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DIGITAL ECONOMY: TERMINOLOGY AND EFFICIENCY

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Abstract

Modern digital transformation of the economy is impossible without the development of innovative knowledge, competencies, network interaction. Technological modernization of economic processes causes a change in the needs of society to the professional and personal qualities of a person. Currently, every specialist who wants to be successful in an organization must have special “digital” knowledge. The transition to a digital model of economic development involves a high concentration of knowledge-intensive production, knowledge and technology. At the same time, a variety of new terms used in scientific and journalistic works devoted to digital technologies lead to difficulties in understanding the essence of the phenomena of the digital economy. The article clarifies the terminology and scope of the conceptual apparatus of the digital economy, notes the differences in research approaches in relation to the interpretation of the categorical apparatus. In particular, such terms as digital management, digital marketing, digital hygiene, digital leaders, digital talents, etc. are updated. Refining the conceptual apparatus allows us to formulate relevant knowledge and skills for the preparation of highly qualified personnel that meet the modern requirements of technological modernization. Determining the digitalization of the economy and efficiency optimizes business processes. Transformations and refinement of the categorical and conceptual apparatus will allow to form professional ideas about the processes occurring in the ecosystem under digitalization conditions.

Keywords: Digital economy terms, transformation of the conceptual apparatus, digital talents and leaders, digital competitiveness index, digital marketing, digital management.

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1. Introduction

The transformation of the digital economy determines the transformation of person and society. Any changes in terminology and conceptual apparatus occur under the influence of innovative processes and new formats of business processes and the interaction of the ecosystem. The digital transformation of the economy is based on the results of process automation and consists in the end-to-end digitalization of all physical assets and their integration into a digital ecosystem based on a digital platform or complexes of digital platforms. Radically changed form in consumption of products and services, competitor data use intensifies fighting and modernizing the traditional economic model, Digital becomes a value to the consumer and the business. Digital transformation is becoming a new business philosophy, new business models and processes are replacing traditional economic relations. The introduction of digital technology is a major factor in the growth of competitiveness. The transition to an innovative model of economic development, involving a high concentration of high-tech production, knowledge, technologies, leads to an increase in the competitiveness of business structures (Babkin & Chistyakova, 2017).

2. Problem Statement

Current trends in the field of innovative development of the Russian economy increase the need to develop scientifically – sound methodological tools in the digital economy. The term “digital transformation” itself is collective, and implies a set of interrelated changes in all spheres of human life under the influence of digital technologies. The economic analysis of the digital economy for about two decades is an actively developing area of research. Analysis of successful digital transformations is presented in a significant number of published works on the digitalization of the economy. They consider the problems of transformation of specific areas and sectors of the economy, contributing to the digital transformation in the country, the growth of the GDP of the digital economy and digital leaders. At present, the conceptual apparatus of digital transformation as a social phenomenon and its mechanisms are developing mainly in the field of the theory and practice of business processes (Bersin, 2017). The basic constructs that the researcher inevitably encounters are categories such as “digitalization”, “digital economy”, “digital culture”, “digital market”. There was a huge amount of scientific and popular works, operating in terms of the digital economy. Transformations in individual sectors of the economy, transformation of the labor market, implementation of infrastructure state projects that increase the level of availability of digital services for the population and business undoubtedly set the tasks for the further development of digital technologies. The methodology of critical thinking served as a methodological framework, combining research techniques and resources for the analysis of the conceptual apparatus of digital transformation. The actualization and clarification of terminology and conceptual apparatus, the definition of effective performance, makes it possible to carry out professional management activities under digitalization conditions.

3. Research Questions

Using the term digital management, researchers can apply it to identify innovations both in management methodology and management concepts, and to characterize technological changes in

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management practices. Digital management provides new opportunities for the organization and development of business, defines new professions and requirements for readiness to learn throughout life. Changes in business lead to the transformation of management models and the formation of a Digital strategy not only in all areas of the economy, but also inevitably leads to the transformation of the competences of people and culture within the company (Whitley, 2003). For marketers, the digital transformation process completely changed the idea of communicating with customers, making the campaigns more “smart”, “personalized” and “customer-oriented”. The generic term digital marketing is used to denote targeted and interactive marketing of goods and services using digital technologies to attract potential customers and retain them as consumers (Kannan, & Li, 2017).

4. Purpose of the Study

There are many ways to transform a business: from end-to-end redesign and the introduction of analytics into business processes to the introduction of new technological platforms. Strategic changes in the company's activities are associated with the transformation not only of processes and technologies, but also of personnel. Digital literacy means the set of knowledge and skills necessary for the safe and effective use of digital technologies. It includes digital consumption (use of the Internet – services for work and life), digital competences (skills in effective use of technology) and digital safety (digital hygiene) (De Meuse, Dai, Swisher, Eichinger, & Lombardo, 2012). Digital hygiene is understood as a set of rules for safe behavior in a digital space. Assuming that technologies are neutral, many people use them, sometimes without thinking about how they work and the negative consequences of their impact - information overload, forming dependence on information flow algorithms. Therefore, under the digital hygiene understand the set of actions affecting the information security, committed by a particular person. The term “digital hygiene” is often understood to mean the rules that make it possible to preserve the information security of data contained on a digital device and within the scale of a company or its information security (Strack, Dyrchs, Kotsis, & Mingardon, 2017).The high level of development of digital literacy, the ability to use and transform digital competencies is considered by researchers as digital maturity. Moreover, this term is applicable not only to an individual, but also to a social group, an economic institution. Therefore, we can talk about digital maturity of a person and digital maturity of an enterprise. The term “digital leaders” applies to leading companies in the digital economy that have the capabilities of digital transformation of internal processes, business infrastructure and the development of a new strategy. All this entails the need for transformation and competence. Leadership is associated with the widespread use of digital culture and project management techniques, which helps to quickly and productively implement changes inside. However, this term is often used to describe highly qualified employees who have such competencies as the ability to predict and understand the future needs of target customers; operational introduction of digital technologies, the use of big data to increase the efficiency of their work, the ability to use popular social media and any digital channels for promotion and communication with customers and partners, etc. (Matt, Hess, & Benlian, 2015). The term digital talents is used to identify such qualified personnel. In our opinion, digital talent is a universal analytical skill in a certain field of activity, which allows us to achieve high results based on the adoption of innovative decisions. Talent management involves not only the company's activities aimed at finding them, but also the retention of highly efficient employees in the company. No

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modernization of the economy is possible without the transformation of man, the formation of a new thinking. To solve this goal, a number of companies are creating a fundamentally new structure - the Digital Transformation Team, a system of continuous education and the introduction of a culture of developing talented employees. The need to develop the personnel potential of the modern economy dictates the task of creating new, more effective ways of training specialists. Digital leaders and digital talents must be able to create, lead and develop teams, be able to maintain communication between specialists and their involvement. Their skills should include a culture of innovation, resistance to risk, and continuous improvement (Barinova, Sheremetyeva, & Zotova, 2020).

5. Research Methods

A system of indicators has been developed to measure the development of the digital economy by the countries of the Organization for Economic Cooperation and Development. They characterize not only the development of the high-tech sector of the economy, but also the cost of education, additional retraining; mobility and international cooperation in the field of science and innovations, international knowledge flows, etc. It's hard enough to measure the effectiveness of the digital economy. The lack of a unified approach to measurement, the use of various methods for calculating key indicators may be inaccurate due to the immaturity of the models and insufficient analysis of all the features of the digital economy (Potolea, & Toma, 2019)There are various methods of assessing the level of development of the digital economy of countries. Note that each of the indicators that assess the degree of digitalization of the economy, contains an assessment of human capital, including in the form of digital knowledge and skills to use information and communication technologies. In the EU, the Digital Economy and Society Index (DESI) is calculated (European Commission, 2019).

DESI is a composite index that summarizes the corresponding scores on digital indicators and reflects the evolution of EU member states in the field of digital competitiveness. It is calculated as a weighted average of five main parameters: the availability of high-speed Internet (25%), the digital skills of the population (25%), the use of the Internet by the population of the country (15%), the use of digital technologies in business (20%)), digital public services (15%).Over the past year, all EU countries have their digital performance. Finland, Sweden and the Denmark scored the highest ratings in DESI 2019. These countries are followed by the United Kingdom, Luxembourg, Ireland, Estonia, and Belgium. The International Digital Economy and Society Index (I-DESI) aims to measure progress in the development of the digital economy in 15 non-EU countries. I-DESI extends the index of the digital economy and societies using 24 data sets to analyze trends and compare numbers in 17 countries with an average across the EU. Commission with 17 non-EU countries. If you are not in line with the United States, you will get a chance to get in touch with Australia, Brazil, Canada, China, Iceland, Israel, Zealand, Norway, Russia, Serbia, Switzerland, Turkey and the United States. Leading positions in I-DESI in 2018 were South Korea, Norway and Iceland. The global digital competitiveness rating of the IMD (World Digital Competitiveness Ranking) is based on 50 criteria, most of which are based on statistical data, as well as on the results of surveys. The first category includes information about the costs of research and development in this area, the speed of broadband Internet and so on. In the ranking of 63 places that are assigned according to the combined result shown in 3 categories and allows you to rank countries by level

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of knowledge (talents, education, scientific activity), technologies (regulatory, capital, level of development of communication), readiness (possibilities for adaptation, business flexibility, level of integration of information technologies).In 2018, Russia ranked 40 out of 63 in this rating, having risen 2 positions upwards over the past year thanks to the level of knowledge (24th place) and technology (43rd place), and in readiness for the future, remaining at 51st place (Sayfullina, 2018).

The final result demonstrates the low competitiveness of Russia, the underdevelopment of institutions and the low efficiency of commodity and financial markets, the low level of competitiveness of companies with a relatively higher development of education, scientific and technological infrastructure. Different industries of the market can be ranked according to the degree of innovation development and digital transformation, the level of digital maturity of enterprise employees and the use of digital technologies. It should be noted that company employees estimate the degree of digital maturity differently. Thus, representatives of top management assess the use of digital technologies in the company's work higher than ordinary employees, which may indicate a reassessment of the situation by top management or a lack of awareness of ordinary employees. Although IT companies are undoubtedly leaders in digital transformation in their line of business, they also need to be transformed due to changes in business models in digital products, the emergence of new requirements for big data processing, and new service variations. This inevitably requires the transformation of internal processes, infrastructure and competencies. Digital leadership is associated with the widespread use of digital culture and project management techniques. The digital leaders in Russia include such sectors as telecommunications and communications, the banking sector and financial services, and the IT industry; non-lagging behind retail, insurance, education, transportation and the auto business. Still outsiders remain medicine, construction, business services and the entertainment industry (Kupriyanovsky et al., 2017).

6. Findings

The differences in the definitions of the categorical apparatus and the meanings that researchers and representatives of the business community make in terms of understanding make it difficult to analyze conceptual constructions and lead to difficulties in understanding the essence of the digital economy phenomenon. In this regard, it is extremely necessary to clarify and supplement the categorical apparatus and to develop a common understanding in the use of the terms of the digital economy. Demand is the division of the terminology of the digital economy into two groups: definitions that are directly related to economic processes, and terms used to characterize digital transformation in other branches of human life. Enterprise transformations in the digital economy occur in the broad context of the digital culture as a whole. In some cases, the definition of “digital” is added to an already well-known concept - digital transformation, digital management, digital marketing, digital competitiveness. Thus, the main features of the information-digital economy are underlined - its global nature and the handling of intangible benefits: ideas, information and relationships, network principles in coordinating markets and society (Wagner, Herrmann, & Thiede, 2017). Researchers identify four criteria for analyzing the digital economy: economic, technological, spatial and demographic, associated with the sphere of employment. Other additional criteria are also used, depending on the areas of analysis and the researchers' own views. However, most of the terms and concepts used in analyzing the trends in the development of the digital economy are based on the

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conviction that its effective development is possible only if there are developed platforms, technologies, institutional and infrastructural environment (Arenkov, Smirnov, Sharafutdinov, & Yaburova, 2018). Fundamentally new terms are emerging, such as digital hygiene, digital literacy, digital competence, digital leaders and digital talents. Transformations and refinement of the categorical and conceptual apparatus will allow to form professional ideas about the processes occurring in the ecosystem under digitalization conditions. Uniformity in understanding the terminology will provide an opportunity to determine the competence, knowledge and skills for the training of highly qualified personnel that meet the modern requirements of technological modernization, able to work in the conditions of transformation of all spheres of life (Ashmarina, Kandrashina, Izmailov, & Mirzayev, 2020).

7. Conclusion

The digital economy, in the first place, is focused on improving the efficiency and competitiveness of the enterprise and the industry as a whole. Research and analysis of practical activities have shown that in order to increase the efficiency of the economy and form an innovative way of its development, it is now necessary to conduct its digitalization and restructuring based on various tools and mechanisms. structuring of basic terms and concepts, as well as understanding the effectiveness of digitalization of the economy. The formation of common concepts and terms of the digital economy, the evolution of criteria for determining formations and processes related to information and communication technologies are vectors of business process models. The company's transition to digital technology deeply affects business at all levels and is accompanied by a restructuring of the business model and organizational structure. by changing the grocery focus. This is due to the fact that digital technologies can bring a completely new understanding of what is the key competence of the company, what business earns most of all profits, for which the brand is valued by loyal customers, what methods can strengthen its market position. Digital transformation encompasses not only individual companies, but also entire industries, rebuilding them, changing the alignment of forces, creating new business models. Companies launch digital transformation, restructure business processes, design new models of interaction with customers. Gartner analysts believe that by 2025, digital transformation will affect all industries. Traditionally, it is easier to digitally transform companies that operate in the B2C segment. Digital technologies reduce communication time and accelerate all business processes, so special attention is paid to the development of human capital. For a specialist, it is necessary to possess competences in the field of new technologies, have expertise in their field, quickly learn and implement new solutions. In the near future, the competitiveness of companies will be determined by the level of their digitalization. Understanding this, leading players are actively implementing digital tools in various sectors of the economy. The high level of digitalization in the modern world is synonymous with the competitiveness and prospects of companies, industries and national economies. The digitalization ratio (Digital Quotient), which contains a comparative assessment of companies on four grounds - a strategy, digital culture, competencies, and organizational model - shows that enterprises that are more actively adopting digital solutions tend to demonstrate higher financial results.

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