governance instruments capable of integrating these objectives within a single institutional framework.

These limitations also define the scope of external validity of the findings. The comparative patterns identified in this study should be understood as analytically transferable institutional mechanisms rather than as universally generalisable effects of FEZs on energy security. Their applicability to other countries is likely to depend on the institutional capacity of public authorities,

the degree of regulatory coordination, the fiscal space available for incentives, the structure and resilience of the national energy system, and the applicable international or supranational regulatory framework. The ESRZ model is therefore not intended as a uniform template for post-conflict economies. Rather, its core principles - linking differentiated investment incentives with explicit energy-related obligations and adaptive governance - may be adapted to other contexts where reconstruction, energy resilience, and institutional transformation must be pursued simultaneously. Empirical validation across additional post-conflict and energy-vulnerable settings will be necessary to determine the conditions under which these mechanisms can be effectively transferred.

Future research should focus on the empirical validation of the ESRZ model, the development of quantitative indicators for measuring the Adaptive Resilience Coefficient, and scenario-based modelling of energy-oriented economic zones under different post-conflict reconstruction trajectories. Additional comparative studies could also evaluate the long-term impact of free economic zones on energy-security outcomes using econometric and quasi-experimental methods.

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Reference List

- Addison, T., Chowdhury, A. R., & Murshed, S. M. (2002). By how much does conflict reduce financial development? United Nations University, Discussion Paper No. 2002/48. https://epublications.marquette.edu/cgi/viewcontent.cgi?article=1491&context=econ_fac
- Aggarwal, A. (2022). Special Economic Zones as Industrial Policy Tools: Towards a Typological Framework. *World Development*, 155, 105897. <https://doi.org/10.1016/j.worlddev.2022.105897>
- Al-Sarihi, A. (2026, March 24). How the war in Iran is reshaping the energy landscape. *Nature*. <https://www.nature.com/articles/d41586-026-00932-y>
- Atlantic Canada Opportunities Agency (ACOA) (2021). Regional Development Policy Framework 2021–2026. Government of Canada. <https://www.acoa-apeca.gc.ca>
- Cugurullo, F. (2016). Speed kills: The Smartness of Masdar City, UAE. In S. Marvin, A. Luque-Ayala, & C. McFarlane (Eds.), *Smart Urbanism: Utopian Vision or False Dawn?* (pp. 98–116). Routledge.
- Dagar, V., Dagher, L., Rao, A., Doytch, N., & Kagzi, M. (2024). Economic Policy Uncertainty: *Global Energy Security with Diversification*. MPRA Paper No. 120705. https://mpa.ub.uni-muenchen.de/120705/1/MPRA_paper_120705.pdf

- European Commission (2021). The European Green Deal Investment Plan and Just Transition Mechanism. COM(2020) 21 final. Publications Office of the European Union.
- European Commission (2022). Guidelines on State Aid for Climate, Environmental Protection and Energy 2022. Official Journal of the European Union, C 80, 1–89.
- Farole, Th., & Moberg, L. (2017). Special Economic Zones in Africa: Government—Business Coordination in Africa and East Asia. In: *The Practice of Industrial Policy* (pp.234-254). <https://doi.org/10.1093/acprof:oso/9780198796954.003.0012>
- Giordano, C., Roma, G., Schiavone, A., & Caffarelli, F. (2025). EU Industrial Policy Between Crises and the Twin Transition. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.5252832>
- Gong, Zh., & Tiague, L. (2026). Special economic zones and energy poverty in Africa: spillover effects beyond their initial purpose. *Energy Policy*, 211, 115104. <https://doi.org/10.1016/j.enpol.2026.115104>
- Goumagias, N., Fernandes, K., Nucciarelli, A., & Li, F. (2022). How to overcome path dependency through resource reconfiguration. *Journal of Business Research*, 145, 78-91. <https://doi.org/10.1016/j.jbusres.2022.02.040>
- Karolyi, H., Ivashchenko, D., Podibka, V., Zhdankevych, M., & Khotskyi, O. (2026). Cross-border innovation clusters as a tool for sustainable development of territorial communities: Management and legal aspects. *Democratic Governance*, 19(1), 33-45. <https://doi.org/10.56318/dg/1.2026.33>
- KOTRA (2022). *Saemangeum Special Economic Zone Development Plan 2022–2030*. Korea Trade-Investment Promotion Agency.
- Kustova, I., Egenhofer, E., Ferrer, J., & Popov, J. (2021). From coal to low carbon: Coal region development opportunities under EU recovery programmes. CEPS, No PI2021-06. https://cdn.ceps.eu/wp-content/uploads/2021/04/PI2021-06_From-coal-to-low-carbon.pdf
- Landesmann, M. (2025). EU industrial policy in the evolving geo-political and geo-economic environment. Wiiw. Policy Notes and Reports 96. <https://wiiw.ac.at/eu-industrial-policy-in-the-evolving-geo-political-and-geo-economic-environment-dlp-7342.pdf>
- Lee, J. (2022). Strategic Approaches to Free Economic Zones for the Digital Economy: Lessons from a Comparative Study. *Journal of Asian Finance Economics and Business*, 9(2), 15-27. <https://doi.org/10.13106/jafeb.2022.vol9.no2.0015>
- Michoud, B., & Hafner, M. (2021). Public Policies and Initiatives in the Energy Sector. In: *Financing Clean Energy Access in Sub-Saharan Africa*. SpringerBriefs in Energy (pp. 57-82). Springer, Cham. https://doi.org/10.1007/978-3-030-75829-5_4
- Naughton, B. (2021). *The Rise of China's Industrial Policy, 1978 to 2020*. Universidad Nacional Autónoma de México.
- NOVOGRADAC (2022). Opportunity Zones Annual Report 2022: Investment Trends and Energy Sector Analysis. NOVOGRADAC & Company LLP.
- Peng, D., Farooq, U., Alam, M., & Khudoykulov, Kh. (2024). Exploring the role of governance in determining public-private investment in energy: New empirical insights from ASEAN. *Socio-Economic Planning Sciences*, 96, 102096. <https://doi.org/10.1016/j.seps.2024.102096>

- Petrukha, N, et al. (2026). ESG Financing And Bioeconomy In Ukrainian Postwar Development: Synergizing European and Global Perspectives. *Journal of European Economy*, vol. 25, no. 2, June 2026, pp. 260-8, doi:10.35774/jee2026.02.260
- Pigliucci, M., Dwivedi, Sh., Chakraborty, T., & Scaini, M. (2025). *Special Economic Zones: Challenges and Opportunities for Territorial Development*. Il Sileno Edizioni. https://www.researchgate.net/publication/396523705_Special_Economic_Zones_Challenges_and_Opportunities_for_Territorial_Development
- Port of Rotterdam (2021). Rotterdam Climate Bond Framework and Annual Report 2021. Port of Rotterdam Authority.
- Razumei, M., Kveliashvili, I., Kukhtin, D., & Hanushchyn, S. (2025) Management of Customs Risks in the Field of Foreign Economic Activity Taxation. *OIDA International Journal of Sustainable Development*. - June 17, 2025. - 18 (12). - pp. 391-402. - Available at SSRN: <https://ssrn.com/abstract=5759362>
- Siksnyte-Butkiene, I. (2023). Defining the Perception of Energy Security: An Overview. *Economies*, 11(7), 174. <https://doi.org/10.3390/economies11070174>
- Strojny, J., Krakowiak-Bal, A., Knaga, J., & Kacorzys, P. (2023). Energy Security: A Conceptual Overview. *Energies*, 16(13), 5042. <https://doi.org/10.3390/en16135042>
- Theodos, B., Meixell, B., & Hedman, C. (2020). Did States Maximise the Opportunity Zone Program? The Urban Institute. <https://www.urban.org>
- UNCTAD (2019). World Investment Report 2019: Special Economic Zones. United Nations Conference on Trade and Development. <https://doi.org/10.18356/bc3d88d2-en>
- World Bank (2023). Ukraine Rapid Damage and Needs Assessment: February 2022–2023. *The World Bank Group*. <https://www.worldbank.org/ukraine-recovery>
- Yergin, D. (2020). *The New Map: Energy, Climate, and the Clash of Nations*. Penguin Press.
- Zavarská, Z., Bykova, A., Grieveson, R., Hanzl-Weiss, D., & Sankot, O. (2023). Industrial Policy for a New Growth Model: A Toolbox for EU-CEE Countries. Wiiw, Research Report 469. <https://wiiw.ac.at/industrial-policy-for-a-new-growth-model-a-toolbox-for-eu-cee-countries-dlp-6582.pdf>
- Zeng, D. (2021). The Past, Present, and Future of Special Economic Zones and Their Impact. *Journal of International Economic Law*, 24(2). <https://doi.org/10.1093/jiel/jgab014>

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ЭНЕРГЕТИКАЛЫҚ ҚАУІПСІЗДІКТІ ҚАМТАМАСЫЗ ЕТУДЕГІ МЕМЛЕКЕТТІК БАСҚАРУ ҚҰРАЛЫ РЕТІНДЕГІ ЕРКІН ЭКОНОМИКАЛЫҚ АЙМАҚТАР: ХАЛЫҚАРАЛЫҚ ТӘЖІРИБЕНІ САЛЫСТЫРМАЛЫ ТАЛДАУ ЖӘНЕ УКРАИНА ҮШІН САЛДАРЫ

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Түйін:

Ұлттық энергетикалық жүйелердің геосаяси тұрақсыздыққа, климаттың өзгеруіне және энергетикалық нарықтардың құбылмалылығына осалдығының артуы мемлекеттерді энергетикалық қауіпсіздікті нығайтудың дәстүрлі емес басқару құралдарын іздеуге мәжбүрлеуде. Сонымен қатар, еркін экономикалық аймақтар (ЕЭА) сауда-логистикалық анклавтардан құрылымдық өнеркәсіптік және инфрақұрылымдық саясаттың күрделі құралдарына айналып келеді.

Мақаланың мақсаты – ЕЭА-ның ұлттық энергетикалық қауіпсіздік архитектурасын қалыптастыруға ықпал ететін тетіктерін анықтау және жүйелеу, сондай-ақ халықаралық тәжірибедегі тиімді үлгілерді, әсіресе соғыстан кейінгі қалпына келтіру жағдайында, Украина жағдайына бейімдеудің тұжырымдамалық тәсілдерін әзірлеу.

Зерттеуде мемлекеттік басқаруды салыстырмалы талдау, институционалдық жобалау теориясы, жүйелік талдау және кейс-стади әдістері қолданылды. Қытай, Корея Республикасы және БАӘ-ді қамтитын азиялық дирижистік модель, АҚШ пен Канаданы қамтитын солтүстік америкалық нарықтық модель, Африка контекстіндегі жағдай, сондай-ақ Польша, Эстония және Нидерланды мысалындағы еуропалық реттелетін трансформация моделі салыстырмалы түрде қарастырылды.

Зерттеу нәтижелері энергетикалық қауіпсіздік саласындағы тиімді шешімдердің негізгі типологиялық ерекшелігі ретінде «қос асимметрия» қағидатын анықтады. Бұл қағидат инвестиция тартуға арналған асимметриялық реттеуші жағдайларды өндірісті жергіліктендіру мен технологиялар трансфертіне қатысты асимметриялық міндеттемелермен ұштастырады. Украина үшін үш деңгейлі басқару құрылымын, сараланған ынталандыру пакеттерін және «энергетикалық міндеттеме» тетігін қамтитын «Арнайы энергетикалық қалпына келтіру аймағы» (ESRZ) моделі ұсынылды.

Қорытындылай келе, соғыстан кейінгі Украина шетелдік инвестицияларды тартуға, технологиялар трансфертіне және энергетикалық дербестікті нығайтуға бағытталған жаңа буын еркін экономикалық аймақтарын құру үшін бірегей мүмкіндікке ие екендігі көрсетілді. ESRZ моделі Еуропалық Одаққа кіру міндеттемелерін ұлттық энергетикалық тұрақтылықты күшейту қажеттілігімен үйлестіруге мүмкіндік береді.

Түйін сөздер: еркін экономикалық аймақтар; энергетикалық қауіпсіздік; жаңартылатын энергия; соғыстан кейінгі қалпына келтіру; институционалдық дизайн; технологиялық егемендік.

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Стэнфорд университеті мен Elsevier аналитикалық компаниясының рейтингісіне сәйкес, Людмила Акимова 2025 жылға арналған әлемдегі ең жоғары дәйексөз келтірілген ғалымдардың ең үздік 2%-ының беделді тізіміне енді. Бұл рейтинг Scopus дерекқорынан алынған ғылымиметриялық көрсеткіштерді егжей-тегжейлі талдауға негізделген және зерттеулердің әлемдік ғылыми қауымдастыққа нақты әсерін бағалайды. Ол ұлттық және халықаралық жинақтар мен журналдардың редакциялық алқаларының мүшесі. ORCID: <https://orcid.org/0000-0002-2747-2775>. Электрондық пошта: l_akimova@ukr.net.

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СВОБОДНЫЕ ЭКОНОМИЧЕСКИЕ ЗОНЫ КАК ИНСТРУМЕНТ ГОСУДАРСТВЕННОГО УПРАВЛЕНИЯ В ОБЕСПЕЧЕНИИ ЭНЕРГЕТИЧЕСКОЙ БЕЗОПАСНОСТИ: СРАВНИТЕЛЬНЫЙ АНАЛИЗ МЕЖДУНАРОДНОЙ ПРАКТИКИ И ПОСЛЕДСТВИЯ ДЛЯ УКРАИНЫ

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Аннотация:

Растущая уязвимость национальных энергетических систем к геополитической нестабильности, изменению климата и волатильности энергетических рынков побуждает государства искать нетрадиционные инструменты управления для укрепления энергетической безопасности. Одновременно свободные экономические зоны (СЭЗ) претерпевают трансформацию: из торгово-логистических анклавов они превращаются в комплексные инструменты структурной промышленной и инфраструктурной политики.

Целью статьи является выявление и систематизация механизмов, посредством которых СЭЗ способны целенаправленно формировать архитектуру национальной энергетической безопасности, а также разработка концептуальных подходов к адаптации наиболее эффективных международных моделей к условиям Украины, особенно в контексте послевоенного восстановления.

В исследовании использованы методы сравнительного анализа государственного управления, теория институционального проектирования, системный анализ и метод кейс-стади. Рассматриваются три различные модели управления: азиатская дирижистская модель (Китай, Республика Корея, ОАЭ), пример из африканского контекста, североамериканская рыночно-ориентированная модель (США, Канада) и европейская модель регулируемой трансформации (Польша, Эстония, Нидерланды), которые сопоставляются на основе структурированного межстранового анализа.

Результаты исследования показывают, что ключевой типологической особенностью эффективных решений в области энергетической безопасности является принцип «двойной асимметрии», сочетающий асимметричные регуляторные условия (льготные режимы для привлечения инвестиций) с асимметричными обязательствами резидентов в части локализации производства и передачи технологий. Предложена концептуальная модель «Специальной энергетической зоны восстановления» (ESRZ) для Украины, включающая трёхуровневую систему управления, дифференцированные пакеты стимулов и механизм «энергетических обязательств».

Сделан вывод о том, что послевоенная Украина обладает уникальным «окном возможностей» для создания свободных экономических зон нового поколения, ориентированных одновременно на привлечение иностранных инвестиций, трансфер технологий и укрепление энергетической автономии. Модель ESRZ позволяет объединить обязательства по европейской интеграции с насущными задачами повышения национальной энергетической устойчивости.

Ключевые слова: свободные экономические зоны; энергетическая безопасность; возобновляемая энергетика; послевоенное восстановление; институциональное проектирование; технологический суверенитет.

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государственного регулирования рынка финансовых услуг, финансовых рынков, экономической безопасности, государственной политики в области квалификаций, государственного управления и гражданской службы. По результатам рейтингов Стэнфордского университета (Stanford University) и аналитической компании Elsevier, ученая Акимова Людмила вошла в престижный список топ-2% цитируемых ученых мира по итогам 2025 года. Этот рейтинг основан на детальном анализе наукометрических показателей из базы данных Scopus и оценивает реальное влияние исследований на глобальное научное сообщество. Она является членом редакционных коллегий отечественных и международных сборников и журналов. ORCID: <https://orcid.org/0000-0002-2747-2775>. Email: l_akimova@ukr.net.

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КОРРУПЦИОННЫЕ РИСКИ В ПРИВЛЕЧЕНИИ ЧАСТНЫХ ИНВЕСТИЦИЙ: АНАЛИЗ ЭМПИРИЧЕСКИХ ДАННЫХ

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Аннотация

Частные инвестиции наиболее уязвимы перед угрозой коррупции в связи с особенностями государственного регулирования данного вида экономической деятельности. Цель данной статьи – изучить восприятие коррупции в привлечении частных инвестиций в Республике Казахстан представителями бизнес-среды и профильными экспертами, определив основные типы коррупционных рисков и факторы, способствующие им. Для достижения данной цели использован смешанный метод исследования, основанный на сборе и анализе эмпирических данных через проведение социологического опроса субъектов предпринимательства в период с июля 2024 года по август 2025 года (общее количество респондентов – 384) и интервью с экспертами в сфере привлечения инвестиций и коррупции с октября 2024 года по январь 2025 года (общее количество интервьюируемых – 10). Результаты показали, что наиболее характерными для инвестиционной сферы Республики Казахстан являются коррупционные риски, связанные с распределением ресурсов, реализацией административно-распорядительных полномочий, неконкурентного предоставления преимуществ отдельным участникам рынка на законодательном уровне. Ключевыми факторами данных рисков выступают несовершенство законодательства, высокая административная нагрузка, конкуренция за ресурсы и недостаточность институционального контроля. Основными рекомендациями по дальнейшему совершенствованию антикоррупционной политики в рассматриваемой сфере являются как совершенствование регуляторных процедур, так и повышение прозрачности в распределении преференциальных ресурсов субъектам инвестиционной деятельности.

Ключевые слова:

коррупция, частные инвестиции, коррупционный риск, привлечение инвестиций, восприятие коррупции

Вклад авторов:

Концептуализация — А.В., Ж.Ж.; Методология — А.В.; Сбор данных — А.В.; Анализ данных — А.В.; Интерпретация — А.В., Ж.Ж.; Написание — черновик — А.В.; Написание — рецензирование и редактирование — Ж.Ж.; Визуализация — А.В.; Руководство — Ж.Ж.

Заявление о конфликте интересов:

Авторы заявляют об отсутствии конфликта интересов.

1. Введение

Взаимосвязь между коррупцией и инвестициями продолжает оставаться одной из наиболее обсуждаемых проблем, как в академических дискуссиях, так и на политическом уровне. Коррупция подрывает доверие и снижает эффективность государственных институтов и рыночных механизмов, препятствуя устойчивому экономическому развитию через негативное влияние на инвестиции, предпринимательство и конкуренцию (OECD, 2024). Это влияние выражается через рост транзакционных издержек, неопределенности, создание неравного доступа к ресурсам. Подобная ситуация отпугивает отечественных и зарубежных инвесторов.

Особенно актуальна данная проблема для стран с развивающейся и переходной экономикой. Регион Центральная Азия в последние годы переживает период сильной волатильности прямых иностранных инвестиций (UNCTAD, 2025). Хотя подобные колебания могут быть вызваны глобальными геополитическими и экономическими условиями, критически важными детерминантами инвестиционной привлекательности являются институциональные факторы (Mauro, 1995; Wei, 2000; Habib & Zurawicki, 2002).

В данном контексте возникает необходимость изучения коррупционных рисков в процессе осуществления инвестиций частными инвесторами. Согласно определению Transparency International, коррупционный риск – это совокупность институциональных уязвимостей в системе или процессе, которые способствуют или могут способствовать коррупционным практикам (McDevitt, 2011). Выявление данных уязвимостей – ключевое направление антикоррупционной политики, направленной на совершенствование антикоррупционного механизма и улучшения инвестиционного климата.

Республика Казахстан представляет собой уникальный пример для изучения коррупционных рисков в инвестиционной сфере, а также факторов, способствующих коррупционным практикам. Как страна, активно стремящаяся позиционировать себя как региональный инвестиционный лидер, Республика Казахстан реализует ряд реформ, направленных на поддержку частных инвестиций и повышение эффективности антикоррупционных мер. Однако, несмотря на очевидные успехи, сохраняется разрыв между формальными институциональными мерами и их практической реализацией (OECD, 2018).

Несмотря на то, что фокусом исследования является институционально-экономическая составляющая коррупции, с социологической точки зрения природа данного явления также представляет интерес, поскольку связана с общественными нормами, ценностными ориентациями, характером взаимодействия между государством и обществом.

Концептуальное понимание таких факторов позволяет повысить эффективность проводимых антикоррупционных реформ (Kubbe et al., 2024).

Целью данной статьи является изучение существующих коррупционных рисков в привлечении частных инвестиций в Республике Казахстан и выявление факторов, способствующих коррупции в данной сфере. Для достижения данной цели проведен анализ эмпирических данных, полученных по результатам социологического исследования среди инвесторов – субъектов предпринимательства Республики Казахстан в 2024-2025 годах.

Исследование вносит вклад в изучение природы коррупции как явления, факторов и институциональных условий, способствующих коррупционным рискам в инвестиционной сфере.

2. Обзор литературы / Теоретическая база

Научная литература, составляющая теоретическую основу данного исследования, представлена междисциплинарными трудами, объединяющими экономику, государственное управление, коррупцию и риск-менеджмент. Коррупция обычно понимается как злоупотребление полномочиями в целях получения личной выгоды (World Bank, 2020; Transparency International, n.d.). Экономические последствия коррупции достаточно широко изучены в отношении инвестиций, предпринимательской активности и рыночной конкуренции (Tanzi, 1998; Dabour, 2000). С точки зрения институциональной теории, коррупция не является лишь результатом коррупционного поведения. Она встроена в структуру формальных и неформальных институтов, качество которых играет важную роль в получении экономических результатов, таких, как, к примеру, инвестиционные потоки (Khan et al., 2025). В условиях слабой институциональной среды с ограниченной подотчетностью, непрозрачным законодательством и относительной свободой действий коррупционные риски материализуются с большой степенью вероятности (Pinotti et al., 2020). Концепция коррупционного риска в последние годы все чаще рассматривается как аналитическая категория, означающая вероятность коррупционного поведения в рамках конкретных процессов, в сочетании с потенциальным воздействием такого поведения (OECD, 2026). Такой подход говорит о смещении акцента с измерения коррупции *ex post* на выявление уязвимостей *ex ante* в административных процессах и нормативных документах.

В существующей литературе можно выделить несколько ключевых детерминантов коррупционного риска. К ним относятся чрезмерная административная свобода действий, (Kurniawan, 2022), отсутствие прозрачности и доступа к информации (Farazmand et al., 2022), слабый институциональный потенциал и ограниченный профессионализм государственного

аппарата (Heywood & Meyer-Sahling, 2013), а также сложная или фрагментированная нормативно-правовая среда (Minto & Trincanato, 2022). Инвестиционные процессы, как правило, состоят из различных этапов, включают в себя действия разных заинтересованных сторон, в результате чего возникают потенциальные уязвимости.

Как ответ на данные вызовы, правительствами разрабатываются превентивные механизмы, включая оценку коррупционных рисков, этические стандарты, внедренные в административные процессы (Sauve et al., 2023), инструменты цифровизации государственных услуг для повышения прозрачности решений (Hauser, 2024), подразделения по профилактике правонарушений, внутренние системы аудита и подотчетности (Aven & Zio, 2018; Hafidz et al., 2025; Sergiienko et al., 2024).

В исследовании казахстанских авторов тема коррупционных рисков рассматривается в контексте более обширных исследований по превенции коррупции. Так, Alimbetova и др. (2025), изучая нормативную правовую базу, регулирующую транспортную отрасль Казахстана, выявляют коррупционные риски в административных процессах и нормативной правовой базе. Sagandykova G.S. (2025) идентифицирует коррупционные риски через анализ правового регулирования деятельности квазигосударственных организаций. Gaitov и др. (2026) выявляют коррупционные риски, изучая агропромышленный комплекс страны и влияние экономической преступности на его развитие. Контент-анализ литературы, проведенный авторами через библиометрическую базу Scopus и поисковую систему Google Scholar позволил предположить, что комплексное исследование коррупционных рисков в инвестиционной сфере Республики Казахстан ранее не проводилось. Данное исследование призвано заполнить данный пробел, через систематизацию коррупционных рисков и факторов, им способствующих в условиях государственной поддержки частных инвестиций в Республике Казахстан.

В этой связи, ставятся следующие исследовательские вопросы:

- Какие виды коррупционных рисков возникают в процессе привлечения частных инвестиций в Республике Казахстан?
- Какие факторы способствуют возникновению данных коррупционных рисков?

3. Материалы и методы

В данном исследовании используется смешанный метод, основанный на данных социологического опроса и экспертного опроса. Сочетание количественных и качественных методов сбора данных позволило сопоставить полученные результаты, тем самым, повысив их достоверность.

Анонимный онлайн-опрос (анкетирование) среди представителей бизнес-сообщества Республики Казахстан был проведен в период с июля 2024 года по август 2025 года во всех регионах страны. Среди опрошенных доля представителей субъектов крупного предпринимательства составила 4,7%, среднего – 14,1%, малого – 81,3%.

Цель опроса заключалась в выявлении представлений о коррупционных рисках на разных этапах инвестиционного процесса и существующих барьерах. Респонденты – юридические лица малого, среднего и крупного предпринимательства Республики Казахстан. Общее количество опрошенных субъектов предпринимательства составило 384. Данный объем определен исходя из стандартного расчета для выборки при доверительной вероятности 95% и предельной ошибке 5% при максимально вариативном распределении признака ($p = 0,5$). Необходимое количество респондентов по регионам (квоты для обеспечения территориального охвата) определяла генеральная совокупность: действующие субъекты малого, среднего и крупного предпринимательства Республики Казахстан. Достижение установленных квот осуществлялось методом неслучайного отбора «snowball», до достижения необходимого количества опрошенных по каждому региону, через официальные приглашения к участию посредством официальных писем, сообщений в мессенджерах, в том числе по рекомендации предыдущих участников исследования (Bryman, 2016).

В разрезе регионов наибольший удельный вес пришелся на города Алматы (29,7%), Астану (19,8%) и Шымкент (5,7%), доля остальных регионов – от 5,2 до 0,5%.

Последующая обработка данных и вычисления были произведены в программной среде R Studio (Version 2005.05.1) и MS Excel.

Полуструктурированные интервью со специалистами в области инвестиционной политики и противодействия коррупции позволили получить сведения об институциональной практике и системных проблемах. Общее количество интервьюируемых составило 10. Требования к интервьюируемым – наличие знаний и/или профессионального опыта в одной из областей, возраст от 30 лет, наличие высшего образования, согласно рекомендуемым признакам для данного метода исследования (Gorshkov & Sheregi, 2011). Профессиональная принадлежность – без ограничений, преимущественно общественные деятели, а также сотрудники квазигосударственных и частных организаций, с целью получения более независимого мнения.

По результатам интервью были подготовлены стенограммы для дальнейшего тематического анализа содержания ответов респондентов. В связи с относительно небольшим объемом стенограмм, тематическое кодирование проводилось вручную авторами на основе предварительно определенных аналитических категорий, с последовательным

сопоставлением и группировкой содержательно близких высказываний и выделением повторяющихся смысловых тем.

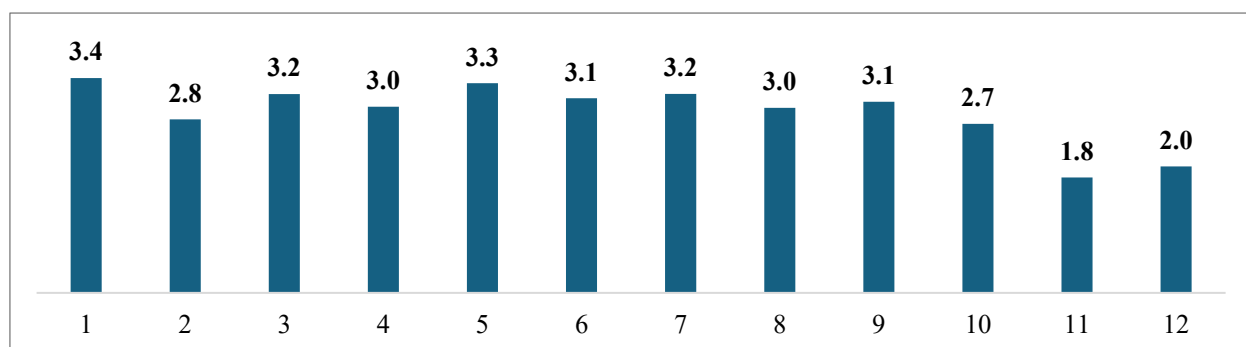
Интервью проводились по предварительному согласию экспертов, с соблюдением условий конфиденциальности данных и их использования в обобщенном виде.

В ходе проведения исследования все этические нормы и требования были соблюдены, в соответствии с утвержденной программой социологического исследования (Заключение Комитета по этической экспертизе исследований от 29.05.2024 г.).

4. Результаты и обсуждение

Анализ эмпирических данных о наиболее коррумпированных этапах инвестиционной деятельности

Респондентам в рамках социологического опроса было предложено оценить уровень коррупционных рисков на различных стадиях реализации инвестиционных проектов. Результаты опроса показали разное восприятие коррупционных рисков, в зависимости от инвестиционного процесса (Рисунок 1).



1 -	При оформлении земли под строительство
2 -	При разработке проектно-сметной документации
3 -	При получении разрешения на строительство
4 -	При получении технических условий на подключение коммуникаций
5 -	При оформлении права недропользования
6 -	При согласовании норм противопожарной безопасности
7 -	При согласовании санитарно-эпидемиологических норм
8 -	При согласовании норм промышленной безопасности
9 -	При прохождении экологической экспертизы
10 -	При получении инвестиционных преференций и субсидий
11 -	При получении льготного финансирования в банках второго уровня
12 -	При получении льготного финансирования в институтах развития

Рисунок 1. Средние значения ответов респондентов (N=384) на вопрос «Оцените уровень коррупции в следующих сферах» (0 баллов - «отсутствует»; 5 баллов - «высокий уровень»)

Примечание: составлено по результатам опроса

Наибольший уровень риска выявлен на стадии оформления земельного участка под строительство (3,4 балла), права недропользования (3,3 балла), что указывает на уязвимость данных административных практик с точки зрения коррупции, поскольку данные ресурсы

обладают высокой ценностью для инвесторов. Далее, в порядке убывания уровня воспринимаемой коррупции расположились такие процессы, как получение разрешения на строительство и согласование санитарно-эпидемиологических норм (3,2 балла). Как умеренно высокий (относительно всех оценок) уровень воспринимаемого риска можно охарактеризовать оценку вероятности коррупции на таких стадиях инвестиционного цикла, как согласование норм противопожарной безопасности, прохождение экологической экспертизы (по 3,1 балла), согласование норм промышленной безопасности и получение технических условий на инженерные сети (3,0 балла). В отношении данных процессов можно отметить, что они являются многоэтапными, регулируются многочисленными подзаконными и ведомственными актами и зачастую связаны с личными контактами между должностными лицами и субъектами предпринимательства.

Наименее коррупционными по мнению респондентов, являются механизмы финансовой поддержки инвестиций. В частности – процедуры льготного финансирования в институтах развития (2,0 балла) и банках второго уровня (1,8 балла). Данные результаты могут отражать более высокую степень формализации, стандартизации кредитных процедур, в сравнении с регуляторными и административными процессами.

Интервьюируемым в рамках экспертных интервью был задан вопрос относительно того, на каких этапах инвесторы чаще всего сталкиваются с коррупцией. Результаты выявили ряд этапов инвестиционного процесса, наиболее подверженных коррупционным рискам. На Рисунке 2 отображены данные сферы, исходя из частоты упоминания их в контексте коррупции как минимум двумя экспертами при ответе на вопрос «Укажите сферы, где коррупция наиболее распространена».

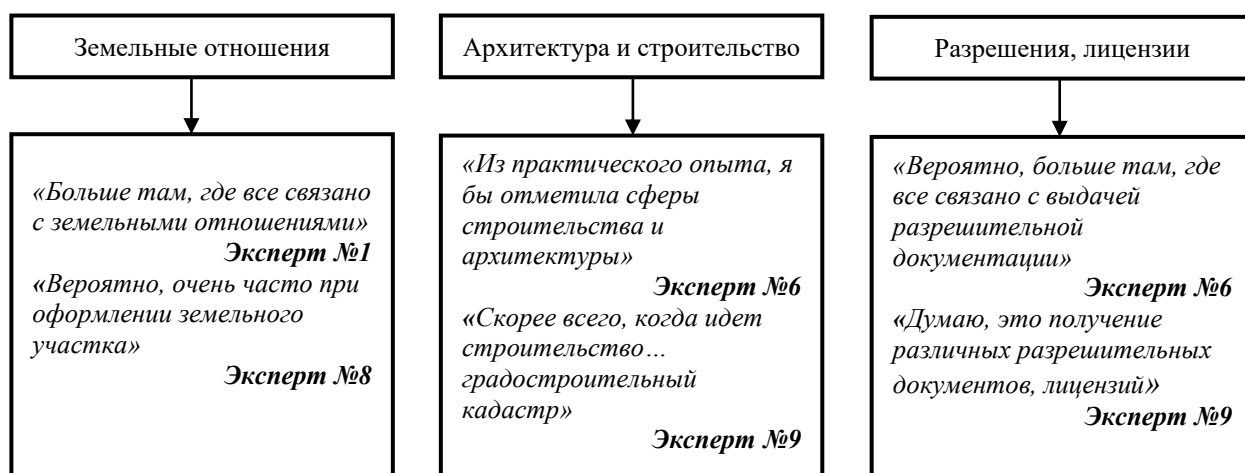


Рисунок 2. Наиболее коррумпированные сферы в привлечении частных инвестиций по мнению экспертов
Примечание: составлено по результатам интервью

Результаты свидетельствуют о том, что эксперты связывают коррупционные риски с такими этапами, как выделение земельных участков, процедуры в сфере архитектуры и строительства, разрешения и лицензии. Хотя эксперты не детализировали те процессы, которые, на их взгляд, непосредственно связаны с коррупцией, ответы дают общее понимание того, как воспринимается инвестиционный процесс теоретиками и практиками в рассматриваемой сфере.

Анализ эмпирических данных о коррупционных факторах

На данном этапе исследования были изучены мнения респондентов относительно факторов, влияющих на эффективность антикоррупционных программ (Рисунок 3).

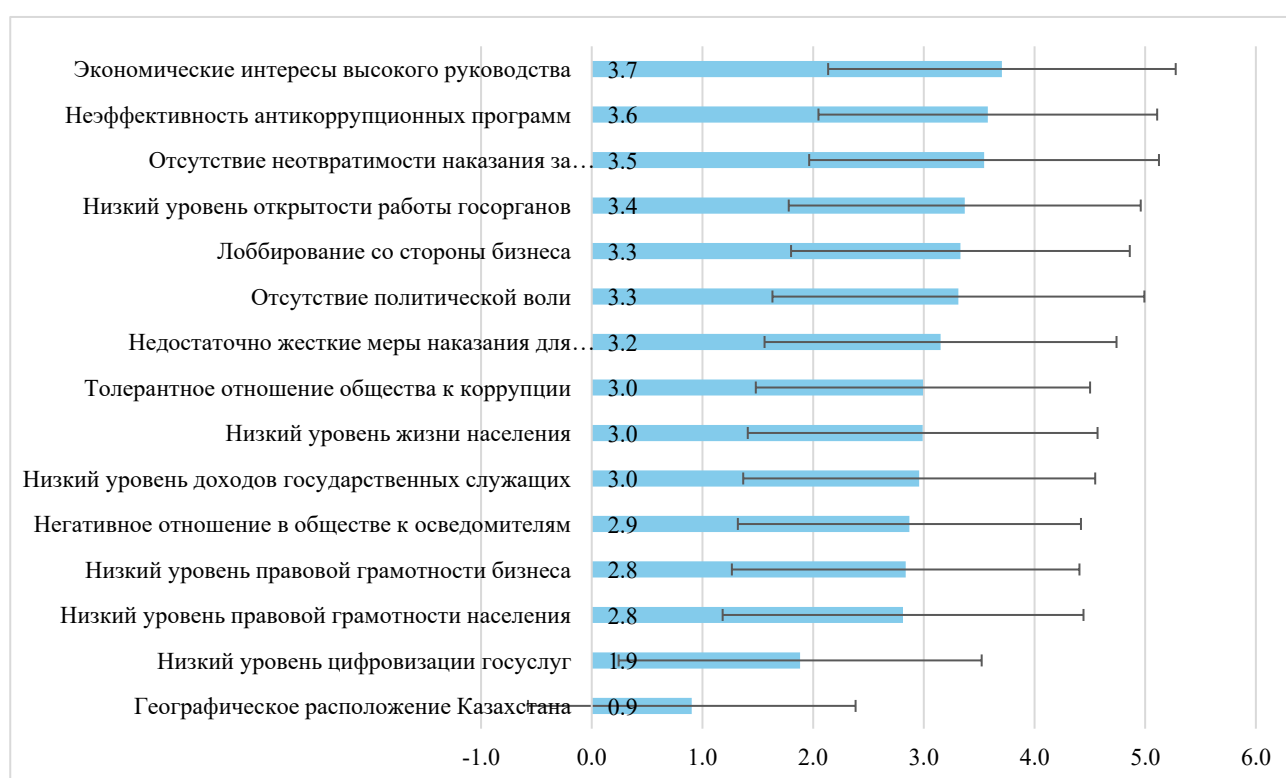


Рисунок 3. Средние значения ответов респондентов (n=384) на вопрос «Оцените, насколько следующие факторы препятствуют эффективной борьбе с коррупцией в Республике Казахстан (0 баллов - «не препятствуют»; 1 балл – «препятствуют минимально», 5 баллов - «препятствуют максимально»)»

Примечание: составлено авторами на основе опроса, столбцы представляют средние значения; планки погрешности — стандартное отклонение (SD).

Наиболее значимым фактором – препятствием в антикоррупционной кампании названы интересы высокого руководства (3,7 баллов), далее следуют неэффективность антикоррупционных программ (3,6 баллов), отсутствие неотвратимости наказания (3,5 баллов) и низкий уровень открытости государственных органов (3,4 балла). Наименее значимыми факторами, по мнению участников онлайн-опроса, оказались географическое расположение (0,9 балла) и низкий уровень цифровизации государственных услуг (1,9 балла). Таким образом, политические и правовые факторы являются преобладающими.

Далее, было предложено ответить на вопрос о факторах, препятствующих реализации инвестиционных проектов в Республике Казахстан. Результаты представлены на Рисунке 4.



Рисунок 4. Средние значения ответов респондентов ($n=384$) на вопрос «Оцените, насколько следующие факторы препятствуют в реализации инвестиционных проектов в Республике Казахстан» (0 баллов - «не препятствуют»; 1 балл – «препятствуют минимально», 5 баллов - «препятствуют максимально»)

Примечание: составлено авторами на основе опроса, столбцы представляют средние значения; планки погрешности — стандартное отклонение (SD)

Стоит отметить, что коррупция в государственных органах, по мнению представителей бизнес-среды, находится в топ-3 факторов, препятствующих реализации инвестиционных проектов в Республике Казахстан (с показателем 3,5 балла). Наиболее значимыми факторами названы высокие ставки по кредитам в БВУ (3,6 баллов) и высокий уровень бюрократии (3,5 балла). Таким образом, среди факторов, в наибольшей мере препятствующих инвестиционной активности, оказались два фактора институциональной среды, связанные с коррупционными рисками. Другими важными факторами названы низкое качество инженерной инфраструктуры (3,5 балла) и несовершенство законодательства (3,4 балла). Наименее значимыми оказались природно-климатические и геополитические условия.

Ответы экспертов на вопрос о том, что они считают причиной коррупции, разделились. Несмотря на то, что на данный вопрос высказались не все участники, и преобладающее мнение не было идентифицировано, полученные результаты позволяют сформировать пул ключевых факторов, способствующих коррупционным практикам (Таблица 1).

Дефицит земельных участков и инженерных мощностей как специфичные для сферы привлечения инвестиций проблемы озвучены Экспертом №1, в то время как Эксперты №6-10 называли более общие, системные факторы, включая отношение общества к коррупции, законодательные пробелы, некомпетентность чиновников и наличие монопольных прав на распределение бюджетных ресурсов.

Таблица 1. Причины коррупции в Республике Казахстан, по мнению экспертов в сфере инвестиционной деятельности и противодействия коррупции

№	Причины коррупции	Респондент
1	Дефицит земельных участков, дефицит инженерных мощностей	№1
2	Общая позиция общества (отношение к коррупции)	№6
3	Некомпетентность чиновников	№7
4	Ценностные ориентиры в обществе	№8
5	Коллизии в законодательстве	№9
6	Монопольные права по распределению бюджетных средств	№10

Источник: составлено авторами по результатам интервью

Кроме этого, одним из участников интервью были озвучены кейсы, способствующие распространению коррупционных практик в сфере привлечения частных инвестиций:

Первый кейс связан с практикой создания национальных операторов в Республике Казахстан.

«Это было пролоббировано конечными бенефициарами этих национальных операторов. ... Они лоббируют вплоть до того, что штрафы вводятся, в административное законодательство вводятся положения о штрафах. Это платеж частному лицу. Ну как вы меня можете заставлять. Это нонсенс, который, ... все понимают, но продолжают получать деньги... Это очевидная коррупция, в частных инвестициях» (Эксперт №2).

Второй кейс связан с практикой подписания межправительственных соглашений в сфере реализации инвестиционных проектов.

«... Иностранные игроки делят какую-то отрасль, договариваются через правительство, что мы придем на эту нишу, и никого больше сюда не пускайте. Это правительственные соглашения, за счет того, что у нас любые инвестиции, особенно иностранные, закрепляются постановлением правительства, решением главы государства, это легализовано, это в правовом поле ... То есть, есть соглашение, когда на уровне глав государств договариваются, что здесь вы будете работать. Насколько это коррупция или это дальновзоркость нашего руководства, я не могу сказать, поскольку формально это сделано по закону...» (Эксперт №2).

Оба озвученных кейса так или иначе связаны с ограничением конкуренции на рынке, которая воспринимается как коррупционный риск и вызвана, прежде всего, наличием лиц (бенефициаров), заинтересованных в существовании данного механизма, а также возможностей законодательного обеспечения его функционирования.

Обсуждение результатов эмпирического исследования

Полученные по итогам опроса и экспертных интервью результаты относительно первого исследовательского вопроса позволяют определить основные виды коррупционных рисков, возникающие в процессе привлечения частных инвестиций в Республике Казахстан. При сопоставлении ответов представителей бизнеса и экспертов наблюдается достаточно высокая согласованность. Она позволяет выделить три основные группы коррупционных рисков:

- Процессы, связанные с распределением и предоставлением доступа к ограниченным или дефицитным ресурсам, имеющим высокую ликвидность и экономическую ценность (права землепользования, недропользования);
- Процедуры, связанные с реализацией административно-распорядительных полномочий, включая всевозможные экспертизы, разрешения, уведомления, лицензии.
- Практика предоставления неконкурентных преимуществ отдельным субъектам рынка посредством наделения их определенными правами и ресурсами, лоббирования и т.д.

Результаты коррелируют с исследованиями, ранее проведенными в более широком международном контексте. Как отмечают Kolstad & Søreide (2009), страны, богатые природными ресурсами, в первую очередь страдают от коррупции в формах поиска ренты и патронажа. Исследование Всемирного Банка, основанное на изучении фирм в развивающихся странах, указывает на данные о высокой коррупции в сферах лицензирования и выдачи строительных разрешений (Gonzalez et al., 2007). Более поздние исследования также подтверждают высокий уровень взяточничества в вышеупомянутых видах деятельности (к примеру, Yusof & Arshad, 2020). Таким образом, выявленные коррупционные риски сосредоточены преимущественно в сферах с высокой степенью государственного регулирования и/или распределением экономически значимых ресурсов.

Касательно второго исследовательского вопроса о факторах, способствующих возникновению данных коррупционных рисков, анализ показал следующее. Результаты позволяют говорить о сочетании политико-экономических, институциональных и административных факторов. Примечательно, что респонденты не сводят коррупционные риски к поведенческим аспектам отдельных государственных служащих. Резюмируя мнения участников опроса и интервью исследования, можно заключить, что проблема коррупции в Республике Казахстан имеет более глубокие и системные корни. В частности, коррупционные риски в инвестиционной сфере можно интерпретировать как результат нескольких ключевых факторов:

- несовершенство законодательства;
- конкуренция за ресурсы;

- высокая административная нагрузка;
- недостаточность институционального контроля.

Все это, в совокупности, формирует негативное восприятие коррупции со стороны как предпринимателей, так и экспертного сообщества. Хотя само взаимодействие между государством и инвестором не обязательно предполагает наличие коррупционных рисков, определяющее значение имеет характер взаимодействия двух сторон, а также степень усмотрения при принятии решений. Полученные результаты согласуются с более широкими выводами международных исследований. В частности, с более высокой коррупцией напрямую связаны избыточная регуляторная нагрузка (Amin & Soh, 2021), а также фрагментарность и сложность нормативной правовой базы (Minto & Trincanato, 2022).

Другим важным выводом является то, что возможность возникновения коррупционных рисков проявляется не только по причине наличия законодательных пробелов, но и в правовом поле, через принятие преференциальных норм для отдельных участников рынка (к примеру, кейсы национальных операторов и прямых инвестиционных соглашений). Такая ситуация характерна для стран переходного периода и способствует недобросовестной конкуренции и злоупотреблениям (Anderson & Photos, 2003).

Дополнительно, озвученные экспертом кейсы позволяют их интерпретировать через призму социологии элит и концепции сетевого капитала. Сетевой капитал рассматривается как ресурс для доступа к различным возможностям посредством межличностных связей, а возникающее в процессе неравномерное распределение создает преимущества одних социальных групп по сравнению с другими (Wellman & Frank, 2001). Озвученные кейсы могут обладать признаками, выявленными Osburg (2018) по результатам исследования данных практик в постмаоистском Китае, когда социальная основа коррупционных практик формировалась из устойчивых связей между предпринимателями и государственными служащими. Хотя в данном исследовании сетевой капитал не рассматривается как автоматически формирующий коррупционное поведение, он представляет собой потенциальный механизм конвертации социальных связей в институциональные преимущества, способствуя коррупционным рискам при определенных условиях.

Полученные результаты показывают, что антикоррупционная политика в инвестиционной сфере требует большего акцента на воздействия системных факторов, наряду с реагированием в наиболее уязвимых точках инвестиционного процесса. Приоритетные направления:

- Сокращение дискреционных полномочий при распределении ресурсов (земля, недропользование), инвестиционных преференций, выдаче разрешений и лицензий через стандартизацию и цифровизацию административных процедур.
- Повышение прозрачности в принятии инвестиционных решений, связанных с преференциальными режимами и исключительными условиями для субъектов рынка.
- Усиление институционального контроля над преференциальным регулированием государственной поддержки инвестиций, через системную оценку коррупционных рисков и способствование добросовестной конкуренции.
- Упрощение регуляторных процедур, устранение избыточных согласований и дублирующих процессов государственной поддержки частных инвестиций.

5. Заключение

Целью данной статьи было изучение существующих коррупционных рисков в привлечении частных инвестиций в Республике Казахстан и выявление факторов, способствующих коррупции в данной сфере. Результат эмпирического исследования позволили идентифицировать и структурировать основные виды коррупционных рисков в сферах, наиболее подверженных коррупции, по мнению бизнес-сообщества и экспертов.

Согласно полученным данным, получение права землепользования, оформление лицензий на недропользование, разрешения на строительство и другие процессы являются этапами инвестиционного цикла с наибольшими коррупционными рисками. Были выявлены основные типы коррупционных рисков, в зависимости от их особенностей, определены ключевые факторы и внесены предложения по совершенствованию антикоррупционной политики в рассматриваемой сфере.

Поскольку данное исследование имеет свои ограничения, связанные с выборкой участников социологического опроса и интервью, а также субъективностью восприятия коррумпированности отдельных этапов инвестиционного цикла респондентами, в будущих исследованиях целесообразно проводить перекрестный анализ эмпирических данных и нормативно-правового регулирования процессов с высоким уровнем коррупционного риска.

Источники финансирования

Данное исследование не получало внешнего финансирования

Этическое одобрение / Информированное согласие

Социологическое исследование проведено в соответствии с утвержденной программой, с соблюдением этических норм. Информационные согласия на проведения интервью получены.

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Список литературы

- Alimbetova, A. R., Orazalinov, M. N., & Chokina, K. Zh. (2025). Korrupcionnye ugrozy v transportnoj otrasli Respubliki Kazahstan: Pravovoj analiz i napravlenija protivodejstvija. In D. Witkowska (Ed.), *Proceedings of the 9th International Scientific Conference "Research Retrieval and Academic Letters"*. Publisher.agency. Warsaw, Poland, 400-408. <https://doi.org/10.5281/zenodo.15461091>
- Amin, M., & Soh, Y. C. (2021). Does greater regulatory burden lead to more corruption? Evidence using firm-level survey data for developing countries. *The World Bank Economic Review*, 35(3), 812-828. <https://doi.org/10.1093/wber/lhaa007>
- Anderson, J., & Photos, I. (2003). The World Bank and anticorruption in Europe and Central Asia: enhancing transparency, voice and accountability. <https://documents1.worldbank.org/curated/en/271451468749060454/pdf/271140World0Bank0and0Anticorruption0ECA.pdf>
- Aven, T., & Zio, E. (Eds.). (2018). *Knowledge in risk assessment and management*. John Wiley & Sons, Incorporated.
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Dabour, N. (2000). The role of foreign direct investment (FDI) in development and growth in OIC member countries. *Journal of economic cooperation*, 21(3), 27-55
- Farazmand, A., De Simone, E., Gaeta, G. L., & Capasso, S. (2022). Corruption, lack of Transparency and the Misuse of Public Funds in Times of Crisis: An introduction. *Public Organization Review*, 22(3), 497-503. <https://doi.org/10.1007/s11115-022-00651-8>
- Gaitov, A. A., Umurzakov, E. A., & Zhumaeva, M. S. (2026). Vlijanie jekonomicheskoy prestupnosti na ustojchivoe razvitie agropromyshlennogo kompleksa Kazahstana. *Eurasian Scientific Journal of Law*, (1 (14)), 118-127. <https://doi.org/10.46914/2959-4197-2026-1-1-118-127>
- Gonzalez, A., López-Córdova, J. E., & Valladares, E. E. (2007). The incidence of graft on developing-country firms (Vol. 4394). World Bank Publications. <https://openknowledge.worldbank.org/server/api/core/bitstreams/3c5479ac-901b-575e-8080-edbf8d4027f/content>
- Gorshkov, M. K., & Sheregi, F. Je. (2011). *Prikladnaja sociologija: Metodologija i metody*. Al'fa-M; INFRA-M.
- Habib, M., & Zurawicki, L. (2002). Corruption and foreign direct investment. *Journal of international business studies*, 33(2), 291-307. <https://doi.org/10.1057/palgrave.jibs.8491017>
- Hafidz, J., Saktiawan, M. D., Wiranto, A. P., Noviyansyah, A., & Osman, A. K. (2025). Contemporary Legal Accountability Reform in Public Procurement: A Framework Integrating Ethical Norms and Anti-Corruption Mechanisms. *MILRev: Metro Islamic Law Review*, 4(1), 517-538.
- Hauser, C. (2024). Digitalisation, artificial intelligence, and the fight against corruption. In *Organizational Corruption, Crime and Covid-19* (pp. 238-258). Routledge.

- Heywood, P., & Meyer-Sahling, J. H. (2013). Danger zones of corruption: How management of the ministerial bureaucracy affects corruption risks in Poland. *Public Administration and Development*, 33(3), 191-204. <https://doi.org/10.1002/pad.1644>
- Khan, M. A., Ibrahim, Y., Othman, N. S., & Saleem, S. F. (2025). Attracting foreign direct investment in ASEAN: the impact of institutional quality and macroeconomic drivers. *Journal of Public Affairs*, 25(3), e70071. <https://doi.org/10.1002/pa.70071>
- Kolstad, I., & Søreide, T. (2009). Corruption in natural resource management: Implications for policy makers. *Resources policy*, 34(4), 214-226. <https://doi.org/10.1016/j.resourpol.2009.05.001>
- Kubbe, I., Baez-Camargo, C., & Scharbatke-Church, C. (2024). Corruption and social norms: A new arrow in the quiver. *Annual Review of Political Science*, 27(1), 423-444. <https://doi.org/10.1146/annurev-polisci-051120-095535>
- Kurniawan, T. (2022). Discretion as a factor in corruption: A case from Indonesia. *Public Integrity*, 24(7), 692-701. <https://doi.org/10.1080/10999922.2021.1975939>
- Mauro, P. (1995). Corruption and growth. *The quarterly journal of economics*, 110(3), 681-712. <https://doi.org/10.2307/2946696>
- McDevitt, A. (2011). Corruption Risk Assessment Topic Guide. Transparency International. https://knowledgehub.transparency.org/assets/uploads/kproducts/Corruption_Risk_Assessment_Topic_Guide.pdf
- Minto, A., & Trincanato, E. (2022). The policy and regulatory engagement with corruption: insights from complexity theory. *European Journal of Risk Regulation*, 13(1), 21-44. <https://doi.org/10.1017/err.2021.18>
- OECD (2018), Enhancing Competitiveness in Central Asia, Competitiveness and Private Sector Development, OECD Publishing, Paris, <https://doi.org/10.1787/9789264288133-en>
- OECD (2024), Anti-Corruption and Integrity Outlook 2024, OECD Publishing, Paris, <https://doi.org/10.1787/968587cd-en>
- OECD (2026), Anti-Corruption and Integrity Outlook 2026: Harnessing the Integrity Advantage, OECD Publishing, Paris, <https://doi.org/10.1787/16708b78-en>
- Osburg, J. (2018). Making business personal: corruption, anti-corruption, and elite networks in post-Mao China. *Current Anthropology*, 59(S18), S149-S159. <https://doi.org/10.1086/695831>
- Pinotti, P., Decarolis, F., Vannutelli, S., & Fisman, R. J. (2020). Rules, Discretion, and Corruption in Procurement: Evidence from Italian Government Contracting. BAFI CAREFIN Centre Research Paper, (2020-142). <https://dx.doi.org/10.2139/ssrn.3607848>
- Sagandykova, G. S. (2005). Nekotorye problemy kvalifikacii protivopravnyh dejstvij sub"ektov korrupcii v kvazigosudarstvennom sektore. *Gylym*, 84, 181-187. <https://ffa.object.psccloud.io/ycosuyki/ggsgsyqe/yesyugji/ad3bb8059a6a48185924babe425da86763517168.pdf>

- Sauve, B., Woodley, J., Jones, N. J., & Akhtari, S. (2023). Methods of preventing corruption: A review and analysis of select approaches. Public Safety Canada= Sécurité publique Canada.
- Sergiienko, L., Ksendzuk, V., Stoliar, Y., Krutik, Y., & Voitsitska, K. (2024). Ukrainian and global experience of anti-corruption activities in the field of preventing and combating illegal migration: legal, economic and financial mechanism. *Financial & Credit Activity: Problems of Theory & Practice*, 2(55). <https://doi.org/10.55643/fcaptp.2.55.2024.4189>
- Tanzi, V. (1998). Corruption around the world: Causes, consequences, scope and cures. *Staff Papers – International Monetary Fund*, 45, 559–594. <https://doi.org/10.2307/3867585>
- Transparency International. (n.d.). *What is corruption?* Transparency.org. Retrieved August 10, 2026, from <https://www.transparency.org/en/what-is-corruption>
- United Nations Conference on Trade and Development (UNCTAD). (2025). *World Investment Report 2025: International investment in the digital economy*. United Nations. <https://unctad.org/publication/world-investment-report-2025>
- Wei, S. J. (2000). How taxing is corruption on international investors?. *Review of economics and statistics*, 82(1), 1-11. <https://doi.org/10.1162/003465300558533>
- Wellman, B., & Frank, K. (2001). Network capital in a multi-level world: Getting support from personal communities. *Social capital: Theory and research*, 233, e273.
- World Bank. (2020). *Enhancing Government Effectiveness and Transparency: The Fight Against Corruption* <https://www.worldbank.org/en/topic/governance/publication/enhancing-government-effectiveness-and-transparency-the-fight-against-corruption>
- Yusof, S. A., & Arshad, M. N. M. (2020). Estimations of business exposure to corruption in Malaysia. *Journal of Financial Crime*, 27(4), 1273-1287. <https://doi.org/10.1108/JFC-04-2020-0058>

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ЖЕКЕ ИНВЕСТИЦИЯЛАРДЫ ТАРТУДАҒЫ СЫБАЙЛАС ЖЕМҚОРЛЫҚ ТӘУЕКЕЛДЕРІ: ЭМПИРИКАЛЫҚ ДЕРЕКТЕРДІ ТАЛДАУ

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Түйін:

Жеке инвестициялар экономикалық қызметтің осы түрін мемлекеттік реттеудің ерекшеліктеріне байланысты сыбайлас жемқорлық қатерлеріне барынша осал болып табылады. Осы мақаланың мақсаты – бизнес-қоғамдастық өкілдері мен бейінді сарапшылардың пікірлері негізінде Қазақстан Республикасында жеке инвестицияларды тарту саласындағы сыбайлас жемқорлықты қабылдауды зерделеу, сыбайлас жемқорлық тәуекелдерінің негізгі түрлері мен оларға ықпал ететін факторларды анықтау. Осы мақсатқа қол жеткізу үшін 2024 жылғы шілде айынан 2025 жылғы тамыз айына дейін кәсіпкерлік субъектілеріне жүргізілген әлеуметтанулық сауалнама (респонденттердің жалпы саны – 384) және 2024 жылғы қазан айынан 2025 жылғы қаңтар айына дейін инвестициялар тарту және сыбайлас жемқорлық саласындағы сарапшылармен жүргізілген сұхбаттар (сұхбаттардың жалпы саны – 10) арқылы эмпирикалық деректерді жинау мен талдауға негізделген аралас зерттеу әдісі қолданылды. Нәтижелер Қазақстан Республикасының инвестициялық саласына неғұрлым тән сыбайлас жемқорлық тәуекелдері ресурстарды бөлумен, әкімшілік-өкімдік өкілеттіктерді іске асырумен, сондай-ақ жекелеген нарық қатысушыларына заңнамалық деңгейде бәсекелестік емес артықшылықтар берумен байланысты екенін көрсетті. Осы тәуекелдердің негізгі факторларына заңнаманың жетілмегендігі, жоғары әкімшілік жүктеме, ресурстар үшін бәсекелестік және институционалдық бақылаудың жеткіліксіздігі жатады. Қарастырылып отырған саладағы сыбайлас жемқорлыққа қарсы саясатты одан әрі жетілдіру жөніндегі негізгі ұсынымдар реттеушілік рәсімдерді жетілдірумен қатар, инвестициялық қызмет субъектілеріне преференциялық ресурстарды бөлудің ашықтығын арттыруды қамтиды.

Түйін сөздер: сыбайлас жемқорлық, жеке инвестициялар, сыбайлас жемқорлық тәуекелі, инвестиция тарту, сыбайлас жемқорлықты қабылдау

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CORRUPTION RISKS IN PRIVATE INVESTMENT ATTRACTION: AN ANALYSIS OF EMPIRICAL DATA

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Abstract:

Private investment is particularly vulnerable to the risk of corruption due to the specific features of government regulation in this area of economic activity. The purpose of this article is to examine the perception of corruption in private investment attraction in the Republic of Kazakhstan among business representatives and relevant experts, identifying the main types of corruption risks and the factors contributing to them. To achieve this objective, a mixed-method research approach was employed, based on the collection and analysis of empirical data through a sociological survey of business entities conducted from July 2024 to August 2025 (total number of respondents: 384) and expert interviews with specialists in investment attraction and corruption conducted from October 2024 to January 2025 (total number of interviews: 10). The results showed that the most characteristic corruption risks in Kazakhstan's investment sector are associated with resource allocation, the exercise of administrative and regulatory powers, and the provision of non-competitive advantages to individual market participants at the legislative level. The key factors contributing to these risks include legislative deficiencies, high administrative burdens, competition for resources, and insufficient institutional oversight. The main recommendations for further improving anti-corruption policy in this area include improving regulatory procedures and increasing transparency in the allocation of preferential resources to investment entities.

Keywords: corruption, private investment, corruption risk, investment attraction, perception of corruption

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KAZAKHSTAN'S TRANSPORT AND LOGISTICS POTENTIAL IN THE CONTEXT OF CHANGING INTERNATIONAL TRADE ROUTES

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Abstract

The purpose of this study is to assess Kazakhstan's transport and logistics potential amid the transformation of international trade routes and to identify the main directions for strengthening its role as a Eurasian transit hub. The research applies statistical, comparative, systemic, and structural analysis, together with a comparison of freight volumes, transit times, and capacity indicators across major international transport corridors. The information base includes data from the Bureau of National Statistics of the Republic of Kazakhstan, official government materials, and reports published by the World Bank, the OECD, and other international organizations. The findings indicate that geopolitical instability, increased risks associated with the Northern Corridor through Russia, and disruptions to shipping in the Red Sea have stimulated demand for alternative routes crossing Kazakhstan. The rapid development of the Trans-Caspian International Transport Route, the expansion of the Aktau and Kuryk seaports, railway infrastructure modernization, and the digitalization of customs procedures are strengthening Kazakhstan's competitive position in Eurasian logistics. However, the study identifies several constraints, including infrastructure bottlenecks, insufficient coordination between transport modes, inconsistent tariffs, lengthy border procedures, and risks associated with the declining level of the Caspian Sea. The study concludes that the full utilization of Kazakhstan's transit potential requires further development of multimodal infrastructure, deeper digital integration, coordinated international tariff policies, improved logistics services, and greater private investment in transport facilities.

Keywords:

Transport and logistics potential, international trade routes, international transport corridors, Trans-Caspian International Transport Route, transit transportation.

Authors' individual contribution:

Conceptualization — Z.B.; Methodology — Z.B.; Data Collection — Z.B.; Data Analysis — Z.B.; Interpretation — Z.B.; Writing — Original Draft — Z.B.; Writing — Review & Editing — Z.B.; Visualization — Z.B.; Supervision — Z.B.; Funding Acquisition — Z.B.

Declaration of conflicting interests:

The Author declares that there is no conflict of interest.

1. Introduction

The geography of international trade is undergoing a significant transformation. Geopolitical tensions, sanctions, armed conflicts, disruptions to maritime transport, climate-related risks, and growing uncertainty in global supply chains have increased the importance of route diversification and transport resilience. For governments, carriers, and international businesses, the efficiency of a transport corridor is increasingly determined not only by distance and transportation costs, but also by the reliability of border procedures, infrastructure capacity, multimodal connectivity, digital interoperability, and the ability to maintain stable freight flows during external disruptions. As a result, alternative land-based and multimodal corridors connecting Asia and Europe have acquired greater strategic and economic importance. In this context, the Trans-Caspian International Transport Route, or Middle Corridor, is gaining strategic importance as a link between China, Central Asia, and Europe. According to the World Bank, coordinated investment and policy reforms could triple freight volumes along the route and halve travel time by 2030 (World Bank, 2023).

Kazakhstan occupies a central position within this evolving transport architecture. Its geographical location between China, Russia, the Caspian region, and the markets of Central Asia allows the country to participate simultaneously in major east–west and north–south transport corridors. An extensive railway network, road infrastructure, the Caspian ports of Aktau and Kuryk, border crossings with China, and growing logistics and terminal capacity provide a substantial physical basis for the country’s transit specialization. At the same time, geographical location alone does not create a sustainable competitive advantage. The economic value of transit depends on the capacity and utilization of infrastructure, the speed and predictability of freight movement, coordination between transport modes, the efficiency of customs and border procedures, tariff consistency, and the capacity of the domestic economy to generate value added from international freight flows.

The relevance of the study is reinforced by the national goal of transforming the country into a leading logistics hub between Europe and Asia. In 2026, new road projects with a total length of 774 kilometers were announced, expected to create more than 10,000 jobs and increase annual freight traffic to 13.2 million tonnes by 2029. Therefore, the purpose of this study is to assess Kazakhstan’s transport and logistics potential and identify the measures required to strengthen its competitiveness under changing international trade conditions.

From a research perspective, existing studies provide valuable insights into individual components of this process, including transport infrastructure, international corridors, regional cooperation, digital logistics, multimodal transportation, and supply-chain resilience. However, these dimensions are frequently examined separately. Relatively limited attention has been devoted to an integrated assessment of how the transformation of international trade routes is reflected simultaneously in Kazakhstan's transit performance, transport and warehousing activity, infrastructure utilization, railway and port capacity, containerization, digitalization, and the spatial distribution of logistics activity. This creates a need for an empirical assessment that connects observable changes in transport-sector indicators with the institutional and infrastructural transformation currently taking place in the country.

The present study addresses this gap through a descriptive-analytical and comparative assessment of Kazakhstan's transport and logistics potential in the context of changing international trade routes. Rather than treating transit potential solely as a consequence of geographical location or infrastructure availability, the study considers it as a multidimensional capacity shaped by freight dynamics, infrastructure utilization, multimodal connectivity, institutional arrangements, digitalization, and integration with international transport networks. The quantitative analysis focuses primarily on official statistical data for 2021–2025, while information for 2026 is used to characterize recently announced infrastructure projects and policy measures.

Accordingly, the purpose of this study is to assess Kazakhstan's transport and logistics potential under the transformation of international trade routes and to identify the principal factors that strengthen or constrain its competitiveness as a Eurasian logistics hub. The study is guided by the following research questions:

1. How have recent changes in international trade routes affected Kazakhstan's transport and logistics performance and transit role?
2. Which infrastructural, institutional, and digital factors currently strengthen or constrain Kazakhstan's development as a Eurasian logistics hub?

2. Literature Review

Academic research considers Central Asia's transport and logistics system an important component of the changing architecture of international trade. Khasanov and Nurmetova (2022) argue that the gradual shift of global economic activity towards Asia increases the importance of Central Asian countries in international production, trade, and supply chains. However, the region's transit potential remains underutilized because of high transportation costs, inadequate infrastructure, limited access to maritime routes, and insufficient coordination of cross-border procedures.

Kazakhstan has a particularly important position in this system due to its extensive railway network and location at the intersection of Eurasian transport corridors. Kulyntay et al. (2025) examine Central Asia's transport and communication potential from the perspective of European Union interests and conclude that the competitiveness of regional corridors depends on infrastructure development, route diversification, customs simplification, harmonized technical standards, and digital integration. Similarly, Augan et al. (2025) demonstrate that international transport corridors contribute not only to trade and investment but also to economic security, geopolitical stability, employment, and regional integration. Verchenkova and Volkovich (2026) further characterize Kazakhstan's transport and transit potential as a multifunctional catalyst for Eurasian integration and economic growth.

Another group of studies focuses on the operational and institutional constraints affecting logistics cooperation. Cui and Valentinovna (2025) identify regulatory differences, inconsistent standards, administrative procedures, and insufficient institutional coordination as major barriers to transport and logistics cooperation between China and Kazakhstan. These constraints increase transaction costs and prevent the full utilization of growing bilateral freight flows. Osmonkulova et al. (2025), analyzing agricultural foreign trade in Kyrgyzstan, establish a strong positive relationship between investment in logistics infrastructure and foreign trade turnover. Their findings show that modern transport, storage, and logistics facilities can reduce costs and improve the export competitiveness of agricultural products, while bureaucratic barriers continue to limit integration into global supply chains.

Although the study focuses on Kyrgyzstan, its conclusions are relevant to Kazakhstan and the wider Central Asian region. Using agent-based simulation, Khussanov et al. (2025) provide a more detailed assessment of Kazakhstan's multimodal transport system. Their model integrates railway, road, maritime, terminal, and border-crossing operations and demonstrates that congestion at terminals and checkpoints directly affects delivery times, vehicle utilization, and logistics-hub capacity.

The latest research increasingly emphasizes digital transformation and supply-chain resilience. Imasheva et al. (2026) examine the implementation of digital platforms, the Internet of Things, tracking technologies, and intelligent transport systems in Kazakhstan. The authors conclude that digitalization can optimize routes, improve cargo visibility, reduce operating costs, and strengthen coordination among logistics participants.

At the same time, its wider implementation is constrained by high financing costs, insufficient digital competencies, and the absence of unified regulatory and standardization frameworks. Kamysbayeva et al. (2026) analyses agricultural intermodal logistics under changing export demand

and infrastructure constraints through a hybrid model combining system dynamics and discrete-event simulation. Their results show that reductions in transport or border capacity lead to cargo accumulation, unfulfilled export demand, and lower service levels.

Despite these contributions, the reviewed studies generally examine geopolitical, institutional, infrastructural, agricultural, or digital dimensions separately. The literature still lacks an integrated economic assessment of how changing international trade routes affect Kazakhstan's transit flows, infrastructure utilization, containerization, non-resource exports, regional development, and domestic value creation.

Overall, the reviewed studies show that Kazakhstan and the wider Central Asian region possess significant transport and logistics potential, but its realization remains constrained by infrastructure bottlenecks, high transport costs, fragmented regulation, insufficient cross-border coordination, limited multimodal integration, and uneven digitalization. Existing research also demonstrates that transport corridors can support trade, investment, regional integration, economic security, and supply-chain resilience, while recent studies increasingly emphasize the role of digital platforms, intelligent transport systems, and intermodal infrastructure in improving logistics performance.

However, the literature remains fragmented: geopolitical, institutional, infrastructural, agricultural, and digital dimensions are generally examined separately, while relatively little attention is paid to their combined impact on Kazakhstan's changing role within Eurasian trade routes. In particular, there is a lack of an integrated descriptive-analytical assessment linking changes in transit flows, transport and warehousing output, railway and port capacity, containerization, infrastructure modernization, digitalization, and regional concentration of logistics activity. The present study addresses this gap by providing a comprehensive assessment of Kazakhstan's transport and logistics potential under the transformation of international trade routes. Accordingly, the study is guided by the following research questions:

- (1) How have recent changes in international trade routes affected Kazakhstan's transport and logistics performance and transit role?
- (2) Which infrastructural, institutional, and digital factors currently strengthen or constrain Kazakhstan's development as a Eurasian logistics hub?

3. Materials and Methods

This study adopts a descriptive-analytical and comparative research design to assess Kazakhstan's transport and logistics potential under the transformation of international trade routes. The quantitative component is based primarily on official statistical data for 2021–2025, while

information for 2026 is used to characterize recently announced infrastructure projects, policy measures, and sectoral development targets rather than as part of the historical statistical series. The main data sources include the Bureau of National Statistics of the Republic of Kazakhstan, the Ministry of Transport, the Ministry of Trade and Integration, the World Bank, the WTO, the Asian Development Bank, and peer-reviewed academic publications.

The quantitative analysis focuses on the dynamics and structure of transport-sector indicators. It includes absolute and relative changes, year-on-year growth rates, compound annual growth rates, regional shares, freight-volume dynamics, container-throughput growth, and comparisons of railway capacity and capacity utilization along selected sections of the Middle Corridor (ADB, 2024). These indicators are used to identify the scale, direction, concentration, and infrastructure constraints of transport and logistics development. In particular, changes in gross output of transport and warehousing services are assessed both nationally and regionally, while railway, maritime, container, and transit indicators are compared across time and infrastructure segments.

The quantitative assessment is complemented by comparative and qualitative document analysis. Official transport-development programmes, infrastructure announcements, corridor-development initiatives, digitalization measures, and international institutional reports are examined to identify the principal factors affecting Kazakhstan's competitiveness as a Eurasian transit hub. The study therefore does not attempt to estimate causal relationships between infrastructure investment and freight flows. Instead, it evaluates observable statistical trends together with institutional and infrastructural developments and interprets their implications for transport capacity, connectivity, and logistics performance.

4. Results

The results demonstrate that Kazakhstan's transport sector continued to expand in 2025, strengthening the country's position within the changing system of Eurasian trade routes. Total transit freight reached 36.9 million tonnes, representing an increase of 6.6% compared with 34.6 million tonnes in 2024. This growth reflects the coordinated development of railway, road, maritime, and air transport, as well as the expansion of international logistics cooperation. Kazakhstan's participation in the East–West, North–South, and Trans-Caspian corridors enables the country to diversify transit flows and reduce dependence on a single geographical direction.

The growing economic importance of the transport and logistics sector is also reflected in its output dynamics. According to the Bureau of National Statistics of the Republic of Kazakhstan, the gross output of transport and warehousing services increased from approximately KZT 6.1 trillion in 2021 to KZT 12.0 trillion in 2025, representing an increase of nearly 98% over the period. This

sustained expansion reflects the growing role of transport and logistics in national economic activity and provides a consistent statistical basis for the regional analysis presented in Table 1. Separately, the Ministry of Transport reported that the gross output of the transport industry is expected to reach KZT 14.3 trillion in 2026, indicating the continuation of strong sectoral growth.

Table 1. Gross Output of Transport and Warehousing Services by Region, 2021–2025, KZT million

Region	2021	2022	2023	2024	2025
Republic of Kazakhstan	6 070 568,6	6 824 513,2	8 245 397,7	9 422 568,8	12 007 955,8
Abay	106 236,0	121 275,4	134 135,7	185 671,2	219 108,0
Akmola	148 509,6	174 049,8	216 648,7	268 608,3	334 940,4
Aktobe	278 987,1	354 551,9	413 926,6	488 085,7	546 937,9
Almaty	365 524,4	380 937,9	389 924,6	502 879,0	297 000,2
Atyrau	651 319,1	591 412,2	608 867,6	709 003,4	858 528,4
Batys Kazakhstan	147 130,3	150 470,8	172 959,4	217 110,7	235 469,5
Zhambyl	472 701,0	476 706,1	533 045,6	563 442,0	295 295,2
Zhetisu	143 038,7	153 078,9	150 790,4	220 751,4	224 038,9
Karagandy	220 428,6	308 889,4	351 473,0	426 869,2	588 876,5
Kostanay	208 343,6	267 934,6	275 856,3	338 130,5	521 669,9
Kyzylorda	260 610,4	253 610,3	270 920,4	294 609,2	276 533,8
Mangystau	441 823,1	385 395,2	451 090,0	527 067,3	539 341,9
Pavlodar	147 658,0	181 846,8	238 072,0	299 790,6	372 501,8
Soltustik Kazakhstan	168 028,1	229 870,5	219 436,2	233 675,9	303 320,8
Turkistan	427 914,4	426 647,5	423 753,0	486 942,3	280 559,6
Ulytau	73 792,5	75 154,5	103 715,2	190 979,1	191 843,9
Shygys Kazakhstan	73 863,9	96 330,4	115 334,8	147 502,3	159 453,5
Astana city	853 296,9	972 761,5	1 709 297,5	1 638 667,6	2 106 660,5
Almaty city	751 092,1	1 042 590,0	1 231 445,4	1 403 948,5	3 219 852,3
Shymkent city	130 270,9	180 999,3	234 705,3	278 834,7	436 023,2

Source: Compiled by the author based on data from the Bureau of National Statistics of the Republic of Kazakhstan.

The national data indicates substantial but uneven expansion of transport and warehousing activity. Gross output increased from KZT 6.07 trillion in 2021 to KZT 12.01 trillion in 2025, corresponding to cumulative growth of approximately 97.8% and a compound annual growth rate of about 18.6%. Annual growth was also uneven, amounting to approximately 12.4% in 2022, 20.8% in 2023, 14.3% in 2024, and 27.4% in 2025. The acceleration recorded in 2025 therefore represents the strongest annual increase during the observed period.

The regional distribution also demonstrates a high degree of spatial concentration. In 2025, Almaty city accounted for approximately 26.8% of national transport and warehousing output, while Astana city represented approximately 17.5%. Together, the two largest urban centers generated about 44.4% of the national total. This concentration suggests that the expansion of Kazakhstan's transport and logistics sector is increasingly associated not only with transit corridors and resource-

producing regions but also with major metropolitan distribution, warehousing, commercial, and service centers.

At the same time, the regional dynamics were heterogeneous. While several regions recorded substantial increases between 2021 and 2025, others experienced declines in the most recent year. Consequently, national growth should not be interpreted as uniform territorial development. The observed pattern points to differences in logistics specialization, infrastructure utilization, industrial structure, transit accessibility, and the concentration of distribution functions across regions.

Contracts for 775 locomotives and 2,700 fitting platforms will further support container and transit traffic. At the same time, the modernization of 124 railway stations may improve passenger services and regional accessibility. These results show that Kazakhstan is gradually removing internal infrastructure bottlenecks, although the economic return on new capacity will depend on its actual utilization and coordination with neighboring transport systems.

Maritime transport and the Trans-Caspian International Transport Route demonstrated particularly strong growth. In 2025, Kazakhstan's maritime transport carried 8 million tonnes of cargo, 7% more than in the previous year. Container handling through national seaports increased by 29% to 90,637 twenty-foot equivalent units, while container traffic along the Trans-Caspian route grew by 36%.

The completion of the Aktau container hub, the acquisition of two ferries, and the deployment of an additional dry-cargo vessel on the Kuryk–Baku route strengthened the Caspian segment of the corridor. Kazakhstan's port container capacity has increased to approximately 200,000 TEU per year, while current freight traffic along the Middle Corridor exceeds 4.5 million tonnes and may reach 10 million tonnes in the future (Ministry of Transport of the Republic of Kazakhstan, 2026; MyGorod News, 2026). However, the projected increase will require synchronized development of railways, ports, vessels, terminals, border infrastructure, and logistics services across all participating countries.

New projects in the Mangystau region indicate a transition from basic transit infrastructure to a more diversified logistics and industrial ecosystem. A modern shipyard is planned on the Caspian coast, with annual capacity to construct up to eight vessels and repair up to 24 vessels. The minimum investment in the project is expected to reach KZT 125 billion. A multimodal aviation and logistics hub at Aktau Airport is also planned, with capacity for more than 200 aircraft maintenance operations and up to 60 painting operations annually.

In addition, the first stage of a multifunctional terminal at Kuryk Port will be developed with an investment of approximately KZT 470 billion. These projects may reduce Kazakhstan's dependence on foreign repair and maritime services, create permanent employment, localize

production, and increase domestic value added. Their contribution will therefore extend beyond transit revenues and support the industrial development of western Kazakhstan.

The announced construction and reconstruction of the Kyzylorda–Saksaulsk, Ulgaysyn–Saksaulsk, and Beineu–Saksaulsk highways further strengthen horizontal transport connectivity. The Kyzylorda–Saksaulsk and Ulgaysyn–Saksaulsk sections have a combined length of 774 kilometers. Their implementation is expected to create more than 10,000 jobs and increase annual freight traffic by 2.5 times to 13.2 million tonnes. The projects are intended to transform previously peripheral routes in the Aral Sea region into important intersections of Eurasian transport corridors and must be completed by 2029 (Mukhamediyarova, 2026).

The expected effects include not only higher transit capacity but also improved regional accessibility, tourism development, business activity, and employment. Nevertheless, the achievement of these outcomes will depend on compliance with construction deadlines, effective cost control, infrastructure quality, and the integration of the new roads with railway, port, and border facilities.

Digitalization has become another significant factor in improving transport efficiency. The e-Joldar system is being used to create digital road passports containing information on technical condition, traffic intensity, and operational characteristics. Artificial intelligence technologies are applied in annual road diagnostics, while more than 70 automated weighing and measurement stations have been integrated into transport-control systems.

Kazakhstan has also introduced electronic permit exchange with China and Uzbekistan, resulting in the digitalization of approximately 65% of foreign road-transport permits. The Smart Cargo platform provides a single digital window integrating customs, logistics, and commercial services. These measures can reduce administrative costs, accelerate border procedures, improve cargo tracking, and limit unauthorized overloading. However, the full effect of digitalization requires interoperability with the information systems of Azerbaijan, Georgia, Türkiye, China, and other trading partners.

The aviation sector also contributed to Kazakhstan's international connectivity. In 2025, the national commercial aircraft fleet reached 109 aircraft, including eight new Airbus A320 aircraft and four Boeing 737 MAX 8 aircraft. Air services connected Kazakhstan with 30 countries through 135 international routes and 626 weekly flights. More than 35 new international routes were opened, including services to Budapest, Munich, Seoul, Shanghai, and Guangzhou.

Major investment initiatives included the USD 362 million development programme for Almaty Airport and the KZT 250 billion cargo and passenger airport project in the Khorgos–Eastern Gate Special Economic Zone. The aviation sector employed approximately 25,000 people, while

Kazakhstan's compliance with international aviation safety and facilitation standards reached 95.7%. These developments strengthen passenger and high-value cargo connectivity and complement the country's land-based transport corridors.

Railway transport remains the principal mode for long-distance and transit freight transportation in Kazakhstan. Figure 1 presents the volume of cargo transported by rail in December between 2021 and 2025. The data reveal a pronounced increase in late 2024: railway freight reached approximately 46.5 million tonnes in December 2024, about 30% above the December 2023 level of 35.8 million tonnes. This increase should not be interpreted as a data error or an isolated monthly fluctuation, as railway freight volumes were also unusually high during the fourth quarter of 2024.

The late-2024 increase coincided with exceptionally strong agricultural production and intensified post-harvest freight movements. Kazakhstan recorded a historically high grain harvest in 2024, while railway shipments of new-crop grain during September–November increased substantially compared with the previous year. These developments suggest that seasonal agricultural freight contributed to the increase in railway activity during the final months of 2024 (Figure 1).

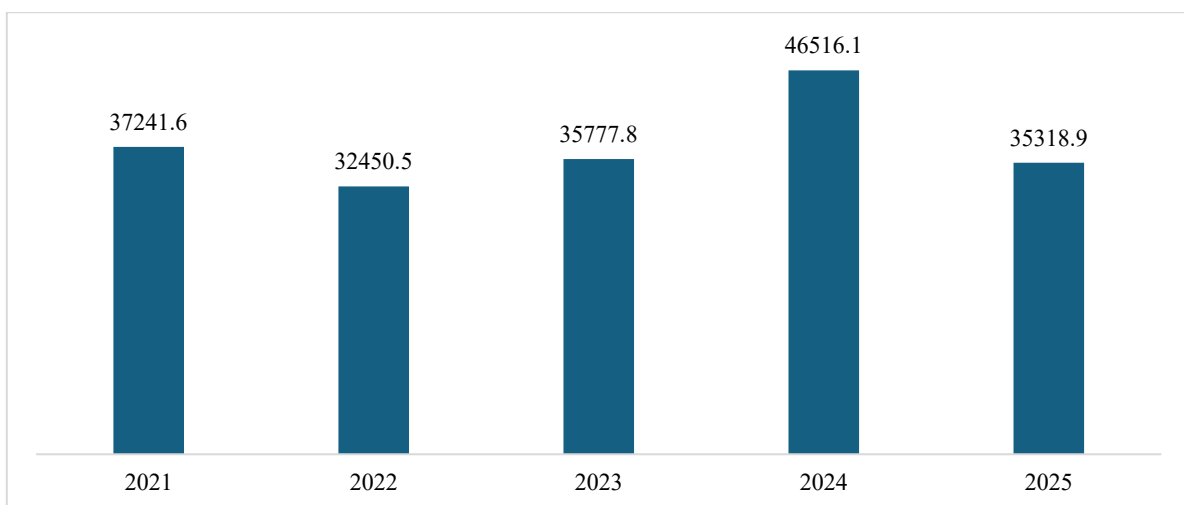


Figure 1. Freight Transported by Rail in Kazakhstan in December 2021–2025, *thousand tons*

The efficiency of the Middle Corridor depends not only on freight volumes but also on the capacity and utilization of its railway sections. As Kazakhstan forms the central land segment of the route, internal railway bottlenecks directly influence transit time, service reliability, and the overall competitiveness of transportation between Asia and Europe. Figure 2 presents the distribution of railway capacity and capacity utilization along the Middle Corridor and identifies the sections experiencing the greatest infrastructure pressure.

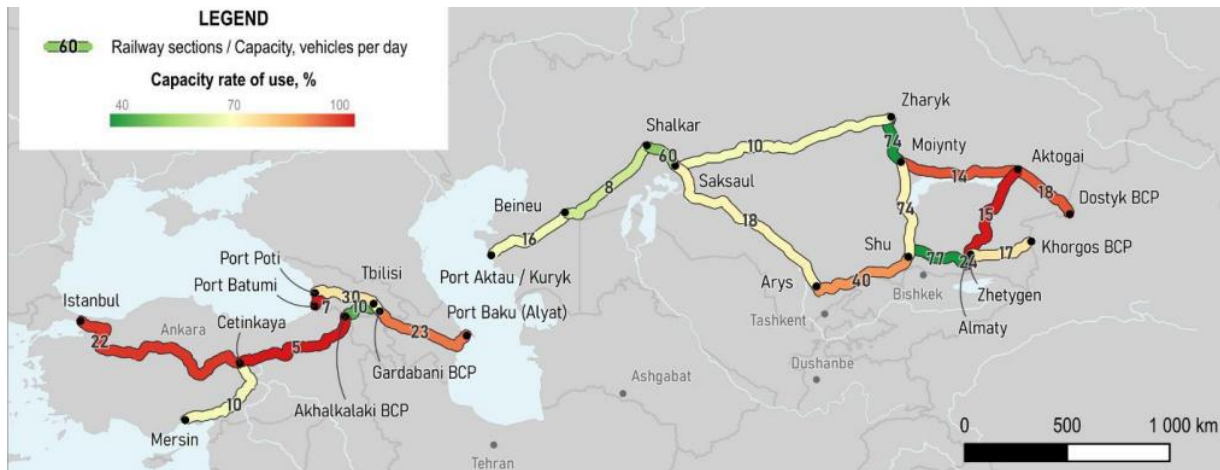


Figure 2. Railway capacity and capacity utilization along the middle corridor

As shown in Figure 2, the most heavily utilized railway sections in Kazakhstan are Dostyk–Moynty and Shu–Shymkent, where infrastructure capacity is approaching its operational limits. These bottlenecks may increase congestion and reduce the predictability of freight delivery along the Middle Corridor. To address these constraints, Kazakhstan has commissioned the second track of the Dostyk–Moynty railway and is developing the new Bakhty–Ayagoz railway line connecting the Chinese border with the national railway network (WTO, 2026). These projects are expected to redistribute freight flows, expand east–west railway capacity, and improve the resilience of Kazakhstan’s transit system. However, the effectiveness of additional capacity will also depend on the coordinated development of border crossings, terminals, rolling stock, Caspian ports, and railway infrastructure in other corridor countries.

The identified railway bottlenecks are broadly consistent with the simulation results reported by Khussanov et al. (2025), who show that congestion at terminals, railway sections, and border-crossing points can increase delivery times and reduce the effective capacity of Kazakhstan’s multimodal transport system. The present findings complement their modeling approach with observed infrastructure-capacity indicators, demonstrating that the Dostyk–Moynty and Shu–Shymkent sections have operated close to their capacity limits. This comparison suggests that infrastructure constraints are not only theoretical risks identified through simulation but are also visible in the actual utilization of key railway sections. Consequently, the expansion of railway capacity is likely to improve corridor performance only if investments in tracks are coordinated with border terminals, rolling stock, ports, and neighboring railway systems.

Overall, the findings indicate that Kazakhstan is moving from the development of separate transport facilities towards an integrated multimodal logistics system. The combination of railway expansion, road modernization, port development, aviation investment, international terminals, and digital platforms strengthens the country’s ability to serve trade flows between China, Central Asia,

the Caucasus, Europe, and the Middle East. At the same time, increasing physical capacity does not automatically ensure economic efficiency. Kazakhstan's long-term competitiveness will depend on predictable transit times, coordinated tariffs, simplified border procedures, container availability, digital interoperability, private investment, and the creation of domestic value added.

Therefore, the effectiveness of transport policy should be assessed not only by kilometers constructed or tons transported but also by transit revenues, logistics costs, infrastructure utilization, private investment, employment, non-resource exports, and regional economic growth.

5. Discussion

The findings indicate that Kazakhstan's growing transport and logistics role is driven not only by its geographical position but increasingly by the simultaneous expansion of freight flows, infrastructure capacity, and multimodal connectivity. The increase in total transit freight to 36.9 million tonnes in 2025, together with the near doubling of transport and warehousing output between 2021 and 2025, confirms that the sector is becoming a more significant component of the national economy. At the same time, the strong concentration of transport and warehousing activity in Almaty and Astana demonstrates that the economic benefits of logistics development remain spatially uneven. This finding extends the conclusions of Khasanov and Nurmetova (2022) and Kulyntay et al. (2025), who emphasize the strategic importance of Central Asia within changing Eurasian trade networks, by showing that the realization of Kazakhstan's transit potential is closely linked to the concentration of logistics, distribution, and service functions in major urban centers. Therefore, transport-corridor development should be considered not only as an instrument for increasing international freight volumes, but also as a mechanism for stimulating regional economic activity, investment, employment, and domestic value creation.

The results also demonstrate that infrastructure expansion alone cannot guarantee a sustainable improvement in corridor competitiveness. The rapid growth of the Trans-Caspian International Transport Route, increasing container traffic through the Aktau and Kuryk ports, and ongoing railway modernization significantly strengthen Kazakhstan's position within east–west trade flows. However, high-capacity utilization on the Dostyk–Moyynty and Shu–Shymkent railway sections reveal the persistence of critical infrastructure bottlenecks. This observation is consistent with the simulation results of Khussanov et al. (2025), who show that congestion at railway sections, terminals, and border crossings can substantially increase delivery times and reduce the effective capacity of Kazakhstan's multimodal transport system. The present study complements these findings with observed infrastructure-capacity indicators and suggests that investment effectiveness depends on synchronized development across the entire transport chain. Additional railway capacity will generate limited benefits if port infrastructure, border crossings, terminals, rolling stock, or neighboring

transport systems remain constrained. Consequently, the competitiveness of the Middle Corridor should be assessed as a system-wide outcome rather than as the sum of individual infrastructure projects.

A further important finding concerns the growing role of institutional and digital factors in determining logistics efficiency. Kazakhstan's introduction of electronic transport permits, the Smart Cargo platform, digital road passports, automated weighing systems, and artificial intelligence-based road diagnostics demonstrates a shift from predominantly physical infrastructure development towards integrated digital transport management. These developments support the conclusions of Imasheva et al. (2026), who identify digital technologies as an important instrument for improving cargo visibility, route optimization, and coordination among logistics participants. Nevertheless, the effectiveness of national digital solutions remains dependent on interoperability with the customs and transport information systems of partner countries, particularly Azerbaijan, Georgia, Türkiye, China, and other states participating in Eurasian corridors. Thus, Kazakhstan's long-term competitive advantage will depend on the combination of physical capacity, predictable border procedures, coordinated tariffs, digital interoperability, and efficient multimodal management. From this perspective, transport policy effectiveness should be evaluated not only through kilometers of infrastructure constructed or tonnes of freight transported, but also through reductions in transit time and logistics costs, infrastructure utilization, private investment, employment, non-resource exports, and the amount of domestic value added generated by international transport flows.

6. Conclusion

The study confirms that Kazakhstan's transport and logistics sector is becoming an important driver of economic diversification and Eurasian connectivity. In 2025, total transit freight reached 36.9 million tonnes, while the gross output of transport and warehousing services increased to KZT 12.0 trillion, almost twice the 2021 level. The expansion of railway, road, maritime, and aviation infrastructure has strengthened Kazakhstan's participation in the East–West, North–South, and Trans-Caspian transport corridors.

The results also show that the Trans-Caspian International Transport Route has become a key element of Kazakhstan's logistics strategy. The growth of maritime and container traffic, the development of the Aktau and Kuryk ports, the commissioning of new railway lines, and the modernization of road infrastructure are increasing the country's capacity to handle international freight flows. At the same time, the most heavily utilized railway sections, particularly Dostyk–Moyynty and Shu–Shymkent, remain potential bottlenecks that may reduce delivery reliability and increase transit time.

Kazakhstan's long-term competitiveness will therefore depend not only on increasing physical capacity but also on improving corridor management. Priority measures should include the coordination of tariffs and schedules, simplification of border procedures, expansion of container capacity, digital interoperability with partner countries, attraction of private investment, and integration of transport corridors with regional production and logistics centers. The economic effectiveness of transport policy should be measured through transit revenues, delivery time, logistics costs, infrastructure utilization, private investment, employment, non-resource exports, and domestic value added rather than only through kilometers constructed or tonnes transported.

Overall, Kazakhstan has significant potential to become a major logistics hub connecting Europe and Asia. However, transforming its geographical location into a sustainable competitive advantage requires coordinated development of infrastructure, digital systems, logistics services, and international institutions. Further research should assess the causal relationship between transport investment, regional economic growth, export diversification, and logistics performance, as well as examine the actual costs and barriers faced by domestic exporters and transport companies.

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Ethics Approval / Informed Consent Statement

This study did not require ethics committee approval, as it did not involve human or animal subjects.

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Reference List

- Asian Development Bank. (2024). Unlocking transport connectivity in the Caucasus and Central Asia. Asian Development Bank.
- Augan, M., Mukhametzhana, A., Yermekbayev, A., Zhekenov, D., & Byuzheyeva, B. (2025). The impact of international transportation corridors on security and stability: A comparative analysis of Poland and Kazakhstan. *New Perspectives*, 33(4), 377-398.
- Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. (2026). Transport in the Republic of Kazakhstan: January–December 2025. <https://stat.gov.kz/en/industries/business-statistics/stat-transport/publications/472263/>
- Cui, L., & Valentinovna, K. O. (2025). The belt and road initiative and China–Kazakhstan logistics infrastructure. *BBC*, 21, 13.
- Imasheva, G., Chakeeva, K., Kisselyova, O., Bekzhanova, S., & Nurlanova, A. (2026). The impact of digital technologies on the development of transport logistics in Kazakhstan. *Bulletin of Civil Aviation Academy*, 1(40), 101-114.

- Kamysbayeva, A., Khussanov, A., Kaldybayeva, B., Prokhorov, O., Khussanov, Z., Bekzhanova, S., & Issayeva, A. (2026). Modeling the Resilience of Agricultural Intermodal Logistics in Kazakhstan Under Dynamic Export Demand and Infrastructure Constraints. *Logistics*, 10(7), 143.
- Khasanov, U., & Nurmetova, M. (2022). Growing potential of Central Asian trade logistics. *International Affairs: Politics, Economics, Law*, 319–331. <https://doi.org/10.63407/702951>
- Khussanov, A., Kaldybayeva, B., Prokhorov, O., Khussanov, Z., Kenzhebekov, D., Yevadilla, M., & Janabayev, D. (2025). Agent-based simulation modeling of multimodal transport flows in transportation system of Kazakhstan. *Logistics*, 9(4), 172.
- Kulyntay, G., Ospanova, A., Mukanov, M., Abdullin, R., Seilkhan, B., & Zhaksylykova, A. (2025). Transport and communication potential of Central Asia: EU interests, challenges, and prospects. *Journal of Iran and Central Eurasia Studies*, 8(1), 99-116.
- Ministry of Transport of the Republic of Kazakhstan. (2026). Kazakhstan ukreplyaet rol' klyuchevogo logisticheskogo khaba Evrazii [Kazakhstan strengthens its role as a key logistics hub of Eurasia]. https://www.gov.kz/memleket/entities/transport/press/news/details/1157373?lang=ru&utm_source
- Mukhamediyarova, Z. (2026, August 3). Prezident Kazakhstana: Glavnaya tsel' – prevratit' stranu v odin iz vedushchikh logisticheskikh uzlov Evropy i Azii [President of Kazakhstan: The main goal is to transform the country into one of the leading logistics hubs between Europe and Asia]. *Kazinform*. <https://www.inform.kz/ru/tokaev-glavnaya-tsel-prevratit-kazahstan-v-odin-iz-vedushih-logisticheskikh-uzlov-7e9c5266>
- MyGorod News. (2026, July 28). Transportno-logisticheskii sektor – klyuchevoi draiver diversifikatsii ekonomiki Kazakhstana [The transport and logistics sector as a key driver of Kazakhstan's economic diversification]. <https://mgorod.kz/news/transportno-logisticheskii-sektor-klyuchevoi-draiver-diversifikatsii-ekonomiki-kazahstana>
- Osmonkulova, G., Toibaeva, N., Batyrbekova, Zh., Asanakunova, G., & Ibraev, K. (2025). Influence of logistics systems on the development of international trade in the agricultural sector of Kyrgyzstan. *Scientific Horizons*, 28(3), 146–159.
- Verchenkova, A. M., & Volkovich, A. D. (2026). Transport and transit potential of the Republic of Kazakhstan as a multifunctional catalyst for Eurasian integration and economic growth using the example of the development of the Western China–Kazakhstan–Russia–Belarus strategic corridor: A comprehensive scientific analysis and prospective trends. In *Business Pulse: Proceedings of the IV International Scientific and Practical Student Conference*, Minsk, November 14, 2025 (pp. 566–570). Institute of Business of Belarusian State University.
- World Bank. (2023). Middle Trade and Transport Corridor: Policies and investments to triple freight volumes and halve travel time by 2030. World Bank. <https://doi.org/10.1596/40626>
- World Trade Organization. (2026). Global trade outlook and statistics: March 2026. https://www.wto.org/english/res_e/publications_e/gtos0326_e.htm

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Халықаралық сауда маршруттарының өзгеруі жағдайындағы Қазақстанның көлік-логистикалық әлеуеті

Замира Башу*

**Хат-хабар авторы, «Зерттеулер, талдау және тиімділікті бағалау орталығы» ЖШС, Астана қ., Қазақстан*

Түйін:

Зерттеудің мақсаты – халықаралық сауда бағыттарының өзгеруі жағдайында Қазақстанның көлік-логистикалық әлеуетін бағалау және елдің Еуразия құрлығындағы транзиттік хаб ретіндегі рөлін күшейтудің негізгі бағыттарын айқындау. Зерттеу барысында статистикалық, салыстырмалы, жүйелік және құрылымдық талдау әдістері, сондай-ақ халықаралық көлік дәліздерінің өткізу қабілетін, жүк тасымалдау көлемін және транзит мерзімдерін салыстыру тәсілі қолданылды. Ақпараттық база ретінде Қазақстан Республикасының Ұлттық статистика бюросының деректері, мемлекеттік органдардың ресми материалдары, Дүниежүзілік банк, ЭЫДҰ және басқа да халықаралық ұйымдардың зерттеулері пайдаланылды. Зерттеу нәтижелері геосаяси тұрақсыздық, Ресей арқылы өтетін Солтүстік дәлізге қатысты тәуекелдер және Қызыл теңіздегі тасымалдардың бұзылуы Қазақстан арқылы өтетін балама бағыттарға сұранысты арттырғанын көрсетті. Транскаспий халықаралық көлік бағыты бойынша тасымал көлемінің өсуі, Ақтау және Құрық порттарының дамуы, теміржол инфрақұрылымының жаңғыртылуы және кедендік рәсімдердің цифрландырылуы Қазақстанның бәсекелестік артықшылықтарын күшейтуде. Сонымен қатар инфрақұрылымдық шектеулер, көлік түрлері арасындағы үйлестірудің жеткіліксіздігі, тарифтердің біріздендірілмеуі, шекаралық рәсімдердің ұзақтығы және Каспий теңізі деңгейінің төмендеуі негізгі тәуекелдер ретінде анықталды. Қазақстанның транзиттік әлеуетін толық іске асыру үшін мультимодальды инфрақұрылымды дамыту, цифрлық интеграцияны тереңдету, халықаралық тарифтік саясатты үйлестіру және жеке инвестицияларды тарту қажет деген қорытынды жасалды.

Түйін сөздер: көлік-логистикалық әлеует, халықаралық сауда маршруттары, халықаралық көлік дәліздері, Транскаспий халықаралық көлік бағыты, транзиттік тасымалдар.

Автор туралы мәлімет

Замира Рузматқызы Башу – PhD, «Зерттеулер, талдау және тиімділікті бағалау орталығы» ЖШС-нің бас сарапшы-зерттеушісі, Қазақстан. Оның кәсіби және ғылыми-зерттеу қызметі мемлекеттік секторды зерттеуге, талдамалық бағалауға, тиімділікті бағалауға және деректерге негізделген шешімдер қабылдауға бағытталған. Ол қолданбалы зерттеулер жүргізуге, талдамалық материалдар әзірлеуге, сондай-ақ мемлекеттік саясат пен басқару процестерінің тиімділігін бағалауға қатысады. Ғылыми қызығушылықтары мемлекеттік басқару, мемлекеттік қаржы, мемлекеттік аудит, стратегиялық жоспарлау және тиімділікті бағалау салаларын қамтиды. Сонымен қатар мемлекеттік сектордың тиімділігі мен есептілігін арттыруға бағытталған ғылыми-зерттеу және жарияланымдық қызметпен айналысады. ORCID: <https://orcid.org/0000-0001-8737-1274>. Электрондық пошта: zamirabashu@gmail.com.

Транспортно-логистический потенциал Казахстана в условиях изменения международных торговых маршрутов

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Аннотация:

Цель исследования заключается в оценке транспортно-логистического потенциала Казахстана в условиях трансформации международных торговых маршрутов и определении направлений укрепления его роли как евразийского транзитного хаба. В работе применены методы статистического, сравнительного, системного и структурного анализа, а также сопоставление пропускной способности, объемов грузоперевозок и сроков доставки по основным международным транспортным коридорам. Информационную базу исследования составили данные Бюро национальной статистики Республики Казахстан, официальные материалы государственных органов, а также исследования Всемирного банка, ОЭСР и других международных организаций. Полученные результаты показывают, что геополитическая нестабильность, возросшие риски использования Северного коридора через Россию и перебои в судоходстве в Красном море усилили спрос на альтернативные маршруты, проходящие через Казахстан. Рост перевозок по Транскаспийскому международному транспортному маршруту, развитие портов Актау и Курык, модернизация железнодорожной инфраструктуры и цифровизация таможенных процедур укрепляют конкурентные преимущества страны. Вместе с тем выявлены инфраструктурные ограничения, недостаточная координация между видами транспорта, несогласованность тарифов, продолжительность пограничных процедур и риски снижения уровня Каспийского моря. Сделан вывод, что полноценная реализация транзитного потенциала Казахстана требует развития мультимодальной инфраструктуры, углубления цифровой интеграции, согласования международной тарифной политики, повышения качества логистических услуг и привлечения частных инвестиций.

Ключевые слова: транспортно-логистический потенциал, международные торговые маршруты, международные транспортные коридоры, Транскаспийский международный транспортный маршрут, транзитные перевозки.

Биография автора

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MEDIA REPRESENTATIONS OF SMES IN KAZAKHSTAN AND UZBEKISTAN: A COMPARATIVE ANALYSIS

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Abstract

This article examines how online newspapers represented small and medium-sized enterprises (SMEs) in Kazakhstan and Uzbekistan between 2020 and 2023. It investigates the economic and social roles attributed to SMEs, the visibility given to different actors, and the relationships between private enterprises and the state. The study employs comparative qualitative content and framing analysis of 187 newspaper articles, comprising 113 articles concerning Kazakhstan and 74 concerning Uzbekistan. Each article was assigned one primary content category and dominant codes covering SME roles, actor visibility, state-SME relationship, policy objectives, responsibility attribution, and temporal context. The findings reveal a state-centered representation of SME development in both countries. Government officials and agencies received greater visibility than entrepreneurs, while regulation and government assistance were more prominent than market autonomy. According to Kazakhstan's coverage, SMEs were more frequently portrayed as vulnerable and affected by regulatory, financial, logistical, and external pressures. Uzbek coverage placed greater emphasis on government support programs and representation of SMEs as recipients of assistance within economic reform. The study concludes that newspaper coverage in both countries positioned SMEs as economically important actors, but still closely connected to government. The analysis contributes to research on the public role of SMEs in Central Asia by demonstrating how media discourse is constructed within different national and temporal contexts.

Keywords:

small and medium-sized enterprises; media framing; Kazakhstan; Uzbekistan; state-business relationship; economic development; public discourse.

Authors' individual contribution:

Conceptualization — A.K.; Methodology — A.K.; Data Collection — A.K.; Data Analysis — A.K.; Interpretation — A.K.; Writing — Original Draft — A.K.; Writing — Review & Editing — A.K.; Visualization — A.K.; Supervision — A.K.

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The Author declares that there is no conflict of interest.

1. Introduction

Small and medium-sized enterprises (SMEs) occupy an important position in contemporary economic development. They contribute to employment, entrepreneurship, market competition, innovation, regional development, and the diversification of production. In transition economies, SMEs also carry broader political and institutional significance because their development is frequently treated as evidence of market reform and the expansion of private economic activity.

The role assigned to SMEs is particularly important in post-Soviet Central Asia. Following independence in 1991, Kazakhstan and Uzbekistan introduced reforms intended to expand private enterprise and reduce the dominance of centrally administered economic structures. However, SMEs are not exclusively represented through measurable contributions to output or employment. Government institutions, international organizations, business associations, experts, and news organizations also produce narratives about SME development. Within these narratives, SMEs may be portrayed as independent market actors, vulnerable businesses, recipients of government assistance, innovation sources, or partners in national development.

Examining these representations matters because public discourse helps identify how the economic roles of entrepreneurs and different forms of government intervention are publicly understood. Nevertheless, existing research on SMEs in Central Asia has concentrated primarily on firm performance, regulatory conditions, access to finance, and government support. Less attention has been given to how news media construct the public meaning of SME development.

This article addresses this gap by examining newspaper representations of SMEs in Kazakhstan and Uzbekistan during 2020-2023. It asks three related questions: Which economic and social functions were most frequently attributed to SMEs? How were SMEs positioned in relation to the state, policy objectives, and other actors? What similarities and differences appeared between the two national media corpora? The selected period includes the COVID-19 pandemic, the January 2022 domestic crisis in Kazakhstan, and regional economic disruptions associated with the Russia-Ukraine conflict. These developments increased public attention to business survival, government assistance, domestic production, transportation, investment, and longer-term economic adaptation. The empirical analysis draws on 187 online newspaper articles: 113 concerning Kazakhstan and 74 concerning Uzbekistan. The articles are examined through comparative qualitative content and framing analysis. The study identified the principal subjects of SME coverage and analyzed the roles attributed to SMEs, the actors receiving the greatest visibility, the state-SME relationships constructed in the articles, the policy objectives connected to entrepreneurship, problem and responsibility attribution, and the temporal context of coverage.

The article makes two principal contributions. First, it extends research on SME development beyond conventional measures of firm performance and business-environment conditions by examining how the meaning of SMEs is constructed in public discourse. Second, it provides a comparative analysis of SME representation in two post-Soviet countries that share important historical and institutional legacies but have followed different paths of economic reform. The study demonstrates how media discourse connects entrepreneurship with national development priorities and constructs the relationship between private enterprise and the state in two post-Soviet Central Asian contexts.

2. Literature Review

SMEs, Institutions, and Economic Development in Kazakhstan and Uzbekistan

SMEs are commonly associated with employment creation, market competition, entrepreneurship, and the expansion of private economic activity (Ayyagari et al., 2007). However, in post-socialist economies, private-enterprise development occurred within institutional systems undergoing extensive changes in ownership, regulation, and state-business relationships, and these transformations followed different trajectories across countries (Blanchard, 1997; Brezinski & Fritsch, 1996; Havrylyshyn, 2020; Myant & Drahokoupil, 2011). Comparative research on transition economies further shows that differences in institutional development, enterprise restructuring, and the effectiveness of market-oriented reforms contributed to substantial variation in post-socialist economic performance (Svejnar, 2002). Research on post-Soviet property transformation further demonstrates that the emergence of private ownership did not necessarily produce a settled division between government institutions and market actors (Barnes, 2006). Research on Central Asian enterprise development further shows that the emergence of entrepreneurs and private markets remained closely connected to state formation, political institutions, and changing patterns of social stratification (Özcan, 2010). These historical conditions provide important context for understanding why the public role of SMEs in Central Asia continues to be closely connected to the state.

OECD data in Kazakhstan indicate that SMEs accounted for a substantial share of employment and national output by the end of the period examined in this study (OECD, 2024). Research also demonstrates a positive relationship between SME production and Kazakhstan's economic growth, strengthening the policy argument that SME expansion can contribute to diversification and economic resilience (Syzykova & Azretbergenova, 2025). Studies of eco-innovation similarly present Kazakhstan's SMEs as potential participants in energy efficiency, technological modernization, and environmentally sustainable development. Nevertheless, their capacity to assume these roles vary considerably (Pyagay et al., 2025).

Earlier research on Uzbekistan found that SME development was constrained by the institutional conditions inherited from central planning, including limited access to affordable credit and the continuing prominence of large organizations (Khalmurzaev, 2000). Uzbekistan's reform agenda has also attached growing importance to entrepreneurship and private-sector development. Recent policy assessments connect SMEs to employment creation, exports, industrial development, digitalization, and the transition toward a more competitive economy (OECD, 2023b). Because Uzbekistan has a young and expanding labor force, SME development is frequently presented as a mechanism for generating employment and supporting economic participation. At the same time, the state still defines development priorities, designing business programs, allocating resources, and communicating the expected contribution of private enterprise.

The relationship between SMEs and the state is not adequately captured by a simple opposition between public control and private markets. Institutions structure the incentives and constraints facing economic actors and connect contemporary economic activity to historically developed formal rules and informal practices (North, 1990). Entrepreneurship research demonstrates that institutional environments shape the opportunities, constraints, and legitimacy of private enterprises, particularly in emerging and transitional economies (Bruton et al., 2010). SMEs may operate as private organizations while simultaneously depending on state support, training, infrastructure, tax benefits, export programs, and regulatory reforms. Supply-chain finance remains relatively underdeveloped across Central Asia and the Caucasus, creating a policy rationale for government and institutional initiatives intended to improve access to financial services (Bhalla & Sutken, 2023). Public discourse surrounding these programs may present SMEs as vulnerable enterprises requiring protection, as beneficiaries of state assistance, or as strategic partners contributing to national objectives.

The period from 2020 to 2023 made these representations especially important. During the COVID-19 pandemic, governments introduced emergency measures, while newspapers devoted increased attention to business continuity, employment, financial assistance, and economic recovery. As immediate public-health restrictions receded, public discussion increasingly incorporated digitalization, innovation, exports, domestic production, and longer-term economic adaptation. The Russia-Ukraine conflict in February 2022 introduced an additional source of regional economic uncertainty. The war and the international sanctions imposed in response disrupted established trade and transportation networks, contributed to inflationary and currency pressures, and increased the importance of alternative transport corridors, domestic production, and diversified international partnerships for Central Asian economies (OECD, 2023a, 2023b). These developments created an important context within which SMEs were represented in public discourse. Research on international

news coverage demonstrates that media attention changes across different stages of a crisis and that national media systems influence which actors, policies, and interpretations receive prominence (Ngai et al., 2022; Wirz et al., 2022).

Media Framing and the Public Representation of SMEs

News media do not simply reproduce events, statistics, or government announcements. Through decisions about what to report, which sources to quote, and which interpretations to emphasize, news organizations participate in defining the public meaning of economic developments (Absattar et al., 2022; Mussa et al., 2025; Wirz et al., 2022). Framing refers to the selection and increased visibility of aspects of an issue in ways that define problems, identify causes, make evaluations, assign responsibility, or promote possible responses (Entman, 1993). A frame does not necessarily require journalists to make an explicit argument. It may emerge through repeated attention to particular actors, statistics, examples, causes, or policy solutions.

Recent comparative research demonstrates that differences in media systems, source selection, and national contexts can influence which topics, actors, and interpretations become prominent in news coverage (Ngai et al., 2022; Wirz et al., 2022). Applied to SME reporting, framing analysis makes it possible to examine how newspapers define the economic and social significance of private enterprises. One frame may emphasize business vulnerability and adaptation amid economic disruption, while another may emphasize SMEs as recipients of government assistance or contributors to national development (Bach & Swartz, 2022). Newspaper coverage may also differ in whether it places entrepreneurs, government officials, experts, international organizations, or statistical agencies at the center of the narrative (Mussa et al., 2025; Wirz et al., 2022). Recent entrepreneurship scholarship treats framing as an important mechanism through which economic actors and activities acquire legitimacy (Snihur et al., 2022).

Cross-national media research further shows that coverage is influenced by differences in political institutions, journalistic practices, and media systems. Comparative studies of pandemic reporting have identified differences in the topics emphasized, sources quoted, emotional strategies employed, and responsibility assigned across national media environments. (Ngai et al., 2022; Wirz et al., 2022). These findings do not mean that every outlet within a country uses the same frame. Rather, they demonstrate why national context and outlet characteristics should be considered when comparing media representations. This point is particularly relevant in Central Asia. Research on online media in Kazakhstan indicates that linguistic and emotional choices can influence how events and public issues are interpreted (Absattar et al., 2022). More recent framing research concerning Kazakhstan demonstrates that domestic and foreign news organizations can construct different interpretations of the same events (Mussa et al., 2025). These studies address political and social

issues rather than SMEs, but they confirm the applicability of framing analysis to Kazakhstan's media environment.

Existing research on SMEs in Kazakhstan and Uzbekistan predominantly examines economic performance, access to finance, regulation, digitalization, innovation, exports, and government support (Bhalla & Sutken, 2023; OECD, 2023a, 2023b, 2024; Pyagay et al., 2025; Syzdykova & Azretbergenova, 2025). This literature provides important evidence about the contribution and development of SMEs but devotes less attention to how their economic and social roles are constructed in public discourse. Media-framing research, by contrast, demonstrates that news organizations participate in defining economic problems, identifying legitimate beneficiaries of government intervention, and connecting public policies to broader social values (Bach & Swartz, 2022; Snihur et al., 2022). Nevertheless, limited comparative research has examined how news media construct the economic and social roles of SMEs and their relationship with the state in post-Soviet Central Asia

This study addresses that gap through a comparative qualitative analysis of 187 online newspaper articles published between 2020 and 2023, including 113 articles concerning Kazakhstan and 74 concerning Uzbekistan. The analysis examines six dimensions of SME representation: the roles attributed to SMEs, actor visibility, state-SME relationships, policy objectives, problem and responsibility attribution, and temporal context. These dimensions are compared across the two national corpora to identify similarities and differences in how SMEs and their relationship with the state were publicly represented.

3. Materials and Methods

This study employs a comparative qualitative content-analysis design, informed by media-framing theory, to examine how online newspapers represented SMEs and their role in economic development in Kazakhstan and Uzbekistan between 2020 and 2023. Qualitative content analysis is appropriate for identifying recurring meanings, interpretive patterns, and differences in how media sources define economic issues, emphasize particular actors, and connect SMEs to broader policy objectives. Framing analysis further directs attention to how news coverage selects and gives prominence to particular aspects of SME development, including employment, economic recovery, diversification, modernization, innovation, exports, regional development, and government support (Entman, 1993; Ngai et al., 2022; Wirz et al., 2022).

3.1. Case Justification

Kazakhstan and Uzbekistan were selected for analytical comparison because they share Soviet institutional and administrative legacies. Both states have identified SME development as an

important component of economic diversification and growth. At the same time, they have followed different trajectories of economic reform and state-business relations. Kazakhstan pursued comparatively earlier market liberalization and greater integration with international investment, and its economy remained highly influenced by natural-resource production and exports. Uzbekistan maintained a more state-directed economic model for a longer period before accelerating market-oriented reforms after 2016 (OECD, 2023a, 2023b). These shared historical foundations and divergent reform trajectories make Kazakhstan and Uzbekistan appropriate cases for comparative analysis. In both countries, the state remains highly visible in designing business policies, announcing support programs, and defining the contribution expected from private enterprises. Nevertheless, differences in economic structure, policy priorities, and state-business relations may influence how newspapers present SMEs and their role in national development.

Therefore, this comparison examines whether media coverage in the two countries attributes similar economic and social functions to SMEs, gives visibility to similar actors, and constructs comparable relationships between SMEs and the state. It also identifies national differences in the framing of SMEs as market participants, recipients of public assistance, contributors to economic recovery, or partners in national development.

3.2. Data Sources

The empirical material consists of online newspaper articles addressing SMEs and private-sector development in Kazakhstan and Uzbekistan. Newspaper coverage was selected because it provides a record of how economic developments, government programs, and statistical trends were communicated publicly. The articles are treated as media texts rather than as direct evidence of SME performance or entrepreneurs' experiences. The study period, from January 1, 2020, to December 31, 2023, encompasses the COVID-19 pandemic, the initial stages of economic recovery, the Russia-Ukraine conflict, and subsequent regional economic adjustment. These events increased public attention to business continuity, employment, government assistance, domestic production, trade, and the economic role of SMEs.

Articles were identified through separate Google News searches for Kazakhstan and Uzbekistan using combinations of the keywords "business," "SMEs," "business in Kazakhstan," "SMEs in Kazakhstan," "business in Uzbekistan," and "SMEs in Uzbekistan." To be included, an article had to focus substantively on SMEs, entrepreneurship, business regulation, government support, or related economic developments in one of the two countries. Official, commercial, and independent online news sources were included to capture different forms of public representation. Duplicate articles, inaccessible webpages, and articles that mentioned business only superficially were excluded. The search for the two countries was conducted and reviewed separately. Articles

were assigned to a national corpus according to the country constituting their principal subject. Following screening, the final analytical corpus consisted of 187 articles: 113 concerning Kazakhstan and 74 concerning Uzbekistan.

The unit of analysis was the individual newspaper article. The sample was designed to capture variation in public representations of SMEs rather than to represent every media organization or all SME-related reporting in Kazakhstan and Uzbekistan.

3.3. Coding and Comparative Analysis

The articles were initially organized into four broad content categories: Business Challenges, Reforms, Statistics, and Government Support and Policies. Business Challenges included reporting about conditions affecting SMEs and private enterprise. Reforms included legislative, regulatory, and administrative changes. Statistics covered information about the number of SMEs, employment, economic output, sectoral distribution, and other indicators. Government Support and Policies included financial programs, tax measures, training initiatives, export assistance, and other state interventions. Each article was assigned only one code corresponding to its dominant thematic category. The dominant category was determined by the article's headline, principal subject, and the issue receiving the greatest substantive attention. Secondary subjects mentioned in the article were not coded separately. This procedure ensured that categories were mutually exclusive and that each article was counted only once.

Following the primary classification, a second interpretive stage examined how SMEs were represented within the four content categories (Table 1). Six dimensions were considered: the role attributed to SMEs, actor visibility, the state-SME relationship, policy objectives, problem and responsibility, and temporal context. The initial coding recorded relevant interpretive elements within each dimension, allowing multiple elements to be noted where present. A single dominant code was then assigned within each dimension for quantitative comparison. Each article received one dominant code for every interpretive dimension. When several elements appeared, the dominant code was determined by the article's overall emphasis, including the headline, central problem, most prominent actor, and principal policy response, as applicable to the dimension being coded. Detailed notes were retained to preserve contextual information. Articles concerning Kazakhstan and Uzbekistan were initially coded separately and subsequently compared to identify similarities and differences in SME roles, visible actors, policy priorities, and portrayals of state–business relationships. The purpose was not to assess the accuracy of national media coverage but to examine how SMEs were publicly represented during a period of crisis, recovery, and economic adjustment.

All articles were coded by a single researcher using the coding framework presented in Table 1. Accordingly, intercoder reliability statistics were not calculated. Coding consistency was addressed

through a structured review procedure. The coding framework and category definitions were established before the final coding stage and applied systematically across both national corpora. Following the initial coding, the dataset was reviewed for consistency in the application of categories and dominant codes. Ambiguous cases were reassessed against the category definitions and the article's primary emphasis before final coding assignments were established.

Table 1. Interpretive Dimensions of SME Media Representation

Analytical Dimension	Description	Interpretive Indicators
Role attributed to SMEs	Principal economic or social role assigned to SMEs	Independent market actor; employment/growth contributor; innovation source; recipient of assistance; partner in national development; vulnerable business
Actor visibility	Actors who receive prominence in the article	Government official or agency; entrepreneur or business; business association; expert; international organization; statistical agency
State-SME relationship	Principal relationship constructed between SMEs and the state	Regulation and enforcement; government assistance; state-led development; public-private partnership; financial/infrastructural dependence; market autonomy
Policy objective	Main development objective associated with SMEs	SME growth; employment; domestic production and diversification; regulatory reform; digitalization and innovation; exports and trade; access to finance; economic recovery; regional or rural development
Problem and responsibility	Actor or condition primarily presented as responsible for the issue or its resolution	Government; business; market conditions; external crisis; shared public-private responsibility; no responsibility assigned
Temporal context	Main temporal frame connecting the article to the study period	COVID-19 disruption; recovery and reopening; geopolitical or external shock; domestic policy/economic disruption; longer-term adjustment; no temporal context

Source: Compiled by the author based on the study dataset.

4. Results

4.1 Characteristics of the Media Corpus

The final analytical corpus consisted of 187 newspaper articles addressing SMEs, entrepreneurship, business regulation, and related economic developments in Kazakhstan and Uzbekistan. Of these, 113 articles concerned Kazakhstan and 74 concerned Uzbekistan. Because the national samples differed in size, the comparison relies primarily on within-country percentages rather than raw frequencies.

Each article was assigned to one mutually exclusive primary category: Business Challenges, Reforms, Government Support and Policies, or Statistics. The subsequent interpretive analysis produced one dominant code for each of the six dimensions defined in Table 1.

4.2 Primary Categories of SME Coverage

The Kazakhstan corpus was relatively evenly distributed across the three largest categories. Reforms constituted the largest category, representing 29.2% of the articles, while Business Challenges and Government Support and Policies each accounted for 26.5%. Articles in the Statistics category constituted the remaining 17.7%. No single category dominated the Kazakhstan coverage. Instead, the articles divided their attention among institutional changes, problems affecting business activity, and government measures intended to support enterprise.

Table 2. Primary Categories of SME Coverage in Kazakhstan and Uzbekistan

Primary category	Kazakhstan, n	Kazakhstan, %	Uzbekistan, n	Uzbekistan, %
Business Challenges	30	26.5	13	17.6
Reforms	33	29.2	18	24.3
Government Support and Policies	30	26.5	32	43.2
Statistics	20	17.7	11	14.9
Total	113	100.0	74	100.0

Source: Compiled by the author based on the study dataset.

Note. Percentages are calculated within each national corpus. Differences in the number of articles mean that percentages provide a more appropriate basis for comparison than raw counts.

A different distribution appeared in Uzbekistan. Government Support and Policies was the largest category, accounting for 43.2% of the Uzbek articles. This proportion was 16.7 percentage points higher than the corresponding proportion in Kazakhstan. Reforms represented 24.3% of the Uzbekistan corpus, while Business Challenges accounted for 17.6% and Statistics for 14.9%.

The most notable difference concerns the prominence of government support and policy initiatives. Uzbek coverage more frequently focused on concessional loans, subsidies, tax benefits, access to land and infrastructure, sector-specific incentives, and government initiatives supporting entrepreneurship. Kazakhstan's coverage gave comparatively greater attention to business challenges. These included administrative pressure, taxation, access to finance, transportation and logistics, imported inputs, enforcement practices, and the effects of economic disruption. Nevertheless, government support remained an important category in both countries. These results do not mean that Kazakhstan's newspapers ignored government support or that Uzbek newspapers overlooked business problems. Rather, they indicate differences in the relative visibility assigned to these subjects within the selected articles.

4.3 Dominant Roles Attributed to SMEs

The primary categories identify each article's central subject but do not fully explain how SMEs were represented. Table 3 therefore compares the dominant economic or social role attributed to SMEs in each national corpus.

Table 3. Dominant Roles Attributed to SMEs

Dominant SME role	Kazakhstan, n	Kazakhstan, %	Uzbekistan, n	Uzbekistan, %
Independent market actor	24	21.2	16	21.6
Recipient of assistance	26	23.0	24	32.4
Employment/growth contributor	17	15.0	12	16.2
Innovation source	1	0.9	2	2.7
Partner in national development	10	8.8	7	9.5
Vulnerable business	35	31.0	13	17.6
Total	113	100.0	74	100.0

Source: Compiled by the author based on the study dataset.

Note. Each article received one dominant SME-role code. The detailed coding notes may contain additional secondary roles that are not counted in this table.

In Kazakhstan, the most frequent representation portrayed SMEs as vulnerable businesses. This frame appeared in 35 articles, accounting for 31.0% of the Kazakhstan corpus. These articles emphasized difficulties such as limited access to finance, administrative pressure, unpredictable regulation, transportation constraints, shortages of production inputs, high operating costs, and exposure to economic disruption. SMEs were consequently presented as private enterprises whose survival and development could be constrained by institutional, financial, or structural conditions. The second most common role in Kazakhstan was recipient of assistance, which appeared in 23.0% of the articles. The independent market actor category represented 21.2%, while employment/growth contributor accounted for 15.0%. The partner in national development role accounted for 8.8% of the Kazakhstan corpus. Only one Kazakhstan article assigned primary emphasis to SMEs as a source of innovation.

The Uzbekistan corpus produced a different ordering. Recipients of assistance was the most frequent dominant role, accounting for 32.4% of the articles. This representation was consistent with the prominence of Government Support and Policies shown in Table 2. Uzbek articles frequently described enterprises as recipients of concessional finance, tax relief, subsidies, equipment compensation, access to land, infrastructure, government procurement, and sector-specific development measures. Vulnerable businesses accounted for 17.6% of the Uzbekistan corpus, compared with 31.0% in Kazakhstan. This 13.4-percentage-point difference indicates that vulnerability was substantially more prominent in Kazakhstan's selected coverage. By contrast, the representation of SMEs as independent market actors was nearly identical: 21.2% in Kazakhstan and

21.6% in Uzbekistan. The proportions portraying SMEs as employment/growth contributors were also similar (15.0% in Kazakhstan and 16.2% in Uzbekistan), as were those portraying SMEs as partners in national development (8.8% and 9.5%, respectively). Innovation was uncommon as the dominant representation in both countries. It accounted for 0.9% of Kazakhstan's articles and 2.7% of Uzbekistan's. Digitalization, technological modernization, and innovative production appeared as secondary themes in a number of articles, but they rarely displaced regulation, assistance, vulnerability, or economic contribution as the central representation of SMEs.

4.4 Additional Dimensions of Media Representation

Table 4 presents the complete distribution of dominant codes across the five additional interpretive dimensions: actor visibility, state-SME relationship, policy objective, problem and responsibility, and temporal context.

Table 4. Distribution of Additional Interpretive Dimensions of SME Media Representation

Interpretive dimension / dominant code	Kazakhstan, %	Uzbekistan, %
Actor visibility		
Government official or agency	58.4	70.3
Entrepreneur or business	10.6	18.9
Business association	15.9	0.0
Expert	4.4	2.7
International organization	0.9	1.4
Statistical agency	9.7	6.8
Total	100.0	100.0
State-SME relationship		
Regulation and enforcement	41.6	33.8
Government assistance	28.3	29.7
State-led development	3.5	1.4
Public-private partnership	16.8	16.2
Financial/infrastructural dependence	5.3	6.8
Market autonomy	4.4	12.2
Total	100.0	100.0
Policy objective		
SME growth	7.1	9.5
Employment	14.2	1.4
Domestic production and diversification	12.4	12.2
Regulatory reform	30.1	33.8
Digitalization and innovation	2.7	4.1
Exports and trade	8.0	17.6
Access to finance	6.2	14.9
Economic recovery	15.0	0.0
Regional or rural development	4.4	6.8
Total	100.0	100.0
Problem and responsibility		
Government	54.0	73.0
Business	5.3	1.4
Market conditions	7.1	0.0
External crisis	11.5	1.4
Shared public-private responsibility	15.9	9.5
No responsibility assigned	6.2	14.9
Total	100.0	100.0
Temporal context		
COVID-19 disruption	23.0	0.0
Recovery and reopening	24.8	2.7
Geopolitical or external shock	4.4	4.1

Domestic policy/economic disruption	2.7	5.4
Longer-term adjustment	38.1	83.8
No temporal context	7.1	4.1
Total	100.0	100.0

Source: Compiled by the author based on the study dataset.

Note. Totals are based on the underlying frequencies; displayed percentages may not sum to exactly 100.0% due to rounding.

Government actors dominated the coverage in both countries, although this pattern was more pronounced in Uzbekistan. Government officials or agencies were the dominant visible actors in 58.4% of Kazakhstan articles and 70.3% of Uzbekistan articles. Entrepreneurs or businesses were the dominant actors in only 10.6% and 18.9%, respectively. Kazakhstan differed in the greater visibility of business associations, which constituted the dominant actor in 15.9% of articles but did not appear as the dominant actor in the Uzbekistan corpus. Statistical agencies accounted for 9.7% of Kazakhstan articles and 6.8% of Uzbekistan articles, while experts and international organizations were rarely the dominant voices. The distribution indicates that SME-related news in both countries was communicated primarily through institutional and governmental actors rather than through entrepreneurs themselves.

The state-SME relationship displayed greater variation. Regulation and enforcement constituted the most common frame in Kazakhstan (41.6%) and Uzbekistan (33.8%), followed by government assistance (28.3% and 29.7%, respectively). Public-private partnership was almost equally represented in the two countries, accounting for 16.8% in Kazakhstan and 16.2% in Uzbekistan. However, market autonomy was more visible in Uzbekistan (12.2%) than in Kazakhstan (4.4%). Financial or infrastructural dependence accounted for 5.3% and 6.8%, respectively, and explicit state-led development was uncommon in both countries (3.5% and 1.4%). These results indicate that relationships involving regulation, government assistance, and public-private partnership were more prominent than market autonomy in both national corpora.

Policy objectives reveal somewhat different national priorities. Regulatory reform was the most frequent dominant objective in both Kazakhstan (30.1%) and Uzbekistan (33.8%). In Kazakhstan, economic recovery accounted for 15.0%, employment for 14.2%, and domestic production and diversification for 12.4%. Uzbekistan placed considerably greater emphasis on exports and trade (17.6%) and access to finance (14.9%), while domestic production and diversification represented 12.2%. Digitalization and innovation remained relatively uncommon as dominant objectives in both corpora, accounting for only 2.7% in Kazakhstan and 4.1% in Uzbekistan.

The problem and responsibility dimension provides particularly strong evidence of the state-centered character of the coverage. Government was identified as the principal actor responsible for addressing or associated with the issue in 54.0% of Kazakhstan articles and 73.0% of Uzbekistan

articles. Shared public-private responsibility accounted for 15.9% and 9.5%, respectively. External crisis was the dominant problem and responsibility code in 11.5% of Kazakhstan articles, compared with 1.4% in Uzbekistan. Market conditions accounted for 7.1% in Kazakhstan and did not emerge as a dominant code in Uzbekistan. Direct attribution of responsibility to businesses themselves was uncommon in both countries.

Temporal framing produced the clearest difference between the two national corpora. Kazakhstan's coverage was distributed across several periods: 38.1% of articles were framed within longer-term economic adjustment, 24.8% around recovery and reopening, and 23.0% around COVID-19 disruption. The remaining articles were associated with geopolitical or external shocks, domestic policy or economic disruption, or lacked a clear temporal frame. Uzbekistan's coverage was much more concentrated, with 83.8% of articles situated within longer-term adjustment. COVID-19 disruption did not emerge as a dominant temporal frame in the Uzbek corpus, while recovery and reopening accounted for only 2.7%. This contrast indicates that Kazakhstan's SME coverage was more frequently associated with different contexts of disruption, recovery, and adjustment, whereas Uzbek coverage was more consistently related to a narrative of reform and economic modernization.

5. Discussion

The findings demonstrate a shared state-centered representation of SME development in Kazakhstan and Uzbekistan. The analysis reveals meaningful differences in how the two national media corpora constructed the position of private enterprise. Government institutions were the most visible actors in both countries. Government was most frequently presented as the principal actor responsible for addressing or associated with SME-related issues. Nevertheless, Kazakhstan's coverage more frequently portrayed SMEs as vulnerable businesses operating amid regulatory, financial, logistical, and external pressures. Uzbek coverage more often presented them as recipients of government assistance within a broader narrative of reform and economic modernization. The comparison therefore suggests two variations of a broader state-centered narrative. One emphasizes the protection and adaptation of businesses facing constraints and disruption, and another emphasizes their development through government support and reform initiatives.

The results are consistent with scholarship showing that private enterprise in post-Soviet economies remains embedded in institutional arrangements in which government plays an important economic role. The emergence of private ownership did not necessarily produce a clear separation between state institutions and market actors. Governments continue to influence access to finance, land, infrastructure, procurement, taxation, and other resources important to business development. The media representations identified in this study reflect this institutional configuration, but they also

show how it is reproduced through public narratives. News reports frequently positioned government officials and agencies as the actors authorized to identify business problems, announce reforms, and articulate development priorities. Entrepreneurs themselves were considerably less visible as the principal voices interpreting SME development. Therefore, SMEs were represented as economically important actors, but their significance was related to policy objectives such as employment, formalization, domestic production, exports, access to finance, and economic growth.

The national differences show that this state-centered representation was not uniform. Kazakhstan's relatively balanced distribution among business challenges, reforms, and government support produced a more problem-oriented representation of entrepreneurship. Vulnerable businesses constituted the largest SME-role category, and coverage frequently connected business activity to COVID-19 disruption, recovery and reopening, geopolitical or external shocks, and other periods of economic adjustment. Uzbek coverage was more strongly concentrated around government support and longer-term adjustment. SMEs were frequently portrayed as recipients of concessional credit, subsidies, tax benefits, land, infrastructure, and other forms of assistance. Entrepreneurship was connected to exports, access to finance, domestic production, diversification, and regional development. These differences should not be interpreted as evidence that Uzbek SMEs experienced fewer constraints. Rather, they show that the selected media corpora assigned different levels of visibility to business vulnerability, government assistance, and longer-term economic adjustment.

These differences illustrate why national and temporal context matters in the construction of economic meaning. In this case, Welter's (2011) contextual approach to entrepreneurship emphasizes that entrepreneurial activity cannot be understood independently of the institutional, social, spatial, and temporal environments in which it occurs. The findings extend this perspective to media representation. SMEs were not portrayed through a universal set of economic functions, but through roles and relationships created by the circumstances emphasized within each national corpus. Research on crisis communication similarly demonstrates that media attention and interpretation change across periods of disruption, recovery, and adjustment (Ngai et al., 2022; Wirz et al., 2022).

The findings suggest that media representations of entrepreneurship provide an additional perspective on state-business relations in post-Soviet economies. Existing research examines these relationships through formal institutions, regulatory frameworks, or enterprise-level experiences. Media framing reveals another dimension: how the roles of private enterprise and the state are publicly constructed and legitimized. The prominence of government actors across both corpora suggests that the public meaning of entrepreneurship remains closely connected to state institutions even where SMEs are formally private market actors. At the same time, the contrast between

Kazakhstan and Uzbekistan demonstrates that state-centered representation is not uniform. It varies according to national policy priorities and periods of economic disruption and adjustment.

These patterns should not be interpreted as direct measurements of government policy effectiveness or SME performance. Framing analysis examines how issues are selected, organized, and presented in public communication (Entman, 1993). Greater media attention to government support does not demonstrate that assistance reached SMEs effectively. Similarly, frequent coverage of business vulnerability does not establish that all SMEs experienced the same constraints. Instead, the findings identify which actors, relationships, responsibilities, and explanations were made most visible within the selected media corpus.

6. Conclusion

This study examined how newspapers represented SMEs in Kazakhstan and Uzbekistan during 2020-2023, a period marked by the COVID-19 pandemic, economic recovery, domestic disruption, and changing regional trade conditions. The comparison demonstrates that SME development was presented as closely connected to state institutions in both countries. Government officials and agencies received greater visibility than entrepreneurs, while regulation and government assistance were considerably more prominent than market autonomy.

Important national differences nevertheless emerged. Kazakhstan's coverage distributed attention relatively evenly among reforms, government support, and business challenges. It also portrayed SMEs more frequently as vulnerable businesses affected by regulatory uncertainty, financial limitations, logistical constraints, and external disruptions. Uzbek coverage placed greater emphasis on government support programs and represented SMEs more often as recipients of assistance within a longer-term narrative of economic reform and modernization. Thus, the two corpora reflected different versions of a state-centered understanding of entrepreneurship. Business vulnerability, disruption, and recovery were more visible in Kazakhstan, whereas government assistance and longer-term economic adjustment were more prominent in Uzbekistan. These findings have practical implications for public communication about entrepreneurship. They suggest the value of providing greater space for SME owners, business managers, and independent experts to explain how policies operate in practice. Broader reporting could complement announcements of reforms and support programs with greater attention to their implementation, accessibility, and consequences for different types of enterprise. Greater attention to innovation, market autonomy, and firm-level experience could contribute to a more comprehensive public understanding of the SME sector.

Future research could compare official and independent outlets, examine changes in framing over time, and combine media analysis with interviews or surveys of entrepreneurs. Such research

would clarify whether public representations of SME development correspond with the experiences of businesses themselves.

Ethics Approval / Informed Consent Statement

Not applicable. This study analyzed publicly available newspaper articles and did not involve human participants or the collection of personal data.

Data Availability Statement

The coding data supporting the findings of this study are available from the corresponding author upon reasonable request.

Generative AI Use Disclosure

Generative AI was used for language editing and improving the clarity and organization of the manuscript. The author independently conducted the research, data collection, coding, analysis, and interpretation of the findings and takes full responsibility for the final content.

Reference List

- Absattar, A., Mambetova, M., & Zhubay, O. (2022). The potential of emotive language to influence the understanding of textual information in media coverage. *Humanities and Social Sciences Communications*, 9, Article 222. <https://doi.org/10.1057/s41599-022-01232-2>
- Ayyagari, M., Beck, T., & Demirgüç-Kunt, A. (2007). Small and medium enterprises across the globe. *Small Business Economics*, 29(4), 415–434. <https://doi.org/10.1007/s11187-006-9002-5>
- Bach, P., & Swartz, L. (2022). Making money public: The journalistic construction of the Paycheck Protection Program. *International Journal of Communication*, 16, 3780–3800. <https://ijoc.org/index.php/ijoc/article/view/18669>
- Barnes, A. (2006). *Owning Russia: The struggle over factories, farms, and power*. Cornell University Press.
- Bhalla, A. S., & Sutken, C. (2023). Supply chain finance in Central Asia and the Caucasus (ADB Briefs). Asian Development Bank. <https://doi.org/10.22617/BRF230230-2>
- Blanchard, O. (1997). *The economics of post-communist transition*. Clarendon Press.
- Brezinski, H., & Fritsch, M. (Eds.). (1996). *The economic impact of new firms in post-socialist economies*. Edward Elgar Publishing.
- Bruton, G. D., Ahlstrom, D., & Li, H.-L. (2010). Institutional theory and entrepreneurship: Where are we now and where do we need to move in the future? *Entrepreneurship Theory and Practice*, 34(3), 421–440. <https://doi.org/10.1111/j.1540-6520.2010.00390.x>
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51–58. <https://doi.org/10.1111/j.1460-2466.1993.tb01304.x>
- Havrylyshyn, O. (2020). *Present at the transition: An inside look at the role of history, politics, and personalities in post-communist countries*. Cambridge University Press. <https://doi.org/10.1017/9781108553834>

- Khalmurzaev, N. A. (2000). Small and medium-sized enterprises in the transition economy of Uzbekistan: Conditions and perspectives. *Central Asian Survey*, 19(2), 281–296. <https://doi.org/10.1080/02634930050079363>
- Mussa, N., Myssayeva, K., & Brown, M. (2025). Framing conflict in Kazakhstan: A comparative analysis of Kazakh, Russian, and U.K. news outlets. *Media Asia*, 52(2), 192–210. <https://doi.org/10.1080/01296612.2024.2361539>
- Myant, M., & Drahekoupil, J. (2011). *Transition economies: Political economy in Russia, Eastern Europe, and Central Asia*. Wiley.
- Ngai, C. S. B., Yao, L., & Singh, R. G. (2022). A comparative analysis of the U.S. and China's mainstream news media framing of coping strategies and emotions in the reporting of COVID-19 outbreak on social media. *Discourse & Communication*, 16(5), 572–597. <https://doi.org/10.1177/17504813221099191>
- North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511808678>
- OECD. (2023a). *Insights on the business climate in Kazakhstan*. OECD Publishing. <https://doi.org/10.1787/bd780306-en>
- OECD. (2023b). *Insights on the business climate in Uzbekistan*. OECD Publishing. <https://doi.org/10.1787/317ce52e-en>
- OECD. (2024). *Financing SMEs and entrepreneurs 2024: An OECD scoreboard*. OECD Publishing. <https://doi.org/10.1787/fa521246-en>
- Özcan, G. B. (2010). *Building states and markets: Enterprise development in Central Asia*. Palgrave Macmillan. <https://doi.org/10.1007/978-0-230-29695-4>
- Pyagay, A., Tatikova, A., & Medeni, T. (2025). Contradictions and patterns of eco-innovative strategies of SMEs in Central Asian countries: Ambivalent dynamics of Kazakhstan. *Journal of Innovation and Entrepreneurship*, 14, Article 22. <https://doi.org/10.1186/s13731-024-00455-8>
- Snihur, Y., Thomas, L. D. W., Garud, R., & Phillips, N. (2022). Entrepreneurial framing: A literature review and future research directions. *Entrepreneurship Theory and Practice*, 46(3), 578–606. <https://doi.org/10.1177/10422587211000336>
- Svejnar, J. (2002). Transition economies: Performance and challenges. *Journal of Economic Perspectives*, 16(1), 3–28. <https://doi.org/10.1257/0895330027058>
- Syzdykova, A., & Azretbergenova, G. (2025). Analysis of the impact of SMEs' production output on Kazakhstan's economic growth using the ARDL method. *Economies*, 13(2), Article 38. <https://doi.org/10.3390/economies13020038>
- Welter, F. (2011). Contextualizing entrepreneurship – Conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*, 35(1), 165–184. <https://doi.org/10.1111/j.1540-6520.2010.00427.x>
- Wirz, C. D., Shao, A., Bao, L., Howell, E. L., Monroe, H., & Chen, K. (2022). Media systems and attention cycles: Volume and topics of news coverage on COVID-19 in the United States and China. *Journalism & Mass Communication Quarterly*, 99(4), 1048–1071. <https://doi.org/10.1177/10776990211049455>

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ҚАЗАҚСТАН МЕН ӨЗБЕКСТАНДАҒЫ ШОК-ТЫҢ МЕДИАДАҒЫ БЕЙНЕСІ: САЛЫСТЫРМАЛЫ ТАЛДАУ

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Түйін:

Бұл мақалада 2020–2023 жылдар аралығында Қазақстан мен Өзбекстандағы онлайн-газеттердің шағын және орта кәсіпорындарды (ШОК) қалай сипаттағаны қарастырылады. Зерттеуде ШОК-қа берілген экономикалық және әлеуметтік рөлдер, әртүрлі акторлардың медиадағы көріну деңгейі, сондай-ақ жеке кәсіпорындар мен мемлекет арасындағы қатынастар талданады. Зерттеу Қазақстанға қатысты 113 және Өзбекстанға қатысты 74 мақаладан тұратын барлығы 187 газет мақаласына салыстырмалы сапалық контент-талдау және фреймдік талдау жүргізуге негізделген. Әр мақалаға бір негізгі мазмұндық санат және ШОК рөлдерін, акторлардың көрінуін, мемлекет пен ШОК арасындағы қатынастарды, мемлекеттік саясат мақсаттарын, жауапкершіліктің жүктелуін және уақыттық контексті қамтитын басым кодтар берілді.

Зерттеу нәтижелері екі елде де ШОК дамуының мемлекетке бағдарланған сипатта ұсынылғанын көрсетеді. Мемлекеттік лауазымды тұлғалар мен мемлекеттік органдар кәсіпкерлерге қарағанда медиада көбірек көрініс тапты, ал реттеу мен мемлекеттік қолдау нарықтық дербестікке қарағанда басымырақ болды. Қазақстандық материалдарда ШОК реттеушілік, қаржылық, логистикалық және сыртқы қысымдардың әсеріне ұшырайтын осал кәсіпорындар ретінде жиірек сипатталды. Өзбекстандық материалдарда мемлекеттік қолдау бағдарламаларына көбірек назар аударылып, ШОК экономикалық реформалар аясында көмек алушы ретінде жиірек ұсынылды. Зерттеу екі елдің газет материалдарында ШОК экономикалық тұрғыдан маңызды акторлар ретінде көрсетілгенімен, олардың қызметі мемлекетпен тығыз байланысты болып қалғанын қорытындылайды. Бұл талдау медиа дискурстың әртүрлі ұлттық және уақыттық контекстерде қалай қалыптасатынын көрсету арқылы Орталық Азиядағы ШОК-тың қоғамдық рөлін зерттеуге үлес қосады.

Түйін сөздер: Шағын және орта кәсіпорындар; медиалық фрейминг; Қазақстан; Өзбекстан; мемлекет пен бизнес арасындағы қатынастар; экономикалық даму; қоғамдық дискурс.

Автор туралы мәлімет

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МЕДИЙНЫЕ РЕПРЕЗЕНТАЦИИ МСП В КАЗАХСТАНЕ И УЗБЕКИСТАНЕ: СРАВНИТЕЛЬНЫЙ АНАЛИЗ

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Аннотация:

В данной статье рассматривается, как онлайн-газеты освещали деятельность малых и средних предприятий (МСП) в Казахстане и Узбекистане в период с 2020 по 2023 год. Исследование анализирует экономические и социальные роли, приписываемые МСП, представленность различных акторов в медиаматериалах, а также характер взаимоотношений между частными предприятиями и государством. В исследовании применяется сравнительный качественный контент-анализ и фрейм-анализ 187 газетных статей, из которых 113 посвящены Казахстану и 74 — Узбекистану. Каждой статье была присвоена одна основная тематическая категория, а также доминирующие коды, отражающие роли МСП, представленность акторов, отношения между государством и МСП, цели государственной политики, атрибуцию ответственности и временной контекст.

Результаты исследования выявляют государственно-центричное представление развития МСП в обеих странах. Государственные должностные лица и органы власти были представлены в медиаматериалах чаще, чем предприниматели, а регулирование и государственная поддержка занимали более заметное место, чем рыночная автономия. В казахстанских материалах МСП чаще изображались как уязвимые предприятия, испытывающие регуляторное, финансовое, логистическое и внешнее давление. В узбекских материалах больше внимания уделялось государственным программам поддержки, а МСП чаще представлялись как получатели помощи в контексте экономических реформ. Исследование показывает, что газетные материалы в обеих странах представляли МСП как экономически значимых акторов, деятельность которых при этом оставалась тесно связанной с государством. Анализ вносит вклад в изучение общественной роли МСП в Центральной Азии, демонстрируя, как медийный дискурс конструируется в различных национальных и временных контекстах.

Ключевые слова: малые и средние предприятия; медиафрейминг; Казахстан; Узбекистан; государственно-деловые отношения; экономическое развитие; публичный дискурс.

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