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# TRANSFORMATION AND DEVELOPMENT OF INDUSTRY IN THE DIGITAL ECONOMY

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**ABSTRACT: -** It is predicted that by 2020 the market for robotics and artificial intelligence products will grow to 142 billion euros. By 2025, the automation of information, labor, robotics and autonomous cars is expected to have a combined economic impact of 6.5 trillion euros and 12 trillion euros per year, including productivity gains and benefits in sectors such as safety and healthcare.

**KEYWORDS:** However, such changes and their speed can destabilize both governments, which are forced to evaluate the existing framework for digital transformation, and existing industries, which will be replaced by new business models.

## INTRODUCTION

For all industries, as well as companies interacting in industrial networks, digital transformation presents new opportunities and challenges. There are many ways to define digital transformation, and much of the research on this subject has focused on identifying technology characteristics and capabilities, primarily on the internal challenges of an individual organization. Digital transformation includes various changes in how businesses interact with each other, for example, potentially increasing the total number of interactions in order to increase the value created. Value creation and engagement are two fundamental aspects of digital transformation (Reddy and Reinartz, 2017; Roblek et al., 2016).

Embedding digitally-enabled solutions into the technical resources that manufacturing companies need to create value is how digital transformation drives change. This is changing how business relationships are formed and managed and, as a result, how industrial firms create value when interacting with each other (Albukhitan, 2020; Morakanyane et al., 2017; Ojala et al., 2016; Stolterman and Fors , 2004; Westerman et al., 2014).

The interaction model, established early in the Industrial Marketing and Purchasing Method (IMP), postulates that companies create value through their interactions with other companies in the network. In order to understand how resources such as new technologies intertwine in a broader context and how technological innovations emerge from interactions in an industrial network, the IMP approach explored business ties. As a result, it depends on the activities of the various organizations participating in the network, and not only on the actions of individual enterprises.

This study aims to determine how digital transformation affects industrial network interconnections between enterprises and value creation. The paper will analyze issues of communication, change and value creation in the context of two large production networks of manufacturing firms undergoing complex digital transformation using an IMP perspective and in particular a resource interaction approach (Hkansson and Waluszewski, 2002a). The discussion section of the essay will answer the following research questions and create a theory of change that can be applied to the case of changes within industrial networks undergoing transformational change processes such as digital transformation in Uzbekistan.

Many scholars classify the current economic structure as a digital economy based on the application of digital technologies and digital innovations. In addition to improving the quality of life of people living in regions with an economy focused primarily on the production of raw materials, industrialization is important to address the problem of significant regional and interregional differentiation. It is also necessary to unlock the potential for industrial growth and development in a number of industries traditionally important for Russia and Siberia. The main goal of the reindustrialization process should be to restore the position of industry as the basis of the national economy and diversify its growth through the development of high-tech industries.

Academician Yevgeny Primakov argues that the key characteristics of the new industrialization are: - diversifying the structure of the economy in order to increase its share in the manufacturing industry; ensuring this process with a workforce of appropriate qualifications; bringing the country's banking system to the needs of reindustrialization; development of "channels" and "elevators" linking scientific potential with production; systemic immaturity (2012) Bodrunov, p. thirty

**Literature**

We are seeing how the development of digital technologies is changing a wide range of activities in society as a whole, which can be briefly called digital transformation. Technological advances have penetrated our daily routine, changing the way we work, our communication and consumer characteristics (Aral et al., 2013; McDonald and Russel-Jones, 2012). Moreover, digital technologies are gradually meeting the individual needs of consumers in order to connect the physical world with the digital one (Henfridsson et al., 2014). As a result, companies across all industries are going through a differentiation

of rapidly changing needs that now affects even areas that have always depended on actual materiality (Priem et al. 2013).

Other authors have attempted to create normative models that were not solely focused on technological performance to assess how far enterprises have progressed or succeeded in their journey towards Industry 4.0 (Schumacher et al., 2016; Westerman et al., 2014). . The Industry 4.0 maturity model for the industrial sector was created by Schumacher et al. in 2016. The authors define "assessment maturity" as "the extent to which firms have progressed in implementing Industry 4.0-related changes across all of their organizations, including in areas they called products, customers, operations, technology, strategy, leadership, management." , culture and people.

Lenka et al. (2017) developed an understanding of digitalization and identified two main processes by which value can be co-created through digitalization in a qualitative study of digitalization in the manufacturing sector. They also identified three main opportunities for digitalization. They labeled processes as perceiving or responding, and attributes as intelligence, communication, and analytical ability.

Unlike other, more technical characteristics of digitalization (Alcácer and Cruz-Machado, 2019; Ungerman et al., 2018), their conceptualization of this trend in terms of capabilities and mechanisms may also be more appropriate for researchers less familiar with its technical underpinnings. .

**RESEARCH METHODS**

Mining and processing industry are the two main industries represented in Uzbekistan. In fact, today only 30% of all industrial products are processed and processed, while the extractive industry is the most developed and provides most of the country's GDP.

The work of foreign and domestic scientists in this sector was evaluated and analyzed in a study to determine the impact of digital technologies on commercial entities using information and communication technologies.

The article successfully uses various techniques, including theoretical observation, a systematic approach, observation, generalization, analysis, synthesis, conclusions and recommendations for solving issues caused by global trends in the development of digital technologies in the field of real estate. .

**ANALYSIS AND RESULTS**

The world is changing thanks to the Internet and digital technologies. The “digitalization” of society and the acceleration of various types of contacts due to the growth in the number of connected devices and data flows have for decades led to fundamental digital changes in European society and economy. 1 Digital transformation includes both the adoption of digital technologies by European businesses and the social effects of advanced technologies such as blockchain, the Internet of Things (IoT), cloud computing and advanced digital platforms. It can have a significant impact on many sectors of the economy, including transport, energy, agri-food, telecommunications, financial services, manufacturing and healthcare, and change people's lives.

The OECD says this shift is accelerating due to increasing computing power and the availability of consumer electronics at ever-decreasing prices. In addition, advanced robots and artificial intelligence (AI) are seen as important examples of digital transformation with significant societal implications, especially for business models,

employment, productivity and public services, which require sound public policy.

Our quality of life, life expectancy and standard of living can be improved with the help of digital technologies. It is widely recognized that these technologies contribute to economic growth and productivity. According to the World Economic Forum, by 2025 society and business will benefit from digital transformation worth more than $100 trillion.

For example, it is predicted that by 2020 the market for robotics and artificial intelligence products will grow to 142 billion euros. By 2025 , the automation of information, labor, robotics and autonomous cars is expected to have a combined economic impact of 6.5 trillion euros and 12 trillion euros per year, including productivity gains and benefits in sectors such as safety and healthcare. However, such changes and their speed can destabilize both governments, which are forced to evaluate the existing framework for digital transformation, and existing industries, which will be replaced by new business models.

Application exports in Uzbekistan have been growing rapidly over the past few years; from 2010 to 2015, the average annual growth rate of this indicator was 15%. First of all, this became possible due to the rapid growth of the global software market. Unlike other global IT markets, which are expected to grow at an average of 1.6% for hardware, 5.7% for IT infrastructure, 3.1% for IT services and 1.5% for telecommunications, this sector is expected to grow by an average of 7% per year until 2020 [3]. Most exports of application development (software) services from Uzbekistan are customized solutions rather than licensed software, primarily for large foreign companies that earn most of their money from the sale of finished goods and services.

Unfortunately, this is a rather small segment of the digital market, which hinders the potential of Russian innovators to expand IT exports. According to a survey of Uzbek software companies, software exports are still insufficiently diversified geographically: more than 70% of their volume falls on the United States, Canada and Western Europe. As a result, despite relatively high growth rates, India, the market leader in this area, receives only 5-7% of Russian software exports. Russian software dominates Uzbekistan, even though Russia lags behind other rapidly growing software exporters such as Israel and Poland in terms of export volume and growth rate.

Evidence of this is the fact that large IT firms are moving their headquarters to other countries in order to be closer to partners and markets, as well as to have access to capital and personnel with experience and abilities that are lacking in the Uzbek market. also unfavourable trends.

One of the most important and effective actions within the framework of European targeted programs is the transfer of digital opportunities for small and medium-sized companies based on the experience of implementing pilot projects. These pilot projects are carried out taking into account industry factors, allow identifying the best methods for implementing digital innovations in small and medium-sized companies and getting prompt feedback from both the business and its customers.

Uzbek industrial companies are very interested in the idea of digital production, but there are not so many real implementation cases, and those that are, as a rule, are of a local scale. This is due to the fact that the implemented solutions are not systematized, and integrated approaches to digital

production are not sufficiently studied for practical application. Coordination of information communications at all stages of the production process, from design and preparation to production and logistics of products and distribution management, as a rule, is impossible, since there are no common links in the automation of production sites and business processes in Russian companies.

Building a continuous information environment covering all levels of a company's production and logistics operations, necessary to coordinate digital production, is constrained by this gap between industrial automation and IT automation. In order for the Uzbek industry to become digital, this gap must first be closed.

Companies from Uzbekistan and China are actively joining global coalitions that will set future technical standards. This makes it possible to synchronize digital solutions that contribute to the formation of associations interested in technological advances of varying degrees of quality. An important step towards targeted growth and development of the country is the systematic digitalization of all aspects of the economy.

**CONCLUSION**

The introduction of modern technologies can significantly improve a number of business performance indicators. By processing datasets in real time and uncovering hidden dependencies, Industry 4.0 can help streamline and automate critical manufacturing and monitoring business processes, improve equipment utilization, and improve raw material planning and finished product scheduling. Modern technologies make it possible to create a predictive maintenance system using predictive models using real-time data in the field of equipment maintenance. This system helps to determine the actual need for maintenance and repair of the device and helps to improve these operations. With the advent of digital technologies, enterprises have interesting opportunities to improve the efficiency of corporate logistics and inventory management systems.

One of the key goals of the developed integrated system for the development of small and medium-sized businesses in Uzbekistan is the effective management of the changes necessary for the digitalization of business and the introduction of a set of technologies of the "fourth industrial revolution". Therefore, the issue of ensuring information security, protecting data from unauthorized use, virus attacks, and various options for cyber fraud comes to the fore with the growing involvement of small and medium-sized businesses in the digital economy. One of the integral elements of technology leadership is the presence of a high degree of expertise in the field of information security of the company, as well as an understanding of the most relevant risks and dangers.

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