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ADVANCED DEVELOPMENT TERRITORIES IN THE DIGITAL TRANSFORMATION OF RUSSIAN ECONOMY

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Abstract

The purpose of this study is to determine the role of priority social and economic development areas created in single-industry towns (monotowns) in the digital economy improvement in Russia. The object of the study was 81 territories of priority social and economic development areas in Russian single-industry towns. In the study a descriptive method is used. The results of this study show that areas of priority development can become platforms for testing new business models based on the use of end-to-end digital technologies. This study also proves that special economic zones directly or indirectly contribute to the development of the information and communication technology sector either by providing conditions for organizations whose economic activity is assigned to the information and communication technology sector, or by providing conditions for economic activity to organizations, in the cost structure of which a significant share occupy products and services of the ICT sector. Based on the results of the analysis, it was concluded that the creation of digital territories of advanced social and economic development in Russia is necessary. A promising direction may be specialization in the provision of digital services and digital infrastructure, as well as providing comfortable conditions for companies engaged in digital transformation.

Keywords: Special economic zones, advanced development territories, digital economy

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1. Introduction

One of the national development goals of Russia is the accelerated implementation of digital technologies in the economy and social sphere. Achieving this goal justifies the need to transform the ways of organizing and conducting economic activity through the introduction of digital technologies. Along with these, a relatively mature sector of technological supply and a steady demand of business and the population for digital technologies should be formed in Russia (Abdrahmanova et al., 2019a). In this regard, the role of special economic zones (SEZs) in the development of the digital economy is growing. The experience of the countries of the Asia-Pacific region shows that free economic zones can help accelerate the innovation process, develop high-tech and energy-saving technologies, increase the competitiveness of export products, as well as harmoniously integrate technology into people's daily lives. Interest in SEZs as points of concentration of economic activity does not fade. The number of SEZs throughout the world is constantly growing, and new types of free economic zones are emerging, including digital ones.

In Russia, the creation of SEZs as an instrument for the development of territories has been actively used relatively recently. In terms of performance indicators, Russian SEZs with some exceptions lag behind foreign counterparts, but at the same time they have significant potential for development in the coming decades. Many SEZs created in Russia are at the beginning of their life cycle and their development course can be adjusted in accordance with changing socio-economic conditions, increased geopolitical tensions and protectionist policies of some countries. In this regard, the search for new areas of development of Russian SEZs becomes an urgent research topic.

The aim of this work is to study the relatively new for Russia type of SEZs - Territories of Advanced Social and Economic Development (TADs) in terms of their role in the development of the digital economy. The article analyzes the functioning of TADs in single-industry towns, considers the risks associated with increased competition between different types of SEZs, reveals the role of TADs in the development of the Digital Economy in Russia.

2. Materials and methods

The study used the statistical, comparative and analytical method and the method of generalization. The object of the study is 81 TADs in single-industry towns of Russia. The empirical and informational basis of the study is the materials presented in periodicals, as well as official statistics of the State Committee for Statistics of the Russian Federation, information and analytical materials of the Ministry of Economic Development of the Russian Federation, the Accounts Chamber of the Russian Federation and TADs management companies. Data on planned activities and the number of TADs is obtained by summarizing the information presented in the Orders of the RF Government and the register of TADs residents (The Accounts Chamber.., 2020).

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3. Results

3.1. The specifics of the functioning of TADs in single-industry towns

In Federal Law dated December 29, 2014 No. 473-FL "On Territories of Advanced Socio-Economic Development in the Russian Federation" TADs are defined as part of the territory of a constituent entity of the Russian Federation, including the Closed Administrative-Territorial Formations or Closed Cities (ZATOs), and (or water bodies), on which there is a special legal regime for entrepreneurial and other activities. As of 2020, 81 TADs have been created in Russia on the territories of single-industry towns. In total, 11 TADs were created in 2016, 25 in 2017, 25 in 2018, and 20 in 2019. Currently, 5 TADs have been created in the Republics of Tatarstan and Bashkortostan and 3 TADs have been created in the Rostov, Kemerovo, Irkutsk, Yaroslavl, Chelyabinsk, Kurgan regions, as well as in the Republic of Karelia.

In addition, another 8 TADs are created in closed territorial-administrative formations (ZATOs), 5 of which are also single-industry towns, and 19 TADs operate in the Far East. The first TADs were created in the Far East as part of a pilot project, and since 2016 in accordance with Federal Law dated 03.07.2016 No. 252-FL "On Amendments to the Federal Law "On Territories of Advancement of Socio-Economic Development in the Russian Federation" and the Federal Law "On the Free Port of Vladivostok"" TADs can be created in all categories of single-industry towns. Prior to this, the creation of TADs was allowed only in single-industry towns with the most difficult socio-economic situation in accordance with the Decree of the Government of the Russian Federation of June 22, 2015 No. 614 "On the features of creating territories of priority social and economic development in the territories of single-industry municipal entities of the Russian Federation (single-industry towns)".

In order to create TADs, an appropriate form is submitted to the Ministry of Economic Development of the Russian Federation from a senior official of the constituent entity of the Russian Federation and the head of the single-industry town on which territory TADs are planned to be created. The application is considered on time and in case of a positive decision, the Ministry of Economic Development of the Russian Federation makes a proposal to the Government of the Russian Federation to create TADs.

The decision to create specific TADs is made by a decree of the Government of the Russian Federation, which establishes the boundaries of TADs, acceptable types of economic activity, requirements regarding the volume of investments and the number of jobs in the first year of the project, and sometimes decisions contain additional requirements. The minimum amount of capital investment during the first year of the resident's project should be 5 or 2.5 million rubles, depending on TADs, and the minimum number of permanent jobs should be 20 or 10 units. Also, general requirements for residents include registration in the territory to which TADs status is assigned, carrying out activities only within TADs, the absence of branches and representative offices outside TADs, etc.

TADs in single-industry towns are created in order to ensure stable socio-economic development by diversifying the economy and reducing dependence on city-forming enterprises, attracting investment and creating new jobs for the population.

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3.2. TADs as a platform for testing new business models based on the use of end-to-end digital technologies

It should be considered that new digital technologies have a significant impact on consumer behavior, patterns of consumption of products and services, and change production itself and business models. One of the global trends is digitalization, which is considered as a factor in ensuring the competitiveness and sustainability of the development of companies both in the field of information technology and in traditional sectors of the economy. Experts note that a greater economic effect can be obtained from the inclusion of digitalization in the development strategy of the entire company than from the use of digital technologies to solve certain issues, for example, it is very promising in the oil and gas sector of the economy (Larchenko et al., 2016). Moreover, experts are already discussing the advantages of digital SEZs, which create a single environment for the interaction of IT companies and for the synergy of their activities (Midoun & Bengana, 2018). There are also suggestions for the creation of e-SEZs, whose activities will be carried out in the field of electronic commerce (Osipov, 2018).

End-to-end (advanced) digital technologies include virtual and augmented reality technologies, big data, artificial intelligence, industrial Internet, wireless technologies, robotics, etc. Cross-cutting digital technologies allow companies to automate processes, identify new ways of making a profit, personalize an offer and create an attractive for the consumer service infrastructure. Russian organizations have mastered basic digital technologies, but the use of end-to-end digital technologies is still low (Larchenko et al., 2016). At the same time, companies recognize the importance of end-to-end digital technologies, but the actual implementation and use is restrained. For example, in Russia 63% of private companies note the importance of augmented reality, but 8% use this technology, as for virtual reality, 43% emphasize significance, and 8% use it. A similar situation with drones (45% versus 12%), 3D printing (25% versus 10%), etc. (Government of the Republic of Bashkortostan, 2018).

The actual use of advanced digital technologies is complicated, first of all, by limited financial resources, skepticism about end-to-end digital technologies, lack of qualified specialists, experts in digital technologies, and underdevelopment of digital culture. It can be assumed that financial and personnel constraints will be the main obstacle for companies in the coming years. Russian companies have recognized the need to invest in new technologies and services and are striving to bridge the gap with foreign countries, where the transition from the use of individual solutions to a deeper understanding of the role of digital technologies in business processes has already begun (Larchenko et al., 2019b).

New business models are focused on the rapid introduction of new products to the market and maximum customer orientation. Transformations affect not only product development and production, but also customer interactions based on the use of end-to-end digital technologies, such as artificial intelligence or big data. Business models based on digital technologies and having some advantages over traditional ones include digital platforms, service business models, outcome based models, crowdsourcing models, etc. Experts indicate that the transformation of business models leads to a rethinking of the boundaries of firms and its types of activities, into based on which there are three elements of digital change in business, new digital businesses and digital globalization (Westerman et al., 2014). Many TADs residents actively use digital technology to optimize business processes and improve decision-making.

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3.3. Contribution of TADs to technological supply and the formation of demand for ICT products

The declared types of economic activity regarding a special legal regime applied to TADs in single-industry towns and investment projects which can be implemented, are quite diverse. However, the analysis showed that among the declared activities, food production prevails in 93% of TADs, clothing production prevails in 80.2% of TADs, woodworking and wood products in about 80.2% of TADs, crop and livestock production, hunting and provision predominates related services in approximately 76% of TADs, production of soft drinks in approximately 61.7% of TADs, engineering activities are planned in approximately 74% - 80% of TADs, and the production of chemicals and chemical products in 79% of TADs, furniture production in 74% of TADs, health care activities in 54% of TADs, temporary housing activities in 64% of TADs, and production of medicines and medical supplies in 53% TADs. At the same time, many of the listed activities relate to sectors of the economy, in the cost structure of which experts predict an increase in costs for the products of the information and communication technology (ICT) sector. At the expense of TADs residents, including, in the near future, demand for domestic ICT goods and services will be provided.

As for the contribution of TADs to the development of the ICT sector and the formation of a technological proposal in Russia, it should be noted here that the production of computers, electrical and optical products is planned in 45.7% of TADs, telecommunications activities in 6% of TADs, computer repair of personal items and household purposes in 6.2% of TADs, production of electrical equipment in 61.7% of TADs, information technology activities in about 32% of TADs, 33% TADs are allowed to develop computer software, provide consulting services in this area and other related services. Activities in the field of communications on the basis of wireless technologies are planned to be developed in 1,2% of TADs.

At the same time, in 2018, the structure of goods and services in the ICT sector in Russia was dominated by telecommunication services (59%), software development (18%) and others (13%), while communication equipment (3%), data processing (6%) and computers and peripheral equipment (1%) make up relatively small shares (Abdrahmanova et al., 2020). At the same time, imports of goods and services related to ICT significantly prevail over exports, for example, for computers and peripheral equipment, export amounts to US $ 403 mln, as long as import is US $ 8,404 mln As for telecommunications services, the gap here is not so significant from US $1,072 to US $ 1,486 mln on exports and imports, respectively (Abdrakhmanova et al., 2019b). The ICT sector in Russia has been developing dynamically in recent years.

At the same time, the proportion of organizations using ICT in one form or another fluctuates around 90%. It can be noted that in recent years, the cost structure of organizations for ICT has been dominated by costs for the services of third-party organizations and ICT specialists other than telecommunication and training services (26.6% in 2018), for the purchase of computer equipment and office equipment (20%), and also the cost of acquiring software (18.1%) (Federal State Statistic Service, 2020).

At the moment, most TADs in single-industry towns are in the process of formation, and the number of residents is constantly increasing, so it is still premature to talk about the results. However, the register of TADs residents in single-industry towns contains information on the types of economic activities carried out by residents from here, we can conclude that at the moment, TADs created in Ruzaevsk, Miass,

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Naberezhnye Chelny, Togliatti and other cities actually have potential in this area. TAD of Togliatti is developing dynamically, and among the residents there are companies focused on building the digital infrastructure of the city (Government of the Samara region, 2019) and organizing production based on digital technologies.

4. Discussion

It should be noted that on the one hand, TADs organically supplemented the existing set of tools for the development of territories, in particular special economic zones (SEZs), and provided domestic and foreign investors with more choice. TADs are a preferential, but not infrastructural counterpart to SEZs. The investor, making a choice in favour of a particular site, is guided not only by calculating the financial and economic effect of the project, taking into account tax benefits and preferences, but also by the existing infrastructure, labor resources, the willingness of the local business community to cooperate, etc. Moreover, unlike SEZs, which in most cases are characterized by the creation of infrastructure within the framework of the type of greenfield construction, TADs are created in the city, where all the inherent infrastructure was already in place at the time of creation.

On the other hand, TADs, being part of a specific territory, are automatically involved in territorial competition (Anisimova & Nilova, 2017). Competition between TADs and other types of SEZs may lead to the opposite of the stated results. In a number of regions of the European part of Russia, a strong concentration of preferential tax regimes is observed, which leads to a glut of regions with industrial infrastructure and increased competition for large investors. Under these conditions, sites representing universal conditions for conducting economic activity may turn out to be unprofitable. Therefore, when planning the creation of TADs, in particular, when determining the types of economic activities in respect of which a special legal regime applies, the opportunities created by TADs for developing cooperative connections with the local business community should be taken into account.

There is reason to believe that in the near future, not universal SEZs, but highly specialized, single-industry ones, will be more successful. One should strive for a complementary, rather than competing, model for the interaction of TADs with other types of SEZs in the region. A promising direction for the development of TADs in Russia may be the creation of digital TADs specializing in the provision of digital services and digital infrastructure, as well as providing comfortable conditions for companies focused on digitalization, for example, additional benefits and preferences for companies using end-to-end digital technologies.

In the future, TADs can help overcome dependence on imported goods and services, as well as make a significant contribution to the development of the ICT sector, creating a demand for digital technologies and technological offer.

The federal project Digital Technologies contains an indication that it is planned to stimulate the domestic demand for digital technologies, including through the digital transformation of large businesses (Ministry of Digital Development, Communications and Mass Media of the Russian Federation, 2019). TADs, as “growth points” that create a multiplier effect, can become platforms for the implementation and use of digital solutions, as well as for testing new business models based on digital technologies.

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The study results highlight three important areas of digitalization in TADs. First, TADs can become platforms for testing new business models based on the widespread use of digital technologies. Secondly, Russian experience shows that there are prerequisites for the development of interaction between regional authorities and TADs residents in the direction of digitalization of the region's economy (Larchenko et al., 2019a). For example, organizations of the electronic cluster can be involved in the digitalization of industrial production, healthcare, education, tourism, agriculture, etc., providing new digital products (Altai Region Official site, 2018). Thirdly, TADs as mega-enterprises are also subject to digitalization and new business models can be applied to the management of the territory, to the search for new residents, and also to create jobs for highly qualified specialists serving the corresponding infrastructure.

It should also be noted that territories with a special regime for carrying out entrepreneurial activity are the object of criticism. The Accounts Chamber as a result of the analysis of preferential tax regimes, including TADs, made a conclusion about their general economic inefficiency and noted the existence of problems with the quality of management, monitoring and evaluation of economic efficiency. In the future, it is planned to consider new tools for supporting and developing single-industry towns, and updating existing development programs taking into account national projects. Most TADs in single-industry towns, according to experts, did not become a development tool (Mereminskaya, 2020). Nevertheless, it is important to provide investors with opportunities and a favorable business environment. World experience shows that SEZs do not guarantee instant results. A real economic and social effect can be expected after several years from the moment of creation. For example, TADs Naberezhnye Chelny, shows good results and is considered as an integral tool to strengthen the region's economy (Tatarstan Investment Development Agency, 2019).

5. Conclusion

The results of this study show that the role of TADs in the development of the digital economy is manifested in three main aspects:

-TADs can become platforms for testing new business models based on the widespread use of digital technologies;

- TADs contribute to the formation of sustainable demand for the products of the ICT sector, since the declared types of economic activity, for which a special legal regime of entrepreneurial activity is applied in the territory of priority development, mostly relate to economic sectors, in the cost structure of which ICT sector products and services occupy a significant share

- TADs can contribute to the formation of the domestic technology supply sector.

In addition, the functioning of TADs is accompanied by multiplicative effects, expressed in the intensification of economic activity outside of TADs and the broadcasting of the most effective business models and experience in using digital solutions. Based on the foregoing, we can conclude that it is necessary to create digital TADs in Russia.

Digital technologies streamline production and management in TADs, but they also carry significant risks. These risks are not yet sufficiently meaningful and require further study.

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