THE IMPACT OF DIGITAL TECHNOLOGIES ON BUSINESS PROCESSES

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The beginning of the 21-st century is characterized by the rapid development of digital production in the industrial sector of the digital economy. This period is called Industry 4.0. and as a result, there are several business processes in which digital technologies are introduced:

- product quality;
- product launch time;
- production efficiency;
- logistics.

After highlighting the main business processes that take place in the enterprise, we will look at each process in more detail, as well as highlight several technologies that affect these stages.

The formation of digital technologies has a significant impact on the format of product quality at the enterprise. Quality management in the enterprise should contribute to :

- maximizing the satisfaction of the consumer's needs through a better understanding of their needs and the operating conditions of the product;
- reduction of product development and production time;
- Increase operational efficiency and reduce enterprise costs by automating and synchronizing processes;
- Increasing safety at work;
- reducing environmental damage;
- he development of new forms of cooperation with third-party organizations.

Having identified the factors contributing to the quality of products, let us move on to the consideration of digital technologies affecting quality.

Industrial Internet of Things (IIoT) - Internet of Things for corporate/industrial applications - a system of combined computer networks and connected

industrial facilities with built-in sensors and data collection and exchange software, with the possibility of remote control and control in automated mode, without human participation.

The principle of operation of the technology is as follows: initially installed sensors, actuators, controllers and man-machine interfaces on key parts of the equipment -

information is then collected, which subsequently allows the company to acquire objective and accurate data on the state of the enterprise.

The processed data is delivered to all departments of the enterprise, which helps to establish interaction between employees of different departments of the enterprise and make clearer decisions.

A study by J'son & Partners Consulting found:

Firstly, the introduction of this technology allows the production body of equipment to monitor its operation, carry out routine work, predict accidents, prepare in advance the necessary parts for replacement.

Secondly, when we know the planned, as well as the actual amount of load of equipment connected to the network, it is possible to organize an automatic network of orders between various industries from suppliers of material to consumers of final products. This stage is realized by connection to a single production site of its participants.

Thirdly, this is a transition from the model of sale of equipment, measured quantitatively, to the model of sale of functionality (final result). For example, the sale of not just compressors, but compressed air with certain and guaranteed parameters, depending on the parameters defined, the price of equipment is generated.

Blockchain

First, let's figure out what blockchain technology is. Blockchain

is a technology that changes the way data is stored, transmitted, and even produced. In fact, blockchain represents a new way of structuring information registers.

In the traditional Internet model, all computers connect to nodes that centralize and redistribute information, creating a stream. In the blockchain, the structure of information storage is different. With the help of several technological developments, such as cryptography and enhanced data compression, all computers in the blockchain store all the information on this network. Accordingly, this technology does not have central nodes, since all connected devices are themselves.

A very important process in the enterprise is the process of bringing products to market. The timing of the product launch depends on the company's re-confusion, product downtime, warehouse policy, enterprise support, cooperation with suppliers and the customer base. All these factors are an integral part of the work of the enterprise. Thanks to digital technologies, it is possible to improve these processes and thereby increase the efficiency of the enterprise.

Consider the factors that can improve this business process:

- rapid modeling and experimentation;
- Improving cooperation with the client base;
- development of supplier relations;
- improvement of work with inspection bodies.

Consider technology that promotes digital modeling.

NX system

This technology includes a set of applications that allow you to automate the stages of product design and solve the problems of developing a complete electronic layout of the entire product, as well as its components.

The system also offers solutions to such issues as:

- design;
- industrial design of the product;
- modeling of product parts;
- development of routing systems;
- engineering analysis;
- tooling design;
- programming of machines.

This technology is developed by Siemens. When examining its advantages, we can note the following.

First, this development reduces the time to market by reducing the time to design and model equipment and creating product design. In fact, this technology largely replaces manual labor, but there is a minus in this, since human capital loses its meaning - jobs are reduced.

Secondly, the NX system increases the efficiency of such processes as: product quality (due to engineering analysis of the product, programming machines for a specific work model, modeling product parts); the efficiency of the production process, since this process accelerates the development of the product, then the production process itself accordingly passes faster. But there are also downsides. Since the technology is fully automated, a failure during its operation

can lead to heavy losses. The NX system, for example, as a result of product development, did not correctly design the part, but at the same time transferred the product model to production, which means this can lead to the production of low-quality goods.

CRM system

First, we define what a CRM system is. The CRM system is a customer relationship management system, application software for the organization, designed to automate customer interaction strategies (in particular, to increase sales), optimize marketing and improve customer service by preserving customer information and history of relationships with customers, as well as establishing and improving business processes and subsequent analysis of results.

With the CRM system, enterprises get the following benefits:

1. Data processing and analysis is accelerated by combining disparate customer data.

2. CRM systems allow you to automatically track important events related to customers and issue notifications, which means that staff do not need to search for this information in disparate sources.

3. Increase the impact of marketing activities. Since CRM systems store all information about the client, companies have the opportunity to hold events aimed at a particular client.

By automating the process, all documents can be passed electronically.

According to experts, the introduction of digital technologies into the business process responsible for production efficiency will increase productivity growth by 3-5% and reduce equipment downtime by 30-50%, as well as allow for an increase in performance functions by 45-55% due to automation of production processes.

SCM Supply Chain Management System

SCM (Supply Chain Managmaent) is a supply chain management system designed to automate and manage all supply phases of an enterprise, as well as to control the entire supply chain. How does SCM work? In fact, this technology is a cloak software that is designed to automate and manage all stages of the supply of the enterprise.

This system is responsible for functions such as:

- forecasting of weekly and daily sales of goods;
- optimization planning of guarantee stock, reserves in the enterprise;

- planning of deliveries within the logistics network of the company taking into account planned sales, deliveries from the manufacturer, availability of balances, transportation capacity;
- short-term and long-term forecast;
- consideration of arbitrary factors affecting automatic sales, etc.

The world's largest IT companies have become the main players in the global market for goods and services in the global digital space. The network interaction of economic entities is influenced by the dynamically developing active investment activities of leading entrepreneurial structures. Today there is a transformation of the capital market due to an increase in investments in international projects and programs in such an organizational form as consortia and integration groupings with the participation of companies and states with the potential to use digital technologies. There is a tendency to increase global investment flows to the segment related to "mass demand" technologies. New directions for the development of entrepreneurship arose, for example, in the field of Internet games, e-commerce, storage of database arrays. This process will inevitably contribute to strengthening the role of global business structures using intellectual capital and integrated analysis of the data array of the digital space of regional socio-economic systems. Global and local digital markets transform entrepreneurial activity and create new organizational forms of its implementation in regions with the potential to create intellectual capital as a tool for solving state socio-economic problems.

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