

# Changes in the role of digital services in retail in the context of a crisis

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**Abstract.** The article studies the transformation of the role of digital services in the retail trade in the context of the economic crisis that started in 2020. The subject of the research is digitalization of retail trade services. The study aims to identify the trends in the retail digital services development in the context of the economic crisis as well as to identify the priorities of their development in the near future. Research methods used in the scope of the study include the following ones: retrospective analysis, comparison, grouping, and synthesis.

The main results of the study:

1. The authors explore specific features of digitalization of services in the retail trade in the national market.
2. The study identifies the market development trends of the retail digital services in the context of a crisis.
3. The authors propose measures aiming digital transformation of the national market of retail trade services in the face of the current situation in the national economy.

The obtained results constitute the scientific novelty of the study as the authors identify the market trends and propose specific activities to ensure development of digital services in retail in the context of a crisis in the national economy.

## 1 Introduction

There are two segments that can be identified in the national economy of the Russian Federation, which, on the one hand, are complementary to each other, and on the other hand, can be treated as competitors. Namely, there is the traditional economy, referred to as the “analog” economy, as opposed to the digital economy which represents an innovative vector of economic development and increasing efficiency of the national economy.

The economic crisis that began in 2020 had a significant impact on all industries, markets and forms of business activities, retail trade being among them.

The economic context of 2020 became a catalyst for the introduction and development of digital technologies in various business activities. Retail trade, often associated with the traditional analog economy, is not an exception, on the contrary, it has become one of the major areas of digital transformation.

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The study aims to explore theoretical aspects of digital services in retail and identify priorities for their development in the context of the economic crisis.

The aim has determined the tasks solved in the article, including the following ones: studying specific features of digitalization of services in the national retail market, identifying the trends in the development of the digital services in the retail market in the context of the crisis in order to propose activities and measures facilitating the digital transformation of the national market of retail services taking into account the current situation in the national economy.

## **2 Methods and implications**

The development of digital technologies in the national economy belongs to the priorities among the key activities of the state authorities. Moreover, the importance and the need for digital services in retail has increased during the coronavirus pandemic and the subsequent economic crisis. On the one hand, the economic crisis has had a negative impact on the retail segment and the services it provides. It resulted in a decrease in the number of retailers and diminished economic efficiency of their activities in the national market. However, at the same time, the business model of existing retailers has changed and evolved. There is a clear trend towards digitalization of activities, which allows companies to cut down the costs in comparison to traditional retail outlets.

In the scope of the study, the authors relied on the methods of retrospective analysis, comparison, grouping, and synthesis.

The research is based on the results of the previous studies by the authors and Nedorostkova E. [1-3] as well as approaches of the following researchers: Perepechaeva D.M., Matosyan V.A. and Arslanov R. [4], Bostoganashvili E.R. [5], Kochieva A.K. and Dalakova A.N. [6], Nikolaeva M.A. and Kamolova D.S. [7], Pilé Ya.E. [8], Shapovalova A.R. and Ralyk D.V. [9].

A lack of the scientific analysis should be noted as a result of the literature review. The development of digital services in the retail trade in the context of the economic crisis has not yet obtained the consideration that this issue deserves, which became a starting point and the basis for the research conducted by the authors.

## **3 Results and discussion**

Most companies have faced a lack of financial resources needed to pay salary and obligatory payments, a decrease in demand for goods and services and a corresponding downturn in the company's financial performance, as well as an increase in accounts receivable.

The economic crisis was caused by non-economic factors in 2020. It led to a number of consequences.

Firstly, a decrease in the revenues of enterprises and companies, as well as bankruptcy of organizations in various sectors due to the drop in demand and the lack of financial resources for business activities. The share of bankruptcies of small businesses in various segments of the service sector has reached 35%.

Secondly, layoffs and release of the unused labour force due to the staff optimization and business closure led to an increase in the unemployment rate with a subsequent decrease in the purchasing power of the population.

Thirdly, the state authorities recognized the need to implement additional measures to support enterprises and organizations in various sectors and industries in order to preserve the integrity of the economic structure at the national level.

Retailers had to reconsider the business model and implement digital tools to maintain interaction, both at the corporate level and with their target audience. Due to the changes in the external environment, 2020 became a period of active development of digital services in the retail trade.

Resulting from the anti-pandemic restrictions, the population had to start using and master digital technologies, including choosing services online, ordering and paying for the orders while staying at home. Most likely, many will not return to the previous pre-pandemic consumption patterns. The consumers benefit from getting the opportunity to choose services at any time and with the use of any device with the Internet access. For example, a company in the foodservice industry not having online presence and not offering delivery services have faced sharp decrease in the level of its competitiveness.

According to the Central Bank of the Russian Federation, the decrease in the volume of paid services in April and May 2020 was more significant than that in the retail trade turnover: -37.9% in April and -39.5% in May YoY. Operational indicators of consumer activity indicate that in the context of partial reopening of shops, cafes and service providers, the decline in consumer activity slowed significantly in June 2020 YoY [10].

The Russian Association for Electronic Communications in cooperation with the National Research University “Higher School of Economics” (HSE University) and Microsoft have carried out a research of the impact of the COVID-19 pandemic on the development of national business [11]. According to the results of the study, the most popular tools to be in demand in the near future include “tools for online communications” (44% of respondents) and “tools for automated communication with clients” (9%). The contribution of digital channels to total revenues will also increase by the end of 2021, the context of the events of spring 2020 being the major catalyst for the digital transformation.

It should be noted that digital services of retail trade used to be considered previously as a supplementary channel and format of interaction with the target audience, but in the today’s context these services have become a forefront and are in high demand among the customers.

Offering digital services in the retail sector is becoming a priority for development in a crisis because it allows companies to cut down the costs of business activities and at the same time maintain continuous interactions with the target audience.

The development of e-commerce ensures that the goods and services are available for the end consumer and territorial differences are almost neutralized regarding the availability of traditional offline services. For retailers, the transition to the Internet is especially relevant as it allows companies not only to maintain a certain sales volume, but also to increase their competitiveness. The market success of a retailer is no longer a function of the size of the company itself and the associated economies of scale, as the costs of opening and managing a digital retailer are significantly lower. The changes are an incentive for the rapid development of retail segment of the national market of digital services.

Apart from that, in the context of the pandemic, the companies have faced the impact not only of the mobile presence, but also that of a mobile application, social media pages as well as the official website or an online store – the role of these channels has significantly increased. Many organizations have maintained their competitiveness mainly due to the implementation of online communication policies.

Before the pandemic, a buyer had the opportunity to choose the way and the channel of making a purchase of a good or a service, but in the context of a lockdown situation has changed dramatically. The closure of stores and the transition of interactions to the Internet led to the sharp decrease in the profitability of business activities. There had been a positive trend in the development of digital services in retail before the pandemic of 2020, however it couldn’t offset the negative impact of the lockdowns which resulted in strong negative trends. In particular, according to the Federal State Statistics Service, the retail trade

turnover in Russia in May 2020 fell by 19.2% YoY [12]. At the same time, compared to April 2020, the retail trade turnover increased by 6.7% in May 2020. Trade in non-food products in May 2020 decreased by 29.2% YoY, but it increased by 12.3% compared to April same year.

A number of factors can be identified that slow down the development of digital services in the retail trade sector.

Firstly, the inability to touch the product, which a consumer potentially considers to purchase. For some of the potential clients, this drawback is one of the important ones.

Secondly, there are doubts and uncertainty about the quality of the goods purchased online.

Thirdly, a potential customer may have certain fears associated with an online store regarding the contacts: it is not always clear who to contact in case of problems with the purchase and difficulties may arise in case of the need to return the goods and get a refund.

At the same time, the share of this segment is growing steadily. According to experts, if the retail market in general experienced decline in 2020, the e-commerce, in turn, have demonstrated the opposite trend.

Thus, according to the results of a meeting with representatives of the e-commerce and the market of online trade, it is estimated that the share of digital trade may have increased by up to 30% [13].

A consumer experiencing the restrictions and the effects of the pandemic, prefers to purchase goods either in a convenience store, corner shop or online. Shopping malls and large stores are not popular and relevant in the context of a pandemic. Digitalization becomes a key factor in the development of the retail trade. It allows companies to create new business models, change the behaviour and shape the needs of customers.

The following trends in the development of digital services in retail can be identified as a result of 2020 [14].

Firstly, there has been an explosive growth in online trade and the popularity of marketplaces. Moreover, the trend will be in effect in the future as well, due to favourable prices compared to traditional stores, alongside with the possibility of relatively cheap or free delivery of the purchased goods.

Secondly, the growth of e-commerce has been distinct, as evidenced by the results of numerous studies. In particular, a research on customer preferences in purchasing New Year's gifts has found out that the number of respondents who prefer digital retail services exceeds the number of supporters of traditional offline ones. In this regard, we can identify growing popularity and relevance of omnichannel retailing, which provides continuous interaction with a customer at any time and with the use various platforms while keeping the complete history of interaction.

Thirdly, the transformation of consumer habits has occurred. Before the COVID-19 pandemic, the representatives of millennials and generation Z had constituted the main target audience of digital services in the retail trade, but then other groups of the population began using digital services in 2020 as well. At the same time, the degree of involvement of different groups in purchasing and consuming digital services still varies and is not stable.

Fourthly, the structure of demand for various goods and services has changed. In particular, several categories should be mentioned as the new leaders of growth: household goods, health and beauty products (+ 151%), games (+ 129%), pet supplies (+ 115%). At the same time, the demand for clothes and accessories has decreased, which is attributes to self-imposed isolation and lockdowns.

Fifthly, the changes also affected the demand for mobile applications. For example, according to the results of 2020, the demand for mobile applications had the following structure by the share of consumers mentioned the corresponding category: food delivery 36%, social media 33%, retail shopping 33%, podcasts and music 28%, finance, video

streaming accounted for 27% each, games 25%, video conferencing 24%, news 22%, at-home workouts 13%, education for children 11%, education for adults 9%, stress relief and productivity 7% each, and finally 16% didn't mention anything of the above.

In addition, during the 2020 pandemic, many customers discovered non-grocery shopping online (30%) and food items online shopping (21%). Buying foodstuffs with the delivery service using mobile applications attracted 21% of the respondents [15].

In general, 53% of the users admitted that they had discovered at least one type of online shopping, which they would continue using in the future.

The further development of digital services in the retail trade and the e-commerce will be influenced by the following factors identified in Table 1 presenting authors' own elaboration based on market analysis [16].

**Table 1.** Drivers contributing to the growth of digital services in the retail trade.

Factor	Specific characteristic
New online shoppers	Three months of lockdowns brought at least 10 million customers into online trade, most of them will continue to buy products and order services online
Switching to teleworking	Five to seven million people will keep teleworking. Some of the remote workers will move to distant suburbs or smaller cities – where the product range available offline is limited
Isolation at home: March-May	Forced reduction of frequency of offline shopping. Increased demand for online services in March-May 2020 has created a high base effect, reducing the growth rate in 2021
Reducing purchasing power of the population	Decrease in general consumption. Effect is limited to the ostentatious / premium consumption of the middle class
Increase in the frequency of online purchases	Decrease in the number of visits to shops which will have effect for several months
E-Grocery sector growth	A sharp increase in spring 2020: expansion of geography, market power and audience of the market leaders. Increase in investments and economies of scale will facilitate further market penetration

The analysis of the factors shows that there are the prerequisites for further development of digital services in the retail trade and opportunities not only to maintain the achieved level of demand, but also to advance, although consumers have faced an economic crisis that affects the level of income and the structure of consumption.

The payment method is another important factor, which also affects the demand for digital services in retail. The trends characterizing consumer behaviour in the period prior to the crisis of 2020 are reflected in Table 2 (authors' own elaboration based on [17-19]).

**Table 2.** Payment methods used by the population for online orders of goods and services (as percent of the respondents aged 15 – 74 who ordered goods and services online)

No	Payment method	2015	2016	2017	2018	2019
1	Bank card	60.2	68	75.9	80	85.2
2	Cash on delivery	38.3	37	33.9	35.5	36.3
3	With an ATM or a self-service terminal	13.7	13	14.2	11	10.3
4	At the Russian Post office	13.5	13	13.6	11.8	11.9

**Table 2.** Continued

5	Mobile phone payments	7.1	8	10.2	9.9	10.6
6	Using electronic money	10.4	9	8.0	5.4	6.0
7	At a bank branch	4.9	5	5.9	4.8	4.8
8	At the organization – distributor of goods	1.8	2.4	2.6	2.4	3.4
9	At the organization - producer of goods (provider of services)	1.3	1.8	1.5	1.7	2.1

As it can be noted from the table above, payments with a bank card showed increasing popularity among the population (the indicator increased from 60.2% of respondents in 2015 to 85.2% in 2019) as well as payments with the use of a mobile phone (7.1% and 10.6% respectively). The trends signify the growing demand for digital financial services. Payment in cash on delivery is losing its popularity, although the decline is not so significant (from 38.3% in 2015 to 36.3% in 2019). The fact that the decrease in popularity of cash payments was so modest can be attributed to relatively low level of financial literacy of the population and can signify the need for involvement of the state authorities and timeliness of financial literacy programs and activities.

The demand for digital financial services substantially increased in 2020. The study on the use of electronic payments by the Russians citizens in 2020 [20] identified the following trends.

Among the services paid for online by the residents of large Russian cities mentioned the most prominent ones are mobile communications mentioned by 82% of the respondents, orders in online stores (81%) and utilities (72%). At the same time, the share of customers who pay online for mobile communications has decreased compared to the previous year: the indicator was 86% in 2019. It can be partly attributed to introduction of services bundling and family plans for which only one family member is charged a regular fee for the set of services. Apart from telecommunications services the plan can include advanced financial services or social media benefits resulting from emerging digital ecosystems.

The Russian citizens have more often paid online for the ready-made food delivery, taxi services, online gaming as well as increased the frequency of online money-transferring operations. Not surprisingly, there was a significant decrease in the share of those who pay online for transport tickets, tickets for cultural events, as well as book hotels.

The leader of online payment services in Sberbank Online used by 83% of the respondents. Yandex.Money was the runner-up with 55% of respondents using it. At the same time, Google Pay was most often used (29%) for contactless and mobile proximity payments. It should be noted that contactless payments continue to gain popularity - 53% of the Russians already pay for their online purchases with the help providers of corresponding digital financial services. At the same time internet-banking and bank cards remained the most popular solutions for internet payments in 2020: each of them was used by 90% of the respondents who pay online. Electronic money was mentioned by 78% of the respondents.

All the trends prove the growing demand for digital services, both in the retail trade and in the financial services sector.

### 3 Conclusions

The development of the market of digital services of retail trade has a number of positive aspects for the consumers in the national economy.

The focus of competition shifts from the traditional, or “analog”, business activities to the digital ones, which results in the increasing role of individual online stores and dominating positions of marketplaces. Amazon and Alibaba are vivid examples of the companies that have transformed into most popular digital platforms enjoying demand at the global level.

The development of the digital services in retailing allows companies to customize and personalize offers for consumers, and alongside with that neutralize the negative influence of location-related issues.

The rise of innovative retail start-ups is also associated with the opportunity to improve the efficiency of existing businesses by providing digital retail services. The costs of opening and managing a digital online store are significantly lower than those of the traditional outlet.

The improving competitiveness of national retailers on the one hand, is interlinked on the other hand with the improving quality of life of the population thanks to the twenty-four-hour availability of digital services provided by retailers. It should also be noted that the availability of services is not affected by the degree and level of materialization of a good or a service.

Further improvements in the sales system and the development of digital services in the retail trade will allow retailers neutralize the influence of the aspects of geography, ensure the development of multi-format marketplaces and provide possibility of choice for the consumer. The most important factors for a buyer in the traditional framework include the location of the seller, the overall service quality and the quality of specific services provided by the company. The context of the forced self-isolation and the transition of interactions to the Internet have made other factors more important: the seller’s market profile as perceived by customers, brand awareness, the quality of products, the terms of payment and delivery of purchased goods and provision of services. The sellers benefit from introducing digital services in retailing business activities as they allow companies to maintain their market share and continue interaction with the target audience by using digital technologies. On top of everything, producers and consumers can interact online with the use of various platforms and channels including online stores, marketplaces, social media, etc.

The globalization of digital technologies has already changed consumer needs and the models and patterns of consumer behaviour. In the context of the digital transformation of the national economy, these processes will be intensified and will be expressed in an increasing share of e-commerce and digital trade, as well as the shift of the focus from traditional retail outlets and activities to the digital ones.

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