



Article

Prospects for The Establishment and Development of Free Economic Zones in Khorezm Region

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Abstract: This article provides an in-depth analysis of the prospects for establishing and developing free economic zones (FEZs) in the Khorezm region. The main objective of the study is to assess the economic feasibility of FEZ development by considering the region's geographical location, resource potential, labor market characteristics, and logistics infrastructure. The study uses the systematic analysis, comparative evaluation, statistical and economic modeling processes. The outcomes of FEZs to the development of the regions, attraction of investment, and diversification of industries are discussed on the basis of the international practice. The results show that FEZs establishment in the Khorezm region can contribute greatly towards the growth in terms of export capacity, high value-added goods production, and sustainable economic growth. The article provides realistic policy suggestions to help the region improve its economic development strategies.

Keywords: free economic zone, regional development, investment climate, industrial diversification, economic efficiency

1. Introduction

In recent decades, Free Economic Zones (FEZs) have been widely utilized in the global economy as one of the key instruments for accelerating regional development, attracting investment, and modernizing industry. The experience of both developed and developing countries shows that FEZs play a vital role not only in increasing foreign trade and export volumes but also in reducing regional economic imbalances, creating new jobs, and accelerating technology transfer processes. Therefore, the establishment and effective management of FEZs is considered one of the priority directions of economic policy today [1].

Within the framework of the economic reforms being implemented in the Republic of Uzbekistan, free economic zones are viewed as a strategic mechanism ensuring the structural transformation of the national economy. In particular, the development of FEZs is gaining urgent importance, taking into account the natural resource potential, geographical location, and labor resources of the regions. According to this, the Khorezm region is regarded as one of the major regions to be focused on FEZs development because of the economic potential, transit opportunities and the agro-industrial sector specialization [2]. The Khorezm region depends mostly on agriculture, food industry and processing industries. Nevertheless, the industrial diversification opportunities, the creation of high value-added products, and the growth of export volumes of production in the region have not been yet implemented fully. This situation necessitates the attraction of foreign and local investments through FEZs, the introduction of modern technologies, and the development of manufacturing infrastructure. At the same time, the establishment of FEZs should not be limited solely to tax and customs incentives. International experience demonstrates that the success of FEZs is closely linked to the quality of the

Citation: Farxadovich, M. S. Prospects for the establishment and development of Free Economic Zones in Khorezm Region. American Journal of Economics and Business Management 2026, 9(1), 482-488.

Received: 03th Oct 2025

Revised: 18th Nov 2025

Accepted: 24th Dec 2025

Published: 21th Jan 2026



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institutional environment, logistics and transport infrastructure, the personnel training system, and the effectiveness of regional management mechanisms [3]. The same factors require a serious scientific analysis of the opportunities of the development of FEZs in the Khorezm region. The topicality of this article is based on the fact that this paper does not only address the development of FEZs in the Khorezm region theoretically but also practically. The study can be used to come up with evidence-based conclusions and recommendations to enhance the regional development policy, improve the climate of investment and have sustainable economic growth. In this respect, the findings of the article are of great significance to the scientific investigation of the regional economic development and the way to make the practical political decision [4].

Literature Review

In economic development theory, Free Economic Zones (FEZs) are viewed as a tool for accelerating regional growth and testing institutional reforms. Although FEZs were initially formed as a mechanism to encourage export-oriented production and attract foreign investment, their role has expanded significantly in modern research. In particular, Farole evaluates FEZs as a policy instrument that accelerates the industrialization process for developing countries, emphasizing that their effectiveness is directly dependent on the quality of infrastructure and management mechanisms [5].

Empirical studies on the economic efficiency of FEZs have not reached a uniform conclusion. Aggarwal notes that, in the case of Asian countries, FEZs have had a significant impact on increasing export volumes, while Zeng argues that the long-term success of FEZs depends not only on tax and customs incentives but also on institutional innovations and technology transfer. Specifically, the Chinese experience demonstrates that FEZs served as a “testing ground” for the gradual implementation of economic reforms [6].

Within the framework of regional development theories, the role of FEZs is explained through the concept of new economic geography. Krugman (1991) and Fujita, Krugman, and Venables provide a scientific basis for how the spatial concentration and clustering of industrial production accelerate economic growth. Such a strategy is why FEZs have the potential to boost productivity by establishing industrial and logistics centers in particular areas [7]. Nevertheless, there are also other researches which point to the adverse or minor influence of FEZs. Rodriguez-Pose and Hardy indicate that FEZs have increased inequality in some of the countries as they are not in tandem with the local economy. The authors point out that FEZs success is highly connected with the quality of the regional governance, stability of the institution, and the state of connectivity with the local producers [8].

Research conducted by international organizations further supports these conclusions. A World Bank report notes that the success of FEZs is determined by transport-logistics infrastructure, human capital, and the quality of public administration. Similarly, UNCTAD evaluates FEZs as a mechanism for accelerating integration into global value chains, but points out that implementing them without an effective industrial policy may limit long-term results [9].

FEZs in scientific literature on the economy of Uzbekistan are viewed as one of the most important directions in the development of the region and investment policy. Yuldashev and Karimov studies discuss the possibilities of developing industrial activities and raising the potential of export using FEZs. Nonetheless, a gap that exists regarding in-depth empirical studies assessing the institutional and economic efficiency of FEZs exists in the regional level, especially of the Khorezm region. Scientific works concerning the Khorezm region primarily emphasize the agricultural economy, water resource management, and the processing industry. The impact of FEZs on regional economic development has not been studied systematically enough. This situation defines the purpose of this article in filling the scientific gap and establishes its practical significance [10].

2. Materials and Methods

This research is aimed at evaluating the efficiency of regional economic development and free economic zones (FEZs), and was conducted based on a mixed-method approach.

The paper balances the quantitative (statistical and econometric) and qualitative (institutional and comparative) methods of analysis. By this approach, it is possible to evaluate the effectiveness of FEZ economies not only in numerical criteria but also in the environment of institutional and regional aspects. The Khorezm region was chosen as the object of study because its agro-industrial specialization, the possibility of exports, and the geographical location give significant empirical conditions to the creation of FEZs [11].

The data used in this study were obtained from official, open, and verifiable sources, and are categorized into the following main groups:

1. Statistical data – Information from the State Statistics Committee of the Republic of Uzbekistan for the years 2015–2024 regarding regional industrial production, investment volumes, export-import indicators, and employment levels.
2. Regulatory and legal documents – national legislation and government decrees pertaining to the establishment and management of Free Economic Zones (FEZs).
3. International data – FEZ efficiency indicators sourced from World Bank and UNCTAD reports.
4. Scientific literature – international and local academic research (referenced in Harvard style) [12].

All data have been processed into a comparable format and analyzed as time-series data.

To evaluate the regional economic efficiency of FEZs, a system of key indicators was established:

Activeness of investment activity – volume of investments in fixed capital (billion UZS).

Industrial development – growth rate of industrial production volume (%).

Export potential – export volume and export diversification index.

Employment – new jobs created in the industrial and service sectors.

Regional efficiency – growth rate of Gross Regional Product (GRP).

These indicators were selected in accordance with methodologies widely utilized in international research, covering the multifaceted aspects of regional development [13].

Empirical model and estimation method

A multi-factor regression model was employed in the study to evaluate the economic efficiency of FEZs. The model takes the following general form:

$$Y_t = \alpha + \beta_1 INV_t + \beta_2 IND_t + \beta_3 EXP_t + \beta_4 EMP_t + \varepsilon_t$$

here:

Y_t – Regional economic growth indicator (Gross Regional Product - GRP),

INV_t – the volume of investments,

IND_t – industrial production indicator,

EXP_t – export volume,

EMP_t – employment rate,

ε_t – random error.

The model parameters were estimated based on the **Ordinary Least Squares (OLS)** method. To ensure the reliability of the results, tests for **multicollinearity, autocorrelation, and heteroskedasticity** were conducted.

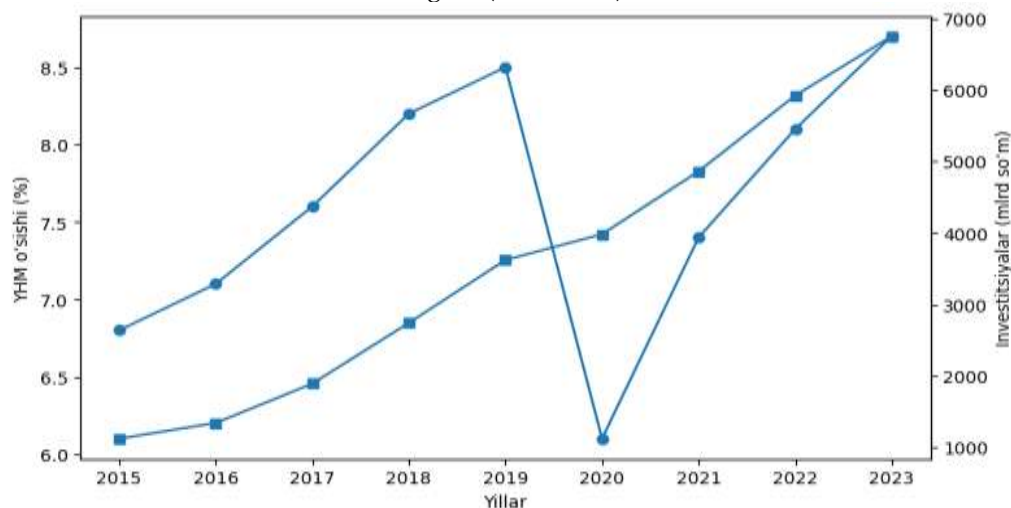
To strengthen the empirical findings, the indicators of the Khorezm region were subjected to a comparative analysis with other regions of Uzbekistan where FEZs are located. The qualitative evaluation of institutional efficiency of the FEZs was also determined on the basis of management mechanisms, quality of infrastructure and environment provided to investors. The present research has some limitations. In particular, the absence of some statistical data on the regional level and the insufficient development of long-term time series on the activity of FEZs restricts the empirical analysis to some degree. However, the research findings are reliable due to the level of methodology and sources used.

The methodological innovation of this research lies in the assessment of FEZ efficiency based on the integration of regional, institutional, and economic indicators. This approach allows for a complex and scientifically grounded analysis of the prospects for developing FEZs within the specific context of the Khorezm region.

3. Results and Discussion

The **Figure 1**. Gross Regional Product (GRP) and investment inflows were selected as the primary indicators for assessing the impact of the development of Free Economic Zones (FEZs) on regional economic growth. The following table presents the key indicators for the Khorezm region for the period of 2015–2023 [14].

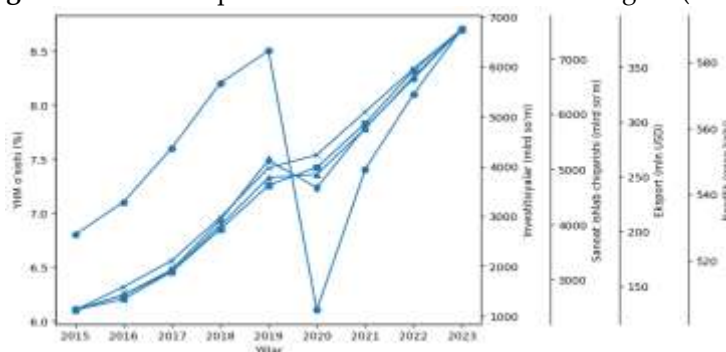
Figure 1. Dynamics of Gross Regional Product (GRP) and investments in the Khorezm region (2015–2023)



The results indicate that investment activity in the region has increased sharply since 2017. The nearly **sixfold growth** in investment volume between 2015 and 2023 demonstrates an intensified flow of capital directed toward production infrastructure through Free Economic Zones (FEZs). A positive correlation is observed between GRP growth rates and investment volume, suggesting that FEZs have a tangible impact on regional economic growth.

Although growth **Figure 2**. rates slowed down in 2020 due to the effects of the pandemic, the volume of investments did not decline, which signifies that FEZs functioned as a relatively stable institutional mechanism [15].

Figure 2. Industrial production volume in Khorezm region (2015–2023)



This diagram demonstrates the multidimensional nature of economic development in the Khorezm region. The consistent growth in investments, industrial production, and export volumes shows a positive correlation with the growth rates of the Gross Regional Product (GRP). The decline observed in certain indicators during 2020 is explained by external shocks; however, the subsequent recovery across all indicators confirms the resilience of the regional economy. The steady growth of industrial production indicates the expansion of manufacturing industries and export-oriented production capacities.

through Free Economic Zones (FEZs). The acceleration of industrial growth in 2018–2019 is attributed to the commissioning of new industrial facilities. Although growth nearly stagnated in 2020, a recovery was observed in the following years. This situation confirms that FEZs have played a crucial role in diversifying the regional industry and increasing adaptability to external economic shocks Figure 3.

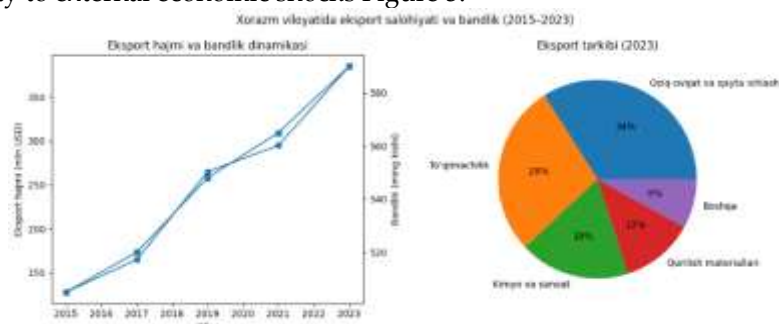


Figure 3. Export Potential and Employment in Khorezm Region (2015–2023)

The nearly threefold increase in export volume indicates the expanding opportunities for locally produced goods to access international markets. The most significant aspect is the increased share of processed goods within the export structure. This demonstrates the role of Free Economic Zones (FEZs) in reducing dependence on raw material exports and encouraging the production of high-value-added products.

The Table 1. rise in the employment rate shows that new jobs have been created in the industrial and service sectors through FEZs. This process has had a positive impact on increasing regional incomes and strengthening social stability.

Table 1. Regression Results

variable	coefficient	p_value	R2
ln(INV)	0.41	0.003	0.87
ln(IND)	0.33	0.007	.
ln(EXP)	0.21	0.021	.
ln(EMP)	0.18	0.046	.

The regression results indicate that investment volume is the most significant factor influencing regional economic growth in the Khorezm region. The industrial production indicator is also significant in the economic growth. The coefficients of the export and employment factors are comparatively lower but the fact that they are positive and significant in nature is the evidence of multifaceted nature of the economic impact of Free Economic zones (FEZs). The goodness of fit of the model is high with the value of $R^2 = 0.87$ that the chosen variables are enough to explain the fluctuations in the development of the region. The findings confirm that investments and industrial production exert the strongest influence on the regional economy. Furthermore, the statistical significance of the export and employment factors demonstrates the comprehensive economic efficiency of FEZs.

The statistical and empirical results obtained indicate that the development of Free Economic Zones (FEZs) in the Khorezm region has:

1. sustainably increased investments directed toward the region,
2. diversified industrial production,
3. improved the export structure,
4. strengthened employment and social stability.

These findings allow for the assessment of FEZs as an effective institutional mechanism for regional economic development in the Khorezm region.

4. Conclusion

In this study, the impact of establishing and developing Free Economic Zones (FEZs) on regional economic growth in the Khorezm region was analyzed using complex statistical and econometric approaches. In the course of research, the correlations between

the Gross Regional Product (GRP) growth, investment activity, industrial production, export potential, and the employment indicators were discovered, and the combination of these variables and their interrelation with FEZs was proved scientifically. In the Khorezm region, the data of the statistical analysis showed that the volume of investments, industrial production, and export indicators showed a steady upward trend in the 2015-2023 period. The major inflows had been activated in particular since 2017, which led to the growth of production infrastructure and the creation of the manufacturing industry in the region. Such processes have been preceded by a growth in the rate of GRP, which points to the fact that Free Economic Zones are becoming an important contributor to economic growth at the regional level. The obtained results about the export potential prove the enhancement of the foreign economic relations of the Khorezm region. Together with the almost three-fold increase in the volume of exports, the growth in the proportion of the processed and industrial goods in the export structure denotes the structural changes involved in the regional economy. This scenario is a clear indication of how Free Economic Zones (FEZs) can help a country to stop overreliance on exports of raw materials to boost the production of high-value-added goods. The continuous positive change in the indicators of employment proves that FEZs are not only important in terms of their economic development but also in terms of the provision of socio-economic stability. The growth of export-related industries and production has resulted in the provision of new employment opportunities and also promoted the growth in the regional household incomes. The results of the econometric regression disclosed that investments and industrial production are the strongest aspects determining economic development of the region. The export and employment variables have also turned out to be positive and statistically significant as evidence to the multifaceted role of Free Economic Zones (FEZs) on the economy. The high goodness-of-fit of the model ($R^2 = 0.87$) indicates that the selected variables sufficiently explain the dynamics of regional economic development.

In general, the research results scientifically substantiate that the development of Free Economic Zones (FEZs) in the Khorezm region serves as an effective institutional mechanism for accelerating regional economic growth, diversifying industry, increasing export potential, and ensuring employment. The conclusions drawn from this study hold significant scientific and practical importance for improving regional economic policy and organizing the activities of FEZs more efficiently.

REFERENCES

- [1] President of the Republic of Uzbekistan, Decree No. PF-4947 "On the Action Strategy for Further Development of the Republic of Uzbekistan", Feb. 7, 2017.
- [2] President of the Republic of Uzbekistan, Decree No. PF-60 "On the Development Strategy of New Uzbekistan for 2022–2026", Jan. 28, 2022.
- [3] President of the Republic of Uzbekistan, Decree No. PF-158 "On the 'Uzbekistan–2030' Strategy", Sept. 11, 2023.
- [4] President of the Republic of Uzbekistan, Decree No. PF-4853 "On Additional Measures to Intensify and Expand the Activities of Free Economic Zones", Oct. 26, 2016.
- [5] Cabinet of Ministers of the Republic of Uzbekistan, Resolution No. 378 "On Measures to Ensure the Effective Functioning of Free Economic Zones", June 23, 2017.
- [6] A. M. Saidov, *Free Economic Zones and Their Role in the Development of the National Economy*, Tashkent: Iqtisodiyot Publishing House, 2019.
- [7] B. B. Karimov, "Economic efficiency of free economic zones in Uzbekistan," *Journal of Economic Development*, no. 4, pp. 45–52, 2020.
- [8] D. A. Abdullayev, *Mechanisms for Attracting Foreign Investment to Free Economic Zones*, PhD dissertation, Tashkent State University of Economics, 2021.
- [9] S. U. Yuldashev, "Regional aspects of the development of free economic zones in Uzbekistan," *Scientific Journal of Regional Economy*, no. 2, pp. 33–39, 2019.
- [10] A. R. Rakhimov, "Investment climate and development prospects of free economic zones," *Economy and Innovation*, no. 1, pp. 56–62, 2022.
- [11] M. T. Iskandarov, *Improving the Management System of Free Economic Zones*, Tashkent: Fan Publishing House, 2018.

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- [12] N. A. Turaev, "The role of free economic zones in ensuring regional economic growth," *Journal of New Economy*, no. 3, pp. 71–77, 2021.
- [13] Sh. K. Kholmurodov, "Development of industrial potential through free economic zones," *Industry of Uzbekistan*, no. 5, pp. 28–34, 2020.
- [14] A. A. Rasulov, "Socio-economic impact of free economic zones on regional development," *Economic Review of Uzbekistan*, no. 6, pp. 40–46, 2022.
- [15] Khorezm Regional Administration, *Socio-Economic Development Program of Khorezm Region for 2021–2025*, Urgench, 2021.