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**IMPACT OF THE COVID-19 PANDEMIC ON THE
DEVELOPMENT OF COLLABORATIVE CONSUMPTION**

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Abstract

The sharing economy has been strongly affected by the spread of COVID-19 in the world. The direct impact of suppliers and consumers, according to the “peer-to-peer” principle and the establishment of personal connections between participants in collaborative consumption make it one of the most susceptible forms of sharing to the coronavirus pandemic. The challenge of changing the ratio between benefits and risks from collaborative consumption is relevant and complex. Finding a way to solve this problem became a subject of consideration of the submitted scientific article that examines the socio-economic changes and the potential for adapting collaborative consumption to the conditions of the pandemic. It is concluded that the volume of collaborative consumption will continue to grow in the event of its further transformation based on digitalization and timely response to significant changes in the socio-cultural context of people's behavior in the economy. In carrying out the study, the analysis of possible measures to improve the organization of activities of digital platforms of collaborative consumption is made. Only those of them will remain on the market that will be able to use the arrival of additional users in the Internet space caused by the fear of COVID-19. This will be achieved by replacing the previous practices of collaborative consumption with new ones that are more relevant to the realities of our time. A number of ways to adapt participants of collaborative consumption to the conditions of COVID-19 spread are proposed.

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1. Introduction

A distinctive feature of 2020 was the global economic crisis spawned by the spread of COVID-19. Its duration and depth are not yet known, but revealed changes testify that the pandemic coronavirus proved to be a complex phenomenon, combining simultaneously the features of natural disasters, economic crisis and socio-cultural transformations of society. Human health is a prerequisite for the productive functioning of the economy, while pandemics and related panic reduce production and consumption, lowering the level of social well-being. The consequences of epidemics have a negative impact on the macroeconomic situation in general, and therefore overcoming them requires large-scale costly actions to minimize losses from reducing the volume of performed work and decreasing its productivity due to quarantine measures designed to contain the spread of the disease.

Although many Russians consider the fears about COVID-19 to be greatly exaggerated, their behavior as consumers has changed. Cost reduction, stockpiling and increased expenditures on home leisure are a natural response to the unfolding economic crisis. The vast majority of Russian residents are pessimistic about the near future of the country's economy and assess their financial situation as unstable. According to a survey of Russian consumers conducted in April 2020 by the Boston Consulting group together with the Romir research holding, only 5% of respondents felt financially secure and only 6% did not expect further deterioration of the economic situation in the country (Boston Consulting Group, 2020). Based on this, the respondents planned to spend less when shopping, and the fear of infection was most associated with shopping centers and street retail, and least – with stores within walking distance. Despite the significantly lower risk of infection during online purchases, consumers in Russia and here planned to spend less due to uncertainty about maintaining the level of their income. The strong negative impact on the global and national economies of COVID-19 is quite predictable but some sectors and modes of economic activity may suffer much greater. The urgent task of scientists is to identify such sectors and methods, the solution of which will serve to develop and implement measures to adapt them to the conditions of the global coronavirus pandemic. The characteristics of collaborative consumption indicate, on the one hand, that it can be classified as a particularly vulnerable mode of economic activity, and, on the other hand, that there is a potential for its successful adaptation to the threats posed by COVID-19.

2. Problem Statement

The impact of the coronavirus pandemic on the economy has been studied by representatives of various branches of science. They show the need to identify the risks and opportunities that arise in this regard in advance in order to better adapt to objectively inevitable changes. This is especially important for new ways of conducting economic activity, which, due to their youth, are characterized by increased instability to external influences. These include relatively recent sharing relationships that have demonstrated strong expansion in the global economy over the past decade.

Collaborative consumption as part of the sharing economy has been studied by a number of foreign (Godelnik, 2017; Benoit et al., 2017; Böcker & Meelen, 2017; Mitchell & Strader, 2018) and Russian scientists (Golovetsky & Grebenik, 2017; Lymar, 2018), public (Analytical Center for the Government of the Russian Federation, 2019) and private research centers (Russian Association of Electronic

Communications, 2019). The empirical part of the research showed a rapid growth in the volume of collaborative consumption, which was theoretically settled by the economic and social benefits for the participants. However, will this growth continue in the conditions of self-isolation, social distancing and strict personal hygiene rules dictated by the pandemic? Perhaps, thanks to the superiority in safety of use, the possession of private property, which was losing its appeal, will be able to take revenge on the alternative sharing relationships built in accordance with the principle of “own less, share more”? (Acquier et al., 2017). There is no such problem in the scientific publications of foreign (Flahault, 2020) and Russian authors (Dolgov & Savinov, 2020) devoted to the connection between the economy and the spread of COVID-19. The financial benefits of collaborative consumption savings now need to be correlated with the epidemiological risk of sharing physical goods (vehicles, housing, sports equipment, clothing) with other people. Disclosing the content of the contradiction between the benefits and risks of collaborative consumption in the context of the COVID-19 pandemic and finding ways to overcome it determined the problem statement of the presented study.

3. Research Questions

The study of the problem of changing the balance between benefits and risks from collaborative consumption under the influence of the coronavirus pandemic required solving several issues. These included the following:

- determining the impact of the spread of COVID-19 on collaborative consumption;
- consideration of the potential of collaborative consumption adaptation to the coronavirus pandemic process and its consequences;
- defining the role of digitalization in current and projected changes in collaborative consumption;
- description of practical ways to adapt participants of collaborative consumption to the conditions of COVID-19 distribution;
- justification for turning the ability of collaborative consumption to scale the transition to online into a more significant competitive advantage compared to the price competitive advantage.

4. Purpose of the Study

Collaborative consumption has such characteristics as direct interaction between suppliers and consumers in accordance with the principle of “peer-to-peer”, as well as the establishment of personal links between participants. Their presence reduces the willingness of people to share material goods due to the coronavirus pandemic's attitude to maintaining social distance. This is why collaborative consumption is considered by many to be more vulnerable than other forms of sharing relationships. However, such a submission requires confirmation in theory and in practice. The purpose of the study was to substantiate two scientific hypotheses. The first is that collaborative consumption has a significant potential to adapt to the conditions of the coronavirus pandemic. The second hypothesis lies in the existence of directions of transformation of collaborative consumption, which ensure its continued growth of transaction volumes through structural and functional development.

5. Research Methods

The methodological basis of the research is a scientific generalization and systematization of existing conceptual approaches to the study of sharing relations in post-industrial economic practice. When writing the text of the article, such general scientific and special methods as analysis and synthesis, observation, grouping, structuring, quantitative analysis in statics and dynamics were used.

The information base of the study was formed by data from articles, reports and other scientific publications on the research topic. Materials from Russian and international research organizations and data from official statistical services were used. Access to a wide range of information sources was determined by difficulties in finding quantitative raw data. COVID-19 is a new phenomenon that has been known to scientists for less than a year. The process of its spread continues, and all the consequences can only be assumed. Therefore, the development and justification of provisions on the transformation of collaborative consumption under the influence of the coronavirus pandemic, which has not yet been sufficiently reflected in economic statistics, is connected with overcoming objectively existing information restrictions.

6. Findings

For a decade, the world has seen a rapid growth in the volume of collaborative consumption. In Russia, collaborative consumption has grown by 96.4% over the past three years alone. From the data in Table 1, it can be seen that in absolute values, C2C-sales of goods are leading by a multiple margin, and in terms of growth rates, carsharing is the second largest transaction (401.9%).

Table 1. Dynamic of collaborative consumption volumes in Russia

Practices of collaborative consumption	2017		2018		2019	
	Transaction value, bln. ruble	Share, %	Transaction value, bln. ruble	Share, %	Transaction value, bln. ruble	Share, %
Carsharing	5,1	1,3	13	2,55	20,5	2,66
Carpulling	8,1	2,07	13,7	2,69	17,8	2,33
Short-term rental housing	5,8	1,49	9,8	1,92	15,6	2,02
Officesharing:	4,5	1,09	5,7	1,11	8,5	1,1
- covorking	2,6	0,66	3,5	0,68	4,5	0,58
- prepared offices with service	1,7	0,43	2,2	0,43	4	0,52
Crowdfunding	0,3	0,07	0,4	0,07	0,432	0,06
C2C-sales of goods	295	75,32	370	72,40	566	73,56
Rent of goods	0,08	0,02	0,18	0,03	0,22	0,02
Freelance services	73	18,64	98	19,18	140	18,20
Individual mobility	-	-	0,31	0,06	0,46	0,05
Total	391,88	100	511,09	100	769,51	100

Source: authors based on (Russian Association of Electronic Communications, 2019).

Experts foretell hard time of collaborative consumption in corona virus pandemic conditions (World Economic Forum, 2020). The transition to socialization mainly within local communities limited to family,

work colleagues, and vital good friends seems predetermined because of the risk of infection with pathogenic microorganisms. Physical contacts with a wide range of people and with the benefits of sharing are beginning to appear deadly, which is why a sharp reduction in a size of the sharing economy is predicted. Many people will turn away, for example, from carsharing and couch surfing for safekeeping, again preferring to buy a car and housing to borrow them, since minimizing the risk of infection is now more relevant than the cost savings. Collaborative consumption practices such as ridesharing (shared trips) and collaborative use of office space (coworking and shared offices) will be even more risky.

However, the transformation of collaborative consumption is also possible, which allowing it to maintain and even strengthen its position in the economy. An alternative to the behavior model based on the restriction of any personal contacts is the online model of life at a distance. Its technological basis was created by digitalization, with the main components of which (social networks, digital payments, e-commerce, cloud calculations, distance learning) collaborative consumption matches well. During the pandemic, the sphere of digitalization has greatly expanded due to previous less active users of the opportunities it opens up, who will continue to apply acquired online-interaction skills after the global victory over COVID 19. Social networks have considerably increased the number of participants, the growth of digital payments and e-commerce mutually supported each other, remote work from home was carried out using cloud technologies, distance learning via the Internet has even reached schools. The resulting significant changes in customer values and socio-cultural context allow to expect further progress in digitalization as one of the most important economic consequences of the coronavirus pandemic. Upon the completion of the latter, many people will continue to choose vehicles and housing that are at their disposal for sanitary and epidemiological safety, travel less, limiting their time in the public environment as much as possible. However, this does not necessarily mean that any sharing relations is going to decrease in scale. The decrease in income of individuals and legal entities due to the economic recession caused by the pandemic will force them to avoid the significant initial expenses that accompany obtaining ownership rights, preferring to save on current costs to services for obtaining the necessary benefits for temporary use. Collaborative consumption among such services has a high price competitiveness.

Modern ways of implementing cooperation in consumption are built on the work of online platforms (Gollnhofer, 2017). Interactions in it occur without physical contact of participants, so that most types of collaborative consumption are able to adapt to the conditions of self-isolation and social distancing. Being one of the components of digitalization, collaborative consumption has an advantage in terms of ensuring an epidemiological safety over less easily transferable in online ways of doing business. As applied to the sector analysis of the economy that statement means the following. The narrow potential of remote work opportunities in the primary and industrial sectors leads to an increase in costs of production staff in that sectors due to the financing of measures to protect them from coronavirus. This also applies to traditional services in the service sector (tourism, hotel business, public catering and transport, personal household services, entertainment), which are suffered most by the pandemic. World travel and tourism council predicted the loss of up to 50 million working places in the field it oversees, and hotel occupancy in Germany this spring was 36% less than in 2019 (World Economic Forum, 2020). The weak point of activity in the service sector has become inherent in most traditional services, the obligation of personal contact between the manufacturer and the consumer when providing them. On the other hand, collaborative

consumption services provided through online platforms more often do not require face-to-face meetings to provide them and therefore look more attractive in unfavorable epidemiological conditions. Thanks to this, there are good growth prospects, for example, for collaborative distance learning based on the Internet infrastructure in virtual informal communities and for network data exchange between groups of organizations with similar fields of activities.

In the service sector, which was most affected by the economic crisis caused by the pandemic, the incentives to update the process of business activity are strong. The clearing function of the crisis will be represented in the withdrawal from the market of a significant part of digital platforms of collaborative consumption, as well as a number of their suppliers. Those participants of collaborative consumption who will be able to improve the rules and standards of their work in accordance with the changed external conditions will maintain and strengthen their position. From the side of the demand, additional users entering the Internet space is an extensive factor in increasing the volume of collaborative consumption, caused by social distancing during the coronavirus pandemic, and an intensive factor on the side of the supply is improving the quality of services, provided with the collaborative consumption. For a while, some practices of shared consumption will lose their popularity, but others can take their place. This is now observed in the collaborative use of office spaces, where due to the transition of some consumers to work at home, the demand for coworking and joint offices has decreased, but increased for colivings. This practice of collaborative hiring of rooms for work and accommodation (participant receives individual living cell in the form of bedroom and storage place for personal belongings and an access to a shared infrastructure presents a work space, living room, kitchen, bathroom, toilet) is practical and economical due to the flexible use of space, representing an option with an optimal quality-price ratio for people with relatively high security requirements and limited budget.

The crisis forces economic agents to make changes in the organization of their activities more actively, the more strongly they are affected by changes in the external environment. Currently, there are several ways to adapt participants of collaborative consumption to the conditions of the coronavirus pandemic;

- the transition from short-term to longer-term usage of goods, that allows to reduce the risk of infection;
- the supplier guarantees a three-day period between receiving the good and transferring it to the next user;
- strengthening the requirements for sanitary cleaning of the goods provided;
- monitoring of remote work in the home office mainly its results, and not the process of achieving them due to the inability to maintain the previous full-format control mode, as well as the ownership of the direct executor of most of the resources involved;
- an increase of collaborative consumption of data, that related to the personal security as people and organizations become more willing to share it. In conditions of a pandemic, society is more willing to recognize the right of employers and government agencies to collect and disseminate information in order to ensure the safety of people's lives, which is more significant than many financial and economic indicators. In case of reliable protection of personal data and receiving benefits from the exchange of them, a culture of digital trust is formed in society. Within its framework, an understanding of the expediency of

widely sharing data that is important for health, work, recreation, and personal well-being is established at the individual, corporate, and state levels. If there is a digital trust, it is acceptable and effective to encourage and share data for their collaborative usage. More and more people are giving consent to the use of wearable and telematics devices that capture and transmit biometric information related to existing and possible threats to them. As a result, the volume of collaborative data consumption increases based on increased trust between participants in information exchanges;

- the use of collaborative labor consumption, when employers exchange their employees, transferring excessive employees for temporary use to those who need them. At the same time, employees remain on the staff of the employer's firm, which receives payments for their work from the borrower's firm. For example, this is how the restaurant business and food retail interacted: during the period of coronavirus restrictions, the first one provided employees to the second for their use in packaging and delivering goods. The novelty of this practice of collaborative consumption is to establish the connection in the labor market without the participation of the owner of the labor force, delegating the right to manage it to the primary employer. The described collaborative labor consumption requires a special theoretical understanding from the point of view of the transformation of labor relations and ownership of economic resources, as well as how it is legal and effective under normal conditions of economic activity;

- an increase in the share of participants who do not need physical contact due to the implementation of practices of collaborative consumption of immaterial goods through digital electronic platforms. For it, in contrast to practices with an access to collaboratively used material goods, or with physical contact between people who collaboratively consume goods, the previously considered methods of adaptation to the realities of the coronavirus crisis are of little relevance.

7. Conclusion

The results showed the ambiguity of the impact of coronavirus pandemic on the economy of sharing and, in particular, on collaborative consumption. On the one hand, increased attention to the problem of ensuring epidemiological safety requires the implementation of a set of measures to ensure social distancing at the personal, corporate and state levels. The condition of limiting physical contacts with other people and their belongings in many cases makes it very difficult to conduct collaborative consumption, which can significantly reduce its scale. On the other hand, as an important component of digitalization, collaborative consumption has a real potential for successfully solving the problems of economic activity created by the pandemic. Even based on the name that seems particularly vulnerable in conditions of a pandemic, collaborative consumption is able to continue the tendency of increasing volumes if it is more actively connected to the potential of the rapidly developing digitalization process.

A high level of capability to transfer in online represents an equally significant competitive advantage of collaborative consumption compared to the price competitive advantage. In a pandemic, an ability to reduce consumption expenses, combined with secure access to benefits through digital electronic platforms, opens the way for widespread distribution in the economy. However, to transform into such a condition, the process of collaborative consumption must undergo qualitative changes both structurally, organizationally, technologically, and in a fairly short time. The most promising of these changes is a structural shift towards an increase in the share of practices of collaborative consumption of immaterial

goods that do not require physical contact of participants through the use of digital electronic platforms. The determined list of ways to adapt to coronavirus pandemic and its consequences for participants in collaborative consumption is not comprehensive, but only demonstrates the variety of possible actions. The choice and implementation of certain methods in practice depends on the specifics of a particular collaborative consumption activity and the changes required in it based on the changing situation in economy and society.

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