



METHODOLOGICAL PRINCIPLES OF ASSESSING AND FORECASTING THE SOCIO-ECONOMIC DEVELOPMENT OF THE REGIONS

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Article history:	Abstract:
Received: 20 th December 2022 Accepted: 26 th January 2023 Published: 28 th February 2023	Regional characteristics can be taken into account only in a comprehensive approach. At the moment, the importance of local authorities in the planning and coordination of the comprehensive socio-economic development strategy of the region will increase sharply. Today, local authorities do not have the function of coordinating the complex socio-economic development of the region and the necessary resources for its implementation. Transferring this function from the center to the regional level is, in effect, vertical decentralization. This process should include fiscal decentralization and giving regions the right to use a certain part of their resources independently. At the local level, the natural increase of the population, migration processes, the distribution of labor resources by employment sectors, health care, public education, cultural management, consumption of various services, housing construction and population settlement, construction, development of the industrial base, water and electricity supply, various communications it is possible to create an effective mechanism of regulation
Keywords: socio-economic development, business circles, special economic zones, regional economy, economic growth, industrial production, economic structure.	

INTRODUCTION

Extensive scientific research is being conducted in the countries of the world to study and solve the problems of disparities in sustainable economic growth of regions, structural changes in regional economic sectors, changes in production efficiency indicators, qualitative aspects of economic growth and elimination of differences in per capita income. In particular, special attention is paid to improving the methodology of analysis and forecasting, taking into account the specific characteristics of efficiency and production factors in the economic sectors in order to ensure the sustainable economic growth of the regions.

Despite the adoption of various programs aimed at ensuring the development of regions in Uzbekistan from the first years of independence, in practice there are still cases of imbalances in the socio-economic development of regions and inefficient use of economic growth factors. Structural changes in regional economy and qualitative indicators of economic growth were not paid enough attention in the development of socio-economic development programs. As a result, the difference between the regions in terms of gross regional product per capita is 4.5 times. Therefore,

"complex and balanced socio-economic development of regions, districts and cities, effective and optimal use of their existing potential" [1], "launching small industrial zones and industrial clusters in the regions, organizing effective use of the opportunities of small industries and special economic zones" [2] is singled out as one of the priorities.

The effective implementation of such measures will create the necessary conditions for the population and business in the regions, and ensure the stability and reliability of the production infrastructure. Ensuring the economic activity of the population in the regions and creating the necessary conditions for the entrepreneurial activity of business circles often depends on the diligence, initiative, efficiency and skills of working closely with the population of local authorities. The stability of production is closely related to the availability of good infrastructure. In turn, the creation of necessary conditions for the population and business expands the possibility of rational use of labor, capital, mineral raw materials and other resources available in the regions. Therefore, effective use of the potential of regions, objective assessment and



forecasting of the economic growth of regions is one of the urgent issues of today.

ANALYSIS OF THE LITERATURE ON THE SUBJECT

The problems of developing the theory and practice of socio-economic development at the scale of the country and regions have been widely studied by foreign scientists. In particular, the influence of economic growth factors in regions on the increase of incomes was studied in the studies of P.Krugman [3], G.Menkiu, D.Romer, D.Weil [4], the theory and policy of economic development of regions, etc.

Problems of increasing the efficiency of production forces in regions by economists of Uzbekistan M.Abdusalyamov[5], T.M.Akhmedov[6], S.S.Gulyamov[7], structural changes in the regional economy, methodological problems of competitiveness and forecasting it has been studied to a certain extent by Sh.K.Nazarov [8] and others.

The scientific and research work carried out by the above-mentioned scientists is aimed at solving the problems of effective placement of production forces, increasing the competitiveness of the regional economy, and forming a development strategy. The methodology of forecasting the main indicators of the economic development of the regions only covers certain aspects of the problem and specific directions or features. Consequently, it is necessary to further improve the methods of assessing and forecasting the economic development of the regions, which are as free as possible from the shortcomings that may interfere with the practical use of the regions by the executive authorities.

RESEARCH METHODOLOGY

Scientific research methods such as logical abstraction, systematic analysis, statistical grouping, and expert evaluation are widely used in the article.

ANALYSIS AND RESULTS

In the scientific literature, there are different approaches to the interpretation of the essence of the concept of the region and the science that studies it, its boundaries and its place in the structure of society. Economist geographer and regional scientist I.A.Rodionova considers the regional economy to be "a science that studies the geographical (territorial) direction in the economy, the features and laws of the development of production forces and regions" [9]. A group of researchers define the concept of "region" as

follows: a region is a certain area, which differs from other regions in a number of characteristics and is expressed by the existence of interrelationships between the structural elements of a unique whole. Regional economy studies the objective conditions and factors of regional development, the structure of production, the social sphere and the living conditions of the population, the location of the population and the economy, the functioning of the economy and its management mechanism, the economic relations established by this region with other regions and countries [10]. "Region" means the level of general natural-geographical, historical, national-cultural unity and religious-ethnic closeness, socio-economic development (economic specialization and economic development, demographic situation, population's livelihood, etc.), an underdeveloped management system at various stages and it is desirable to understand the integrated territorial unity, which requires the commonality of the activities of administrative-territorial bodies in solving socio-economic and environmental problems [11], writes another group of scientists. Regional economy studies natural-economic and other factors directly related to the development of the regional economy.

Most of the models used in forecasting the economic development of regions require a very large database. This also applies to Uzbekistan and complicates the process of forecasting by local authorities. Taking this situation into account, the author proposed an econometric model for forecasting regional GDP growth. In it, the exogenous factors involved in the formation of GNI of the region were forecasted for the long-term using the ARMA (autoregressive moving average) model. The statistical data involved in the model were made using the database of the system of national accounts. Using an econometric approach, a multi-factor regression model based on a set of macro-indicators was developed to forecast the economic growth of regions. The scientific basis of this model is explained by the principles of the system of national accounts. The ARMA empirical model was evaluated for the economic development factors of the regions, that is, the growth indicators of the agricultural, industrial and service sectors of the regions, and the obtained results were used to forecast the endogenous factor of the forecasting model in the long-term perspective. In the model, GNI serves as the main indicator reflecting the economic growth of regions, as an endogenous factor.



The analysis of the socio-economic development trend of the regions during 1997-2022 showed significant differences between them. In particular, in this period, positive economic growth was observed in all regions of Uzbekistan, but the gap between regions in terms of the level of economic development also increased. The gap between the maximum and minimum indicators of GNI per capita increased during the analyzed period from 2.3 times in 1997 to 4.5 times in 2022. The growing disparity between regions is explained by the large differences between the rates of economic growth in them. The intensity of the form of economic growth in the regions is explained by the economic policy conducted in the country and the relations formed between the structure of the economy and sectors. If in 1997 the city of Tashkent, Tashkent, Fergana, Samarkand and Kashkadarya regions were included in the group of regions with a large share in the formation of the country's gross domestic product, in 2022 this group included Tashkent, Fergana,

Samarkand, Navoi, Andijan regions and the city of Tashkent. In 1997-2022, the influence of Andijan and Navoi regions on the country's economy increased significantly, while the opposite can be seen in Kashkadarya and Khorezm regions. In 1997-2022, GDP growth in Tashkent increased by 6.8 times, Andijan by 5.5 times, Jizzakh by 5.0 times, and Samarkand region by 5.0 times, and the economic growth rates of these regions were higher than the national rate during the analyzed period.

During the analysis, it was observed that although some regions have high growth potential, they have low growth rates in industry, agriculture and service sectors. Despite the fact that Kashkadarya, Navoi and Tashkent regions are rich in natural resources, the growth of industrial production is far behind the average indicator of the republic. The state of the structural structure of the economy is important in ensuring a balanced and stable rate of economic growth of the region's economy (Table 1).

Table 1
2002-2022 years changes in the composition of the GNI industry of the regions of Uzbekistan (%) [12]

Areas	Industry		Agriculture		Service	
	2002	2022	2002	2022	2002	2022
Karakalpakstan	22,2	26,0	21,3	28,3	56,5	45,7
Republic	18,1	22,6	44,6	41,3	37,3	36,1
Andijan	19,5	17,5	34,1	44,8	46,4	37,7
Bukhara	10,9	11,1	48,9	54,9	40,2	34,0
Jizzakh	30,8	18,0	33,3	42,0	35,9	40,1
Kashkadarya	43,1	69,9	25,8	14,1	31,1	16,1
Navoi	17,5	13,8	42,5	42,6	39,9	43,5
Namangan	14,4	14,4	45,5	45,9	40,1	39,7
Samarkand	11,0	7,6	53,3	48,9	35,8	43,5
Surkhandarya	20,1	24,4	43,7	41,0	36,3	34,6
Syr Darya	25,4	46,2	39,9	23,7	34,7	30,1
Tashkent	20,4	21,9	25,8	34,4	53,8	43,7
Ferghana	14,5	12,2	44,9	47,0	40,7	40,8
Khorezm	28,9	34,0	0,0	0,0	71,0	66,0

Economy of the regions of Uzbekistan in 2002-2022 the analysis of changes in the structural structure of the branches showed that the most positive changes took place in Andijan, Navoi, Syrdarya, Tashkent regions, the Republic of Karakalpakstan and the city of Tashkent. In 2020, the economy of the rest of the regions significantly deteriorated compared to 2000. The regions with the highest growth rates of GDP in 2002-2022 are the city of Tashkent (5.8 times), Jizzakh (4.5), Andijan (4.3), the Republic of Karakalpakstan

(4.2), Samarkand (4.1), Namangan (4.1), Surkhandarya and Khorezm (3.8) showed that the influence of industry and service sectors as the main factors was significant. Also, although the role of agriculture in ensuring economic growth in Jizzakh, Samarkand, Surkhandarya and Khorezm regions is high, its share tends to decrease. In these regions, economic growth is dominated by service industries. Bukhara (3.4 times), Kashkadarya (3.0 times), Tashkent (3.1 times), Syrdarya (2.9 times), Fergana (2.7 times) and Navoi



(2.4 times) regions entered, where the agricultural sector served as the main decisive factor of economic growth. The lowest growth rate was observed in Navoi region (2.4 times), where the share of agriculture in GNP growth was higher than 46.0%. By analyzing the structural changes and the contribution of sectors to the growth of GNP in the regions, it can be concluded that it is desirable to achieve a significant increase in the contribution of industrial and service sectors to development in the near future for regions with moderate and low economic growth rates. In addition, despite achieving the same structural change in GNI, some regions lag behind other regions in terms of economic growth.

The regions with the highest growth rates of GDP in 2002-2022 are the city of Tashkent (5.8 times), Jizzakh (4.5), Andijan (4.3), the Republic of Karakalpakstan (4.2), Samarkand (4.1), Namangan (4.1), Surkhondaryo and Khorezm (3.8) showed that the influence of industry and service sectors as the main factors was significant. Also, although the role of agriculture in ensuring economic growth in Jizzakh, Samarkand, Surkhondaryo and Khorezm regions is high, its share tends to decrease. In these regions, service industries are dominant in ensuring economic growth is doing Bukhara (3.4 times), Kashkadaryo (3.0 times), Tashkent (3.1 times), Syrdaryo (2.9 times), Fergana (2.7 times) and Navoi (2.4 times) regions entered, where the agricultural sector served as the main decisive factor of economic growth. The lowest growth rate was observed in Navoi region (2.4 times), where the share of agriculture in GNP growth was higher than 46.0%.

In the 18th project "Complex socio-economic development concept of the Republic of Uzbekistan until 2030", taking into account the specific target parameters and planned tasks of regional development, the GNP growth indicators of the regions are forecasted at the level of 107.0%-107.3% on an average annual basis until 2030. According to the results of the regional economic sector growth forecasting model, the average annual growth rate in the industry in 2021-2025 will be 107.3 percent by region, and 106.7 percent in the long-term perspective, that is, in 2026-2030. In the medium-term perspective, in a number of regions (the Republic of Karakalpakstan, Namangan, Surkhondaryo, Tashkent, Khorezm regions and the city of Tashkent), the highest growth rates are observed in industrial sectors. It should be noted that the forecast indicators of the growth of the industrial sector of the regions presented in this research correspond to the target

indicators set in the project "National concept of the development of the industry of the Republic of Uzbekistan" 19 for the period until 2025, that is, the average annual growth rate of the industry for the period until 2025 is 107.0 projected in percent.

CONCLUSIONS AND RECOMMENDATIONS

Each regional system is a component of the country's economy, therefore, their development depends primarily on their connections and relations with other regions, the closeness and activity of interactions between all links. Such conditions are provided by the existing vertical and horizontal connections and relationships. These two groups, connections ensure the openness of regional reproduction processes. Taking into account that the improvement of the economic regulation system is aimed at the intensification of socio-economic processes and the improvement of the living standards of the population in the region, it is necessary to determine the priority strategic goal of socio-economic development of each region. The country's socio-economic development strategy is currently aimed at deepening market reforms, economic liberalization, prioritizing the development of the private sector, increasing attention to small businesses and farms, improving the banking and financial system, creating a new tax system, etc. This strategy, in turn, can achieve specific goals only when it is developed within the framework of the region. The need to develop a comprehensive socio-economic development strategy of the regions is necessitated by the following:

- raising the standard of living of the population, increasing the competitiveness of the economy;
- international experience and practice to determine the ways of effective use of the raw material base and labor potential of the regions;
- justification, implementation of large investment projects and their attraction to the region;
- solving issues of improving and effectively forming the economic structure of the region;
- solving the problems of effective placement of production forces and environmental protection;
- raising the level of competitiveness of the regional economy;
- determination of the place of the region in the labor distribution of the republic.

Thus, the unified strategy for the comprehensive development of the regions developed within the country should be based on the strategy corresponding to the unique natural economic potential of each region.



The goal of the strategy is to achieve its sustainable economic growth and increase the standard of living of the population based on the effective use of the natural and economic potential of the region. The positive effect of improving relations between the center and regions can be achieved only on the basis of their joint activities.

The expediency of using an econometric model based on a two-stage, multi-factor regression function, which allows forecasting economic sectors first, and then GNI, in forecasting the economic growth of the regions of Uzbekistan in the medium and long term, was justified.

In determining the priorities of regional development, it is necessary to develop industrial production focused on deep processing of natural resources for regions rich in natural resources, for example, Kashkadarya, Navoi, Bukhara and the Republic of Karakalpakstan. Regions with developed infrastructure, for example, Samarkand, Bukhara, Andijan, Tashkent regions and Tashkent it is necessary to develop the directions of service, processing of industrial products with great attention to innovative products and know-how in the city. It is desirable to develop industries such as deep processing of food products, textile industry and pharmaceuticals in the regions where the agricultural sector is predominant, that is, Jizzakh, Surkhandarya, Khorezm, Fergana, Namangan and Syrdarya regions.

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