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**PROBLEMS OF DIGITAL TRANSFORMATION OF SOCIO-
ECONOMIC SYSTEMS**

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Abstract

This article analyses the latest trends in digitalization. Today, digital technology is present in all sectors of human activity. Governments in all countries, including Russia, are well aware of the importance of developing and accelerating the digitalization process. They also realize that it is crucial to stimulate the digital transformation of the economy. This is necessary to remain competitive, as a fundamentally new space for the global economy is gradually taking shape. Introducing such changes requires careful consideration of various factors and considerable analytical work. Thus, it is possible to say that it is the digital economy that sets the direction for the further development of economic and social systems at all levels for the long term. Accordingly, it is necessary to study and analyse all processes of digital transformation. At the moment, it is no longer a distinctive feature of developed companies, but has become a familiar and even mass phenomenon. The projects it develops are therefore of great importance to the success of various businesses, cities, regions and countries. It is important to note that this transformation closely correlates with the particularities of the servicization of economic and social systems. Thus, it is important to develop mechanisms for identifying, managing and evaluating this correlation. As a result, there is a fundamentally new institution, which is also a new category of business structure in the service provision field. This is about service integrators. It is difficult to overestimate their importance in today's economic development.

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1. Introduction

The relevance of this issue is due to the current presence of digital technology in all sectors of human activity. Governments in all countries, including Russia, are well aware of the importance of developing and accelerating the digitalization process. They also realize that it is crucial to stimulate the digital transformation of the economy. This is necessary to remain competitive, as a fundamentally new space for the global economy is gradually taking shape. Introducing such changes requires careful consideration of various factors and considerable analytical work.

Thus, it is possible to say that it is the digital economy that sets the direction for the further development of economic and social systems at all levels for the long term. Accordingly, it is necessary to study and analyse all processes of digital transformation (Lebedeva, 2019). At the moment, it is no longer a distinctive feature of developed companies, but has become a familiar and even mass phenomenon. The projects it develops are therefore of great importance to the success of various businesses, cities, regions and countries. We should also note that this transformation is in close correlation with the particularities of the servicization of economic and social systems. That means it is embodied on this servicization basis. Currently, there is little research into the considered correlation and the tools to implement it (Nagoev et al., 2017). Thus, it is important to develop mechanisms for identifying, managing and evaluating this correlation, etc.

All the above explains the relevance of this issue. It manifests in the formation and development of economic theory. Its categories related to the processes of digital economy formation, servicization, etc., deserve special attention (Misakov et al., 2019). It is also important to develop the scientific basis for practical application of the mechanisms of digital transformation in various economic and social systems based on creating and further developing the institute of service integration.

2. Problem Statement

A thorough study of domestic and foreign experience has led to the conclusion that the two phenomena in question are implemented based on digital platforms. Such platforms, in turn, introduce various processes and create digital service systems. The processes can range from social, technological or economic, for example. As a result, there is a fundamentally new institution, which is also a new category of business structure in the service provision field. This is about service integrators. It is difficult to overestimate their importance in today's economic development. However, at the same time, the tools for their functioning, interaction and control are still poorly understood. This has the effect of severely slowing down the development of companies that are service integrators.

3. Research Questions

The research was based on a thorough study of works of domestic and foreign scholars and experts in economics, management theory, digital economy and innovation management. We also analysed the works of researchers in the service economy theory and studied scientific experience in the innovative development of economic and social systems based on digital technologies and the servicization of

business processes. The transformation of IT companies into service integrators deserves special attention. Among other things, we should point out the methodological foundations of this paper. It represents the general scientific criteria of the systems approach. These include methods of comparative, strategic, logical and factor analysis; modelling techniques, whether mathematical or structural; study of the main features and vectors of developing service provision from a qualitative and quantitative perspective; analysis of infrastructures, both networked and digital, etc.

Based on all the above, we can conclude that the digital economy is an indispensable element of the economy. There is a preponderance of knowledge of the different actors. Intangible production is also of particular value. It is the indicator that distinguishes the information society. Attention should be paid to such terms as "knowledge economy", "digital economy", "information society", as mentioned above, etc. Together they form a fundamentally new economic and social system. It is capable of completely replacing the industrial one.

4. Purpose of the Study

The main purpose is a thorough examination of the methodological and theoretical foundations. This also includes an analysis of the scientific recommendations that are made regarding the management of the digital transformation of economic and social systems on the basis of developing the institution of service integration.

5. Research Methods

This study used a large theoretical and methodological framework developed by domestic and foreign scholars in the fields of economic theory, management theory, institutional transformation theory, and the theory of the digital economy. In particular, it used the works within the framework of socio-economic policy. The methodological basis of the study is formed by the general scientific principles of the systematic approach; comparative, strategic, managerial approach.

6. Findings

The Russian Federation today is going through a rather difficult period, so it is critical to quickly and efficiently transform the usual economy into a digital, intelligent economy. This is the only way to achieve sustainable development of the state. Otherwise, various crises in economic and social life will continue to arise. As a result, Russia will fall very far behind other countries in socio-economic and technological aspects, as there will be a political imbalance.

Today, it is crucial to effectively implement systemic changes and actions that aim to accelerate the development of the digital economy in Russian systems (we are talking about economic and social type systems at all levels). Digital transformation is being actively promoted around the world. It is the talk of the world, and the debate on the subject has been going on for decades. We support the opinion that the digitalization of the economy is an expression of the basic pattern of its informatization.

This phenomenon has been studied for many years, but so far, the academic sphere and governments around the world lack a clear understanding of the concept of digital transformation.

However, the nature of the term has undergone some changes along with the development of modern technology.

For a long time, the term has been understood to mean the digitization of familiar forms of data, or electronic storage. This is considered one of his vectors in treating the term in a rather narrow sense. But the concept of digital transformation is much broader today. Many companies, businesses and organizations realized rapidly the benefits of using digital information and then set about creating processes for further development. It was the beginning of the rapid development of digital technology. If a company can integrate them quickly, it is a sign of its high competitiveness in today's market.

Many managers believe that this transformation is essential for maintaining competitiveness, as it allows them to meet customer demands and grow. But not everyone understands where to start and what such a transformation entails. The term should be defined broadly.

Today, there are so many such interpretations. Many experts consider it wrong to concretize this concept in a sustained sense. They believe that the development of digital technology is actively pursued, and that the essence of the term is changing along with it. This is indeed true. But we still think it is essential to outline the scope of the concept of digital transformation. This is really a necessity at this point which will bring about a unified understanding. The result will identify the main vectors of this transformation.

Almost all domestic companies and government agencies in the executive branch are focusing on the digitalization of key processes. They believe it represents a new phase of automation and informatization, as mentioned earlier. Accordingly, it is necessary to differentiate between digitalization and digital transformation when compared to automation.

Automation is thus understood to be one of the vectors of technical and scientific progress. This involves the use of self-regulating technical tools and various mathematical techniques. All this serves to establish processes for transforming, receiving, transmitting, using something without human intervention, and to reduce the labour costs of the operations. Today we can see automation in almost all sectors of activity. It can significantly improve work productivity, increase the quality of various goods and services, improve management processes, and introduce life- and health-threatening production processes that minimize human involvement.

Today, all actors in the economic and social system who want to function and develop sustainably must go through a digital transformation.

Thus, this concept refers to the integration of innovative digital technologies into social and economic systems at all levels. In other words, it means the installation of quality equipment that meets modern requirements, software, etc. This can also include radical changes in management, external interactions, etc. The result is an increase in the productivity of each individual employee and an increase in customer satisfaction. The company becomes more productive, which has a positive effect on its reputation. Thus, it is a question of forming a system of end-to-end business processes. It is called a digital business system.

Separately, the digitalization of processes is not only important for various companies and businesses. Many sectors and industries go through it because they realize that it is the only option that will enable them to respond fully to a highly volatile environment. We can see at the moment that the

digital transformation is having a profound impact on the livelihoods of all organizations, businesses and people. As a result, there is a need to investigate its specificities from a system approach.

In the academic economics literature, there are many interpretations of the term "socio-economic system". For further analysis, we will use the following definition: "a socio-economic system is a set of different socio-economic institutions that are closely linked and in constant interaction with each other". It also includes relationships in the production, exchange, use and distribution of services, goods, etc. This approach assumes that the individual is the factor that makes up the whole system. The socio-economic system consists of various organizations, companies, foundations, banks, local entities, state authorities, various institutions, economic sectors, etc (Israilov et al., 2019).

We should now look more closely at the concept of "digitalization". Its purpose is to describe a transformation that is more than just replacing a resource with a digital one. As an example, traditional books are not only being transformed into electronic books, but are also gaining many additional features, multimedia files, etc. We can conclude that in the economic and social environment, such processes can turn into online dialogues between different parties, which previously did not interact directly. Looking at it from the perspective of the business environment, we note that a company wishing to become 'digital' must implement automation of all processes. This will help to increase their effectiveness. In addition, if an organization wants to go digital, it needs to engage customers to ensure maximum impact from the processes.

We should also examine another manifestation of digital transformation as the process of embedding digital technologies in all areas of the business environment in the socio-economic system. This necessitates fundamental changes in the design of new services, products and the technology and operations involved. To ensure efficient use of modern technology and rapid integration into the system in question, it is important to radically change the way the system works. Thus, we can say that digital transformation implies a focus on improving the productivity of processing centres designed to support the periphery. Accordingly, the main focus is on it. This suggests that companies will gradually start to move away from outdated technologies that are inefficient but expensive to maintain. There is also a culture change. Its task is to keep the various processes running quickly.

Based on all the above, we can conclude that this transformation is about unlocking the full potential of digital technologies through their application in all areas of the business environment. These technologies are used in management, service delivery, creation of goods, etc. We should also mention that the availability of certain technologies is not all that is required for digital transformation. Apart from this, it is also essential to have clearly defined business objectives, and it is only then that the transformation process will be successful and as effective as possible. Accordingly, we can only study digital transformation through the prism of all aspects. These include the availability of data, the technology itself and clearly defined business objectives.

Based on the above, digital transformation implies a complete rethinking of how a company functions and interacts with its external environment. The main driver of change is the consumer. Many factors have an impact on changing the way a business works. Consequently, this transformation is not just one of the services of consultancy companies, but also a crucial process. Today, the whole world is experiencing it, adapting to a new operating environment, considering the needs of the digital economy

society. Such a transformation can represent a fundamental shift in thinking in line with the fundamentally new conditions of the digital economy.

Further, we should highlight the main benefits that business entities derive from digital transformation. These include:

1. Process optimization. The innovative technology enables companies to take simple processes to an automated level, and to remove intermediate stages from more complex ones. As a result, the use of existing resources becomes more efficient.
2. Search for other revenue streams. New methods of generating income are emerging along with the emergence of innovative technologies.
3. Development of a quality service system. Customers expect companies and organizations to consider their wishes, opinions and needs. Innovative technology makes it possible to achieve these objectives.

The study of the outlined merits suggests that they are particularly evident during the provision of various services. This is due to aspects of the service itself. For example, they focus on producer-customer interaction, have a non-property nature, etc. This is the reason why digital transformation processes are particularly evident in the service sector. This includes tourism, consultancy services and others. These processes are also widely used in those economic sectors that benefit from the added value of improved services. This can include the activities of banks.

Many companies are gradually abandoning their usual interaction processes. They are opting for the more modern digital ones instead. They actively use innovative technology in the process. Often the transformation is not due to the decision of a particular enterprise at all, but because they need it to keep operating. There is currently a huge increase in consumer demand for modern digital technologies for business. As a result, companies that cannot adapt to the needs of digital consumers will not be able to operate in the future. If companies and organizations are open to change and able to adapt to new conditions, they have every reason to be successful. We can explain this by the fact that the digital transformation involves all constituent businesses. Moreover, it provides the most effective methods of improving it, along with the development of innovative technology. Thus, modern analytics and the availability of the necessary data make it possible to make effective, accurate decisions. They concern about everything from carrying out repairs to preventing fraudulent activity.

However, the most difficult change will be a complete transformation of the company's corporate culture. Private entrepreneurs are tolerant of various risks, adapt more easily to changes in the environment, and are interactive. The big business operates very differently, however. Managers of large companies have a much harder time adapting to the new environment and accepting the fact that today any company acts as a key variable rather than a constant.

The changes we are seeing at the moment resemble a cost-benefit approach. It is very popular in micro-level economics. Looking at a short period, we can speak of fixed costs and variable costs. Variables are usually more important because it is possible to influence them if it is necessary. However, we should also mention fixed costs, whose essence is to keep them constant. During the transition to the long period, costs of any type become variable. Since there are no constants either, company managers have more scope for action. They can have an impact on absolutely all elements of the business that relate to costs in one way or another. However, we should note that this situation raises some concerns, which

are related to uncertainty. As a result, the company may face a complete market failure. Digital transformation leads to a reduction in so-called "economic time". Accordingly, time, which was considered a short period, becomes a long one.

As we continue to explore the notion of digital transformation, the most challenging aspect for conventional businesses is transformation itself, as a progressive change. It is now gradually penetrating all areas of economic life. It is important to say that its effect also varies, depending to a great extent on the industry. High-tech areas that were originally digitalized are the most easily transformed. Nevertheless, the digital transformation will affect all areas of the economy in any case.

This study addresses various issues that are relevant to the digital transformation of economic and social systems based on the service integrator. It considers the conditions of the rapid digitalization of the domestic economy and its increasing servicization (Okhrimenko et al., 2019). The practical, theoretical and methodological findings of this study provide an opportunity to draw some conclusions.

We should also note that the speed of digital transformation processes is strongly influenced by the conditions of their implementation. The factors that shape such conditions are also influential. The result was a thorough examination of the factors and conditions of the digital transformation. This has made it possible to classify the main factors that limit or facilitate the digital transformation of economic and social systems. Furthermore, it is possible to differentiate the limiting factors into two groups: internal, external. Internal factors can include barriers of a technological, governmental and competitive nature. External factors include the human factor, lack of resources, psychological barriers, etc. The factors contributing to the development of transformation include the existence of the main centre of competence, interaction with legacy systems, customer motivation, modern technology, etc.

7. Conclusion

From all the above, we can conclude that the digital information trend developing rapidly today has an ambiguous impact on modern society. In other words, it is necessary to use specific tools and adhere to a methodology in finding and managing possible risks. All this makes it possible to maximize the positive effects of the digital economy.

We should also note that the results and pace of development of digital transformation vary considerably and strongly depend on the initial conditions, the digitalization degree and many other aspects. A common methodology and universal recommendations for changing the systems under study through digital transformation form a solid scientific foundation. It ensures that every economic and social system has an effective transition to the digital economy. All this shows the relevance of this methodology and that it plays a significant role in the transformation of socio-economic systems. Thus, this transformation is a scientifically grounded system of methods and models. It seeks to shape the optimal conditions for transforming the way social and economic systems function. Another vector is to gain a competitive edge that will enable all transformed systems to function stably and effectively in the current environment. They will operate based on the full potential of the digital economy and the constant introduction of innovative technologies. This implies integration into the common digital space through the use of various digital platforms. Such platforms are a collection of integrated services that provide interaction management services. They also act as an effective transformational mechanism in an increasingly digitalized economy.

References

- Israilov, M. V., Chazhaev, M. I., Dovletmurzaeva, M. A., & Gaysumova, L. D. (2019). Econometric methods for assessing development of agriculture in Chechen Republic. In: *The European Proceedings of Social & Behavioural Sciences EpSBS. Conference: SCTCGM 2018 – Social and Cultural Transformations in the Context of Modern Globalism* (pp. 2200–2206).
- Lebedeva, L. (2019). Digital transformation in the socio-labor sphere: new challenges and opportunities. *Mirovaya ekonomika i mezhdunarodnye otnosheniya*, 63(12). <https://doi.org/10.20542/0131-2227-2019-63-12-42-49>
- Misakov, V. S., Zherukova, A. B., Adzhieva, A. Yu., Baisultanova, L. V., & Chazhaev, M. I. (2019). Organizational, ecological and economic aspects of regional hunting tourism development in Russian Federation. *Helix*, 9(1), 4738–4743.
- Nagoev, A. B., Rokotyanskaya, V. V., Sarkisyants, G. V., & Chagaev, M. I. (2017). The main directions of public policy in the field of economic protection of lands of agricultural purpose. *International Journal of Advanced Biotechnology and Research*, 8(4), 195–203.
- Okhrimenko, I., Sovik, I., Pyankova, S., & Lukyanova, A. (2019). Digital transformation of the socioeconomic system: prospects for digitalization in society. *Espacios*, 40(38), 26-35.