



METHODOLOGICAL ASPECTS OF STATISTICAL ASSESSMENT OF THE DEVELOPMENT OF THE INDUSTRY NETWORK ON THE BASIS OF INTERNATIONAL STANDARDS

Abdujalilova Guzal Saidillaevna¹

¹Researcher at the National University of Uzbekistan named after Mirzo Ulugbek

ABSTRACT

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Methodological aspects of the statistical assessment of the development of the industrial network based on international standards, economic-statistical analysis of the development of the industrial network in the Republic of Uzbekistan and its regions, the strategy and main directions of the future development of the industrial network is explained in this article.

KEYWORDS: *industrial network, system of national accounts, rapid business statistics, competition, regional economy, economic-statistical analysis, development strategy, evaluation, methodological framework, international standard*

INTRODUCTION

The main priorities are the comprehensive development of the industrial network, which has priority in the world competition, increasing the competitiveness of products due to the wide introduction of innovative developments, expanding the export geography, and achieving stable economic development rates. According to our analysis, "...the share of industry in the gross domestic product (GDP) of developed countries corresponds to 40% on average, in developing countries this indicator is on average 20-25%" requires further expansion.

In the world, a lot of scientific researches are being carried out on the purposeful use of modern statistical methods in the analysis of the economic activity of the industrial sector, the comprehensive statistical evaluation and forecasting of their effectiveness based on integrated indicators, and the directions of increasing the economic efficiency. At the same time, due to the widespread use of the

methods and principles of the national accounts system based on international standards, attention is being paid to improving the methodology of evaluating the activity of the industrial sector using modern statistical methods, and to the issues of complex application of systematic statistical analysis methods. It is also necessary to carry out scientific research on the statistical evaluation of the economic efficiency and innovative activity of the industrial sector in the world economy, as well as the structural changes and further improvement of relations in the economy of the industrial sector of the leading foreign countries.

In the activity of the industrial network of the Republic of Uzbekistan, systematic work is being carried out to ensure the effective use of the complex of economic potential, statistical evaluation of economic efficiency, statistical analysis of finance and investment potential. Also, in the "Development Strategy of New Uzbekistan for 2022-2026" priorities such as "deepening structural changes, increasing the

competitiveness of the industrial sector and increasing the export potential" are defined. The effective performance of these tasks requires improvement of the use of methodologies of the international standard "System of national accounts-2008" in assessing the economic development of the national industrial network, research and forecasting of statistical aspects of increasing economic efficiency.

Industry is considered the leading branch of the economy of our republic, and it is fundamentally different from other branches due to its high added value creation, its role in meeting the needs of the population and various sectors of the economy, and the fact that it is a high-level production locomotive. Industry is a sector that produces material wealth, and its development leads to the steady growth of the national economy. In the industrial sector, the processes of diversification will improve due to the extraction of natural resources and processing of resources, the production of new products from them, the increase in assortment and nomenclature.

ANALYSIS OF LITERATURE ON THE TOPIC

Due to the urgency of industrial development and the vastness of its role in improving the economy, it has been constantly in the center of attention of research scientists. In particular, foreign scientists Yu. Rodionov, R.S. Porter, D. Deveryuks, B. Roberts, R.N. Nureev created scientific innovations on the subject, local scientists B.K. Goyibnazarov, Yo.A. Abdullaev, A. Abduhamidov, U.Mukhitdinov, A.A.Ortykov, B.T.Salimov, Kh.Ishbutaeva, Sh.Nizomova, E.Kh. Makhmudov, M.Isokov managed to conduct a number of scientific researches.

In particular, A. Artikov to "A number of opportunities, geographical and economic factors of industrial development in Uzbekistan" [14], B.T. Salimov to "Comparative analysis of industrial production by regions and priority directions of its development" [11], M.P. .Narzikulov that "in the process of developing the industrial development strategy, the main attention is focused on structural changes" [13], E.Kh. Makhmudov "Strategic directions for creating conditions for the development of industrial sectors primarily cover tools such as budget, tax, monetary credit, price and currency

policy they emphasized their dependence on creating a favorable macroeconomic environment" [12].

RESEARCH METHODOLOGY

According to the Decree of the President of the Republic of Uzbekistan, Sh.M. Mirziyoev dated January 28, 2022 No. PF-60 "On the development strategy of New Uzbekistan for 2022-2026", the industrial policy is aimed at ensuring the stability of the national economy and increasing the share of industry in the gross domestic product. and increase the volume of production of industrial products by 1.4 times" [1] . Because modernization and diversification of production is an important condition for ensuring and strengthening economic security. Accordingly, the potential of the national industry is increasing due to the consistently implemented promising projects.

Methods such as systematic analysis, comparative and dynamic analysis, monographic analysis, statistical grouping, economic indices, time series, variation indicators, statistical tables and graphs, questionnaire, expert assessment, econometric analysis and forecasting were used in the research process.

ANALYSIS AND RESULTS

System indicators that describe the economic process in different dimensions or its different aspects should have the same methodological basis or be methodologically coordinated [2]. To date, a large number of different economic-statistical indicator systems have been developed in the world , which allow to describe and evaluate socio-economic processes and programs in terms of quantity and quality . Among them, the system of national accounts (SYSTEM OF NATIONAL ACCOUNTS-2008) , as well as rapid business statistics (TBS) occupy the main place [3] .

The selection of data for the creation of an effective system of statistical indicators for the analysis of the development of industrial production is carried out on the basis of a meaningful and methodological analysis of System of national accounts and TBS indicators. This ensures comparability and coordination of indicators at the methodological level, not the completeness of reflecting all aspects of industrial production (Table 1).

Table 1
System of statistical indicators of national industrial production based on the methodology of the international standard " System of national accounts -2008" [10].

No	Indicator	Fig	Purpose of entry
1	Gross production	National currency, comparative prices , absolute and relative amounts	Industry composition, production and consumption analysis
2	Intermediate consumption		
3	Added value		
4	Merchandise turnover	Chain economic indices	Internal and external consumers by c anoat products has been demand analysis
5	Price index		
6	Export, import of goods (services).	US dollars, absolute and relative amounts	
7	Index of industrial production	Chain economic indices _	Analysis of the dynamics of physical volume of production
8	The number of people employed in the economy		Statistical analysis of medium-term trends in the industrial network and its individual sectors
9	Average salary		
10	Average number of hours worked		
11	Investments in fixed capital	National currency (c om) , absolute and relative amounts	
12	The main indicators of economic development	Compare prices	Economic and statistical analysis of short-term trends in the economy of Uzbekistan
13	Other macroeconomic-statistical indicators	Economic indexes , absolute and relative amounts , variation indicators	

Based on the methodology of the international standard "system of national accounts-2008". **In order to analyze the activity of industrial production** , we recommend to distinguish the following statistical group of indicators in the system of indicators :

The second group : consists of statistical indicators of the structure of industrial production , including production and provision of services (**GDP**) , intermediate consumption (**OI**) and gross value added (**GVA**) enters.

second group : includes statistical indicators describing the demand for industrial products . First of all, they include rapid business statistical indicators, in particular, the index of turnover of goods (**J_{qp}**) and the producer price index (**J_p**) . Another block of this group is foreign trade indicators, in particular , export and import of goods (services) and general foreign trade turnover according to customs statistics.

the third group : includes statistical indicators describing the development prospects of the network . To this group: the number of people employed in production (**T**) includes the average number of hours worked per employee (**t**) and the average salary (**z**) .

t fourth group : one indicator of rapid business statistics is the industrial production index (**J_{qp}**) , which describes the dynamics of the physical volume of industrial production (**J_q**) .

Seventh group : intended for the analysis of short and medium-term trends of industrial production in Uzbekistan. It includes all the above indicators plus the main indicators of business and

macroeconomic statistics : inflation, quarterly Ya IM (**Q**) , national exchange rate, etc.

The resulting system covers a wide range of indicators for several processes observed in many countries (taking into account the analysis of individual industries), so it is large enough to require storage in the form of a dataset .

In filling the system of statistical indicators with data based on the methodology of the international standard "System of national accounts-2008", UN, Information sources of the Organization for Economic Cooperation and Development, Eurostat data sets, as well as national statistical offices are used. At the same time, it should be noted that the values of individual indicators (in some statistical observations) and the required forms (**h** isobot) are not provided . In order to solve this problem, as much as possible, modern statistical methods recognized at the international level are used to form indicators, including index indicators [4].

A prerequisite for conducting any statistical analysis is the existence of a system of qualitative indicators. A system of statistical indicators is a set of interrelated and coordinated statistical indicators with a meaningful connection and a strict order structure aimed at solving a specific statistical task [5] .

In a word, the following main requirements for the system of industrial statistics indicators can be distinguished:

- Openness of value of indicators ;
- Completeness and content integrity ;
- Methodological coordination.

System of National Accounts (NSA) is – is a statistical base that includes a comprehensive, systematic and flexible set of macroeconomic

accounts used for scientific research, analysis and policy development [6] . Indeed, today it is difficult to overestimate the importance of the system of national accounts in the study of the economic life of society. In this case, SNA allows not only to assess the results of the economy, but also to forecast the values of macroeconomic indicators, to determine the level of influence of the decisions made by the state administration bodies on their dynamics [7] .

Including SNA institutional sector accounts, consolidated and sectoral accounts, they provide information on the dynamics, structure and distribution of GDP at current and comparable prices, as well as indicators of prices, gross value added, structure and dynamics of production volume, etc. is enough. The main accounts, balance items and aggregates of SNA - 2008 are shown in Table 2.

Table 2
System of national accounts main accounts, balance items and aggregates

No	Account	Substance	Aggregate
1 .	Current accounts		
1.1 .	Production account	Added value	GDP, GDP (net domestic GDP)
1.2 .	Income distribution and redistribution calculations	Balance of primary income, disposable income	Gross national income (GND) , Net National Income (NNI), Property and Business Income (MT O D)
1.3 .	Use of Revenue Account	Foundation	National Fund (MJ)
2	Savings accounts		
2.1	Capital viy operations account	Net Lending / Net Borrowing	
2.2	Financial accounts		
2.3	Again evaluation and assets in size another change account	Assets in size another changes due to pure capital value change	
3	assets and liabilities	Net Equity Value / Change in Net Equity Value	National wealth

In general, a certain complete list of indicators recommended for publication and calculated within the framework of system of national accounts is widely known and does not need a detailed description. It is only worth noting that within the analysis of industrial production, first of all, production accounts and income distribution and recalculation accounts are of interest.

Like the System of National Accounts, rapid business statistics are regularly improved, some of its rules are revised, and as a result commentaries on the rules and newly developed methodologies are

regularly published . Currently, the main document on the development of TBS in the EU countries is the rapid business statistics methodology - review and methodological guidelines [8] .

In Uzbekistan, there is no separate methodology for calculating rapid business statistics indicators, as well as separate legal documents and regulations regulating it. A detailed comparative analysis of Eurostat methodologies and methods of calculating indicators published by the State Statistics Committee shows that most of the main indicators of TBS are also calculated in Uzbekistan (Table 3).

Table 3
Description of the main indicators of quick business statistics [10].

No	TBS indicator name	Indicators published by the State Statistics Committee	Compliance with TBS criteria
1	Production index i _	Production index i _	Full
2	Merchandise turnover	The volume of shipped goods of own production i	Full
3	New orders received	Orders p ortfeli	Sufficient (alternative)
4	New orders from abroad	Export order portfolio _	Sufficient (alternative)
5	Number of items	Number of occupied jobs	Sufficiently
6	Number of hours worked	Average hours worked (average length of working day)	Sufficiently
7	Salary	Average salary	Sufficiently
8	Producer prices in the domestic market	Producer price index	Full

As can be seen from the above table, it is considered necessary to analyze the main indicators of business statistics, which are the basis for making operational decisions, for the stable operation of the enterprise. In this, along with accounting data, marketing data is widely used.

Also, the development of a strategy for statistical evaluation of the economic efficiency of the development of industrial enterprises will further increase the quality of the analyzes conducted

Analytical data shows that during the past period, as a result of structural changes in the

industry, the share of the industry in the country's economy, the production potential has increased significantly. However, it cannot be said that the available opportunities for the development of our country's industry are being fully utilized. This process is related to the following factors:

that the efficiency of using raw material resources is at a low level;

the fact that the investments made in the industrial complex cannot contribute to the increase in the weight of the export of the sector's products, being mainly limited to the supply of products for the domestic market;

the material and moral obsolescence of existing capital in industrial enterprises, as a result of which the cost of creating products has risen to a high level, they cannot compete with the quality of imported products in terms of quality, and the use of electricity and manual labor has not decreased.

Such problems require the development of specific measures for the further improvement of the structural investment policy in the industry.

The shares of the regions in the total industrial product of the republic are shown in Table 4.

Table 4
The share of regions in the volume of industrial production of Uzbekistan, in percent [9,15]

Areas	2014	2015	2016	2017	2018	2019	2020	2021
Karakalpakstan Res.	2.0	2.4	3.8	4.6	4.6	3.9	3, 8	3, 6
Andijan	12.5	10.0	7.1	8.9	11.7	10.3	9, 9	7, 9
Bukhara	4.7	5.3	5.0	4.3	3.7	4.6	4.8	4.6
Jizzakh	1.4	1.5	1.8	1.7	1.5	1.4	1, 6	1, 9
Kashkadarya	8.6	8.9	8.6	7.4	6.2	6.3	4.0	4.1
Navoi	9.8	9.5	9.5	8.8	9.7	13.8	17.7	1 6.1
Namangan	2.8	2.9	3.1	3.1	2.8	2.7	3.0	3, 2
Samarkand	5.9	6.2	6.7	6.2	5.7	4.9	5, 0	5, 0
Surkhandarya	1.9	2.0	2.0	1.6	1.4	1.3	1, 4	1, 5
Syrdarya	2.8	2.9	3.1	2.6	2.2	2.3	2.2	2, 2
Tashkent	14.8	14.8	15.1	14.6	16.0	16.6	17, 9	18, 3 _
Ferghana	7.9	7.3	7.2	6.5	5.8	5.8	5.9	6, 1
Khorezm	2.3	2.7	2.5	2.7	2.7	2.6	2.6	3, 0
Tashkent sh.	18.4	19.5	21.0	20.5	18.4	16.4	1 7, 9	19, 8 _

Based on the results of the analysis, we divide the regions into three groups according to the level of industrial product production: highly industrialized, moderately developed, and poorly developed regions. Regions with highly developed industry include the city of Tashkent, Tashkent, Navoi, Andijan and Kashkadarya regions; Samarkand, Bukhara and Fergana regions are included in the moderately developed regions, and the Republic of Karakalpakstan, Jizzakh, Namangan, Surkhandarya, Syrdarya and Khorezm regions are included in the less developed regions.

The purpose of forming the economic potential of the industrial network is to evaluate its composition, taking into account the logical interactions and interactions of the factors determining its internal and external environment. This aspect depends on the interdependence of the system-creating factors for the formation of the economic potential of the enterprise.

The choice of competitive strategy of an industrial network depends on key factors such as strategic capacity structure and the possibility of expanding resources. The strategic development goals determined on the basis of statistical analysis reflect, first of all, the directions of the enterprise's

activities to eliminate its weak aspects in competition and strengthen its strengths.

The development of the network will be a strong factor in providing the local market with cheap and quality products, creating jobs and increasing employment, especially in the employment of women, mainly in the regions of the country, including small and medium-sized cities.

The main structural changes in the light and food industries are modernization of existing production enterprises, equipping them with modern technologies, establishing processing of agricultural products at the place of cultivation, in most cases in small enterprises, and rational use of raw materials. It is necessary to introduce measures to protect domestic producers from imports in light industry. Deepening of processing of local agricultural products, development of small and private entrepreneurship, increased demand for manufactured products are the main sources of growth of the products of these industries.

the specific aspects of the development and management of the industrial network of the Republic of Uzbekistan based on the SWOT analysis, which is widely used in practice (Table 5).

Table 5
Industrial network of the Republic of Uzbekistan SWOT analysis of economic development [10]

Strengths	Weaknesses
Development of state programs for network development .	Low competitiveness of products.
Financial opportunities provided.	Termination of cooperative relations.
High export opportunities in network enterprises .	Lack of infrastructure for exporting products and services .
Availability of cheap labor.	Problems in the sale and storage of products
More efficient use of fixed assets.	Migration of highly skilled workforce to other industries.
Availability of a rich base of raw materials.	Lack of investment projects in the network.
Availability of the opportunity to implement innovative potential.	Lack of sufficient investment, low profitability of many enterprises.
Opportunities	X amnesty or threats
Opportunities to diversify products and services in the network.	Price changes in domestic and foreign markets .
Creation of a favorable investment environment, economic policy of the state to support the activities of enterprises.	Insufficient motivation to work.
Access to foreign markets .	Increasing competition in the world market.
Extensive development of integration processes in the network.	Changes in the economic and political situation in the states.

SWOT analysis is considered a strategic planning method and is aimed at determining the existing factors in the internal and external environments of the organization. They are divided into four categories, namely Strengths , Weaknesses , Opportunities and Threats .

Our analysis shows that industrial network development has both strengths and weaknesses. In places, management and business leaders in the field of industry must pay serious attention to the free sides, otherwise the expected economic efficiency in the network will not be achieved. As a result, national industrial activity can become not a factor of economic development, but its opposite. Also, there are risks along with opportunities in the development of the industry, and if it is not eliminated in time, it can cause great damage to the industry.

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