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Digital control as a function digital management and element adaptive transformation company

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Abstract. The article is devoted to the management of control digitalization in large companies. The article discusses some features of the use of digital management in the transformation processes in Turkmenistan. This country is located in Central Asia. The capital of the state is the city of Ashgabat. The specifics of using digital management here are determined by the specifics of the objects in relation to which it is used. They have a pronounced resource character.

Key words: digital transformation, economic development, digitalization of control.

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Научная статья

Цифровой контроль как функция цифрового управления и адаптивная трансформация элементов компании

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Аннотация. Статья посвящена управлению цифровизацией контроля в крупных компаниях. В статье рассматриваются особенности использования цифрового менеджмента в процессах трансформации в Туркменистане. Эта страна расположена в Средней Азии. Столица государства — город Ашхабад. Особенности использования цифрового менеджмента здесь определяются спецификой объектов, в отношении которых он используется. Они имеют ярко выраженный ресурсный характер.

Ключевые слова: цифровая трансформация, экономическое развитие, цифровизация контроля.

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Introduction

Turkmenistan has the 4th largest natural gas reserve country in the world. It has the world's second-largest gas field; oil fields have also been discovered in the Caspian zone of Western Turkmenistan; it is the world's fourth largest exporter of fuel resources and has significant hydrocarbon reserves. The main industries include refining of oil and natural gas. Developing its economy, Turkmenistan strives to keep up with the times in terms of digital transformation of the state's life support system, systemic changes in the main industries and, first of all, in the use of digital technologies adaptation of the real sector of the economy to the conditions of digitalization, which provides a combination of integrity and flexibility of the production system, increasing the technological level of production, increasing labor productivity and competitiveness of high-tech companies.

Transformation of management systems in digital economy implies their implementation on the digital platform [Maslennikov, 2019].

Literature Review

The issue of digital control is of considerable interest to both domestic scientists and foreign researchers.

The relevance of digital transformation of business processes and management was highlighted in the works of Azarskaya M. A., Maslennikov V. D., Samarina V. P., Ovchinnikova O. P., Ukolov V. F., Chursin A. A., Shvab K.

Also, data from the world Bank in Turkmenistan were used to study the economic situation and search for reliable economic indicators in Turkmenistan, data from the international journal "Turkmenistan" [2020] and the journal of the scientific and practical Bulletin "Finance and Economics" were used to analyze the digital transformation in the country.

Methodological basis

According to the world Bank, Turkmenistan's economic indicators remain stable. The volume of gross domestic product (GDP) was 40.76 USD billion. The annual growth rate of GDP is 6.2%. GDP per capita is 7648 USD². This allows us to spend the necessary resources for a large-scale digital transformation of

economic entities and the life support system in the country.

Now digital transformation has become a new trend in the state policy of Turkmenistan, which has determined the increase in the country's GDP through the use of digital technologies. The concept of digital economy development for 2019–2025 has been adopted, and a number of laws and regulations on the implementation of digital systems have been developed. A number of new departments and centers dealing with digitalization have been created in government structures. All ministries, enterprises, and individual entrepreneurs switched to electronic document management and created Internet sites in accordance with the "digitalization" policy. Currently, a priority task for the fuel and energy industry, as well as for other sectors of the country's economy, is the widespread introduction of digital technologies³.

Work is underway to implement such an innovative solution as digitalization of the entire oil and gas complex of Turkmenistan. In essence, this is the use of digital technologies in the processes of oil drilling and production: the underground and ground infrastructure of the fields is equipped with sensors and special equipment that allows monitoring the development of the field online and, accordingly, remotely control the work⁴.

Changes related to digitalization has begun to occur in large companies. For example, the telecommunications company "Turkmentelecom" has created a Department for the development of the digital economy, which has helped to accelerate interaction with business entities and consumers of services, and improved the quality of service⁵.

Results

It became obvious that the prospects for economic development of Turkmenistan will largely depend not only on the price and external demand for natural gas, but also on their digital transformation, which also covers the non – carbon sectors of the economy – chemical, electric power,

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2 The World Bank in Turkmenistan : Country Snapshot. The World Bank. URL: <http://pubdocs.worldbank.org/en/865451539143892517/Turkmenistan-Snapshot-Fall-2018.pdf>. Publication date: October 2018.

3 Turkmenistan : International journal, 2020, no. 3–4 (180–181). URL: http://www.turkmenistaninfo.ru/?page_id=6&elem_id=258&type=magazine&lang_id=en

4 Status of observer in WTO: Integration of Turkmenistan to global economic space. *The state news agency of Turkmenistan – Turkmenistan today* : [website]. URL: <http://tdh.gov.tm/news/en/articles.aspx&article23589&cat35>. Publication date: 07/23/2020.

5 Ibid.

construction, agricultural, and public services. In the digital transformation being carried out in the country, problematic issues are on the agenda: how to create a digital culture if the majority of employees do not have the proper skills to work in a digital environment? How can I set up and improve the control function through digitalization? How do I learn to manage my business effectively in the digital world? Along with the above-mentioned issues, the main problem for many companies has been the lack of financial resources for digital transformation.

Gradually, it became a practice to improve the skills of employees and develop human capital. The enterprises began to conduct master classes, trainings, internships, and update their personnel.

Research shows that the need for financial resources necessary for the digital transformation of business can largely be met by introducing digitalization of control, which reduces the costs of the economic production. But in solving this problem, we are faced with the lack of our own scientific and practical developments of financial sector of the country, and, particularly, control. At the same time, companies that are constantly increasing their production and sales volumes are finding it increasingly difficult to achieve cost transparency and control production costs in real time.

It should be noted that not only our companies, but also many companies around the world, suffer from inefficient use of financial and material resources due to the lack of digital control, although such problems can be avoided by creating a real-time control system within companies. However, the lack of effective methods for implementing control procedures using digital tools and technologies does not allow to minimize risks and increase the profitability of commercial activities. As a result, the cost of a unit of production increases, and the risks of bankruptcy of enterprises also increases.

Discussion

It is necessary to understand how to apply the potential of the new digital age in terms of economic and social efficiency [Ukolov, 2019].

Unfortunately, despite attempts to get rid of this problem through various electronic programs for accounting and reporting of financial information, this task is not solved. There is an obvious need for a systematic more detailed study of this issue.

We found out that it is necessary to study the features of control in the conditions of digital

transformation of large companies, the presence of needs and prerequisites for its transformation using digital platforms and technologies, and to identify the degree of readiness of the company for this. Currently, attempts to switch to digital control are carried out in fragments, without proper justification and conceptual development. It is necessary to create a conceptual framework for managing the digitalization of control in a large company and digital tools for their implementation.

It is necessary to understand what is the essence of digital control in a particular organization, identify its features, and give a clear definition of this concept. This will allow you to start studying the need for control digitalization and explore the prerequisites for its successful implementation in the company, knowing the General state of control digitalization management and the existing problems for forming conceptual directions for their solution. Then it remains to develop a methodology for implementing control procedures in a large company, using digital tools and technologies.

This is the General approach to digitalization of control, which allows reducing production costs, the risk of bankruptcy of enterprises, ensuring rational use of financial resources and increasing business profitability, tracked in real time.

It is important to understand that digitalization of individual processes, functions, or procedures will not lead to significant company success. They can only be obtained if the business is completely transformed based on digital solutions. Usually, this decision is made by the owners, with the participation and consent of the company's top Executive management. Therefore, when we talk about digitalization of control, we mean that it takes place in the company's digital transformation system, as one of the components of the overall project.

This decision is determined by many factors, which primarily include the division of business ownership and management functions, the size and structural ramification of the company, and the level of risks inherent in its activities.

With the growth of the company's size and increasing complexity of management processes, owners-managers may have the illusion of control, when it seems that the business does not change much and all aspects of the company's activities are under control. In fact, the company's management

no longer has the physical ability to process information, control the situation in its entirety, and monitor all business processes in real time. That's when the digital control, as part of the digital transformation of business, is quickly updated.

Note that in Europe and the United States, the combination of business ownership and management functions is typical for small and partly medium-sized businesses. In large and many medium-sized companies, there is a division of these functions (this objective trend begins to be observed when owners are engaged in determining the strategy and direction of the company's development, without delving into the everyday details of doing business, and to manage the company hire professional managers. But no matter how professional the management is, the issue of controlling the state of Affairs in the company (trust, but check) becomes relevant for owners. In this case, digital control, used as a function of digital management, can become an effective tool for achieving success in the company's work. In practice, we have seen that resistance decreases with increasing understanding of the essence of digital transformation and as we achieve tangible success in solving the tasks set.

To be a digital organization means not only to introduce digital products and services, but also to organize the basic business processes with the help of modern technology. All this requires the formation of a digital culture in the organization, based on changing the behavior of employees, how they interact both within the company and with customers [Ovchinnikova, 2020]. Digital enterprises, more than other forms of organization of production activities, need psychological management, since they almost constantly work with information in the virtual space, plunging deeply into the relationships associated with it, due to the development and application of digital technologies [Ukolov, 2019a; Kharlamov, 2019].

Summary

In other words, digital transformation entails a complete rethink the functioning of the enterprise not only as a production structure or business – as a unit, but also as a living organism that strives for self-improvement in order to acquisition of competitive advantages. [5] It is important to note that digitalizing control becomes effective if it is carried out in a good psychological environment of the company's staff.

The psychology of digital business management, and in particular the use of digital control, is an integral part of success. The psychological climate should be such that there is no natural resistance to what is happening changes becomes less and less, with each subsequent day of holding achieving the goals in the most effective way.

We also found that the success of decisions made by top managers of companies engaged in digital transformation of companies depends largely on two factors:

- do they have the information needed to make the right management decisions;
- whether there is a system for digital monitoring of the implementation of decisions made in real time.

Managers, for whom business management is part of their daily work, are not always able to objectively assess the situation. Even if the Manager believes that he is effectively controlling all the processes, he usually does not have the time and specific skills to collect and structure the relevant information.

When entering the path of digitalization, company managers need to think about the following questions:

- Who are your competitors in the digital economy?
- "How fast should You act?"
- What is the value of digitalization for your business?
- What new features do You need in the digital age?
- How does digitalization affect your customers? [Shaping the Digital., 2017].

Think about them and you will find the right solutions in the process of implementing the transformation.

Conflict of interests

The authors confirm that the submitted materials do not contain any conflicts of interest.

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