Original Article

Innovative Development Mechanism Of Digital Transformation Processes In Regional Industry

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DOI: 10.47750/pnr.2022.13.S08.64

Abstract

The theoretical foundations of innovative development mechanisms of transformation processes in industry in the region have been improved. At the current stage of transformation development, a strategy for digitalization of the regional industry has been developed, using multi-functional and multi-level blockchain information technology, designed for reliable accounting of various assets ready for experience and innovation.

Keywords: Digital transformation, transformation processes, innovative development, mechanism, econometric model, forecast results, information system, regional industry, global information networks, blockchain technologies.

Introduction

In order to ensure a stable position of Uzbekistan in the world markets in the conditions of digitization of the economy, it is necessary to rapidly change the transformation processes in the industry of the region by switching to a socially oriented innovative development model. In recent years, economic digitalization in each region has become a global trend, increasing the role of regions and territories in economic life remains the main importance.

Transformation of production processes of the regional industry through innovative high technologies is one of the main tasks of today. In the context of the digital economy, the processes of industrial transformation based on innovative technologies become the engine of the modern economy and the basis of the competitiveness of organizations. This means that the countries of the world are choosing their own path of industrial development in the context of the fourth industrial revolution. The leading countries of the European Union are Germany, the Netherlands, France, the United Kingdom, Italy and Belgium, but the first place still remains in Germany [4].

In his scientific research, M. Dodgson developed the principles of technological innovation management based on international and strategic approaches and proposed their application [5]. Abramov V.I. in his research, he developed a methodology for evaluating the innovation potential of industrial enterprises based on the analysis of the main indicators and trends of the development of science and technology and innovative activity [6], in the scientific works of Lapteva.Ye.A. went and described the level of innovative potential of industrial enterprises [7].

Nobel laureate R. Solow also considers new technologies to be the most important factor of economic growth. Analyzing the reasons for the rapid growth of labor productivity in the United States (it doubled from 1909 to 1949), the economist concludes about the main role of technological change and innovation (the contribution of innovation is 7/8, and headl is 7/8) . growth is only 1/8 of total productivity growth)[8]. P. Drucker, a well-known expert in the field of management theory, also notes the crucial importance of technological progress and labor productivity improvement for economies, especially developing countries. According to him, protectionist measures became the first defensive reaction against external competitors [9]. His assessment of the problems faced by innovative active organizations is of great importance. According to the economist A.A. Kushnarev, structural changes in the industrial economy reduce or increase economic efficiency, competitiveness in the world and national markets, and the existing relationship between various industries, sectors, regions, types of enterprises, technological systems and other elements of the economic system. considers it a change [10].

Along with the above scientists, Makhkamova M.A. from Uzbek scientists conducted scientific research on the formation of the organizational and economic mechanism of management of innovative activities in the industrial enterprises of the Republic of Uzbekistan and developed practical solutions for a number of industrial sectors of the country [11]. G. B. Shonazarova made a number of thoughtful suggestions in her scientific work on improving the mechanisms of industrial enterprises' innovative potential management [12]. In the works of A.U. Burkhanov, we can see that he developed a strategy for ensuring the financial stability of industrial enterprises and provided solutions to current problems [13]. Mukhitdinov H.S., Nosirov B.N paid great attention to the methodological aspects of developing econometric models of information and communication services to the population of the region [14]

According to the comparative analysis of scientific research carried out by foreign and domestic scientists, the need to emphasize the step-by-step formation of the new digital transformation process of the principles of innovative development of the regional industry using digital technologies was considered, and this process depends on the fourth generation of the industry:

- the first generation, 1784, the era of mechanization, mechanization of sewing machines through steam power;
- the second generation, 1870s, the period of organization of mass production, introduction of electricity, electrification of industrial enterprises;
- the third generation, 1969, the era of automation, the era of automation through computers, electronics;
- the fourth generation, today's global product network, the era of digitalization of the economy.

In the 40s and 60s of the 20th century, institutionalism began its economic flow with its emergence. In this direction, we can consider the participants separately. D.K.Galbraith "New Industrial Society" and D.Bell "Post-Industrial Society" described the first forms of post-industrial society. In particular, according to J.K. Galbraith [15], the behavior of the modern market economy is determined by large corporations that produce complex technologies. In his opinion, the real economic power in modern corporations belongs not to the owners of headl and not even to managers, but to the owners of knowledge, science and technology. Technostructure representatives have unique professional knowledge about production and information necessary for decision-making. Of course, officially important decisions are, as a rule, the exclusive right of the leading managers of the company - the director and his deputies. But making all decisions depends almost 100 percent on information. And the information is under the "control" of the technostructure.

According to M.V. Chensova [16], the knowledge-based economy includes four economies:

- post-industrial economy. The knowledge economy is dominated by the services sector typical of the post-industrial economy;
- information economy. Knowledge economy cannot work without information, it plays a key role;
- innovative economy. Just as the innovative economy did not exist without knowledge, the knowledge economy did not exist either, because the satisfaction of the growing needs of society is carried out using innovations;
- global network economy. Today, the knowledge economy cannot live without the global Internet. Because it provides remote economic relations.

The stages of industrial development include the period from mechanization to mass production, from automation to global product networks to digitization. At the present stage, the leading countries of the world in terms of the innovative activity of industrial enterprises, the technological level of production, technological sensitivity, etc., as well as the task of developing and implementing methodological tools for managing technological development at the regional level, are urgent. helps to introduce modern methods of organizing the activities of the complex.

Result and discussion

Despite the fact that innovative technologies are being actively adopted, their advantages and disadvantages have not yet been sufficiently studied. There are many technologies at the current stage of transformational development that are ripe for experimentation and innovation. Let's look at some of these technologies.

Blockchain is a multi-functional and multi-level information technology designed for reliable accounting of various assets. It is also a chain of data blocks, the size of which is constantly growing. Defining the role of blockchain technology in the digital economy can be explained by expressing the role of technology in business models developed based on it.

Mikhiev believes that the development of blockchain technologies can make the traditional market business model irrelevant, because with the help of such technologies, buyers will be able to contact sellers directly without additional intermediaries [17]. The intermediary business model involves the creation of an online store that sells the goods of a specific manufacturer or group of manufacturers. It may be inconvenient for the customer to go directly to the manufacturer, and he is willing to pay a little more, but he is willing to get the goods to the destination. This model

is effective when working with manufacturers on a stable basis, as well as when there is a demand for the products of such manufacturers.

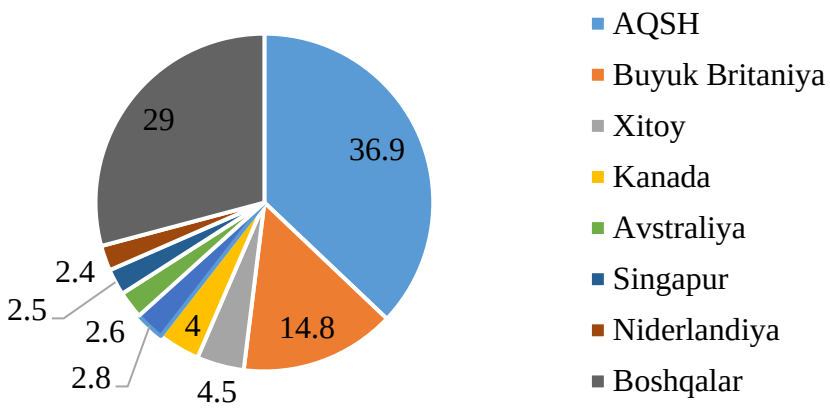


Figure 1. Use of blockchain technology in developed regions. (in percent).

Also, cloud technologies are currently used in all areas of the economy, including remote data storage and processing, serving as one of the most important technologies that facilitate the operation of industrial sectors. Such technologies can significantly save money [18]. We can mention one of the following advantages of such technologies [19].

Ease of use. The controller can control all processes from anywhere in the world with only a computer (even a smartphone) and access to the Internet telecommunications network.

Today, the digitization of the industry includes the use of new types of equipment: robotic devices and non-abandonable technologies, flexible processing complexes, production automation, unmanned transport, automated technical and technological platforms of various stages of the production process, digital sensors, etc.

In general, the development of a strategy for digitization of the regional industry in the conditions of the current digital economy makes it possible to select for evaluation and implementation of innovative and investment projects aimed at achieving the strategic goals of industrial development in the region and in our country. Its solution is not only theoretical, but also of great practical importance for officials of state bodies involved in supporting actions at the global and local level and implementing economic policy.

The development of the economy of the Republic of Uzbekistan is largely focused on the development of priority sectors, and the task of ensuring the material and moral well-being of the population is at its core. Today, about 28% of the republic's gross domestic product is accounted for by the industrial sector [3]. In order to further increase the share of industrial sectors in the country's gross domestic product, it is necessary to develop scientifically based theoretical principles using modern technologies. Based on the research carried out in our study, we developed the principles of digitization of the regional industry using innovative technologies (Table 1).

The scientific theoretical principles of transformation of the regional industry are necessary for the methodical understanding of the problems and tasks of the management of the innovative economy, in particular, the industrial structure, and the formation of a theoretical basis for making clear management decisions in the directions of the innovative economy and the development of regional industrial production.

Table 1 Scientific theoretical principles of digitization of the regional industry using innovative technologies

Principles	**Definition of principles**
Scientific validity	When making decisions important for digitization, at the same time, it is necessary to take into account the existing laws and trends of the transformation of the industrial complex being developed, and it is expressed in the scientifically based use of tools and methods.

Account of scientific and technical progress.	Account of scientific and technical progress. It implies the continuous change of labor tools, technology and production organization, as well as the improvement of the digital transformation process.
Hierarchy	It consists in building the strategies of the enterprises of the regional industrial complex that are interconnected with the development strategy of the region and the country as a whole.
Expediency	Taking into account the characteristics of the region, it includes the determination and systematization of goals, tasks, solving identified problems and providing them with modern information and communication technologies (smart) equipment.
Optimality	The solution is to find the best strategy for transforming the region's industry from a set of fully feasible solutions.
Alternative	Alternative. Transformation involves choosing the optimal solution from the full set of possible alternatives.
Compatibility	Compliance is carried out on two levels: - The first one indicates the need to take into account the most important factors when developing a strategy for the transformation of the regional industrial complex; - the second involves the search for more detailed information and optimal solutions for the components of the strategy that are important for achieving the goals and objectives.
Criterion	It consists in the development of criteria that reflect the level of achievement of local and global goals of the strategy of improving the transformation of the regional industrial complex.
The ability to distribute.	It is considered the implementation of the process of forming the goals and objectives of the strategy for improving the processes of transformation of the regional industry.

However, opinions often differ on the choice of means, forms and methods of the system for the transformation of the regional industry, in particular, on determining the conditions and time for scientific and technical development, as well as technological stagnation.

The need to analyze concepts and methodological views on the content, mechanisms and means of managing science and technology development is related to several reasons. The most important are:

- management of innovations and scientific and technical development, which often have conflicting views;
- the fact that a number of theoretical concepts are not connected with real economic growth;
- dynamics of economic processes, specific historical and economic conditions;
- the importance of theoretical views for management decision-making;
- the error in defining management priorities affects the formation of theoretical rules.

An important goal in this is: digitalization of industrial production, including clustering or modernization of inefficient links of industrial enterprises, replacement of physically and mentally outdated main tools, introduction of technical innovations and production of new types of products. All this leads to intersectoral, regional, technological, institutional and other important structural shifts of production.

It is important to provide the necessary elements to bring technological progress and strengthen the economy and apply the following industrial trends in improving the processes of industrial transformation in the region.

First: To conduct analytical processes, that is, to develop better systems for manufacturers using digital technologies to manage events and various types of processes.

Second: Support new levels of flexibility in implementing digital investments.

Third: Supply chain stability should be strengthened to reduce trade impacts and other disruptions.

Fourth: Manufacturers need to know where and when to recalibrate global production and supply chain digital capabilities. And it will be able to work in real time in a complex network of delivery.

One of the objective requirements for information and implementation of the industrial structure in the region is to study the best practices of foreign countries and analyze the quality of services in this field from developed countries.

The composition of regional GDP has changed significantly in 2010-2020. In 2020, the share of agriculture, forestry and fisheries increased by almost 1.5 times compared to 2010 and reached 41.9%. During this period, there was a decrease in the share of only one industry, from 40.4 percent in 2010 to 17.9 percent in 2020. During the analysis period, the share of the construction sector increased by 0.8 percentage points, the share of trade, accommodation and catering services increased by 2.8 percentage points, the share of transportation and storage, information and communication services increased by 1.1 percentage points, and the share of other service sectors increased share increased by 4.6 percentage points (Table 2).

Table 2 Analysis of indicators representing the state of economic development of the regions of the Republic of Uzbekistan (as of 2020)

The name of the regions	**Unemployment rate (in %)**	**Volume of industrial output by region (at current prices; billion soums)**	**Industrial output per head**	**The number of active enterprises and organizations in the region**	**Total income per head**
1	**2**	**3**	**4**	**5**	**6**
Republic of Uzbekistan	**10,5**	**368 740,2**	**10771,8**	**398133**	**12279,1**
Tashkent sh.	8,0	66 188,0	25052,6	83846	10240,9
Navoi	9,4	65 084,9	64737,5	17067	9427,4
Average value for group 1	**8,7**	**65636,4**	**44895,0**	**50456,5**	**9834,1**
Tashkent	10,5	65 949,9	22356,3	38523	8940,8
Andijan	10,9	36 376,5	11519,2	30740	20533,2
Average value for group 2	**10,7**	**51163,2**	**16937,75**	**34631,5**	**14737**
Republic of Karakalpakstan	10,5	13 981,3	7316,1	18404	25999,4
Bukhara	10,6	17 574,4	9080,0	23459	13301,8
Jizzakh	11,0	5 823,8	4170,9	17190	14774,1
Kashkadarya	11,1	14 612,3	4417,4	25259	9503,1
Namangan	10,6	11 011,9	3878,6	25909	12315,8
Samarkand	11,0	18 383,4	4698,6	31354	10931,8
Surkhandarya	11,1	5 322,7	2004,8	19220	10980,7
Syrdarya	11,0	7 990,9	9361,5	13169	10696,6
Fergana	10,9	21 701,2	5732,0	35379	9846,6
Khorezm	10,9	9 615,9	5115,1	18614	11146,3
Average value for group 3	**10,8**	**24019,9**	**8637,9**	**26468,9**	**14201,7**

In this table, a number of results were obtained based on grouping. Group 1 differs from other groups by several indicators. The 2nd group differs positively from the results of the 3rd group with several indicators. The main common aspects of the cities and regions listed in the first and second groups are that the share of industry in the GNP

of our republic is high. More than 1/3 of the country's GDP is produced in these regions. In 2018, 50.0% in 2019 and 53.6% in 2020 of the total industrial production of the republic was contributed by these regions. They are the leading regions of the country in the production of industrial products, and the manufacturing industry occupies the main share in this sector (Table 3).

Table 3 The state of development of the industrial sector in the economy of Karshi, Guzor and Mubarak districts of Kashkadarya region

If we pay attention to this table, the indicators were obtained in the cross-section of three districts (Karshi, Guzor and Mubarak districts), and the share of districts in the volume of industrial production is highlighted in the first row. Here we can see that the development indicator of Karshi district has increased. We can see that indicators have fallen in Guzor and Mubarak districts. The second line shows the growth rates of industrial production. If we pay attention to recent years in Karshi and Guzor districts, we can see that indicators have increased. In the Mubarak district, we can see that the pointer has fallen. In the third row, the volume of industrial production is taken in the price scale. Here we can see that the development indicator of Karshi district has increased. We can see that indicators have fallen in Guzor and Mubarak districts. In the fourth line, indicators of development were obtained based on the amount of consumer goods produced per head. Here we can see the growth in Guzor district and the decrease in Karshi and Mubarak districts.

Indicators	Karshi district			Guzor district			Mubarak district		
	2019	January-December 2020	January-September 2021	2019	January-December 2020	January-September 2021	2019	January-December 2020	January-September 2021
Share of districts in the volume of industrial production (in percent)	3,6	4,2	5,9	22,1	18,4	20,1	31,8	4,3	2,5
Growth rates of industrial production (in percent)	100,8	80,3	131,2	99,4	108,1	111,0	84	83	71,1
Volume of industrial output (at current prices; billion soums)	739,5	614,2	771,7	6483,4	631,9	330,3	4504,5	2692,7	2650,1
Consumer goods produced per head (thousand soums)	719,0	787,3	588,8	504,2	572,6	870,7	1062,4	1183,5	659,1

Table 4 Growth rates of agricultural, forestry and fishery products in the district economy of Kashkadarya region (in percentage compared to last year)

The name of the areas	2017	2018	2019	2020	January-September 2021
Kashkadarya region	**103,3**	**96,6**	**101,2**	**104,0**	**103,1**
Karshi sh.	119,6	58,2	108,0	100,8	101,8
Shakhrisabz sh.	110,9	192,3	96,6	103,2	107,7
Average value for group 1	**115,2**	**125,25**	**102,3**	**102,0**	**104,7**
Guzar	91,2	98,5	104,5	104,1	103,2
Dehkanabad	105,9	100,2	103,8	105,4	100,3
Kamashi	104,6	89,4	102,1	106,0	102,4
Karshi	101,2	98,8	101,4	94,5	105,7
Koson	107,5	92,9	99,6	102,8	105,7
Kitab	103,4	108,1	94,2	99,6	102,4
Mirishkor	103,1	107,2	95,6	104,2	103,9
Muborak	107,6	99,0	101,3	107,9	105,5
Nishan	101,6	86,3	108,2	115,6	102,4
Kasbi	105,3	101,7	100,3	112,5	103,4
Chirakchi	104,7	94,9	104,8	106,5	100,4
Shakhrisabz	106,9	95,8	98,8	94,5	103,4
Yakkabog	97,2	89,1	104,7	104,0	103,3
Average value for group 2	**103,0**	**97,0**	**101,4**	**104,4**	**103,2**

Taking into account the above information, it should be noted that the growth rates of agricultural, forestry and fishery products of the cities and districts of Kashkadarya region were divided into two groups. The results of the analysis of the first group showed that the growth indicators of the cities of Karshi and Shakhrisabz (103.2 in 2020 and 107.7 in January-September 2021) were found to have a better result than almost the rest of the districts. In the second group, the growth of agricultural, forestry and fishery products of the remaining districts (Guzor, Dehkhanabad, Kamashi, Karshi, Koson, Kitab, Mirishkor, Mubarak, Nishon, Kasbi, Chirakchi, Shakhrisabz, Yakkabog) pointers are given. Taking into account these indicators, it is appropriate to accelerate the processes of digital improvement of the leading industries of the region. This creates the ground for the leading industries of the region to be in the top positions in the republic.

During the analysis period, GNI per head in Uzbekistan recorded a 7.5 percent increase. This growth occurred together with an increase in labor productivity (11.5 percent), a decrease in the share of the working-age population (-2.0 percent), and a decrease in the employment rate (-1.6 percent) (5 -table).

Table 5 Factors of growth of gross added value per head

Indicators	2020 year	2021 year
GDP per head, (thousand soums)	10 763,7	12 999,6
Growth rate of GDP per head (% compared to last year)	100,8	105,6
Population of working age (thousands)	1806,3	1806.3 (in change)
Total population (thousands)	**3 280,4**	3335.4
Total employed persons (thousands)	**1186,7**	1186.7 (in change)
Unemployment rate (%)	**11,1**	(11.1

The data reviewed above was analyzed based on certain indicators. Looking at the last two years, the GNP per head is 10,763.7 in 2020. By 2021, we can see that these indicators will be 12,999.6. In addition, we can see that the growth rate of GDP per head has changed from 100.8 to 105.6. Our next work was the analysis of the growth rate of GNI per head (% compared to last year). According to the results of the analysis, it was 100.8 percent in 2020, and 105.6 percent in 2021. The population of working age (thousand people) in 2020 is 1806.3 (thousand people). In the following processes, we can see that as of 2020, the total number of employed people was 1186.7 (thousand people) and the unemployment rate was 11.1 (%).

The data of the Statistics Department of Kashkadarya Region was used to carry out this analysis. The number of employees in the industry, the volume of production of industrial products in the private sector, the number of enterprises and investments in fixed headl were selected as important factors affecting the volume of products developed by industrial entities. Data from 2002-2021 were used for the analysis. According to the statistics department of Kashkadarya region, it was formed as follows (Table 6).

Table 6 Statistical data on the volume of products developed by industrial entities of Kashkadarya region and the factors affecting it (in nominal values)

№	Years	The volume of products developed by industrial entities (billion soums) Y	Number of people employed in the industry (thousand people) X1	Production volume of industrial products in the non-state sector (billion soums) X2	Number of industrial sub-enterprises (unit) X3	The value of investments in the capital of industrial entities (billion soums) X4
1	2002	408.5	34.0	263.8	2.74	2228.1
2	2003	534.9	32.6	524.2	3.06	3143.5
3	2004	773.2	31.3	771.3	3.03	3392.6
4	2005	137.6	29.7	137.9	3.43	4373.9
5	2006	189.0	28.4	189.0	3.46	6978.8
6	2007	723.6	41.0	1286.4	3.63	8300.0
7	2008	128.4	33.7	3049.3	3.94	1630.3
8	2009	408.0	37.4	4082.0	3.98	2192.2
9	2010	395.7	41.9	3935.1	4.22	1597.9
10	2011	430.4	43.2	4082.0	4.54	1914.4
11	2012	558.0	47.6	3935.1	4.63	2875.9
12	2013	626.7	47.8	5814.3	4.62	3498.8
13	2014	632.3	48.6	6303.2	4.25	3944.4
14	2015	872.9	92.1	8643.4	3.99	5224.3
15	2016	963.2	95.0	9599.7	3.46	6334.0
16	2017	1094.9	96.1	1076.8	3.21	1018.9
17	2018	1452.5	10.9	4639.2	3.17	1651.5
18	2019	2036.1	96.0	6377.9	3.44	2446.5
19	2020	1461.3	91.0	8028.3	3.83	1992.7
20	2021	1874.1	89.0	9044.2	4.48	1622.1

Assessment of the development of industrial activity in the region on the basis of trend models makes it possible to compare connections between elements of several sets. It involves creating trend models of time series by processes, determining quantitative solutions of connections between economic events and processes through correlation coefficients, creating regression models of economic development, evaluating and forecasting the development processes of industrial enterprises through trend models.

The given data, in particular, the volume of products developed by industrial entities, the volume of production of industrial products in the non-state sector, and the value of investments in the capital of industrial entities

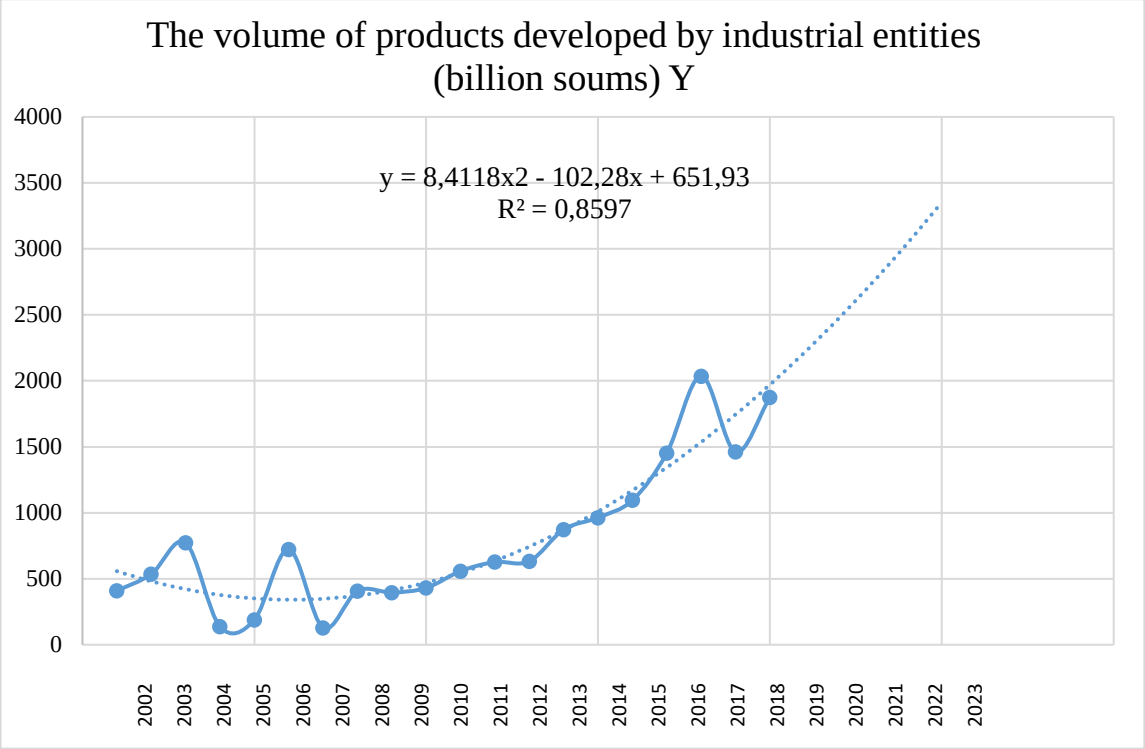
are nominal indicators and are directly derived from them. The use of ri ensures that the conclusions are not justified. Taking this into account, we determined the real values of the indicators. For this, the deflator index was used and 2010 was taken as a base (see Table 7).

Table 7 Statistical data on the volume of products developed by industrial entities and the factors influencing it (real values)

Years	Deflator index (2010 base year)	The volume of products developed by industrial entities (billion soums) Y	Number of people employed in the industry (thousand people) X1	Production volume of industrial products in the non-state sector (billion soums) X2	Number of industrial sub-enterprises (unit) X3	The value of investments in the capital of industrial entities (billion soums) X4
2002	8.5	34.7	2.89	22.59	0.23	189.38
2003	12.4	66.3	4.04	65.00	0.37	389.79
2004	18.0	139.1	5.63	138.83	0.54	610.65
2005	22.8	31.3	6.77	31.02	0.78	997.24
2006	26.4	49.8	7.49	49.89	0.91	1817.27
2007	32.1	232.2	13.16	412.93	1.16	2664.3
2008	39.6	286.5	13.34	1207.52	1.56	645.59
2009	48.3	50.8	18.06	2930.87	1.92	1058.83
2010	61.2	242.1	25.64	2405.83	2.58	977.91
2011	71.8	309.0	31.01	2930.87	3.25	1374.53
2012	100.0	558.0	47.60	3935.10	4.63	2875.90
2013	121.5	761.4	58.07	7064.37	5.61	4251.04
2014	140.3	887.1	68.18	8843.38	5.96	5533.99
2015	156.8	1368.7	144.41	13552.85	6.25	8191.70
2016	179.3	1727.0	170.33	17212.26	6.20	11356.86
2017	198.0	2167.9	190.27	2135.29	6.35	20160.42
2018	215.3	3127.2	23.467	9988.19	6.82	35564.33
2019	257.1	5234.8	246.81	16397.58	8.84	62893.08
2020	327.7	4788.6	298.20	26308.73	12.55	65281.11
2021	388.6	7282.7	345.85	35145.76	18.80	63050.73

First, based on the data of table 6, we will look at the trend model of the volume of products developed by industrial entities depending on time. In the process of modeling, the widely used method for choosing a model suitable for the development of indicators is the graphic method.

In the Kashkadarya region, which is the object of our research, the influence of production factors on the volume of products developed by industrial entities was considered. As a result, the forecast values of the production factors were determined based on various econometric models, and the forecast indicators of the production volume developed by the corresponding industrial entities were determined.



2 - picture. Growth trend of the volume of products produced by industrial entities

Figure 1 shows the calculated trend models for forecasting the process of changes in the volume of products produced by the subjects of industrial entities. According to the analysis of the results of the generated trend model, it was found that $R^2 = 0.86$ is equal to Fhsob=43.3. We decided to use the developed regression equation of the form $y = 8.4118x2 - 102.28x + 651.93$ in the development of forecast indicators, taking into account the above analysis and the cases determined by all criteria.

The developed forecast results show that the volume of products developed by industrial sectors in the region will increase by 1.24 times by 2021 compared to 2020, and by 2026 by 1.79 times, according to forecasts obtained from the trend model. As a result, it was determined that there is an opportunity to increase the volume of products produced by industrial entities by 10.1% per year according to the current trend. (Table 8)

Table 8 Forecast of the volume of products developed by industrial entities in the region and the factors affecting it

Years	The volume of products developed by industrial entities (billion soums) Y	Number of people employed in the industry (thousand people) X1	Production volume of industrial products in the non-state sector (billion soums) X2	Number of industrial sub-enterprises (unit) X3	The value of investments in the capital of industrial entities (billion soums) X4
2020 Real	1461,3	91.0	8028,3	3,83	1992,7
2021	1874,1	89.0	9044,2	4,48	1622,1
2022	2213,6	92,6	7672,3	4,32	1745,9
2023	2473,0	98,5	7916,7	4,53	2694,7
2024	2749,3	104,7	8142,1	4,81	5276,9
2025	3042,4	111,1	8348,6	5,17	10334,6
2026	3352,3	117,8	8536,0	5,62	18912,9

Also, it was determined that the number of people employed in the regional industry will increase by 1.18 times by 2021, and by 1.78 times by 2026 compared to 2020. Due to the use of the third-order equation in the development of the forecast values of this factor, the forecast values for the medium term were developed.

Conclusion

To summarize, the volume of industrial production in the non-state sector will increase by 1.30 times by 2021 compared to 2020, and by 2.11 times by 2026. The number of industrial enterprises will increase by 0.93 times by 2021 compared to 2020. increase, and by 2026 it was predicted to increase by 1.28 times. Here, if we look at the model used to forecast the number of industrial entities in the region based on a graph, we can see that the random variables that are the difference between the indicators determined by the model and the actual indicators have a large value in some time intervals. we will be

Scientific theoretical principles of transformation of the regional industry are necessary for the formation of a theoretical basis for the methodical understanding of the problems and tasks of the management of the innovative economy, in particular, the management of the regional industry, for the determination of the directions of the innovative economy and the development of the regional industry. In the process of transformation, it is important to monitor management using new methods and information technology, to ensure that they have the latest database of information security digital technologies, information systems applications, and to ensure that senior management has access to digital technologies. plays a role.

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