



Article

Structural Transformations in The Regional Economy: Features and Dynamics

Madrakhimov Kakhramon Egamberganovich^{*1}

1. Uzbekistan, Associate professor of "Economics" department of Mamun University

* Correspondence: madrakhimov_qahramon1@mamunedu.uz

Abstract: Structural transformation is a fundamental driver of long-term economic development, influencing productivity, employment, and regional balance. In Uzbekistan, and particularly in the Khorezm region, economic development has been hampered by structural imbalances, high production costs, and inefficient use of local resources. Despite state reforms, persistent issues in energy dependency, low investment activity, and technological stagnation continue to inhibit regional growth. Previous studies have inadequately addressed the localized dynamics of structural changes in the regional context, especially in relation to the quality of economic growth and the sustainability of transformation strategies. This study aims to analyze the features and dynamics of structural changes in the regional economy, identify structural weaknesses, and propose strategies aligned with national development goals. The analysis reveals that while the gross regional product per capita showed a stable upward trend, the quality index of economic growth fluctuated sharply from 2010 to 2023, notably declining during the COVID-19 pandemic. The results underscore a misalignment between quantitative growth and qualitative structural reform. The study introduces a region-specific mechanism for assessing structural changes using indicators of mass, speed, and intensity, while emphasizing the interplay between modernization, diversification, and regional competitiveness. Effective implementation of structural policy requires synchronized sectoral and regional strategies, increased investment in high-tech industries, improved monitoring systems, and institutional reforms to promote innovation, employment, and sustainable regional development.

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1. Introduction

The stability of economic development depends on the level of development and effectiveness of the economic structure. Changes in the structural ratios of the economy can affect the economic growth of the country and the standard of living of the population. The dynamics of the socio-economic development of the region is negatively influenced by the structural imperfection of the national economy, the main features of which are the high cost of production, the presence of raw materials, which are manifested in the volume of exports, monopolistic imports of energy carriers, a high level of external debt, territorial imbalances, irrational use of internal potential (resource, production, scientific and technical, etc.). For many years, the state was implemented without a single and effective strategy for structural changes in the economy[1].

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For many years, the state was implemented without a single and effective strategy for structural changes in the economy. Within the framework of the Decree of the President of the Republic of Uzbekistan No. UP-60 "On the Development Strategy of New Uzbekistan for 2022-2026," 100 goals have been developed that determine the development of our country. The 24th goal of this strategy sets the task of "Uninterrupted supply of the economy with electricity and active implementation of "Green Economy" technologies in all sectors, increasing the energy efficiency of the economy by 20%" [3].

In the structure of the regional economy, the modernization of industries that require a lot of energy and materials or produce products with a low level of processing for export, the overload of capacities, and the excessive use of natural and human resources depend on demand in the foreign market, is a pressing issue. The existing structure does not meet the region's needs for investment resources, consumer goods and services, does not contribute to the creation of new jobs, and does not contribute to the further economic growth of the region[4].

Literature Analysis

The founder of the theory of structural changes is J.A. Schumpeter, whose theory is used in implementing transformational changes, since it is based on the emergence of economic risk, uncertainty, and the basis of these changes is price fluctuations, the deformability of the economic structure, increased inflation, resource shortages, and the inadequacy of economic regulation mechanisms.

In his work, V. B. Kuvaldin studied the essence of the concept of "structural changes in the economy" and believed that structural changes determine the directions of economic development, the implementation of the distribution and redistribution of resources between sectors of the economy, the formation of various ratios of reproduction, the renewal of economic sectors, and the introduction of scientific and technological achievements[5].

Also, structural changes are unidirectional and accelerate economic development. In the work of O.S. Sukharev, the concept of structural changes was formed, and the author.

Economist K.V.Samanova studied the causes of structural changes in the economy in connection with the exchange of socio-economic development, internal contradictions, population income shifts, instability of the economy and politics, and the pace of development of the production and technological system [6].

O.Yu.Krasilnikov believes that the implementation of structural transformations can lead to imbalances at the level of the national economy and sectors.

2. Materials and Methods

The article analyzes the features of the processes of structural changes in the regional economy, the need to study the structural problems of the regional economy, proposals and recommendations for the implementation of current and strategic tasks of socio-economic development. The study used methods such as SWOT analysis, scientific abstraction, information grouping, analysis and synthesis, induction, and deduction to analyze the characteristics of the processes of structural changes in the regional economy

and methods for implementing current and strategic tasks of socio-economic development [7].

3. Results

The main distinguishing feature of structural changes is the presence of a clear starting point for the beginning of shifts - a change in the system of needs of economic entities and the possibility of determining whether the goal has been achieved. Therefore, it is very appropriate to put forward the hypothesis that structural changes in the economy are the result of various structural shifts of different nature and direction [8].

The fact that structural changes in the economy of the Khorezm region are not being implemented at the planned level contributes to the development of sectors in the sphere of regional development.

Artificial movement of capital resulting from the periodic redistribution of the spheres of economic influence of the Khorezm region;

A low level of investment activity, a significant differentiation in the distribution of investment resources by industry and regions, a decrease in the share of investment funds in the creation of new enterprises;

Market fluctuations and the situational direction of consumer demand;

An increase in the unemployment rate, a shortage of jobs in working professions, as well as the availability of cheap labor, indicate a crisis state of the labor market;

High production costs associated with an increase in production costs lead to the loss of competitiveness of certain industries in the international market;

Business orientation towards quick profits with minimal capital investments in the modernization of production;

The presence of certain obstacles in the development of small enterprises whose activities are mainly related to the provision of non-financial services;

The need to study the structural problems of the region's economy lies in identifying the possibilities of targeted restructuring of its structure in order to increase the effectiveness of the implementation of current and strategic tasks of socio-economic development[9].

Implementation of structural changes in the region's economy is a complex strategic task that requires large funds and cannot be implemented in a short time. The success of such changes requires taking into account some considerations, namely:

A comprehensive analysis to identify the main internal and external factors that led to a state of imbalance or deformation of the structure of the economy;

Clearly defining the policy and model of structural transformation, based on a solid scientific basis, as well as defining the stages of implementation of structural transformations within the framework of the developed long-term strategy;

Taking into account the deepening of globalization and integration processes as modern trends in international development, the positive experience of structural transformations in foreign countries[10].

Structural changes in the country's economy are characterized by both qualitative and quantitative manifestations. It is known that the quality index of economic growth is calculated as the ratio of the difference between the GDP growth index and the GDP deflator index to GDP growth rates. Calculations show that since 2010, with an increase in the growth rates of the gross regional product of the Khorezm region, the trend in the dynamics of this indicator has decreased, see Figure 1 [11].

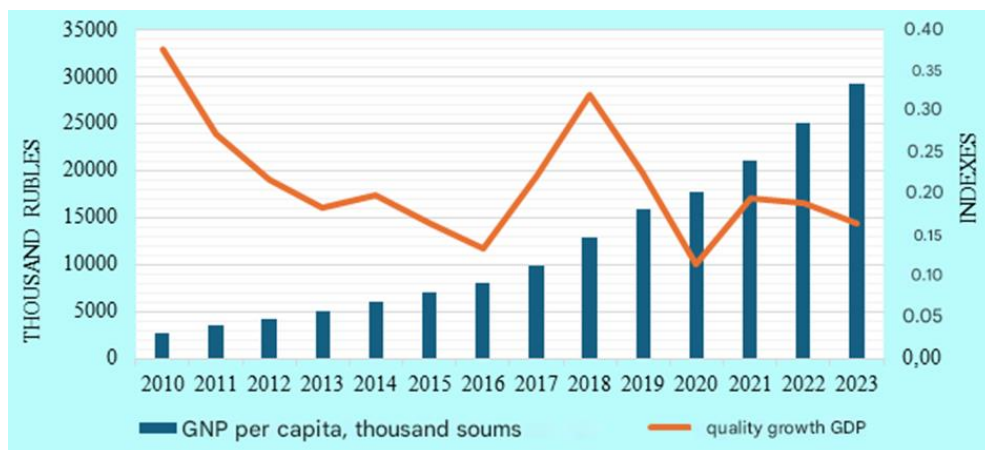


Figure 1. Dependence of the volume of gross regional product per capita of the Khorezm region on the quality index of economic growth.

According to the dynamics shown in the figure, from 2010 to 2016, there was a decrease in the quality index of economic growth, which decreased to 0.13. Although the highest indicator (equal to 0.32) was achieved in the period from 2016 to 2018, in the period from 2018 to 2020, the economic growth of the Khorezm region dropped to the lowest point (0.12 units) of the quality index, which, in turn, occurred under the influence of the global pandemic.

If in 2021 this indicator was 0.20, then by 2023 it decreased by 0.4 units and amounted to 0.16 units. However, the volume of gross regional product per capita of the Khorezm region in 2010-2023 had a stable growth trend[12].

The dynamics of the economic growth quality index clearly demonstrates the rapid decline of the economy, negative trends in economic processes both in the regions and in the country as a whole, and the instability of the economic system.

Even the growth of real GDP in 2010 until 2023 cannot be considered a positive change after a decrease relative to the GDP level. It is advisable to consider the relationship between the quality index of economic growth of the Khorezm region and the volume of gross regional product per capita, Figure 2.

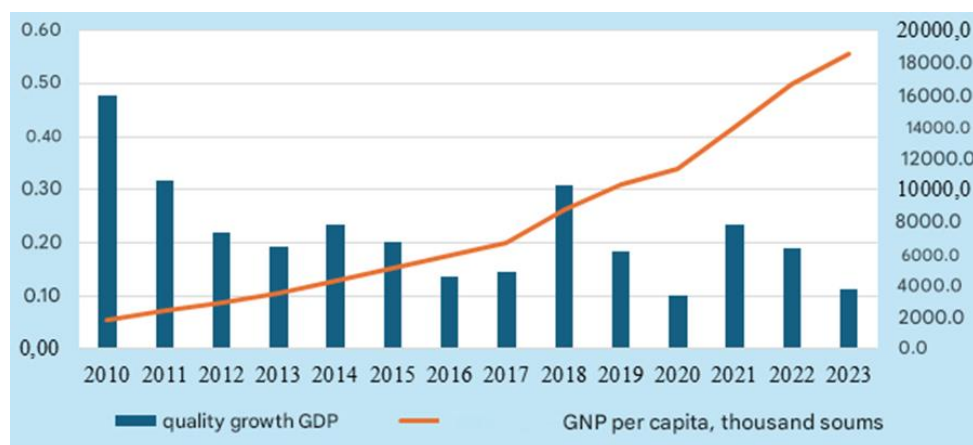


Figure 2. Dynamics of the quality index of economic growth of the Khorezm region.

If we pay attention to the dynamics of the quality index of economic growth of the economy of the Khorezm region, it can be noted that the volume of gross regional product per capita of the Khorezm region has a stable growth trend, but the quality index of economic growth in 2010-2023 has fluctuations [13].

In our opinion, such a dynamic of the quality index of economic growth is explained, first of all, by the lack of large-scale economic reforms that serve to attract investment resources and increase production potential. Due to the existing potential in other areas of economic activity, it is impossible to quickly compensate for the lost positions of the production sector. Moreover, the modernization of the existing production base at the current pace cannot be the basis for high-quality economic growth. Undoubtedly, the quality of economic growth depends on the intensity and direction of structural changes. Structural changes in the economy of the Khorezm region are associated with the processes of modernization and diversification of the local economy, the formation of a structure for the development of high-value-added industries and high-tech production, which contributes to reducing its dependence on raw materials[14].

In this regard, structural changes in territorial systems should be considered as processes of changing the ratios between the comparative elements of these systems due to the uneven dynamics of their quantitative characteristics.

Uneven growth rates of the components of territorial systems lead to changes in sectoral and territorial ratios, and in this sense, structural changes are the result of economic growth. Structural changes are a necessary impetus for the structural transformation and renewal of the regional economy, leading to positive economic results. Structural changes can be characterized by qualitative and quantitative indicators and are associated with certain economic interests and needs of individual entities or their groups. The characteristics of the dynamics of structural changes and their scale are shown by indicators of the mass, speed, and intensity of structural changes, see Figure 3.

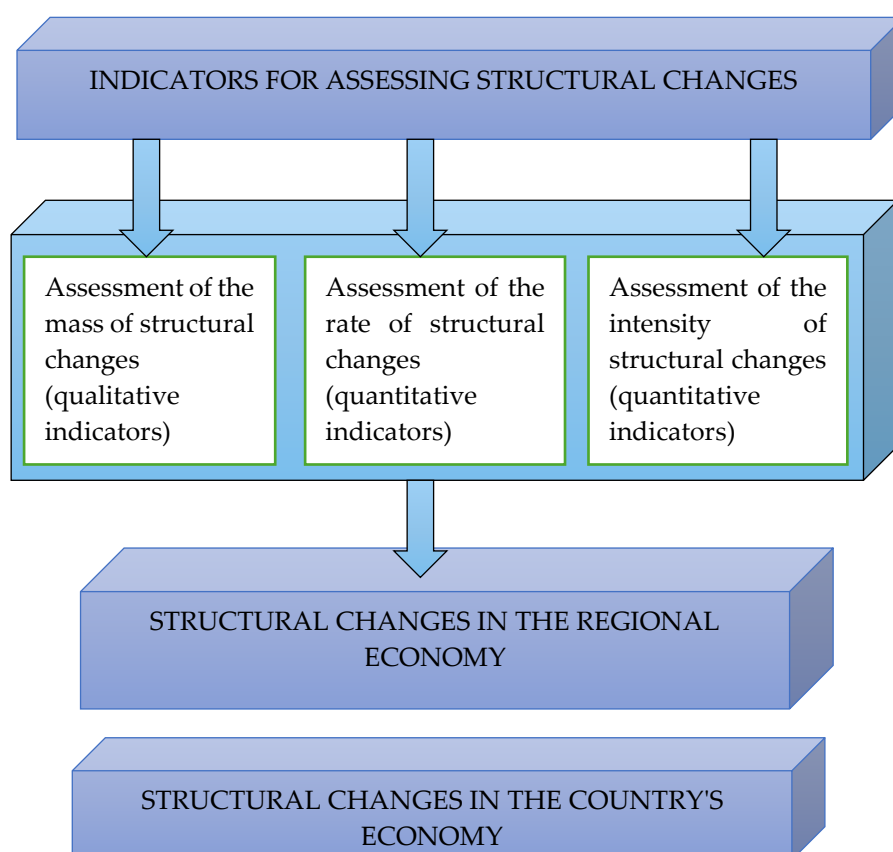


Figure 3. Mechanism for studying structural changes in the regional economy.

Structural changes in the economy consist not only of quantitative growth, an increase in the volume of production of goods and services, the creation of new jobs, but

also of a consistent change in the most important macroeconomic proportions due to the qualitative development of productive forces, the introduction of the latest technologies, the diversification of production and exports and an increase in the standard of living of the population, and a reduction in social contradictions. The separation of regional structural policy from regional economic policy is primarily associated with deformations characterizing the structural development of individual territories[15].

The structural priorities of such a model are the growth of the share of high-tech production in the manufacturing industry, telecommunications, financial and entrepreneurial services, as well as achieving a reasonable balance between socially oriented types of economic activity, the state and the market sectors, ensuring the priority of saving over consumption, and eliminating territorial imbalances. For the implementation of an effective structural economic policy in the regions, the following is necessary:

Monitoring changes in structural priorities of the region's economic development by improving the quality of the information base for monitoring transformational processes in the region's economy, forecasting the risks associated with the implementation of large-scale reforms in the region, making changes to existing regional economic and social programs that allow making timely decisions on economic regulation;

Development and use in monitoring of a system of indicators reflecting the specifics and effectiveness of structural processes in the regions at a certain stage;

Taking into account the main trends in structural changes in the region's economy, identified as a result of monitoring in the process of developing a regional socio-economic development program and adjusting the regional strategy;

Strengthening control over the implementation of measures for the reconstruction and modernization of production capacities of basic sectors of the economy in order to reduce resource intensity and increase the energy intensity of production through the introduction of alternative energy sources and energy-saving technologies;

Development of new promising industries by increasing investment activity in the regions;

Development of interregional socio-economic programs that contribute to solving problems related to the restoration of the old and the creation of new infrastructure facilities for neighboring regions, the development of cluster-network business structures. Thus, the implementation of an effective structural policy includes:

Coordination of the interests of the state, region, and individual economic entity;

A combination of sectoral (industrial) and regional policy for the development of individual territories;

Elimination of structural deformations, that is, the restructuring of the unprofitable sector of the economy, artificially supported by the budget subsidy system;

Creation of conditions for ensuring the effective functioning of enterprises in the regions, the activities of which are aimed at using the competitive advantages of the region;

Stimulating the development of science-intensive and innovative sectors of the economy;

Increasing the competitiveness of products manufactured in the khorezm region in both domestic and international markets, increasing exports and creating conditions for import substitution;

The use of the advantages of public-private partnership in the process of structural transformation of the economies of the regions;

Compliance of personnel potential with the needs of the economy at the current stage of its development;

Ensures institutional transformations that ensure the creation of the most favorable conditions for business, the formation of an atmosphere of trust between business and the government[16].

4. Discussion

The findings from the analysis highlight that structural changes in the Khorezm region's economy have occurred inconsistently, revealing systemic challenges in achieving qualitative economic growth. The persistent instability in the quality index of economic growth, despite a steady increase in gross regional product per capita, underscores the limited effectiveness of current structural policies and the inertia in reform implementation. These fluctuations suggest that while economic output has expanded, it has not translated into sustainable or high-quality development. This misalignment reflects a deeper issue of structural imbalances, with the dominance of low-processing industries, underdeveloped high-tech sectors, and a constrained labor market unable to absorb the growing workforce effectively. The discussion also reveals that the current model fails to integrate long-term innovation and technological modernization, hindering competitiveness both domestically and internationally. Notably, the lack of investment in production infrastructure and weak interregional linkages further impede economic diversification. The dynamics of structural change also show limited capacity for resilience against external shocks such as the COVID-19 pandemic, which significantly impacted the region's economic quality. Strategic transformation is essential, guided by consistent monitoring and adaptation of structural indicators to better inform regional development strategies. Moreover, policy integration between regional and national levels, as well as enhanced support for science-intensive and energy-efficient industries, must be prioritized. Overall, the discussion emphasizes that the success of regional structural reforms depends not merely on output growth but on comprehensive shifts in the composition, technology, and institutional underpinnings of the regional economy.

5. Conclusion

Structural transformations in the regional economy of the Khorezm region underscore the critical need for a well-articulated and scientifically grounded approach to regional development. The study reveals that the current structural composition of the regional economy remains insufficiently diversified and inadequately aligned with modern economic priorities, such as technological advancement and energy efficiency. The observed fluctuations in the quality index of economic growth, despite the steady increase in gross regional product per capita, suggest that economic progress in the region has not translated into qualitative development. This discrepancy highlights a persistent structural gap characterized by low investment activity, inefficient use of resources, and limited innovation. Addressing these challenges requires a comprehensive structural policy that not only emphasizes modernization and diversification but also fosters interregional cooperation, public-private partnerships, and alignment between human capital and labor market demands. Moreover, the integration of monitoring tools and indicators specific to regional needs is vital for timely adjustments and strategic interventions. Emphasis should be placed on reducing dependence on raw materials, enhancing the role of high-tech industries, and improving the energy efficiency of production systems. The strategic development of the region must also consider global economic trends, leveraging international best practices while adapting them to local realities. Thus, structural changes should not be viewed merely as statistical shifts but as fundamental transformations that reshape the economic landscape, enhance competitiveness, and ensure long-term socio-economic resilience. The success of such initiatives hinges on coordination between state, regional, and enterprise-level stakeholders committed to sustainable development goals.

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