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USING DIGITAL TECHNOLOGIES TO INCREASE MANAGEMENT EFFICIENCY AND ENSURING ECONOMIC SECURITY

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Abstract. *In this article, the development trends of digital technologies, the possibilities of ensuring economic security and improving management efficiency through their use in the management system of industrial enterprises are widely covered.*

Keywords: *economic security, enterprise, digital technology, management system, ERP, SCRM, CRM.*

The socio-economic development of countries around the world differs in its meaning and content from previous stages. The coronavirus Covid-19 pandemic is seriously testing the social sphere and economic sectors . At the same time, the economic crisis, which came during the pandemic with the term "Great Lockdown", has disrupted "value chains" in international economic relations, as well as seriously negatively affected the service and service sectors, starting a recession in the world economy.[1]

Uzbekistan is also an integral part of the international community and the global economic market, and positive or negative changes in the region and the world economy cannot fail to affect the economy of our country. The development of the economy of Uzbekistan during the pandemic and in the post-pandemic period is one of the priorities of the present day. In fulfilling these tasks, the penetration of digital technologies into all sectors of public administration and the economy is of great importance. The need to carry out a number of works on the introduction of digital technologies in Uzbekistan was first reflected in the Address of the President of the Republic of Uzbekistan Sh.M. Mirziyoyev to the Oliy Majlis on the most important priorities for 2019. In the Address, he said, **“** We need to develop a national concept of the Digital Economy, which provides for the renewal of all sectors of the economy based on digital technologies. On this basis, we need to implement the “Digital Uzbekistan-2030” program [2]. ”

In his Address to the Oliy Majlis on the most important priorities for 2020, the President of the Republic of Uzbekistan Sh.M. Mirziyoyev proposed naming 2020 the “Year of Science, Education and Development of the Digital Economy” and, taking into account a number of tasks that need to be accomplished, he proposed the Digital Uzbekistan - 2030 program. gave a task to the government to develop [3]within two months .

economic sectors and the social sphere, as well as the implementation of the Strategy of Actions in five priority areas of development of the Republic of Uzbekistan in 2017-2021 in the "Year of Science, Education and Development of the Digital Economy", the Decree of the

[1] **https://www.coindesk.com/the-great-lockdown-imf-confirms-global-recession**
[2] From the Address of the President of the Republic of Uzbekistan Sh.M. Mirziyoyev to the Oliy Majlis on the most important priorities for 2019.
[3] From the Address of the President of the Republic of Uzbekistan Sh.M. Mirziyoyev to the Oliy Majlis on the most important priorities for 2020.

President of the Republic of Uzbekistan No. PF-6079 was adopted on approval of the "Digital Uzbekistan - 2030" strategy and measures for its effective implementation. According to the Decree, the priority areas of the country's economy transition to a digital economy and the digital economy include:

- to coordinate programs for the introduction of modern information technologies at industrial enterprises with programs for the technological re-equipment of these enterprises;
- ensuring automation and management of all stages of enterprise supply, as well as reducing logistics and procurement costs through this;
- improvement of the legal framework for the introduction of innovative automated management systems and software products;
- improvement of the management information support system, including the introduction of a real-time business analysis system;
- By 2025, increase the share of large business entities that have implemented an enterprise resource management system (ERP) to 90 percent;
- Localization of the software part of technologies such as automation of production and management processes (ERP, MES, SCADA, etc.), robotization, "Internet of Things", "artificial intelligence" introduced in industrial enterprises by 2027, and the hardware part by 2030 on the basis of public-private partnership;[4]

Based on the above and to ensure the implementation of the decree of the President of the Republic of Uzbekistan, the introduction of digital technologies in the management of industrial enterprises is an urgent issue.

The application of digital technologies to the management process, the automation of this process is a complex process that requires new knowledge from a person. First, we will briefly summarize the automation of the management process: Automation of the management process is the use of mathematical methods, automatic devices and computing tools in solving issues of managing the activities of enterprises, departments, territorial associations, municipal economy, sectors and organizations. Modern computers and technical means can completely change the technology of information processes in management. Reflecting the state of production and economic activity in industrial enterprises in real time, ensuring the speed and reliability of transmitted and received information, simplifying data recording, searching and grouping of messages, improving information storage, reducing human labor in preparing reports, improving the interconnection between economic units and the quality of information flow are important elements of the economic security system in enterprises.

Nowadays, digital technologies are widely used in all management processes in modern enterprises. To these we give the following example:

No.	**Digital technologies and software tools used in**	**Field of application**

4Decree of the President of the Republic of Uzbekistan No. PF-6079 on approval of the "Digital Uzbekistan - 2030" strategy and measures for its effective implementation.

	management processes	
1	**CAD (Computer-Aided Design)-**	Automated system for design work
2	**CAM (Computer-Aided Manufacturing)-**	An automatic system or module of an automated system. A system used to prepare control programs for numerically controlled devices and equipment.
3	**ERP (Enterprise Resource Planning)-**	An enterprise resource planning and management system at the level of production processes, for example, planning, managing and optimizing the entire resources from order receipt to product delivery. A system that helps to continuously balance and optimize enterprise resources through a specialized and integrated set of application software that provides a common data and process model for all areas of activity, including organizational strategy for integrating production and operations, human resource management, financial management and asset management.
4	**MES (Manufacturing Execution System)**	Production process management system. Special software designed to solve the problems of synchronization, coordination, analysis and optimization of production within any production.
5	**SCADA (Supervisory Control And Data Acquisition)**	Dispatching control and the information to collect intended and management object about the information to collect , to recollect work , reflection to introduce and archiving systems work exit or real in time to work provision for intended software supply collection .

is witnessing a growing demand for corporate software , *with a particular focus on ERP* , CRM , *and supply* chain management software.

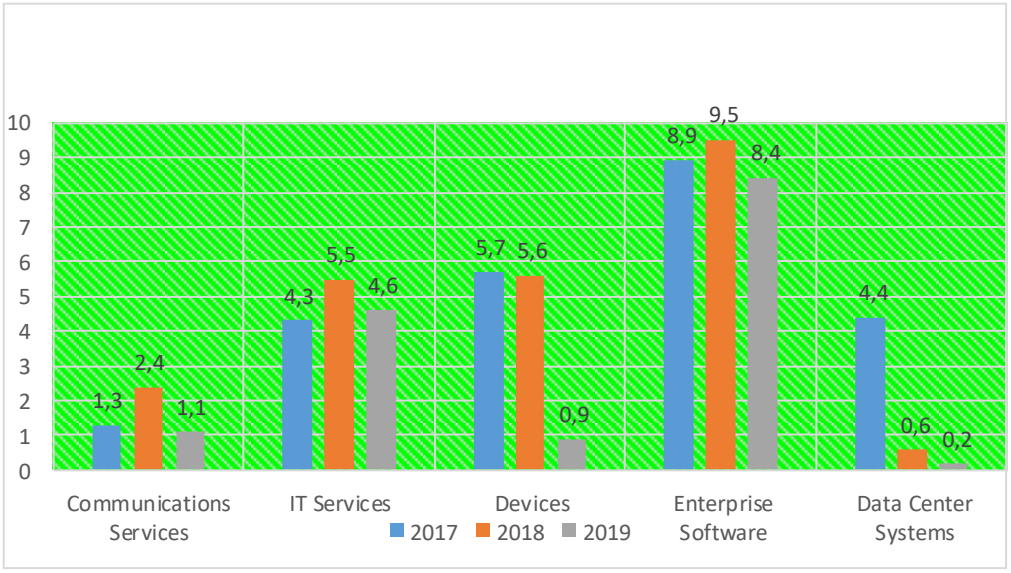

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Figure 1. The share of the world market in the field of IT[5]

As part of the study on the theoretical and practical development of an economic security system in the management of food industry enterprises, the management structure of Tashkent Oil and Fat Plant JSC was analyzed.

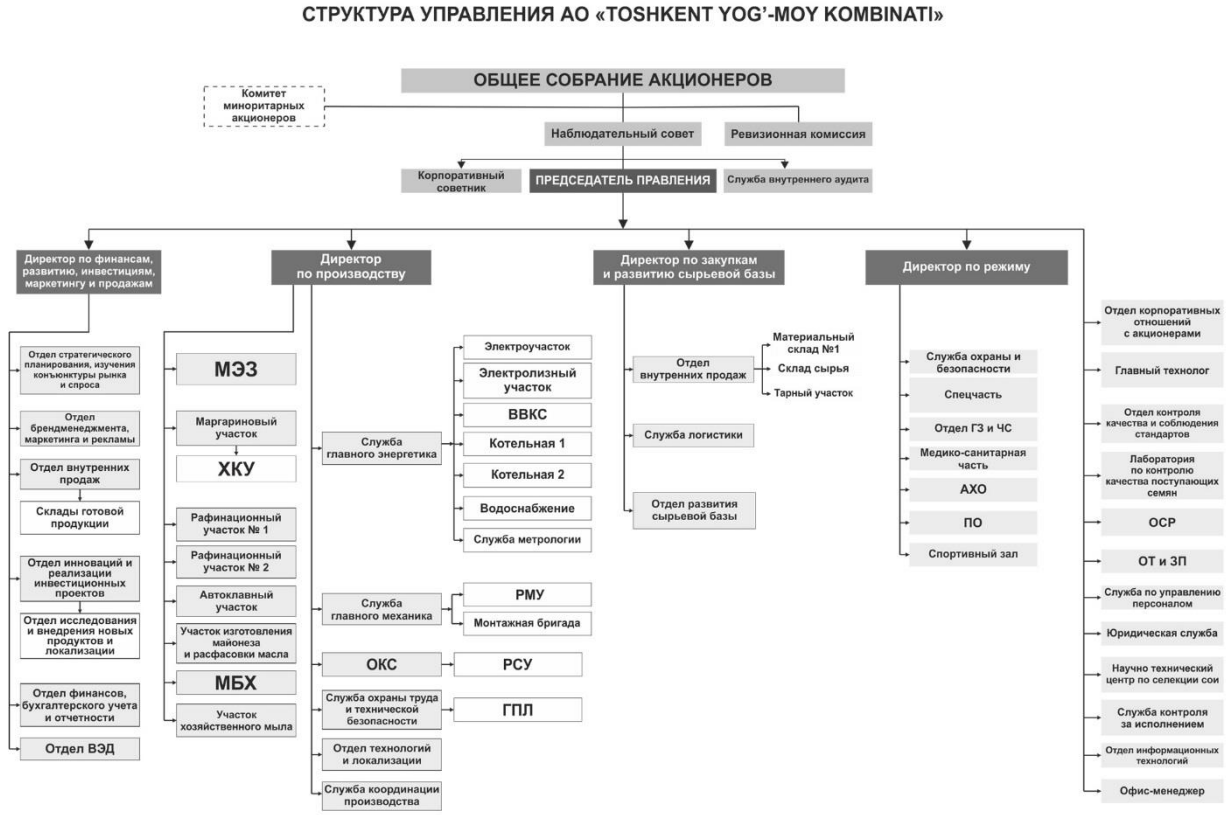

Figure 2. Management structure of Tashkent Oil and Fat Plant JSC[6]

Tashkent Oil and Gas Plant JSC is a hierarchical system managed from top to bottom, which is a traditional or, in other words, standard form of corporate governance. In this form of management process, decisions are made from above and sent down to the bottom in the form of orders or directives for implementation. The implementation and control of the decisions made is carried out by presenting reports from bottom to top. This form of management is considered an outdated approach to effective operation in a rapidly changing era. In the management of modern enterprises, it is necessary to apply ERP or CRM digital technologies to the management process in order to make decisions in real time, analyzing accurate data using artificial intelligence, and to control their implementation in real time.

One of the main elements of the economic security system is the implementation of management using digital technologies and determining the effectiveness of the implementation of decisions made in real time.

In a top-down hierarchical management system, some of the disadvantages of bottom-up reporting of the key decisions that need to be made are as follows:

[5]Esipova O.V. Mirovoy rynok IT system po automatizatsii business processes. Article, Journal "Vector Economy" 2019 g,
[6]“ Tashkent oil - butter JSC " Combine " in 2019 approved management structure .

- There is no way to know the exact status of the implementation of decisions made in real time;
- To get the results of an executed command or order, it is necessary to send another command or request, which takes a certain amount of time.
- Due to the high human factor in the hierarchical approach to the preparation and presentation of reports, the accuracy of the results may be low;
- It is necessary to analyze and evaluate the results of the executed orders or instructions, and if necessary, to verify their correctness, which requires additional time and resources.

ERP, CRM, and **SCADA** digital technologies in the management process, which help ensure the proper functioning of the economic security system and implement effective management in real time:

- It allows monitoring the performance of separate functional structures in real time.
- It will be possible to accurately determine the status and quality of receipt, execution and execution of sent orders, orders or orders;
- Work efficiency of employees increases;
- Accuracy in reports increases, ambiguous information completely disappears;
- The personnel executing orders, decisions, or directives will be clearer and more controlled, which will increase efficiency.
- It helps the existing economic security system in the enterprise to work effectively and protects it from internal and external risks.

Therefore, based on the above considerations and considerations, implementing ERP programs in a manufacturing enterprise is currently considered the most appropriate and effective.

Figure 3: ERP coverage directions.

Current ERP technologies today work issuer to enterprises in use one how many obstacles there is:

- ERP programs relatively expensive and them always update need;
- ERP the programs application to do through management process fundamentally changes this and the staff teaching and qualification increase with related expenses demand does ;
- There are almost no local ERP programs that work efficiently, have a high level of coverage, and are secure.
- Low Internet speed and relatively high price of Internet services;

However, these obstacles can be overcome, and the additional costs incurred in organizing effective management will be repaid in the short and medium term.

Today, various enterprises are using ERP programs. In particular, Tashkent Oil and Gas Plant JSC is also working with the 1C program. However, it has not fully implemented the 1C program. It uses only the financial and accounting part of the program. The 1C program also has the potential to increase the level of ERP coverage. For example, there are opportunities to organize a supply chain or use a trade and distribution system.

The following conclusions were drawn from the results of the research

1. It is necessary to launch other additional functions of the 1C program at Tashkent Oil and Gas Combine JSC and transfer the management process to fully digital technologies.
2. The production process needs to be modernized with equipment that works on digital technologies;
3. Installing sensors that work in sync with ERP programs in each workshop and section;
4. Creating the ability to control the logistics and distribution chain through ERP programs.
5. The enterprise needs to hire personnel who can work with the ERP software being implemented and use digital technologies, or upgrade or train existing personnel.
6. Implementation of a modern multifunctional SAP system other than the 1C program at Tashkent Oil and Oil Plant JSC.

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