Alternative Scenarios for the Development of Innovative Management of Industrial Enterprises in Uzbekistan

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Abstract: The article analyzes the development trends of the innovation activity of industrial enterprises in Uzbekistan. also, alternative scenarios for increasing the efficiency of innovative management of industrial enterprises in the long-term perspective have been developed.

Key words: *innovation, innovative management, technological innovation, marketing innovation, organizational innovation, innovative business, innovative product.*

Introduction.

Deep structural reforms implemented in the economy of our country in recent years "….increasing the share of industry in the national economy, rapid development of high-tech industry and processing networks, further modernization and diversification of industry, ensuring comprehensive and effective development of the industrial potential of each region, new industry organization of enterprises and small industrial zones ", as well as "... promotion of innovation activity, creation of effective mechanisms of implementation of scientific and innovative products into practice, innovative management of industrial enterprisesIt emphasizes the need to improve efficiency. President of the Republic of Uzbekistan emphasized, rapid introduction of modern innovative technologies to economic networks, social and other fields is a key condition for rapid development of the Republic of Uzbekistan. 3 industrial enterprises Based on the points stated in the report, it is necessary to develop alternative scenarios for the development of innovative management in the country in order to determine the priority directions of the reforms that are planned to be implemented in the development of long-term strategic programs for the development of the innovative management of industrial enterprises. Taking into account the current situation, in order to determine the efficiency indicators of the innovative projects implemented by the industrial enterprises engaged in innovation in our country, carried out a correlation-regression analysis between the number of industrial enterprises that implemented innovative projects and the volume of innovative products produced by them, for the long-term perspective. developed indicators of progiosis.

Table-1

Information about innovative activities of enterprises and organizations in Uzbekistan

Years (T)	Volume of manufactured innovative products, in billion soums (Y)	Number of enterprises implementing technological innovations, in units (X1)	Number of enterprises implementing marketing innovations, in units (X2)	Number of enterprises implementing organizational innovations, in units (X3)
2008 y	1325,1	268	15	21
2009 y	1660,4	140	4	7
2010 y	1849,0	145	1	3
2011 y	1348,7	185	2	9
2012 y	3635,9	164	9	14
2013 y	4614,7	725	14	22
2014 y	7043,0	819	13	20
2015 y	8023,6	894	14	27
2016 y	10688,2	893	20	20
2017 y	18543,3	975	22	26
2018 y	28871,5	982	17	25
2019 y	26811,4	1514	28	45
2020 y	31142,8	1148	37	32

According to official statistics, the number of entrepreneurs who introduced technological innovations in the country in 2008-2020 is 4.3times, the number of enterprises that introduced marketing innovations increased by 2.5 times, the number of enterprises that implemented organizational innovations increased by 1.5 times. also, with the increase in the number of enterprises that implemented innovations during the analysis period, the volume of innovative products produced by Ulap in the bio industry increased from 1,325.1 billion to 31,142.8 billion (see Table 1). taking into account this situation, the volume of innovative products developed for the purpose of working out the prognostic indicators by performing correlation-regression analysis was selected as the result factor, and forecast indicators were developed for the increase in the production volume of innovative products by the types of introduced initiatives. From the data presented in Table 1, it can be seen that the indicators of the resulting and contributing factors selected for the correlation regression analysis and the development of forecast indicators are different from each other. In particular, the cost index of manufactured innovation products, selected in terms of the result factor, is billion. If it is mentioned above, the indicator of the number of entrepreneurs who have implemented innovative projects is given as a unit. Taking into account that this situation has a negative impact on the level of reliability of the results of the calculation - books, they were brought to the same value on the basis of the logarithmic equation and summarized in table 2.

Table-2

Logarithmic values of indicators related to innovative activities of enterprises and organizations in Uzbekistan

Years (T)	Volume of manufactured innovative products, in billion soums (LN Y)	The number of enterprises that have implemented technological innovations, in units (LN X1)	The number of enterprises that have implemented marketing innovations, in units (LN X2)	The number of enterprises that have implemented organizational innovations, in units (LN X3)
1	7,189243207	5,590986981	2,708050201	3,044522438
2	7,414813816	4,941642423	1,386294361	1,945910149
3	7,522400231	4,976733742	0	1,098612289
4	7,206896445	5,220355825	0,693147181	2,197224577
5	8,198611952	5,099866428	2,197224577	2,63905733
6	8,437002139	6,586171655	2,63905733	3,091042453
7	8,859789495	6,708084084	2,564949357	2,995732274
8	8,990142478	6,795705775	2,63905733	3,295836866
9	9,276895608	6,794586581	2,995732274	2,995732274
10	9,827863817	6,882437471	3,091042453	3,258096538
11	10,27061023	6,889591308	2,833213344	3,218875825
12	10,19658245	7,322510434	3,33220451	3,80666249
13	10,34633836	7,045776577	3,610917913	3,465735903

Based on the logarithmic analysis, the resulting factor and the factors affecting it after the information about the innovation process of the enterprises and organizations in Uzbekistan are brought to the same value. A correlation-regression analysis was carried out for the purpose of assessing the relationship between ÿ. According to the results of the analysis, the internal correlation between the number of users who implemented technological innovations and the increase in the production of innovative products was significantly stronger than other factors, the correlation coefficient was equal to 0.79. Also, if the coefficient of correlation between the factor of marketing innovation and the factor of the result reflecting the internal wealth was equal to 0.59, the internal wealth in terms of organizational innovation recorded a coefficient of 0.55.

Based on the results of the implemented calculations, in the long-term perspective, in order to justify the alternative scenarios of the development of the innovation management of the enterprises, the progio3 indicators were selected based on the results. Based on the results of correlation-regression analysis, three different forecast indicators were developed taking into account the change of the time factor.

Table-3

Forecast indicators of the increase in the volume of production of innovative products in Uzbekistan

	2021 й*	2022 й*	2023 й*	2024 й*	2025 й*	2026 й*
Due to the increase in the number of enterprises implementing technological innovations Y=1,3999+1,1816*X	54 007,4	57 564,1	61 120,7	64 677,4	68 234,1	71 790,8
Due to the increase in the number of enterprises that have implemented innovative marketing Y=6,6985+0,8685*X	56 763,7	59 378,1	61 992,4	64 606,8	67 221,2	69 835,5
Due to the increase in the number of enterprises implementing organizational innovations Y=5,2735+1,2194*X	67 258,0	70 928,3	74 598,6	78 268,9	81 939,2	85 609,5

According to the results of the implemented calculations, it was determined that the implementation of innovative marketing has a low efficiency compared to other projects. for example, the internal balance between the number of entrepreneurs who introduced technological innovations and the number of innovative products produced is significantly stronger than the other two factors, and in the long-term perspective, the introduction of organizational innovations into practice is lower than the increase in the volume of production of innovative products.He noted the following indicator (see Table 3).

Based on the applied correlation-regression analysis, it can be said on the basis of the forecast indicators that the introduction of organizational innovations into the practice of the management of industrial enterprises of our country significantly contributes to the increase in the volume of innovative products. The number of companies that have entered into practice is considered higher than others. This situation shows that the technological innovations made by the industrial enterprises in our country have made the innovations close to the level of spiritual work in the global mikes. because innovative technologies that are close to the level of spiritual development can only be produced in a short period of time. Also, the low performance of innovative marketing in terms of 3-year indicators indicates the lack of highly qualified personnel who are able to conduct marketing research, identify the demand for innovative products in the markets, collect data and process them.
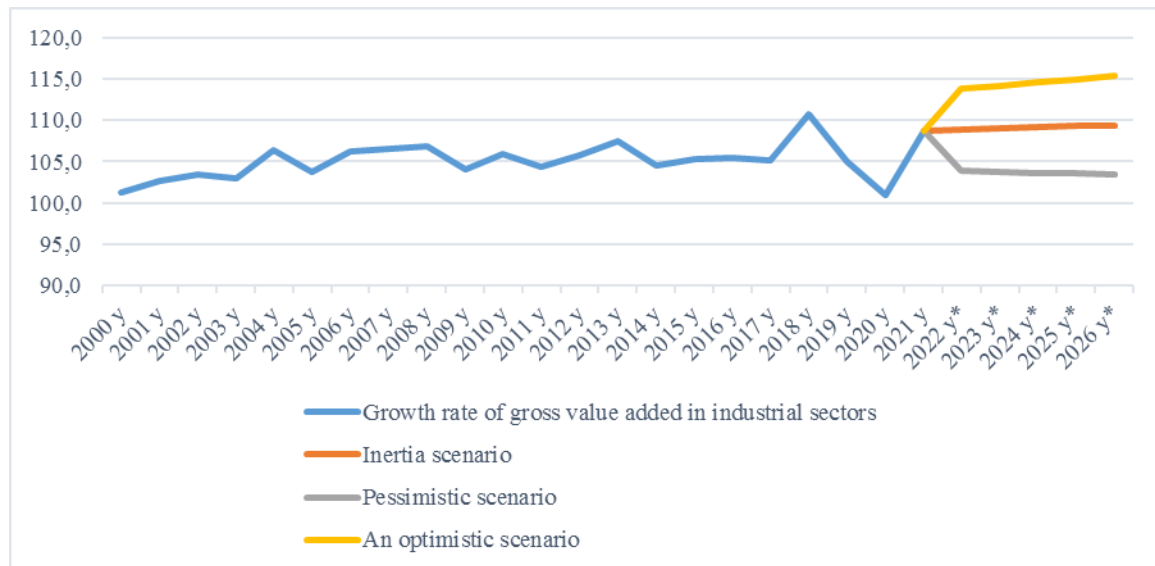
1 - picture. The pictures of the growth of the gross value added in the industrial sectors in Uzbekistan are prognostic indicators.

At this point, I consider it necessary to develop forecast indicators for the long-term development trends of the volume of gross value added created by industrial enterprises in the long-term future. According to the results of the pessimistic forecast developed for the growth trend of the gross added value in the industrial sectors of our country in 2022-2026, it was determined that the added value created in this field may have a decreasing trend in the absence of improvement in the efficiency of innovation management of industrial enterprises. also, according to the results of the inertial scenarios, if the current trends in the development of innovative management of industrial enterprises are maintained, the growth rate of the value added created in industrial networks in 2022-2026 may reach from 108.8 percent to 109.4 percent. According to the results, in 2022-2026, priority should be given to programs aimed at increasing the efficiency of innovative management of industrial enterprises of our country, encouraging their innovativeness, including improving the system of supporting innovative projects by industrial enterprises, and increasing the annual index of the gross added value created in industrial networks to 113,0 it will be possible to ensure that will be from (see the picture-1)

Based on the results of our conducted researches, it can be said that today the possibilities of innovative development of industrial enterprises in our country are not fully realized. The existence of a number of economic, financial, and social problems in increasing the efficiency of the innovative management of industrial enterprises, as well as the implementation of state programs aimed at solving them, will allow to increase the innovative capacity of the industrial enterprises of our country in the long term. Also, in the following years, I think it is appropriate to give priority to the innovation management of industrial enterprises in our country:

-encouraging innovation initiatives of industrial enterprises, as well as adopting a cluster approach in the innovative development of industrial enterprises in the republic (for example, Silicon Valley in the USA began to form a cluster approach in the 40s of the 20th century, while in China, automobile industry enterprises adopted a cluster approach in improving the efficiency of innovation management);

-encouraging the state to improve the efficiency of innovative management of industrial enterprises, including allocating various subsidies for financing the innovative activity of industrial enterprises (Japan), forming state orders and purchases (USA) for small and medium-sized enterprises for innovative products;

-by industrial corionescreation of favorable conditions for the development of the innovative activity of industrial companies by the state, including the development of innovative innovation;

-promoting the development of innovative industrial enterprises in special industrial zones by providing them with tax privileges and promoting the development of innovative industrial enterprises at the expense of foreign investments (USA);

- conducting scientific research and cooperation between industrial enterprises and higher education institutions, scientific research institutes (countries that are economically developed, including Azerbaijan, Ukraine, Japan, and the Republic of Korea);

-Increasing the share of ICT projects in the country, including encouraging the commercialization of innovative projects, etc.;

Secondly, on the basis of the above-mentioned innovation, along with increasing the level of innovative activity of industrial enterprises in the country, it will be possible to overcome the existing problems in this field. as well as a long-term strategic goal, i.e., the ranking of the top 50 countries in the "global innovation index" will be improved.

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