DOI: 10.22094/JOIE.2020.677835



# Transformation of Household Credit Behavior in the Conditions of Digitalization of the Financial Services Market

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Received 25 March 2020; Revised 18 April 2020; Accepted 21 April 2020

#### **Abstract**

Within the article, the impact of modern digitalization processes on changing household credit behavior is considered. Much attention is paid to defining the essence of digitalization and exploring the features of its impact on the financial services market. Accordingly, the content of household credit behavior and its individual models are examined. This behavior is proposed to be considered as a process of interaction between entities engaged in joint business activities with financial institutions regarding the receipt of temporary financial resources from banking and non-banking institutions with subsequent use to meet their own needs on terms of return, payment, expediency and security. Within the article, basic features that are inherent in both the classic model of obtaining credit services by clients of financial institutions and the new model of lending, which is formed today as a result of the impact of digitalization processes, are defined and systematized. Study of the results of the analysis of current trends in the development of the financial services market made it possible to identify main perspective directions for further transformation of credit household behavior, the process of lending and changing the paradigm of lending to financial institutions.

Keywords: Digitalization, Financial Services Market, Financial Behavior, Credit Behavior, Financial Institution.

#### 1. Introduction

The financial services market is an integral part of our society. Within this market, relations between different economic entities, accompanied by the financial funds movement, are formed. It is impossible to imagine our life without financial services. All payments, loans, deposits, pension systems, risk insurance are accompanied by financial relations. That is why the impact of this market on the stability of economic systems is also high. The financial and economic crisis of 2008 confirmed this. On the other hand, the development of the country's national economy is also closely linked to the level of the financial services market functioning.

Relevance of the financial services market for the country's economy development is undeniable. Accordingly, such a market, as an integral part of the national economy and our lives, is developing under the same conditions as other sectors and spheres of the economy. Today, active development of economic processes is carried out under digitalization processes. Their proliferation and rapid pace of introduction of new technologies in all spheres of society have contributed to the fact that, according to many scientists, a new kind of economy, the digital economy, is emerging today.

The research of the digital economy is conducted by a large number of scientists, some research institutes.

The large numbers of benefits that arise within the digital economy for the active development of

economic activity make governments in most countries interested in developing this type of economy and creating favorable conditions for the introduction of new information technologies in all spheres of society.

Accordingly, the financial services market is also subject to numerous digitalization processes, which are gradually changing the conditions and patterns of its development. Even for today, digitalization process has penetrated into all sectors of this market. They are actively used in providing credit, deposit, insurance and investment services by financial institutions to their clients. In fact, it can be stated that in the current conditions, digitalization processes of the financial services market are proceeding at the fastest pace, and the outlined area is a leader in creating and implementing new technologies for self-development.

In our eyes, the concept of customer service by financial institutions is changing now; the models of financial services are being gradually transformed. The above changes affect not only the service sector itself, but also have the impact on the business development in this area, form objective conditions for reviewing the already established business models of the financial institutions development.

The outlined transformations are happening all over the world, and the benefits of digitalization the financial services industry are being already felt by residents of most countries. Accordingly, digitalization processes have also had a make governments in most countries interested in significant impact on the functioning of the credit services market.

As one of the most important markets in the operation of the entire financial services sector. It should be noted that

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objective prerequisites for the existence of such a market led to the fact that financial institutions began using various new technologies in order to sell actively credit products, which eventually led to the transformation of the entire global credit services market. This was also made possible by the gradual shift in customers' views of lending institutions on the borrowing process, changes in new operation formats of financial institutions. In fact, new technologies have influenced all stages of lending, starting from the development of marketing strategies on the credit services sale to the search of effective mechanisms for debts repay.

Namely, transformation peculiarities of the credit services market in the current conditions of the economic processes digitalization will be discussed in this article.

The Purpose of the article is the study of the transformation processes of household credit behavior in the era of digitalization of the financial services market.

#### 2. Materials and Methods

Within the research, a set of general and specific economic research methods were used. In particular, methods of comparison, grouping and systematization in the process of the information accumulation about digitalization processes and their influence on the development of the financial services market and its individual components were applied. The content analysis method, which allowed to research scientific approaches to the essence consideration of such concepts as "digitalization", "financial behavior", "household credit behavior", has been widely used. Using the methods of analysis and synthesis allowed us to determine the basic changes in the financial services market development, which occurred as a result of the impact of digitalization processes. The use of the comparative analysis has made it possible to specify major transformations in the field of credit services to households, which are happening today in the era of the digital economy development. They were separated and systematized with the help of the abstraction method.

## 3. Literature Review

It should be noted that, given the active role of financial institutions in the development and implementation of new technologies, which are positively used in other fields, contributed to the formation of the increased interest of scientists in the research of this matter. Issues of digitalization as an integral feature of our society have been studied in the works of Amorim M. (2018), Berisha-Shaqiri A. (2015), Gilster P. (1997), Martin A. (2008), Matt C. (2015), Hess T. (2015), Reis J. (2018), Ross A. (2016), Yunatova I. (2016), Zinder E. (2016).

A considerable number of scholars have devoted their work to the study of the impact of digitalization processes on the global financial services market. In particular, the

following researches have been conducted by Azarenkova G. (2018), Babenko V. (2019), Cosmulese C. (2018), Chmutova I. (2017), Graham T. (2000), Kovalenko V. (2019), Lerner J. (2011), Polishchuk Y. (2018), Priore P. (2019), Rosillo R. (2019), Tufano P. (2011), Wyman O. (2014), Shkarlet S. (2019), Zveryakov M. (2019).

It should be understood that, as a result, all new technologies in the financial services market are aimed at improving the efficiency of financial institutions, which can only be implemented by the customer service enhancement. In this case, issues of the research into changing the attitude of people to the operation of financial services, their needs and attitudes to different processes occurring in the markets of financial services become relevant. Therefore, the issues of both the static development of the financial services market and the analysis of the behavioral aspects of its functioning become urgent. The same trends are applied to the credit services market.

The foregoing led to the interest of scientists in learning about behavioral aspects of the economic systems development, in particular in terms of understanding the peculiarities of the formation and change of financial behavior of households. The authors of these papers should include the following: Akerlof A., Chetty R. (2015), Freeman C. (2007), Henrich J. (2000), Jolls C. (1998), Kahneman D. (2017), Sunstein C. (2008), Shiller R. (2015), Wise D. (2004), Thaller R. (2008).

Therefore, the research into the transformation of household credit behavior in the digital economy should begin with a study of the digitalization process itself. The question is as follows: why is the digitalization process so important today? The answer is very simple, namely: firstly, it is a necessary element for the conscious choice of the reasons and ways of using new technologies; secondly, when digitizing our activities, we are faced with a social and cultural process that is responsible for acquiring and processing basic information and knowledge (Burciu & Kicsi, 2015). The European Foundation for the Improvement of Living and Working Conditions report summarizes that the introduction of digital technologies is characterized by unjustified optimism, inappropriate pessimism and a misunderstanding of processes (Eurofound, 2018).

In general, most scholars agree that digitalization is already an unknown component of the global economy as it contributes to the effective use of various resources (Antikainen et al., 2018). On the other hand, this process also contributes to the efficiency of both the technical systems and the overall management system at its various levels (Rachinger et al., 2018). In turn, Gobble considers digitalization from a technological point of view and notes that digitalization is a simple process of converting information into a digital form through the use of the relevant information technology (Gobble, 2018).

## 4. Results and Discussion

Consequently, digitalization is a complex process of converting information, data into digital form, which increases the potential of their use to accomplish individual tasks. It is important to understand that the digitalization process itself is not the ultimate goal, but merely a tool to

achieve specific goals that are difficult or impossible to achieve through traditional information processing. Digitization adds new capabilities to non-digital artifacts by making them programmable, addressable, sensible, communicable, memorable, traceable, and associable (Yoo, 2010).

Today, digitalization processes are gaining momentum and are gradually penetrating all sectors of the country's economy and public life. Accordingly, they also produce new opportunities, especially in the business field. However, improving the efficiency of economic activity through active use of digitization can be achieved only through understanding the nature of this process, features of its impact on the functioning of different systems, including the financial services market. Digitalization does not only affect the changes taking place in such a market, it actually determines its further development. The need for the use of appropriate new technologies is an objective prerequisite for banks and other financial companies to increase their competitiveness in the financial markets. Now it is possible to identify already clearly formed transformations in the development of this market, which were caused by the influence of information technologies. These include the following:

- facilitating the funds transfer between individual clients:
- availability of fast payment methods for goods;
- availability of online services for customer service;
- opportunity to order financial services online (insurance, credit, deposit services);
- increased transparency of banking institutions and financial services, ability to track the movement of own financial resources with the help of special applications;
- instant money transfers via smartphone;
- time reduction for financial services;
- opportunity to receive consultations and additional information around the clock through online consultations, chat forums;
- availability of financial services is increased, financial inclusion is actively developing;
- active development of new startups, which led to the formation of a new FinTech area;
- increased competition level between financial institutions;
- reduced costs for customer service;
- active development of virtual banks and other financial institutions.

Directly, digitalization processes have a direct impact on the behavior of households, individuals. According to Bergner R. (2011), behavior, in general, is an attempt on the part of the individual to achieve some state of affairs – either to move from one state of affairs to another, or to maintain the current state of affairs at present. Bicard S., Bicard D. (2018) propose the following definition: behavior is what a person

does, what can be observed, measured, and repeated. Since determining the behavior essence is not the purpose of this study, we will generally assume that behavior is the process of the interaction of the individual with the phenomena of the environment, as a result of which, its actions and conducts are formed under the influence of external factors and internal beliefs.

In the financial sphere, the impact of digitalization leads to the model transformation of our financial behavior, its gradual change. Research into the formation and transformation of such behavior is complicated by the of a significant level of uncertainty, existence unpredictability inherent in the decision-making processes of consumers of different types of financial services. In addition, the formation of a particular model of financial behavior of economic entities is directly related to the peculiarities of the national economy development and individual beliefs of a person, which depend on other factors, namely: education, age, gender, social status, profession, family, traditions, religious beliefs and other institutional factors. Issues of the peculiarities consideration of the financial behavior formation were considered in the works of Fernandes D. (2014), Kaiser, T. (2017), Kizyma T. (2019), Lynch, J. (2014), Menkhoff L. (2017), Sagi J. (2014).

We believe that financial behavior should be seen as a process of relationship between an individual and a banking institution, which results from the influence of external factors and personal features of the person's world outlook, as a result of which its acts, a model of its attitude to a particular institution and its services is formed.

Household credit behavior is part of a generalized model of their financial behavior and is directly linked to the process of borrowing from financial institutions. Researches concerning the functioning of the credit services market and providing loans to the population were carried out by the following scientists: Courchane M. (2008), Doan T. (2014), Gibson J. (2014), Kizyma T. (2019), Sagi J. & Lentner C. (2019), Swain R. (2007), Zorn P. (2008). Kizyma T. (2019) proposes to interpret household credit behavior as an activity aimed at attracting temporarily free funds from other entities, namely: financial market institutions, businesses, other households on terms of return, maturity and, as a rule, payment and security. In general, household credit behavior should be considered as a process of interaction between entities engaged in joint economic activities with financial institutions to obtain financial resources from banking and non-banking institutions for temporary use and then using them to meet their needs on a return, payment, timeliness and security terms and conditions.

Household credit behavior in the space of the digitalization processes development and their penetration into the financial sphere is also changing under the influence of new technologies.

The comparison of two generalized models of this behavior, i.e. a classic model, that is, a well-established borrowing scheme, and a new model of credit behavior in the digitalization age is presented in Fig. 1.

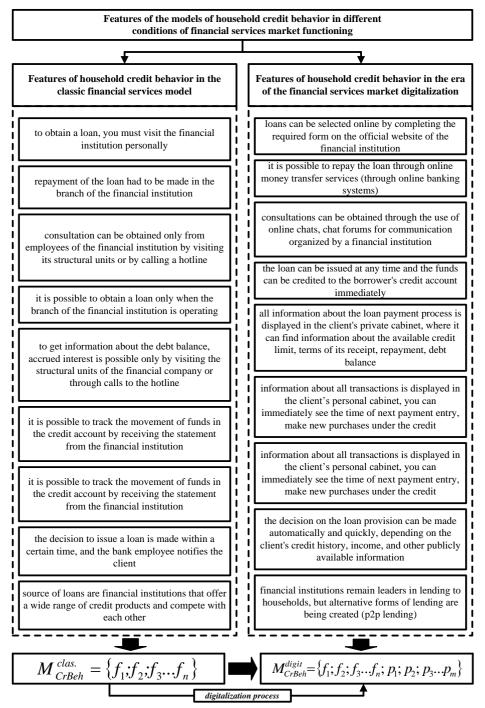


Fig. 1. Transformation Features of Household Credit Behavior in the Digital Economy Age\* \*Source: compiled by the author

The description was made by highlighting and specifying their basic specific features.

Therefore, given the distinctive features that determine the specifics of each of the household credit behavior models, it should be noted that, in general, any model can be described by a set of parameters. If for a classic behavior

model 
$$M_{\mathit{CrBeh}}^{\mathit{clas.}}$$
, a finite set of factors  $\{f_1 : f_2 : f_3 ... f_n\}$  can be determined by such indicators, then for the description of a new model of credit behavior  $(M_{\mathit{CrBeh}}^{\mathit{digit.}})$ , it is

advisable to distinguish additional indicators that will more thoroughly describe the features of such a model.

That is, one has to add to factors 
$$\{f_1; f_2; f_3...f_n\}$$
 some more factors  $\{... p_1; p_2; p_3...p_m\}$ .

on the transformation of the household credit behavior model leads to its complication, individualization, and increases the complexity of its research. In turn, the above also affects the activities of financial institutions, and, in our belief, in the future, this will lead to the introduction of models of personalized financial services conditions, including lending.

This means that the impact of digitalization processes It should be noted that changes in household credit behavior result from the development and introduction of new technologies in the field of financial services. However, each of its segments has its own peculiarities of functioning. Accordingly, they shape the requirements for new technologies, the introduction of which transforms the entire sphere of credit services. Specific features of its functioning include the following:

- 1) availability of a large number of borrowers, work with each of them should be organized, and the repayment of funds issued for temporary use must be ensured;
- 2) availability of various credit products, customer segments, which complicates the decision-making process on the loan requires additional expertise of the creditworthiness of potential clients;
- 3) high competition level in the sphere of credit market functioning;
- 4) the need to ensure that loans are provided as quickly as possible, especially consumer loans to households;
- 5) the need to build a system for managing personal data of clients, which are accumulated in a financial institution and require a guarantee of their storage;
- 6) the need to provide the client with timely, reliable information about the amount of its debt, accrued interest, the period of the next payment on the loan;
- 7) the need to provide clients with quick access to the analysis of the credit services use;
- 8) the need to organize round-the-clock consulting for clients.

It is worth noting that today financial institutions are already actively using new technologies in the field of lending to households. However, current trends in the change in the credit services provision require them to be developed and continuously innovated in the sector, which also influences the formation of a new model of household credit behavior.

We'd like to note that the transformation of the credit services industry will continue in the future, that is connected with the following factors: the desire of financial institutions to minimize their own costs, improve the quality of the technology to assess the creditworthiness of potential borrowers in order to reduce the level of arrears, the need to improve the quality of credit services, simplify the mechanism of obtaining a loan and its repayment.

## 5. Conclusions

Active processes of the society socialization contribute to the development and introduction  $\Phi$ of new technologies in its various spheres. They play a special role in the development of the financial services market. In order to improve the quality of providing their services to the clients, financial institutions are interested in developing innovative solutions to improve the efficiency of their own operations. As a result of the gradual introduction of such technologies, usual models of the particular sectors functioning in

this market began to change. New technologies are being especially actively introduced in the credit services market and in the field of the customer settlement service.

The credit services market is one of the most important components of the financial sector of the country and the introduction of modern technologies in its operation is quite clear. Outcomes of the research show that the high competition level between financial institutions in the market outlined requires financial institutions to improve constantly their operations, develop and implement increasingly sophisticated technologies. As a result, their application is also gradually changing credit behavior of their customers, new service requirements are being formed, basic principles of operation of the established lending model are being transformed. The study found that customers' attitudes and conducts toward lending will gradually change in the future, and new technologies in this area will only deepen these processes.

### **Conflict of Interest**

The authors declare that there is no conflict of interests regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancy have been completely observed by the authors.

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http://www.qjie.ir/article\_677835.html DOI: 10.22094/joie.2020.677835