



## Ensuring the efficiency of production costs the role and importance of innovations

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### ABSTRACT

In the conditions of globalization in the world economic system, the current of scientific research on efficient use of costs in production has increased. One of the factors of reducing costs in production is the use of innovative technologies. It should be noted that the process of using "Industry 4.0" technology is currently underway in most of the developing countries. This article talks about the urgency of using innovative technologies in the industrial enterprises of Uzbekistan and the importance of using innovative technologies in product production.

### Keywords:

Innovation, economy, Industry 4.0, cost, "Fraunhofer-Gesellschaft", "ISO", "DIN", "PTB", artificial intelligence, additive technologies.

### The entrance

In today's conditions of increasing competition in world markets, it is a priority to fundamentally increase the competitiveness of our economy, support regions with high export potential, and comprehensively encourage the participation of economic entities in export activities.

In the report of the President of the Republic of Uzbekistan Sh. Mirziyoyev at the extended meeting of the Cabinet of Ministers, dedicated to the main results of the socio-economic development of our country in 2016 and the most important priority directions of the economic program for 2017, "First, see how effective the reforms are." The effectiveness of the implementation of targeted programs. Among these, the following economic and financial indicators of the development of industry and other sectors can be mentioned: the condition of production facilities, the reduction of expenses and costs, localization and the level of profitability, and the absolute increase of product competitiveness. Although the cost of industries has been reduced by 10%

on average, some products of chemical and light industry, automobile industry, construction materials and other industries are not able to compete in foreign markets due to their high cost. Some enterprises are working at a loss.

One of the main tasks facing the industry is to reduce the cost of production. As a result of the fulfillment of this task, an opportunity will be created to develop production and raise the standard of living of the population. Especially in the conditions of the market economy, the generous use of all resources requires increasing the role of these indicators. Therefore, it is necessary to pay great attention to the issue of increasing the cost efficiency in production.

The activity of industrial enterprises is related to material and labor costs. The main contribution of costs will be related to the production of products. The total cost of production is the production cost of the product, and depending on it, it is possible to determine how much the manufactured product costs the enterprise.

**Analysis of literature on the topic**

In order to understand the role of innovations in increasing production efficiency, it is necessary to first understand about innovations.

Theoretical aspects of innovation and innovation processes were studied by I. Schumpeter, N. D. Kondratev, G. Mensch and others.

In his research, N.D. Kondratev focuses on periods of economic development, its duration, and innovation as an example of the reasons for their development. This idea of N.D. Kondratev served as the main motivation for the development of the scientific researches of I. Schumpeter, a representative of the Austrian school. Today, I. Schumpeter is recognized as a great scientist who introduced concepts such as innovation and innovative processes. In his work entitled "Economic Periods" published in 1939, he covered issues such as the theoretical foundations of innovative processes, the effective impact of the created innovations (innovations) on the technological process and management, and the emergence of an increase in the volume of production as a result of a new combination of the use of economic resources. received.

Continuing the comparative analysis, looking at the research of another leading scientist, the German scientist G. Mensch in his works mentions the existence of an inextricable connection between the fundamental and innovative researches that arise between the level and periodicity of economic growth. . He noted that "as a result of the innovations and inventions created, the creation of new enterprises, which, in turn, affects the state and periods of economic development. "The newly created product (service) initially lags behind the demand for it, which leads to a rapid increase in the volume of production."

K. Freeman, D. Clark, L. Soete in their research put forward such concepts and views as technological system, characteristics of interactions between technological and social innovations. According to them, the rate of economic growth depends on the formation, development and obsolescence of the technological system.

It can be seen that the emergence of a new technological system in a country creates an uneven development between countries. In general, the word "innovation" means the creation of news, the emergence of unconventional processes, the emergence of special methods and tools that lead to an increase in the efficiency of organization and management.

**Research methodology:**

The methodological basis of the research is to reveal and analyze the importance of innovations in increasing the efficiency of costs in production. The methods of scientific abstraction, dialectics, and comparison were used in the analysis process. The state of introduction of innovations into production was assessed by means of the observation method.

**Analysis and results**

The cost of the product is one of the important indicators of the activity of industrial enterprises, which consists of the funds spent on the production and sale of the product. Therefore, the importance of reducing the cost of the product is incomparable. Lowering it creates an opportunity to increase profit (income) and lower prices.

In the development strategy of New Uzbekistan for the period of 2022-2026, "Implementation of policy in the field of industry, organization of industry on an innovative basis, determination of drivers and growth points in its development, competitiveness of industrial sectors by attracting advanced technologies to production and increasing production efficiency, encouraging the implementation of "green technologies" in production, in-depth processing of raw materials and production of competitive finished products, special attention should be paid to stimulating the production of products with high demands in foreign markets. It shows that further expansion of the production of products in our country and wide introduction of innovations in production is necessary.

For this, digitization of industrial production, deep integration of information technologies into the industry, it is appropriate

to use the factor of development called the fourth industrial revolution. .

The term "Industry 4.0" appeared in Europe in 2011, and at one of the industrial exhibitions in the city of Hannover, the German government announced the wide application of information technology to production.

"Industriya 4.0" application of the principles helps to have several advantages that are not available in traditional industrial models. For example, companies can take an individual approach to orders, depending on the wishes of customers.

Old plants and factories are now turning into "smart" enterprises and are starting to produce individual products according to specific orders. At the same time, the cost of producing a single product is reduced, and companies are able to produce a unique product at the price of a popular standardized product.

For this purpose, a strategy was developed for the transformation of industrial enterprises in Germany into "smart" enterprises by a special group formed with the participation of officials and experts. Following this example, other countries have started implementing new technologies, and now the idea of "Industry 4.0" has begun to conquer the whole world.

Although the world industry is on the threshold of "Industry 4.0", all its technologies can be implemented only by those who have mastered the achievements of the previous "Industry 3.0" industrial revolution.

As for the economy of Uzbekistan, it must be admitted that we are now at the stage of transition from the level of "Industry 2.0" to the level of "Industry 3.0". Of course, this situation is a serious obstacle to the complete modernization of Uzbekistan's industry. Obviously, acknowledging and understanding the problem is a step forward.

President Shavkat Mirziyoyev declared 2018 as "the year of active entrepreneurship, support for innovative ideas and technologies" in our country. In addition, the President defined a strategic plan to include Uzbekistan in the ranks of the 20 developed countries in the world. In order to achieve this huge and universal goal, it will be necessary to fundamentally change the economy and industry

of Uzbekistan and widely implement the principles of "Industry 4.0".

Of course, it is not possible to solve the problems before us by introducing new terms and announcing new initiatives. To achieve specific goals, it is considered appropriate to take the following practical measures:

1. Attracting "Fraunhofer-Gesellschaft", "ISO", "DIN", "PTB" and other foreign experts to prepare relevant parts of the "Industry 4.0" strategy project and together with them Germany, USA, Canada, Japan, China, South Korea, Studying the Korean experience, preparing legal frameworks and regulatory documents to support the introduction of new technologies.

2. Systematic establishment of cooperation in mutual scientific research between the main forces driving the society - the state, higher education institutions and representatives of the business world. Ensuring that higher education institutions are the main business incubators, where students, teachers and professors create new enterprises based on the technologies created in them. The state should take on the role of a venture investor. Business representatives, together with higher education institutions, undertake the task of developing fundamental and applied research in their laboratories and those of higher educational institutions.

3. It is necessary to develop the National Technological Development Program for the next 15-20 years, which will create conditions for Uzbekistan's regional and even global leadership, and start implementing it immediately. In the project, modern higher education institutions will be assigned special tasks - they will have to take on a new entrepreneurial function and create an economic and cultural environment that is 10-15 years ahead of others. Only then, higher education institutions can prepare people not for the past, but for the future.

Currently, such fundamental changes are taking place in the world that there have never been such great opportunities and such great potential dangers in the history of the world. The narrowness of thinking and non-revolutionary thinking of the leaders of some sectors can stop the development strategies. Artificial intelligence, robotics, the

popularization of additive technologies (that is, the production of even metal details and spare parts in 3D printing), nanotechnologies, biotechnologies and many other things are becoming an integral part of everyday life.

If we want to be among the leaders of these changes, we should be able to understand the direction in which technological development will develop in the coming years and what global innovations are expected in the future, and we should actively participate in their creation.

In the face of increasingly competitive and ever-changing markets, it has been argued that in order to succeed in today's global economy, businesses need to focus more on innovation to learn new ideas and design new products to develop new markets.

To succeed in today's market, businesses must innovate and explore new ideas to develop new products for ever-changing markets, while many businesses often operate on legacy technologies. Product innovation enables businesses to develop and sustain a lasting, sustainable competitive advantage. On the other hand, cost reduction is a key strategic choice for businesses to compete

In 2021, 3,936 technological innovations were established in the Republic of Uzbekistan, of which 1,952 innovations were included in the production industry. Innovation, by definition, includes a certain amount of novelty that is new to the organization, new to the domestic market, or new to the world. In 2021, the total number of small enterprises and micro-firms that produced innovative products, works, and services by their own power is 3875, of which the highest figures are 1137 in the city of Tashkent, 545 in the Tashkent region, and 185 in the Surkhandarya region. organized. According to the results of 2021, the volume of gross added value (GVA) created in the industry in the Republic of Uzbekistan is 189,606.8 billion. amounted to soums and increased by 8.7% compared to 2020. During the observed period, the share of this industry in the GDP of the republic reached 27.8% and compared to last year by 0.3% increased

## Summary

In the conditions of globalization, it is necessary to determine the factors of increasing production efficiency, as well as effective use of costs. The most important indicator of economic efficiency is the cost of production, and one of the main sources of its reduction is the use of innovative technologies, reducing production costs at the expense of increasing labor productivity, rational use of material resources. For this, modernization of industrial enterprises, management based on innovative technologies, it is important to prepare personnel to use innovative technologies.

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