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**ON THE PROBLEM OF OVERCOMING THE CRISIS BY INFO-COMMUNICATIONS AND CONSTRUCTION ORGANIZATIONS**

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**Abstract**

The article deals with the actual problems of Russian organizations in the construction, information and communication spheres of activity in the conditions of the crisis of 2020-2021. The research and generalization of the intermediate results of overcoming the crisis by organizations in these areas of activity are carried out on the basis of the analysis of statistical information and published scientific data. Their own vision of the circumstances contributes to the formation of conditions for the stabilization, and further development of the relevant organizations is presented. The research is based on an interdisciplinary approach. Statistical, analytical, system, dialectical, logical and other methods of scientific cognition were used, which made it possible to clarify the main advantages of organizations and justify the current state of affairs in the areas under consideration. The comparison of pre-crisis positions of organizations in the construction, information and communication spheres is carried out. In the course of further analysis, the authors defined the concept of “conditional advantages” of organizations that contribute to the successful passage of the crisis. Based on the data of statistical observations, the authors noted the natural growth of consumer demand for information and communication services, activated by quarantine restrictions, and the growth of demand in the construction sector, stimulated by state subsidies. An increase in the turnover indicators of the organizations under consideration, an increase in investment in construction, an increase in the average monthly salary and other indicators are given as intermediate results of overcoming the crisis.

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*Keywords:* Economic crisis, economic stability, construction spheres, information and communication; anti-crisis measures, conditional advantages



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## 1. Introduction

The current economic crisis, accompanied by the spread of the new coronavirus infection, has affected all spheres of activity to one degree or another. The resulting uncertainty makes it necessary to assess the current situation and develop measures to overcome the crisis by each business entity.

An economic crisis is a set of phenomena associated with a single economic process arising from the formation of internal contradictions of a qualitative nature in the economic system associated with the need for cardinal changes in the institutional environment, a change in the management model, a qualitative renewal of the technological base, etc. (Shcherbakov, 2016).

According to the researchers, the insufficient level of technological equipment and dysfunction of the introduction of innovative processes, which contradicts the progressive rates of development of elements of the external environment, currently leads to the limitations of long-term economic development (Shcherbakov, 2016).

The quarantine measures have had a significant impact on the regional, sectoral and corporate economies. To a greater extent, the consumer market has experienced a negative impact (Ryazanov, 2020; Shcherbakov, 2021; Zubova et al., 2021). To neutralize the consequences of the crisis, governments are making unprecedented efforts. Analyzing anti-crisis government measures, it should be noted that the way out of the crisis is ensured by the importance of sovereign interests, expressed in saving national economies in order to ensure the well-being of the population instead of using the globalist model of social development and the priority of market mechanisms (Shcherbakov, 2021).

Taking into account the opinions of experts (Analytical Bulletin of the National Research University Higher School of Economics, 2020), the main challenges for business in conditions of quarantine measures include the following processes. The first is a decrease in revenue and loss of customers; changing the system and sales channels. The second is the risk of personnel contamination and a reduction in the inflow of foreign labor. The third is interruptions in supply chains associated with the closure of state and administrative borders. The fifth is poor communication with customers, partners and staff in remote work conditions; the threat to financial stability due to a decrease in cash flows; low ability to make quick and effective management decisions, etc.

The actions of organizations during the period of the economic crisis are associated with radical changes in relations with personnel and counterparties, updating the technical base, innovative development of production and management technologies, differentiation of activities and other points.

As a rule, the crisis passes most painless due to the created "safety cushion" and strong companies who carry out the rise. At the same time, the acuteness of the contradictions brings the depressed companies to the readiness to take radical measures (Shcherbakov, 2016; Tsygichko & Chereskin, 2020).

Based on the real situation and the possible long-term consequences of the Covid recession for economic activity, as well as taking into account scientific and professional interests, we will consider the positions of organizations in the construction, information and communication sectors in the current conditions.

## **2. Problem Statement**

The spread of a new coronavirus infection, as noted by many modern researchers, has become a large-scale challenge for both the global and Russian economies. Significant changes in the operating conditions of organizations in various areas of activity have turned into serious, sometimes insurmountable, obstacles to their economic development. At the same time, among others, there are special types of economic activities that play an important role in maintaining the national economy. In modern conditions, such areas of activity can be attributed to construction, information and communication sphere. Overcoming the crisis and the possibility of developing these areas in the short and medium term are necessary both from the position of an important driver of socio-economic development, and directly improving the quality of life of the population. In this regard, the urgent tasks are to study the problem of the current state and development trends of these sectors of the economy, as well as the development of measures for their state support.

## **3. Research Questions**

The global crisis of 2020-2021 associated with the coronavirus pandemic in Russia was complicated by additional negative factors. First, the entry into a new crisis was preceded by a six-year stagnation in 2014-2019, the consequences of which were a significant decrease in gross fixed capital formation and real incomes of the population. Second, the decline in prices and volumes of the oil and gas complex since the second quarter of 2020, led to the acute phase of the crisis. The totality of these problems has an extremely negative impact on domestic small and medium-sized businesses, practically on all socio-economic processes. However, special attention should be paid to studying the problems of the most large-scale and important areas of economic activity that can support and serve as a locomotive in the future for the development of the state's economy as a whole. As such basic directions in this study, construction organizations, information and communication areas of activity are selected. What is happening today in these industries, how they manage to cope and get out of the crisis, what steps need to be taken, including at the state level, to ensure their sustainable development are the main issues to be discussed in this article. The study evaluates the current situation in the selected areas of economic activity. The authors present their vision of the circumstances contributing to the successful overcoming of the crisis by organizations in these areas of activity. As a fundamental circumstance, the pre-crisis "conditional advantages" of organizations are substantiated, a study and a comparative assessment of the corresponding indicators are carried out. An important research issue is also the formation of proposals for additional measures necessary for overcoming the crisis by each economic entity.

## **4. Purpose of the Study**

The purpose of this study is to consider the intermediate results of overcoming the crisis by organizations in construction, information, communication spheres based on statistical information and published scientific data. It includes presenting their vision of the circumstances that contribute to a change in the situation of these organizations.

## 5. Research Methods

The study was carried out using a complex of private and general scientific methods: statistical, systemic, logical, dialectical, situational approach, comparative analysis and graphical methods of data visualization. The following sources of information were used in the work: scientific literature in the field of anti-crisis management, the impact of a pandemic on the state of the economy, management of competitiveness; expert opinions of auditors and analysts; results of statistical observation.

## 6. Findings

Quite an important role in overcoming economic challenges is played by the “state of entering a crisis”. Taking into account the existing approaches to economic analysis, as criteria for assessing this state, we will consider the main economic indicators of the activities of organizations - subjects of the markets under consideration.

Based on the difficulties faced by the business during the onset of the pandemic, we defined the pre-crisis “contingent advantages” of organizations. These should include the economic indicators of the organization, leading to the successful passage of the crisis, for example, such as favorable financial conditions, staff resilience to a changing environment, a sufficient material and technical base, the use of digital technologies.

This study examined the performance indicators of organizations in two basic areas of activity: construction, information and communications (information and communication). To assess their “contingent advantages”, published statistics for the pre-crisis period were used (shown in Table 01). The choice of performance indicators is based on different opinions of the scientific community, as well as taking into account the importance for sustainable development and competitiveness of companies (Aygumov & Melekhin, 2020a, 2020b; Asaul et al., 2020; Isaev & Isaeva, 2020; Nezamova & Olentsova, 2021; Pesotskaya et al., 2021; Vinogradova, 2019a; Vinogradova, 2019b;). Table 01 also shows the results of paired comparisons of the conditional benefits of the two selected areas of activity for the specified indicators.

Summing up the results of the comparison of indicators, it is worth mentioning that the "conditional advantages" of organizations in the field of information and communications significantly exceed the "conditional advantages" of entering the crisis of construction organizations.

The advantageous position of the telecommunications sector, as well as restrictive measures in terms of movement, contributed to a significant increase in the consumption of digital data and communication services and a corresponding increase in the volume of services provided in this sector. The role of the telecommunications sector is becoming critical to keeping businesses, governments and public institutions functioning during the coronavirus restrictions. At the same time, the dramatically increased traffic volumes require investments in infrastructure that ensure the speed and reliability of communication through the development of broadband Internet access via 5G networks, satellite and fiber-optic channels (NRU HSE Analytical Bulletin, 2020).

**Table 1.** The main economic indicators of the activities of construction organizations and the field of information and communication for 2018

n/a	Indicator name	Unit	Activities		Comparative conditional advantages	
			Construction	sphere of information and communication	construction	sphere of information and communication
1.	Number of operating companies and organizations of private ownership	thousand units	474.9	126.4		+
			457.4	113.6		
2.	Employed at the end of the year	thousand units	6391	1464		+
3.	Labor productivity growth rates	%	102.8	100.2	+	
4.	Educational level of employed:	%				+
	- higher		24.4	64.0		
	- mid-level specialists		21.3	19.0		
5.	Labor movement (list number)					
	- accepted	%	55.3	31.4		
	- dismissed		59.8	29.8		+
6.	Number of part-time workers	thousand people	2.4	0.3		+
7.	Index of physical volume of output to the level of the previous year	%	105.3	101.7	+	
8.	Companies' turnover	bln rub	7424.8	3989.9		+
9.	Fixed capital investments	bln rub	636.2	601.5	+	
10.	Financial investments	mln. rub.	3 471 513	7 882 259		+
11.	Availability of fixed assets	mln. rub.	271 885 14	5 881378	+	
12.	Depreciation of fixed assets	%	48.9	62.0	+	
13.	Share of fully worn-out fixed assets	%	16.2	25.7	+	
14.	Fixed assets renewal ratio		11.3	5.9	+	
15.	Retirement rate of fixed assets		1.0	2.5	+	
16.	Balanced financial result (profit minus loss)	mln. rub.	- 62572	276 730		+
17.	Share of unprofitable organizations	%	34.7	31.9		+
18.	Total debt	mln. rub.	5 845 508	2757 078		+
19.	Number of organizations using:					
	- information and communication technologies	%	86.2	96.6		+
	- electronic document management		58.2	70.8		+
	- Internet for communication with suppliers and consumers		69.2	77.9		+
20.	Organizations' expenses on infocommunication and information technologies	bln rub	33.0	328.0		+
	Total				8	14

According to the analytical credit rating agency ACRA, the expected impact of quarantine has a positive trend in 2020 to an increase in consumer demand for public services and communication services, and at the same time negative for construction and other activities. At the same time, the expected level of decline in construction production may amount to 10-15%. The auditors of the Accounts Chamber of the Russian Federation adhere to a similar opinion about the seriousness of economic problems in construction in the context of a pandemic.

The state of affairs in construction in the context of the onset of a pandemic can be characterized as follows:

- reduction of the market supply caused by the limited supply of materials and components; a shortage of foreign labor, previously prevailing in construction; uncertainty related to the sharp decline in cash flows caused by the decline in sales;
- shrinking consumer demand due to reduced income, uncertainty and fear of contamination when leaving home to make deals.

To support business in the context of the economic downturn in Russia, anti-crisis support measures were taken, including limiting or suspending inspections, extending various permits and licenses, introducing a moratorium on initiating bankruptcy proceedings, extending the validity of all construction permits for one year. That involves extending the deadlines payment of taxes, insurance premiums and submission of reports for a period from 3 to 6 months, exemption in 2020 from payment of penalties due to the delay in fulfilling obligations under a number of government contracts, etc. (Analytical Bulletin of the National Research University Higher School of Economics, 2020).

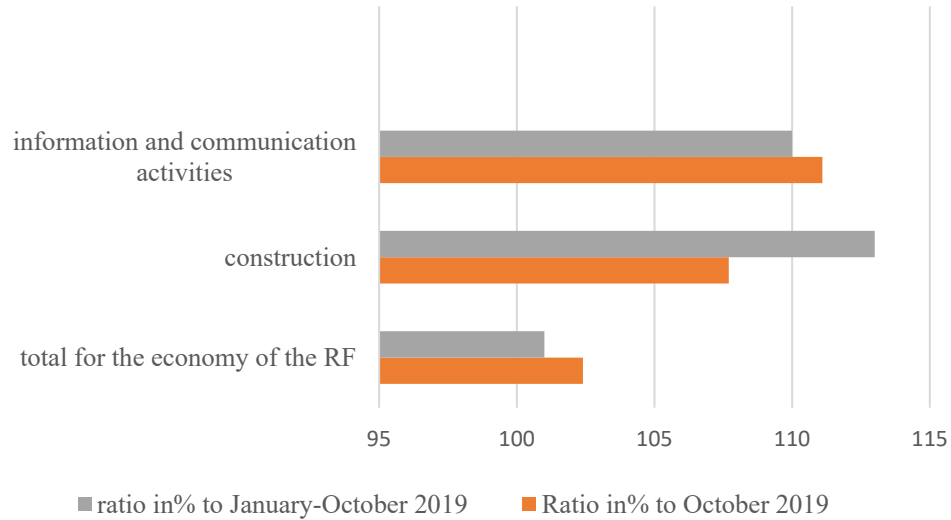
According to various estimates, the amount of funds included in the program to support the Russian economy is set at 2-3 trillion rubles (1.8-3% of GDP). Basically, the program is focused on providing a 6-month grace period for taxes and loans, as well as securing government guarantees for loans (Ryazanov, 2020).

The cut in the key rate, payments to families with children, and other government initiatives had a pronounced focus on stimulating consumer demand. New opportunities for the construction industry have emerged with an increase in demand, stimulated by government subsidies for mortgage rates. At the same time, the demand for services in the field of information and communication was activated by quarantine restrictions.

As an intermediate result of overcoming the crisis by organizations in the information, communication sphere and construction, it is worth noting the dynamics of the turnover of organizations in October and January-October 2020, shown in Figure 1. The organizations under consideration have an increase in turnover that significantly exceeds the same indicator for the economy of the Russian Federation as a whole.

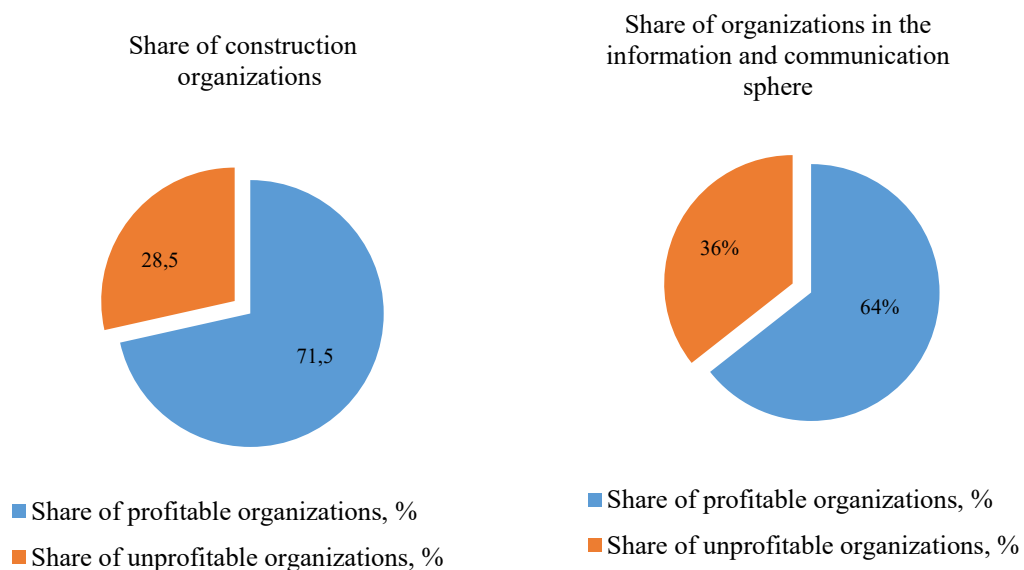
In addition, we noted the indicators of return on sales and return on assets for 9 months of 2020. In construction, they amounted to 4.6% and 0.9%, respectively, which is significantly lower than the indicators for the national economy as a whole. At the same time, the return on sales in the field of information and communications is 11.8% and the return on assets is 4%, which is one third higher than the indicators for the Russian economy as a whole. At the same time, the balanced financial result of construction

organizations in January-October 2020 increased by 154.2% compared to the same period in 2019, and organizations in the information and communication sphere grew by only 104.6%.



**Figure 1.** Dynamics of turnover of organizations in October 2020

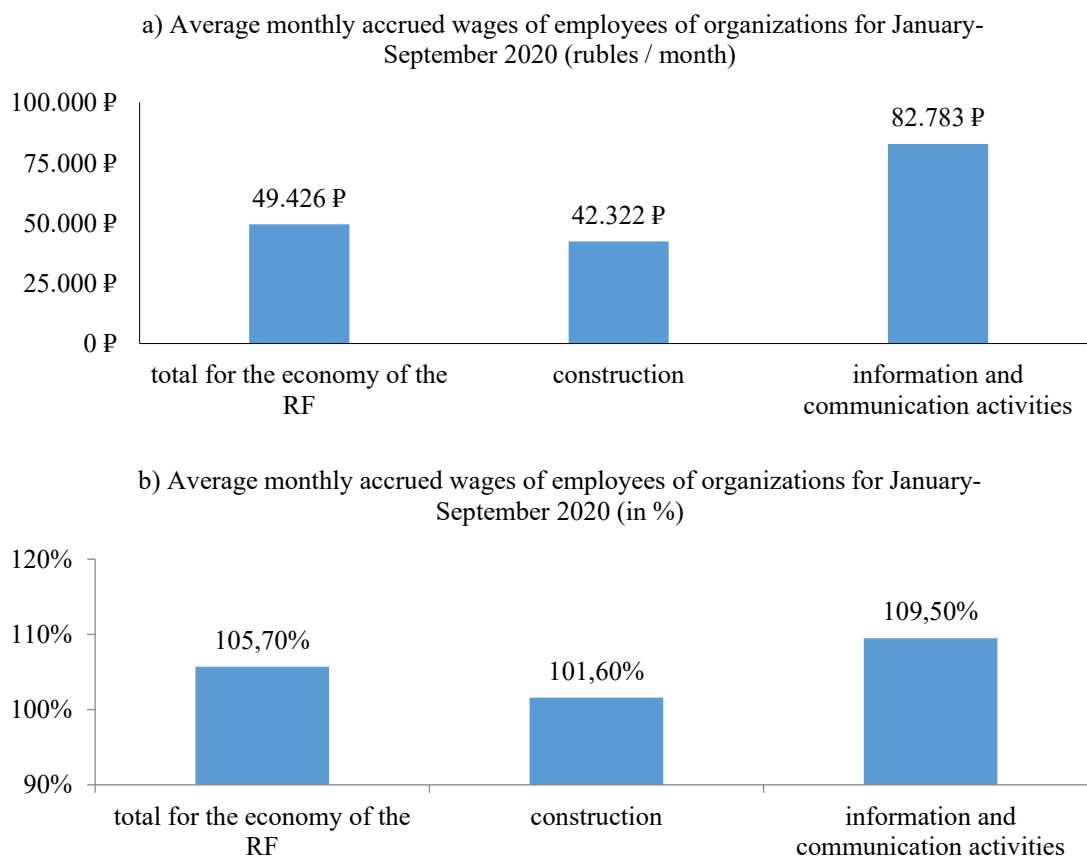
The share of profitable construction companies in the compared periods practically did not change and amounted to more than 71%, the share of information and communication organizations in January-October 2020 decreased by more than 10% and amounted to slightly more than 68%. The above financial indicators indicate the absence of a success crisis (performance results) and a liquidity crisis in most of the construction, information and communication organizations (Chumachenko & Ibragimov, 2020).



**Figure 2.** The share of organizations in the corresponding field of activity that received profit / loss in January-October 2020

One of the indicators characterizing the state of affairs in a particular field of activity is the growth in the number of registered and liquidated organizations. In construction, for the period from January to October 2020, 37.5 thousand organizations were registered, and 68.3 thousand organizations were liquidated (Figure 2). In the field of activities in information and communications, 5.9 thousand organizations were created, and 12.1 thousand were liquidated. However, investments in construction for 9 months of 2020 equalled 2.7% of the amount of investments in the national economy - 249.2 billion rubles, which is 3% more than that in the same period in 2019. Investments in the infocommunication sphere over the same period amounted to 4.5% of the size of investments in the economy as a whole, or 415.1 billion rubles, which is almost 4% lower than the level of the same period in 2019.

The situation in a certain field of activity can be judged by the average monthly accrued wages of employees of organizations, data on which for 9 months of 2020 are shown in Figure 3.



**Figure 3.** Average monthly-accrued wages of employees of organizations for January-September 2020.

Taking into account the recorded growth in the level of wages in the infocommunication sector by 109.5% and 101.6% - in construction compared to the same period in 2019, it is worth noting a more attractive state of affairs in the field of information and communications. At the same time, in the field of infocommunications, as of November 1, 2020, there were no overdue wage arrears, while in construction it had an increase and amounted to 275 million rubles. In addition, in construction, the number of replaced jobs in September 2020 amounted to 97.1% compared to the same period in 2019, with an indicator for the



economy as a whole of 97.1%. At the same time, in the field of information and communications, the number of vacancies has increased and amounted to 105% of the September 2019 level.

The relative economic stability in the activities under consideration is also indicated by the reduction in the actual working time of employees on the payroll in January-September 2020 to 7.13 hours in construction and to 7.18 hours – in the field of information and communications with an economy average of 7.03 hours.

## **7. Conclusion**

As a result of the study, the role of the current "state of entering the crisis" of organizations and markets in overcoming the crisis has been revealed. The main indicators of activity in the markets under consideration have been substantiated as criteria for assessing this state. These are the number of operating enterprises and organizations; the number of employees; the growth rate of labour productivity; the level of education of the employed; labor movement. They also include the index of the physical volume of the output to the level of the previous year; turnover of organizations; investments in fixed assets; the degree of depreciation of fixed assets; the number of organizations using digital technologies; the proportion of unprofitable organizations and other indicators.

The authors identified the pre-crisis "conditional advantages" of organizations - favourable financial conditions, staff resilience to a changing environment, sufficient material and technical base, the use of digital technologies. The concept of "conditional advantages" as the economic indicators of an organization leading to the successful passage of the crisis has been disclosed.

The state of affairs in construction at the beginning of the pandemic, characterized by a decrease in market supply and a drop in market demand, has been determined. The predominant position of the information and communication sphere was confirmed due to a significant increase in the consumption of digital data and communication services under restrictive measures. Insufficiency of investments in the field of communications for the development of the broadband Internet access through 5G networks, satellite and fiber-optic channels was noted. The measures of anti-crisis state support of the economy are considered and their influence on the stabilization of the situation in the areas under consideration is confirmed.

The study, based on a wide range of statistical data, confirmed a certain superiority of organizations in the information and communication sphere during the crisis in comparison with construction organizations.

This conclusion is due to the steady growth of consumer demand and the pre-crisis conditional advantages that took place, which make it possible to meet the growing demand for communication and information services. Thus, it is worth making a conclusion about the need to strengthen the financial, resource, material and technological position of organizations as a way to ensure a stable position in the context of recurring economic crises.

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