



INDUSTRIAL DIGITALIZATION AS A TOOL TO INCREASE PRODUCTIVITY EFFICIENCY

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Article history:	Abstract:
Received: 11 th October 2021 Accepted: 12 th November 2021 Published: 30 th December 2021	The article is devoted to the analysis of opportunities to increase production efficiency, which opens up in the framework of strategic planning at the state and enterprise levels of the digital economy. The article discusses concepts such as digital economy, development strategy, production efficiency, competitive advantages. It was noted that it is important to take a careful approach to the development of key performance indicators of the enterprise. As a result, the need for a strategic approach to the implementation of digital economy tools is put forward.
Keywords: Economic development strategy, digital economy, information technology, labor productivity, production efficiency, key performance indicators	

The rapid development of digital technologies is leading to radical changes not only in the economy but also in society itself. Thus, due to the reduction of information costs, digital technologies significantly reduce the cost of economic and social operations for the state, companies and individuals, stimulate innovation, while transaction costs are almost zero, as well as dramatically increase efficiency: existing activities and services cheaper, faster or more convenient to be. Finally, digital technologies facilitate integration: people can access services that did not previously exist [1].

Nowadays, the digital economy and many related effective technologies, including e-commerce and e-business, are rapidly entering our lives. For this reason, in order to further accelerate the development of the state and society, the leadership of the republic has made a number of important decisions. For example, the President of the Republic of Uzbekistan in his Address to the Oliy Majlis on January 25, 2020 on the most important priorities for 2020 said the following about the development of the digital economy in our country: In order to accelerate the work we have begun to build a competitive economy and bring it to a new, modern level, I propose to name 2020 the "Year of Science, Enlightenment and Digital Economy" in our country. In addition, on the implementation of the Decree of the President of the Republic of Uzbekistan dated February 19, 2018 PF-5349 "On measures to further develop the field of information technology and communications" [2], as well as modern information technologies for the introduction of digital economy in public administration. In order to create conditions for rapid development, as well as to ensure information security, the Cabinet of Ministers on August 31, 2018

adopted a Resolution "On additional measures for the introduction and further development of the digital economy in the Republic of Uzbekistan" -3832 Resolutions of 03.07.2018 "On measures to develop the digital economy in the Republic of Uzbekistan" can be included in the list of these measures.

The concept of enterprise digitalization is related to the introduction of new technologies available to businesses in recent years: big data analysis and machine learning, artificial intelligence, robotics, Internet of Things (IoT), 3D printing, cloud computing. Prerequisites for the development of digitalization and the introduction of digitization were lower costs of technology and computing power, as well as increased opportunities for high-speed data transmission.

Digital technologies allow businesses to analyze sales, inventory, production capacity, and operational processes at a new granular level. This, in turn, leads to qualitatively new conclusions about the company's products, interactions with suppliers and customers, and the organization of processes.

The digital transformation of an enterprise can be viewed from two perspectives. The first is the digitization of the business model - changing the model of customer interaction, the transition from traditional sales to a "smart" product model, which is complemented by digital service for the customer. The second is operational digitalization - the introduction of digital tools to increase enterprise efficiency within the existing business model.

According to a 2018 global survey, 95% of industry directors see digital transformation as an opportunity to increase efficiency and grow their businesses [3].



The introduction of digital tools into operational activities will allow businesses to improve the quality of their decisions and get the first results within the first year. In particular, solutions based on IoT and big data analysis play an important role in increasing the efficiency of production processes. They allow you to quickly collect information about physical indicators and convert them into digital data for further processing, exchange information electronically throughout the entire value chain, and machine learning and data processing using artificial intelligence to obtain new conclusions in terms of quality. In addition, with their help you can remotely control the production process and the physical parameters of the equipment based on the decisions made, taking into account the results of in-depth analysis.

By combining different technologies, enterprises get a set of tools that allow them to increase production of finished products, reduce rejection rates, reduce material consumption and increase equipment availability.

The development of new technologies is changing the whole industry and individual enterprises. Competitive digital transformation phases are putting pressure on management. However, digitization requires investment, so companies embarking on this path need to define tactical and long-term transformation goals, a roadmap, and a business status.

According to research, to date, six out of ten industrial enterprises in the world have a digital transformation program. At the same time, a quarter of businesses have a program in less than 12 months, with the majority (61%) planning to implement an existing program within one to three years. However, these indicators reflect the level of development of the largest enterprises in the world - industry leaders [4].

But leaders are now in the process of forming the necessary digital competencies and implementing pilot projects. 89% of the largest industrial enterprises surveyed said they had started experimental projects or implemented solutions based on mechanical and artificial intelligence on the perimeter of a limited process. On average, only 12 percent of businesses in Western Europe already use big data analysis.

As part of the 'pilots', the companies were tasked with testing the technology, demonstrating dimensional economic efficiency, and initiating a process of cultural change within the organization. In most cases, such pilot projects are carried out with the involvement of external expertise of equipment

suppliers, IT companies, consultants and technology startups.

For those who are not market leaders, new technologies are still being planned. Small and medium-sized businesses are lagging behind large enterprises not only in the introduction of digital technologies, but also in traditional robotics and production automation. The gap in the pace of implementation is due to the difference in the availability of financial resources, experience in the introduction of advanced technologies and savings for large enterprises.

Presented the results of the analysis of factors affecting the rate of digital reception in developed countries in 2018. The identified factors can be divided into two groups: the internal capacity of the organization and the presence of incentives for digitization [5].

The internal capabilities of the organization include the availability of a strategic solution and the ability to implement it, which is characterized by the authority of the company's management and the quality of management processes. This includes the knowledge and skills of employees needed for digital transformation: not only IT professionals, but also the knowledge and skills of other digital professionals (however, the level of knowledge of low-skilled employees also has a big impact). Internal capabilities also include the efficient allocation of company staff resources, taking into account skills and knowledge.

What is the incentive to adopt electronic? For example, the level of competition in the industry, encouraging the management of enterprises to increase labor productivity. In addition, access to digital technologies and the open market, the ability to finance investments in digital technologies, flexible access to projects in the context of risky investments in new technologies are important. The flexibility of labor legislation is important in terms of resource redistribution, the availability of additional taxes and regulatory benefits.

By working with these factors, the state can support enterprises and accelerate the introduction of digital technologies, as up to 60 percent of the available potential to increase enterprise efficiency depends on them [6].

Internal opportunities and additional incentives for digitalization will allow businesses to start moving on the path of transformation. However, even when they have the necessary resources, companies face internal resistance, unwillingness to change business processes, and difficulties in joining "traditional"



solutions. It is important to keep in mind that the digital transformation of enterprises is not about replacing all employees with robots, but about empowering managers and workers through new technologies. More than 60% of industry leaders believe that digitalization will create more jobs instead of reducing their numbers.

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