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METHODOLOGICAL APPROACH TO THE DEVELOPMENT OF DIGITAL TRANSFORMATION OF AN ENTERPRISE

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A B S T R A C T

The increased intensity of competitive influences for doing business emphasizes the importance of interaction between all participants in the processes when implementing digital transformation. This fact encourages leaders to implement management strategies, make quality decisions based on international experience, digital tools to help achieve quality management. Management decisions made by the top management of an enterprise regarding digital transformation will not only affect the effective management of the enterprise and profits in the short term, but will also allow for the proper choice of business model. This circumstance determines the expanded content of the methodological approach to the development of digital transformation and the need to choose a business model. The purpose of the study is to substantiate the feasibility and scientific correctness of forming a strategy for the digital transformation of an industrial enterprise as an object of economic and management research.

1. INTRODUCTION

Global trends such as the emergence of disruptive technologies, digitalization and accelerated product life cycle are driving massive changes in most areas of activity. Distribution channels are changing, profitability zones are shifting and new players appear on the market. All these fundamentally change the balance of power in industries significantly accelerating the introduction of new business models. Today, in different industries, autonomous robots are applied at different levels, from beginning to total automation. In some industries, autonomous robots are already widely represented, while in other industries, this is a new term. The implementation of autonomous robots can affect changes in the business model (Nikolic et al., 2023).

Digital transformation is often considered a new epoch that dramatically changes how organizations develop, compete, and create value (Kotusev et al., 2020). Indeed, digital transformation not only strongly affects how people work (Sahut & Lissillour, 2023) and how organizations innovate, but also emphasizes how all partners need to apply digital transformation at all levels and processes in supply chain management (Derrouiche et al., 2022). For example, the supply chain operation needs to make process and organizational changes with the implementation of technology (Benhayoun & Saikouk, 2022; Lesueur Cazé et al., 2022).

Digital transformation is talked about by company executives, politicians and scientists. Some call it the fourth industrial revolution, others offer a combined approach when considering a digital transformation strategy.

Thus, this study aims to understand the gaps in enterprise digital transformation planning processes, thereby ensuring a more effective integration of digital transformation processes and enterprise strategic planning.

Therefore, this article focuses on answering the following two research questions:

RQ1: What is the most suitable digital business model for digital transformation?

RQ2: How can enterprises more effectively integrate their digital transformation strategy as they implement

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their roadmap?

The purpose of the article is to substantiate the feasibility and scientific correctness of using the strategy for digital transformation of an industrial enterprise concept as an object of economic and management research.

To achieve this goal, it is necessary to solve the tasks as follows:

- to form the author's definition of "digital transformation of an industrial enterprise" from the point of view of the development of the digital economy of transformation of the internal environment, enterprise management;
- describe the characteristics of the main elements of the digital transformation of the industrial enterprise;
- present the methodology and describe business models based on adaptation to the challenges of digital transformation: show intermediate results;
- justify the possibility of digital transformation of an industrial enterprise;
- present the stages of the development of a strategy for digital transformation of an industrial enterprise, describe the main stages of the implementation of the roadmap;
- offer practical recommendations for the implementation of the strategy of digital transformation of an industrial enterprise.

2. LITERATURE REVIEW

2.1. Theoretical background

Systematization and generalization of existing views in theory and practice on the essence and content of digital transformation of an enterprise.

Next, let's move on to systematizing the concept of "digital transformation of an industrial enterprise."

At the moment, this concept of digital transformation of an industrial enterprise is being considered by various scientists and experts in the field.

At the moment, there is no single understanding of the digital transformation of an industrial enterprise. The term "digital transformation of the enterprise" can be applied not only to the enterprise, but also to the industry, the state, etc.

So, according to the authors Gileva et al. (2020), the strategy for the development of a modern enterprise, which essentially becomes a strategy for digital transformation, should take into account the changes associated with the spread of business ecosystems and use them to strengthen their competitive advantages (Gileva, et al., 2020).

So the team of scientists Babkin et al, (2017) consider the term "digital transformation" - a type of economy based on the practical use of new digital technologies for collecting, storing, processing, transmitting information, concluded in a complex system of socio-economic and organizational and technical relations, including many elements (Babkin, 2013, Babkin et al., 2017).

Further, according to the team of authors of the textbook "Digital Management" Lyandau et al. (2022), this definition of "digital transformation of the enterprise" is investigated from the standpoint of the organizational structure of the enterprise. In their opinion, this definition has a fundamental difference, which consists in the transition of the hierarchical structure into the digital organizational structure of management and consists in the end-to-end use of digital technologies to ensure the effective interaction of the subject and the object of management, ranging from production personnel and line managers to the board of directors in the company or the management of the ecosystem as a whole. In general, they propose to consider economic activities carried out in a single information space based on digital technologies that combine all the necessary resources for a software-controlled life cycle of creating values (goods, works, services) using digital twins, Internet things, big data analysis, blockchain technologies (Lyandau et al., 2022).

Digital organizational management structures do not completely cancel the hierarchy, but radically change the principle and work of its participants who are connected to the digital platform.

So Fleck and Ugnich (2020) propose to consider the term "digital transformation of the enterprise" on the basis of process, industry and technological approaches (Fleck, & Ugnich, 2020).

In our opinion, from the point of view of organizational structure management, the process approach to management during the digital transformation of the enterprise is fundamental, because it is based on the allocation of business processes of related works or procedures that together implement a specific goal of the current economic activity within the framework of the existing organizational structure of the industrial enterprise (Tashkinov, 2012)

According to Sidorova (2023), the "digital transformation of the enterprise" should include the main elements that make it possible to successfully implement projects to optimize business processes and digital transformation. The author proposes to first determine the goals of digital transformation, the object and subject, strategy and path, develop a "roadmap," determine barriers and rationally approach the implementation of the digital transformation strategy and roadmap (Sidorova, 2023).

According to Zinchik, et al. (2023), the "digital transformation of the enterprise" should take into account lean production projects aimed at optimizing business processes using digital technologies that combine work with processes and people (Zinchik et al., 2023).

So the authors: Zabaykin et al. (2023) offer their own view of this term. In their opinion, "the digital transformation of the enterprise is a complex process of transformation based on the use of digital technologies, it involves a fundamental rethinking of how the organization works and how it interacts with the environment (Zabaykin et al., 2023).

The team of foreign authors Ayala et al. (2019), propose to consider the "digital transformation of the enterprise" as a concept of smart production, which involves

integrating the life cycle of the product with all the activities of the supply chain plant, production processes with a mandatory change in the way people work (Ayala et al. 2019).

It should be noted that the process of digital transformation covered most of the world, but the very concept and data on the quantitative indicators of the digital economy remain limited, as indicated by the English researchers Bukht and Hicks (2018).

Since the object of our research is an industrial enterprise, the author is invited to consider the concept of "digital transformation of the enterprise" from the point of view of the development of the digital economy of the internal environment, enterprise management. The process of creating an internal environment, the management of the enterprise has an impact on the main production processes during the production of products, auxiliary and servicing processes that produce and sell products.

At the present stage, the enterprise's activity is impossible without the organization of information unity, which is determined by the commonality of information flows supporting the processes of production and financial and economic management (Kapulin, et al., 2022).

As a rule, the structure of an industrial enterprise is the composition and ratio of subsystems included in it, allocated according to the criteria of organizational, production and management processes (Babkin, 2013).

It follows that an enterprise, when it realizes that there is a need for the transition of digital transformation, then its organizational structure and all the connections of functional units begin to be rebuilt under the new requirements of the external and internal environment, and hence the inevitability of the transformation process, i.e. established thinking, into its transition into updated "digital thinking."

It follows that in order to move from product thinking to software thinking, businesses must use digital thinking as a strategic opportunity to invest and make a profit.

According to Borovkov (2019) the digital industry overcomes many restrictions, increases productivity, quality and safety (Borovkov, 2019).

Transformability is a decisive factor in success in modern production. Only enterprises that can quickly adapt their structure and have operational processes for planning and implementing changes can successfully develop and compete in the context of increasing market dynamics (Rodionova, et al., 2022).

The digital transformation of an industrial enterprise is a qualitative improvement in production and business processes by introducing modern concepts of enterprise management, as well as adapting existing and customized business models in the modern digital economy, which allows you to change the established thinking, and make its transition to the updated "digital thinking" of personnel and transform the culture of the organization.

Based on this, the digital transformation of an industrial enterprise affects to a greater extent not new technologies, but the transformation of "digital thinking" and culture in the organization. In this case, from the point of view of digital transformation, organizational culture becomes significant and important.

Companies embarking on DT should assess and reconsider their corporate culture from the start (Çetin Gurkan & Çiftci, 2020; Fichter, 2019; Hartl & Hess, 2017), thus companies often spend a considerable effort on transforming the business culture into a digital culture.

The advancement of information technologies has led to a number of qualitative changes in public relations, which stimulated the development of informal ties between various participants in the business environment and also significantly transformed relations within the companies themselves, their corporate environment and culture (Kazakov et al., 2020; Adamides & Karacapilidis, 2020; De Reuver et al., 2018).

This is typically characterized by a high level of creativity, equality, flexibility, openness, willingness to learn and digital savviness (Kaufman & Horton, 2014; Veile et al., 2020). It stimulates innovation, the use of digital technologies, and is the key to achieving the necessary agility (Fischer et al., 2020; Imgrund et al., 2018). This is crucial because one of the main causes of poor DT performance is the lack of the right culture that embraces digitalization (Hartl & Hess, 2017; Silverio-Fernandez et al., 2021; Wade & Shan, 2020).

Using accumulated data, digital transformation of enterprises leads to a shift in the paradigm of innovation, the emergence of competitive advantages and the strengthening of independent innovative opportunities. Thanks to digital technologies such as big data, the Internet and artificial intelligence, enterprises can quickly and comprehensively receive important information such as market demand, technological advances and new opportunities for the effective development of the production- economic system.

3. METHODOLOGY

To answer the questions presented, the study used a qualitative research design. A multiple case study was conducted (Yin, 2014) involving Russian industrial enterprise. Data on (1) the daily activities of entrepreneurs, (2) the role of digital technologies in the context of these activities, and (3) the evolution of the influence of digital technologies on the daily activities of entrepreneurs over the past three years were collected through interviews and documentary sources.

The research methodology represents the process of cognition from the study of technologies and basic principles of digital transformation to the development and justification of a digital business model based on the types of organizational configuration of enterprises participating in the production system as a way to increase efficiency enterprises in modern market conditions. The study used a systematic review of 55 articles drawn from three global databases - Web of Science, Google Scholar and Scopus. The analysis includes two stages. First, the narrative account examines systems research, digital and entrepreneurial systems,

and related categories present in the research logic. Second, we embark on a case study based on the thematic categorization of enterprise research which are part of the system.

In the first stage, we reviewed the relevant literature and analyzed case studies of the surveyed enterprises. To ensure that the case studies were consistent with our research focus, we selected enterprises that are involved in digital transformation projects or using digital business models based on organizational design or those related to them, regardless of industry. To identify the demand for systems, which is the core of the modern manifestation of customer-oriented business based on digitalization, expanding the potential of enterprises, we conducted a market study in the form of a survey, in which representatives of enterprises from various industries and fields of activity took part. We believe that we have obtained satisfactory results, which indicates that businesses are interested in implementing such systems. Thus, analyzing the responses to the survey questions, and use digital platforms along with their applications and services to solve everyday problems. The results of the survey and meetings with company representatives were useful in creating preliminary versions of the digital business model and drafting subsequent interview.

As we found out, digital platforms play a key role in the implementation of IoT. Digital platforms combine the capabilities of the Industry 4.0 digital revolution and provide fundamental new opportunities to improve production efficiency. New business models are created on the basis of platforms (De Reuver et al., 2018).

For mechanical engineering enterprises, there is a need for digital platforms with advanced functionality that allow the Developer, Manufacturer and Customer to interact throughout the product life cycle. At the same time, security in the Internet is an important condition (Zaichenko et al., 2020).

In order to make the enterprise's transition to digital transformation, we analyzed the data based on the cases of the respondents' enterprises. The case study method refers to the technology of situational analysis, which is one of the most suitable approaches for answering the questions formulated in the study and identifying the dynamics of development of the functionality of enterprises within the production system. The specificity of this technology is that it is carried out in the form of a situational analysis of how enterprises react to certain conditions, but this is only possible through interaction with participants in the process, consideration of different points of view and approaches, and argumentation for our own position.

Primary data was collected by interviewing representatives of individual enterprises, as well as by collecting information from open sources. Interview scripts were prepared to facilitate data collection; together with the available information, a description of real economic situations was obtained, which will allow us to understand the essence of the subject of the study, propose possible classification features of enterprise within the framework of digital transformation, and help choose the most suitable digital business model.

The choice of an enterprise is a critical element of this study since enterprises must provide a significant contribution to the economy, which should be interesting and competitive in the market and use digital technologies in their activities.

4. RESULTS AND DISCUSSION

Next in the study, we present the types of organizational configurations that an enterprise participant can have or adopt in order to take advantage of different business models. Organization configuration types are discussed in detail in (Kudryavtsev, & Kubelskiy, 2018, Viscusi et al., 2020) and are based on an extension of the typology (Batini et al., 2018) of digital business innovation. Thus, the adoption of a specific digital transformation strategy roadmap may result in enterprises following different trajectories and having a specific attitude towards digital business innovation, focused on either execution or differentiation, and all hybrid configurations between them. However, to better identify changes in structure and take advantage of different business models, an additional set of dimensions needs to be considered regarding the stability and consistency of response patterns (Rossi et al., 2019, Gomes et al., 2018, Viscusi et al., 2020).

Thus, for each of the business entities under consideration, the combination of the digital transformation strategy of the roadmap and response models (characterizing their degree of stability and consistency) allows us to identify four types of digital model organization configurations. Four types based on adaptation to the challenges of digital transformation of the classical typology (consisting of defenders, prospectors, analyzers and reactors). However, it is worth noting that the description of the characteristics of the types retains the main facets of the original typology.

So we summarize them as follows:

- Digital Business Defender is an organization that strives to be competitive in a narrow and well-defined market (products and services) in digital business, while focusing on efficiency, productivity and improvement of existing operations.
- Digital Business Prospector is an organization focused on continuous differentiation and innovation of service-products, and constantly looking for new digital market opportunities, giving a primary attention to experimentation.
- Digital Business Analyzer is an organization operating in two markets, i) one stable and with a limited degree of digitalization, ii) the other highly digitalized and evolving or being subject to change. In the first market the organization operates as the defender does, while in the second it acts as a prospector does.
- Digital Business Reactor is an organization unable to respond effectively to change and uncertainty in the

business environment, due to inadequately articulated strategy or an organizational structure improperly linked to strategy or the adherence to an obsolete strategy and structure.

Thus, organizations have to move to one of the other three types in order to exploit the suitable digital business model to enable them taking advantage of digital business in an execution or else differentiation oriented strategy. However, it should also be noted that, due to the high variability and velocity of change driven by digital technologies, becoming a digital business reactor could be the case also for organizations having chosen or adopted one of the three stable and consistent response types, for they embraced digital technologies become obsolete.

To describe the main principles related to the formation of a digital transformation strategy for an industrial enterprise, let's consider the key essence that takes into account data, technologies, business processes and the human factor.

According to the authors, Glukhova et al. (2022), the digital transformation strategy gives an idea of how a digitalization strategy can be developed and implemented on the scale of the industrial system. The digital transformation strategy does not necessarily replace any previous strategies, but must be aligned with them (Glukhov et al., 2022).

Foreign authors, Hess et al. (2016) say that the digital transformation strategy seeks to give an idea of how an organization-wide digitalization strategy can be developed and implemented (Hess at al., 2018). Vaz (2021) in their practical study consider the strategy of the digital business, it is considered not as a replacement for the business strategy, but as an additional strategy that must be coordinated with other strategies of the business/functional level and guide the digital transformation. Compared to a digital business strategy, a digital transformation strategy is more specific because it is a means to enable non-digital organizations to reach the state of the digital business (Vaz, 2021, Hoque, 2000).

The authors coined the term "digital transformation strategy" to recognize that digital technology is becoming an integral part of the products, services and customer interactions of many modern firms, thereby transforming their business. Since digital transformations span many independent streams, the digital transformation strategy aims to coordinate and prioritize the actions that accompany such digital transformation (Tashkinov, 2023).

The digital transformation of the enterprise includes four stages.

4.1. Stages of formation of the strategy of digital transformation of an industrial enterprise, basic provisions

The digital transformation of the enterprise includes four stages.

Stage 1. Evaluation of the "digital maturity" of the enterprise.

At this stage, the so-called technical audit of existing processes at the enterprise, systems, methods, etc. is carried out for their further improvement.

The assessment helps to see a gap in the level of digital maturity in various areas, divisions of the organization. The company can see the picture both as a whole and separately: by deployment, by a specific department, etc.

Stage 2. Development of a strategy for digital transformation of the enterprise, a roadmap.

This is the main stage of our work to create steps that need to be taken for digital transformation processes. At this stage, we form goals and objectives, control reporting points.

Stage 3. Implementation of the pilot project.

This phase is aimed at confirming the viability of our solutions, proving that these projects work and they are useful, in terms of time, investment and money.

Stage 4. Scaling, replication of projects.

At this stage, all the business processes and software products proposed by us penetrate into all areas of the enterprise. It is not a separate project that is already being considered here, but a set of projects - a digital enterprise.

It should be noted that enterprises come to digitalization due to factors that form the modern appearance, the business model of the enterprise.

In confirmation of this, let's consider the areas of digital transformation of the enterprise.

Is a three-tiered diagram of the enterprise's digital transformation strategy, which is the distribution of three levels of management in the enterprise: strategic, operational, tactical Figure 1.

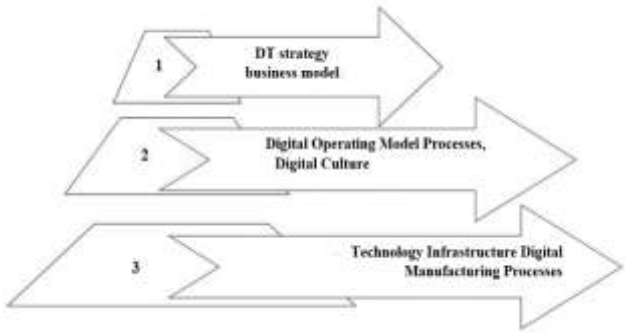

Figure 1. Three-level diagram of an enterprise's digital transformation strategy

At the strategic level, a digital strategy and a business model are presented.

In what follows the former types are discussed as "attitudes" for the target business actors, highlighting the specific issues they encompass as for four «universal» problems of organizing: task division, task allocation, reward provision, and information provision (Kudryavtsev, & Kubelskiy, 2018; Gomes, et al., 2018; Viscusi, et al., 2020). Finally, it is worth noting that the subsequent description of types follows and adapts the original proposal by.

- Digital Business Defender (DBD) organizations usually are oriented towards execution as cost efficiency and penetration in their current markets.

The efficiency orientation influences the reward provision as well as human resources allocation (focus on cost-control areas and operations).

- Digital Business Prospector (DBP) organizations are oriented towards differentiation through innovation and market responsiveness. Thus, testing, prototyping as well trends scouting and ideation are preliminary activities to develop and carry out digital business initiatives, then evaluated and only as a final step formally planned. Planning is actually problem solving and findings oriented, heavily dependent on experimental and testing feedbacks.
- Digital Business Analyses (DBA) organizations have double orientation either towards execution on their main market and differentiation as innovation and market responsiveness. As said above, in the first market they operate as the DBD does, while in the second they act rather than a DBP.

At this level, the very concept of digital transformation of the enterprise, strategy, business model, product portfolio, digital production culture is determined. Here all fundamental ideas are formed about how to work with the existing business model, what steps we are taking in order to change, etc.

At the next level, in the middle of the pyramid, an operating model is formed, all digital processes of the organizational structure. Here the formation of a digital culture takes place, i.e. now the enterprise is working in a new way, now all processes are arranged automatically, now more time is released directly to fulfill its duties.

At the third level, the full work of digital production is launched tactically, where the technological infrastructure and processes of digital production have been created. This stage includes the transformation of the production itself, starting with the implementation of control programs for numerical control (CNC) machines, additive technologies. Technologies are used here that make it possible to exclude the human factor from work.

Next, we will consider the methodology for developing a digital transformation project for an industrial enterprise. The strategy for the digital transformation of an industrial enterprise is comprehensive work in key areas Figure 2.

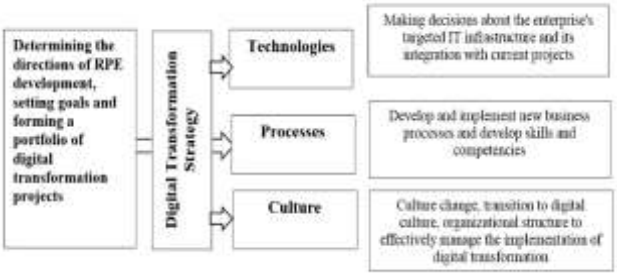

Figure 2. Key directions of the strategy for digital transformation of an industrial enterprise

We have discussed the general conceptual provisions of this concept. To implement the enterprise digital transformation project, let's move on to a consistent description when performing practical steps.

If the whole concept in our country includes completely all four steps, then the project of digital transformation of the enterprise, for the most part, touches on the first two steps - this is the assessment of "digital maturity," the development of a digital strategy for an industrial enterprise, a roadmap. The result of the project of digital transformation of the enterprise should be a strategy for the development of digital transformation of the enterprise, an updated operating business model, a set of solutions for enterprise management.

Stage 1. Evaluation of "digital maturity." In our opinion, this is the most important stage. At this stage, the assessment or diagnosis is carried out in order to identify the enterprise and describe all existing business processes. Look at the level of infrastructure preparation, find changes in the infrastructure. Evaluate how the electronic archive of work with various documentation is arranged, etc. This stage will allow us to avoid a lot of factors and risks in the future. In order to know what factors and risks may hinder us in the implementation of the project and how they can be avoided, or to foresee, consider each of these factors, and give everyone a brief explanation.

This is a big second step. At this stage, goals and objectives are formed, the expected result that we want to get as a result of these activities.

Here you select priority processes and target areas of activity for transformation. At this step, all prospects, digital initiatives, lean production projects are determined. This step evaluates the vision of the enterprise, etc. This also includes evaluating the current process structure in terms of efficiency. Process of analysis of readiness for proposed changes, etc.

The next step is to assess the effectiveness of the proposed changes. Concept development: in this step, the tasks are formulated step by step, two business models are compared. Here we analyze the proposed model based on the previous step and in comparison of the existing one, i.e. what benefits, where what will decrease, where what will improve, how this will all affect the further development of the enterprise. In this step, it is very important to calculate budgets and develop a financial model for future transformations.

The next element is the development of a strategy, a business model. In this step, we develop a roadmap that includes a specific set of steps, with specific numbers, dates and a reference to the existing business model, which will allow you to control all activities, from the point of view of management and step by step implement them. Here, the economic effect of the project is calculated. This generally allows you to see the completeness of the picture after the transformation.

In general, the presented plan corresponds to the above steps. The implementation of this plan takes 16 months. The plan is divided into 4 stages. The first stage takes conditionally 5 months. It contains work to assess the digital maturity of the enterprise. The second stage from 6 to 9 months, where the effectiveness of the proposed

changes is assessed, a comparison before and after, setting tasks, etc. The third stage is directly a ready-made business model for transformation, it takes the remaining time.

In confirmation of this, we will present the results of a study in the field of digital transformation of Russian enterprises.

At the implementation stages, many respondents were interviewed, meaning CIOs, heads of IT departments, and implementation specialists. As a result of the survey, a large number of factors were identified that form the complex of modern production and the actual need to introduce modern digital systems.

We have identified three main ones that have the greatest degree of influence on the formation of a modern enterprise during digital transformation.

The most important factor, which amounted to 40% of this, is that the product becomes much more complex, more and more modern development and production methods are involved, and many different services are involved in the development. It follows that the level of interaction between various services is growing and therefore it becomes necessary to organize the work of services in some single digital space. All this allows you to tie together not disjointed.

The next factor, which, according to respondents, amounted to 36%, is the frequent renewal of the model range. Due to the fact that today it is practically necessary to constantly offer options, versions of new products, etc., in conditions of high competition. This all significantly shortens the development time and therefore the most important resource is time, it becomes catastrophic it is constantly lacking for further steps, and digital transformation is being taken for this.

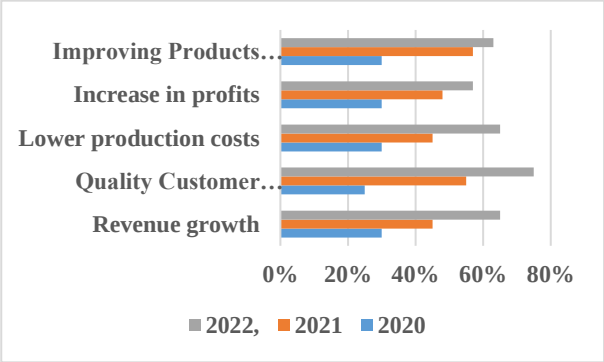

Figure 3. Results of a survey of IT enterprise managers

The third most important factor, which, according to respondents, amounted to 29% - high competition erodes advantages. This factor suggests that today all products are rationed, there are requirements, high development speed, products become quite similar due to local restrictions. It is very difficult for an enterprise to concentrate on competitive advantages. In order to save time and concentrate on their competitive advantages, digital transformation is necessary. To do this, in the figure 3 we will present the results of a survey of IT enterprise.

5. CONCLUSIONS

Based on the survey, the main conclusions were presented.

Firstly, the implementation of digital technologies in the Russian industry is important for enterprises of all sizes. On the one hand, enterprises must digitize their internal processes and procedures, on the other, develop new services and models of digital business. Digitalization is the use of digital technologies to change the business model and provide opportunities for profit and value creation. Digitalization is also defined as the process of transition to digital business. In the field of digitalization, the task of enterprises is to identify new customer needs as a result of the distribution of digital services and applications. Digital transformation leads to the merger of online and offline, breakthrough technologies and radical: changes in entire industries.

Secondly, the main accents that form in the conditions of the digital economy, ensuring the competitiveness of domestic enterprises are placed in favor of speed, flexibility, efficiency. Digital capabilities apply equally to new companies and long-term companies, but the competition will ultimately benefit, above all, those enterprises that have chosen a timely transition to digital transformation.

Thirdly, to effectively manage the enterprise, management needs to use modern concepts of lean, digital production, the breakthrough concept of the digital twin considered. At the same time, the implementation of lean production projects at the enterprise using digital technologies, including digital twins, allows you to significantly reduce the cost of introducing and manufacturing various types of products, optimize their design, and, taking into account the customer's requirements, adjust the parameters of the production and economic system (Tashkinov, 2022).

Thus, an important task is not only an objective transition to digital transformation, but also preparing the enterprise for changes in this process from the point of view of managing digital transformation projects of the enterprise.

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