Sharing economy as a part of the sustainable development concept

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Abstract. The article is devoted to the study of sharing economy as a new economic model. Today, sharing economy or economy of joint consumption, is in serious competition with traditional industries. The paper presents basic approaches to determination of the sharing economy essence. It considers the factors contributing to its formation and growth. Among the main factors, the authors highlight technological, economic, environmental and social factors. The paper studies the development dynamics of individual sectors of the joint consumption economy in Russia, their contribution to the implementation of the Sustainable Development Goals. Moreover, the authors explore new trends, such as the expansion of geography, changes in the demographic composition of participants, and the integration of sharing in ecosystems. The risks of further expansion of the sharing economy are studied as well - the risk of personal data leakage, problems with the state of critical infrastructure etc.

1. Introduction
In 2001, the UN Secretary-General made a report entitled "Changing Consumption Patterns", in which he stated that "over the past 25 years, the rate of per capita consumption has steadily increased, in industrialized countries by about 2.3 percent per year, in Eastern Asia by about 6.1 percent and South Asia by about 2.0 percent. Increased consumer awareness and commitment to sustainable development, including health, social development and the environment, especially in developed countries, are intensifying efforts to change consumption patterns. " [1]

Over the next two decades, new patterns of consumer behavior began to form. Among others, sharing economy model based on the collective use of goods and services has developed rapidly. Sharing economy is based on the idea that it is often more profitable and more convenient for a consumer to pay for temporary access to a product than to own it. This approach organically fits into the life philosophy of modern youth (millennials), for whom impressions, mobility, the desire for self-realization are more important than status consumption.

2. The main part
It is believed that the term “sharing economy” was first coined by Stanford University professor Lawrence Lessig in 2008 to describe the new business model. He defined sharing economy as “shared

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consumption resulting from the exchange and lease of resources without owning goods” [2]. Following him, the concept of shared consumption was substantiated by economists R. Botsman and R. Rogers in the book What’s Mine Is Yours: The Rise of Collaborative Consumption [3]. Speaking at the TED conference, R. Botsman called the sharing economy a new socio-economic model that revolutionizes the consumption of goods and services, which is based on the assertion that sometimes it is more convenient to pay for access to a product than to own it. According to R. Botsman and R. Rogers, the transition to sharing economy promises more and more social benefits: an opportunity to save and / or make money; change consumer behavior; reduce resource use and ensure more sustainable consumption; promote sustainable economic growth.

Frenken et al. (2015) define sharing economy as follows: consumers provide each other with temporary access to underutilized physical assets (“free, or excess capacity”), both for money and for free [4]. The excess capacity of a consumer product is formed when the owner does not use the product continuously. Most consumer goods can have excess capacity, including houses, cars, clothing, books, toys, appliances, furniture, computers, and others. These authors explain the value of this business model by the distribution of utility between the owner of the resource and the consumer who needs this resource at the right time and at the expense of reasonable operating costs.

Benita Matofska believes that sharing economy is a socio-economic ecosystem built on the basis of the free provision of human, physical and intellectual resources. It includes the co-creation, production, distribution, trade and consumption of goods and services by various people and organizations. According to B. Matofska “A shared economy is a sustainable economic ecosystem made up of ten building blocks” - people, production, value, systems of exchange, distribution, planet, power, trust, communication, culture and the future. According to her, the presence of these elements leads to the success of the innovation model [5].

The sharing economy contributes to a more efficient distribution of resources, a reduction in the environmental burden, and allows the transition to more rational principles of consumption, which is consistent with sustainable development goal No. 12 "Ensure sustainable consumption and production patterns." [6]

Today, China is the world leader in the sharing economy: in 2018, the volume of the sharing economy was estimated at more than $ 230 billion, or 1.67% of the country's GDP. [7]

This could be connected:
- firstly, with a high prevalence of mobile payments, which are used by 86% of consumers, including 31.7% of rural residents. According to this indicator, China is significantly ahead of other countries in the world;
- secondly, with state support and the desire of the country's government to cooperate with companies in the sphere of the sharing economy. So, back in March 2017, Premier of the State Council of the People's Republic of China Li Keqiang, in his report at the 5th session of the 12th National People's Congress, declared the development of the sharing economy one of the key tasks of the government. [8]

In January 2020, the 2019 China Sharing Economy Development Report was released. The number of participants in the sharing economy has grown to 760 million people, 75 million of whom are service providers. The report's authors predict that over the next three years, the Chinese sharing economy will maintain an average annual growth rate of more than 30%. [9]

At present, it is statistically difficult to single out the contribution of the sharing economy to the country's economy precisely because of the lack of a unified approach to its definition. The most representative studies in this area in Russia include the study "Car sharing market in Russia" conducted in 2019 by Sberbank, the annual reports of RAEC "The sharing economy in Russia", the bulletin of the analytical center under the Government of the Russian Federation The sharing economy as a new economic model 2019. [8,9,10] The materials of these studies allow us to judge the scale and pace of development of the sharing economy in Russia.

In 2019, the volume of transactions on the main sharing platforms in Russia amounted to about 769.5 billion rubles, for the year the increase was 50%. [10]
The top 5 sectors of the sharing economy in 2019 included C2C commerce, P2P services, car sharing, carpooling, short-term rental housing - this is 98.7% of the total sharing market in Russia. One of the most dynamic sectors of the sharing economy in 2019 was the C2C commerce market, which grew by 53%. This was facilitated by the conclusion of an agreement between Avito and Russian Post, which made it possible for C2C to use intercity logistics with the most developed federal network. During the coronavirus pandemic, the demand for C2C commerce increased sharply, both the geography and the age of the participants expanded. Most often, Russians use the services Avito (66% of all transactions), Yula and VKontakte. [11]

The volume of the Russian P2P services market grew by 43% in 2019. For the Russian sphere of freelancing, 2019 was marked by the beginning of an experiment on the application of a preferential tax regime for the self-employed - a tax on professional income. Fiscal whitewashing of the P2P
services market participants helped to strengthen customer confidence in performers and increase its volumes. [11]

The annual growth of the car sharing market in 2019 was 58%. And the Moscow car-sharing fleet at the end of 2019 included up to 26 thousand cars, which allowed it to become the largest in the world, overtaking Tokyo. [11] Undoubtedly, the coronavirus epidemic has reduced the demand for car-sharing services, however, forecasts for the development of car-sharing are generally positive, in the coming years the service may grow and become a safer alternative to public transport or taxis.

The volume of transactions in the Russian carpooling market in 2019 increased by about 30%. On the BlaBlaCar platform, which is the largest centralized carpooling service, the number of registered users from Russia has exceeded 25 million. The interest in carpooling is driven by the variety of routes that cover even unpopular destinations and the low cost of travel.

Short-term rental housing is becoming more and more popular for young people. Airbnb provides short-term rental opportunities for home owners to rent them out to travelers. The rapid growth of office sharing should also be noted. Thus, Moscow ranks 7th in the ranking of European cities in terms of the number of coworking spaces and is the leader in Eastern Europe. [11]

For crowdfunding, unlike other sectors of the sharing economy, 2019 was not so successful, its growth was only 8%. [11]

![Figure 3. Volume of transactions in top-5 sectors 2017-2019, bln rub. [11]](image)

In recent years, there have been new trends in the development of the sharing economy.

First, it is the expansion of geography. Most sectors of the sharing economy are demonstrating rapid growth largely due to the regions: large, medium and small settlements. Thus, car sharing services are already operating in more than twenty cities throughout the country. And the share of sellers from small and medium-sized settlements on C2C platforms has already exceeded 30% (Moscow and St. Petersburg together give 24%). [12] The development of sharing services is
facilitated by the fact that they have begun to be introduced into their ecosystems by the largest corporations: Sberbank, IKEA, Yandex and others.

Second, it is a change in the demographic composition of the participants. In many sectors of the sharing economy (C2C commerce, P2P services, car sharing), audience growth is closely related to an increase in the 45+ age category. Market participants associate the growing up of the audience with the growing understanding of the convenience and accessibility of the sharing model [14]. Today pensioners are joining it more and more actively.

Third, integration of sharing services with the largest Runet ecosystems (Yandex, Sberbank, Mail.Ru Group and others). Today, both sharing and traditional services are available to users on one platform.

However, the rapid expansion of the scale of the sharing economy, the growth in the number of its participants is accompanied by certain risks.

This is the risk associated with the possibility of leakage of personal data of its users. Internet companies, financial institutions have profiles of citizens and consumers. Due to hacker attacks and/or negligence of operators, personal data may be in the public domain or be sold to interested parties. The issue of regulating big user data is being worked out by the Ministry of Telecom and Mass Communications of Russia.

In 2019, the UN General Assembly adopted and supported by 79 countries the UN Resolution on Combating Cybercrime. [15] Russia was one of the co-authors of the document and its initiator.

The risk can also cause a failure in the operation of the critical infrastructure of the Internet, which can give rise to a crisis on a national and international scale, paralyze the work of many commercial and financial organizations, and also cause material damage to users.

Insufficient digital literacy of the population, lack of the necessary skills to work with telecommunication technologies, as well as digital inequality become a kind of obstacle for the further development of the sharing economy [16].

The development of the sharing economy requires the creation of a mechanism for its legal regulation. This is complicated by the rapid growth of its individual sectors, changes in consumer demand in a particular niche. This necessitates a quick response to ongoing processes, which is virtually impossible due to the requirements of the legislative process. As a result, the moment the necessary changes take effect, new trends emerge in the industry that require additional regulation.

**Figure 4. C2C sellers growth in the regions of Russia [13]**

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Conclusion.
Thus, in order for the regulation of the sharing economy to meet market demands, it is necessary to develop new principles that will allow legal regulations to respond quickly to changes in the business environment.

Currently, studies have intensified on the impact of the COVID-19 pandemic on the state and prospects for the development of the sharing economy. For some of its areas, the introduction of quarantine measures turned out to be especially painful (car sharing, office sharing, crowdfunding, etc.). A number of areas of the sharing economy during the same period sharply increased the volume of transactions and received a powerful impetus for further development. We are talking about the C2C market - commerce, P2P services, food sharing. Unfortunately, there is still no statistics allowing to make a more substantiated assessment of the new development trends of sharing economy, formed under the influence of the current pandemic. However, according to most experts, further changes in consumer behavior of the population should be expected, an acceleration in the transition to more rational consumption patterns, which will contribute to the growth of sharing economy's contribution to sustainable development.

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