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## TRENDS IN THE DEVELOPMENT OF THE WORLD BANKING SYSTEM IN THE CONTEXT OF GLOBALIZATION

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**Abstract:** *At the beginning of the 21st century, the world economy entered a qualitatively new stage of its development, one of the main characteristics of which is the active development of the processes of financial globalization and integration of financial markets. The interdependence of the financial and banking systems of different countries is increasing significantly, which makes them more open and at the same time vulnerable to global crises.*

*The aim of the research is to analyze the changes made in the banking system following the globalization process and their usefulness for increasing the competitiveness of commercial banks.*

*Research methods. A systematic approach and economic-statistical methods were used.*

*In the context of the globalization of the world economy, banks with competitive advantages, experience and financial capabilities are expanding abroad, contributing to the transnationalization of banking activities and bank capital, the consolidation of financial and credit institutions and the increase of competition in the banking sector.*

**Keywords:** banking business, digital transformation, globalization, commercial banks, financial ecosystems, fintech companies

**JEL Classification:** M40, G21, F62

### 1 INTRODUCTION

The transformation of banks took place throughout the entire period of their development, but in recent years, the changes in banking business under the influence of digital technologies have become the most radical.

The trends of recent years have generated the transformation of leading innovative banks into the largest IT companies. In this regard, banks are willing to drop the use of the word "bank" in their name (although this is contrary to current legislation). The management of the bank justifies this step by saying that the activity of their credit institutions no longer corresponds to the traditional concept of a bank.

In the definitions of the concept of "bank" in the economic literature (table 1), the uniqueness of the bank is presented, the exclusivity of its role on the market of financial services, including its special

role for the entire state, consisting in the redistribution of capital from surplus centers, in rare cases, with a significant reduction in transaction costs (speaking of the bank, as a financial intermediary).

**Table 1 The conceptual approach of the "bank"**

Authors	The essence of the concept
Portfolio theory in relation to the study of the essence of banks is reflected in the works of J. Wood, T. Avrileschi and R. Schweitzer, F. Edwards.	Banks in the portfolio theory are producers and sellers of financial services. According to this concept, banking products and services form a portfolio of the following main components: – transactional services — settlement services for economic agents and economic turnover; – deposit and credit services; – investment services, including asset management services; – documentary and guarantee operations. Portfolio theory is based on the idea of diversifying investments between deposit-loan and investment products, taking into account the inverse relationship between the market interest rate and the yield on fixed-rate debt securities. The desire of banks to diversify their asset portfolio when conducting their activities in various sectors of the financial market leads to a reduction in the risks of working through intermediaries.
De Kussergue	A bank is "a kind of universal category that combines an enterprise or institution, a field of activity, a sector of the economy and a special profession". De Kussergue characterizes the bank as a kind of superstructure in the economy, endowing it with features of universality, without mixing with all other market participants, going even further than E. Reed (and his statements about banks as a "banking industry"), highlights banks as a separate sector of the economy.
J. Sinki	J. Sinki considers the essence of a commercial bank as an information processor, that is, an information processor. This view is due to the fact that, in the course of their activities, for a better placement of their assets, banks must collect and analyze sufficiently complete information about their potential borrowers. Furthermore, Sinki believes that "in fact, the existence of commercial banks can be explained by their ability to efficiently extract information about a particular borrower"
I. Fisher, M. Miller	A bank is a firm that ensures rationalization between consumption and savings, helping customers, savers and investors to implement various models of the consumer saving process, and at the same time performing an important socio-economic function.

**Source:** Isaev (2011), Sinki, J. (2017)

### **MATERIAL AND METHOD**

In the modern world, the role of the bank began to gradually transform: its functions have become less exclusive. Today, banks are no longer the only holders of unique information, and thanks to the development of financial engineering and financial instruments, transactions are concluded without bank intervention, an example of which can be "full contracts" offered by non-bank financial intermediaries.

In recent decades, there has been a scientific discussion about the complete cessation of the existence of banks, and the phrase said by Bill Gates back in 1994 that the world needs banking services, but not banks itself (9), has become widely known. However, we adhere to the view that as it stands, the banks will exist and perform their functions.

Banks are not only intermediaries; they also have a reputation earned over the years and act as guarantors that the rights of their customers will not be violated. The latest trends in the interaction between banks and other economic agents serve as confirmation of the above.

The rapid development of modern digital technologies not only contributes to the emergence of new competitors on the financial market for banks - high-tech financial companies, but also forces the banks themselves to develop and implement innovative technologies, gradually turning them into IT companies with a banking license.

As Forbes magazine writes, "... new technologies will lead to a change in the role of banks themselves, which seek to become more personalized and mobile" (13). At the same time, it is emphasized that with the digital restart of financial industry institutions there should be a restructuring of business processes, as well as a change in the perspective of employees, which makes digital transformation also a professional transformation. Forbes concludes that companies should now think about transforming the culture within the organization as a whole and creating an environment of trust that strikes a balance between adequate security controls and an acceptable risk of using the latest technologies.

Moreover, not only banks, but also other economic entities face the need to rethink their activities.

Klaus Schwab believes that the basic principles of the fourth industrial revolution should be the investment in knowledge and people, as well as the application of new management approaches (Schwab, K. 2016, p. 266). In addition, he notes the following areas relevant for development:

- development and implementation of technologies taking into account promising opportunities;
- interacting with service consumers and regulators to create a future that takes into account the interests of all stakeholders.

All this can be fully attributed to the bank, because a modern bank is a commercial enterprise that produces specific financial products. However, some scholars attribute the role of innovators to banks. In particular, scientists from the Swiss Institute for Financial Education demonstrate that as society began to rely on information technology, the development of industries such as banking became a locomotive and growth potential for the entire global economy in the century XXI. At the moment, in the context of the transition to the digital economy, the role of banks becomes even more important: they, according to Western economists (Auge-Dickhut, S., Koye, B., Liebertrau, A. 2016), are able to ensure global economic growth. They support their arguments with the fact that, in the theory of Kondratiev cycles, the greatest economic growth, at each stage of the development of the world economy, has been provided by technological innovations.

Consequently, the question arises about the need to clarify the very concept of "bank". The bank at the current stage of development is a technology company that has a license to carry out

banking activities, which actively enters into dialogue and cooperation with partners that perform similar functions or hold the same consumer segment in the financial market.

At the same time, we understand that not all medium-sized banks or small banks can follow the path of large banks that create financial ecosystems and turn into IT companies, but they can enter into partnerships with other banks and fintech companies.

The founder of the modern concept of banking transformation is B. King, a recognized American banker-innovator. In his book "Bank 2.0. How consumer behavior and technology will change the future of financial services" (King, B. 2010) predicted the end of the era of traditional (classical) banks. Subsequently, the concept of banking transformation was developed in his next book "Bank 3.0" (King, B. 2012).

The second study by King B. showed the unlimited possibilities of modern technologies, their availability to many participants in the financial market, who become full competitors of commercial banks in the field of creation and promotion of innovative financial services and products.

The concept analyzed by B. King is reflected in methodological and methodical developments of scientists and practitioners involved in problems of transformation of the bank's business model, management model and problems of creating the bank's financial ecosystem. For example, Isaev R. A. approaches the definition of the activities of a modern bank from the position of business modeling, Vasilyeva T. A. considers the relationship of the external environment with the activities of the bank, emphasizing the expansion of channels of interaction with customers as technologies develop (see table 2).

**Table 2 Characteristics of bank activity: conceptual approaches**

Bank type	Activity characteristics		
	King B.	Isaev R. A.	Vasilyeva T. A.
"Bank 1.0"	It is a financial institution with a traditional organizational structure based on a network of branches. At the same time, the Internet, call centers and ATMs are considered "alternative" channels related to the bank's non-strategic functional divisions.	A traditional or conservative bank that does not sufficiently practice the application of modern technologies, methods and standards. The management system lacks a description of business processes and a detailed long-term development strategy. Risk management is ineffective. Automation is not used. Distribution channels and products are not designed around customer needs. There is no incentive system.	A bank that uses a classic business model that focuses on close customer relationships and involves serving them in branches. The bank offers standard services such as checking an account and withdrawing cash, accepting deposits and granting loans.
"Bank 2.0"	A financial institution whose activities are based on a deep study of the consumer behavior of customers and the use of innovative technologies aimed at maximizing their satisfaction.	A credit institution with an average level of development, in which all business processes are described, a management system is in place, market trends are taken into account and technologies are introduced. The staff is motivated. In general, the level of service meets customer needs and existing standards.	A bank whose services are associated with the use of an online environment that can offer virtual services that significantly increase the gap between it and the consumer of banking services.

"Bank 3.0"	The new model of the bank as a combination of three main aspects: <ul style="list-style-type: none"> <li>• mobile technologies,</li> <li>• social networks,</li> <li>• behavioral game models.</li> </ul>	A bank that has moved on to innovative development, serving its customers at the highest level. There is a full-fledged systematization of business processes; the strategy has been developed in detail at all levels. Technologies are constantly being developed and implemented. The KPI system is used. Management actively encourages employee initiatives.	A bank that has made a digital transformation, including automating processes and moving from front-end activity to digital channels.
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**Source:** Isaev, R.A. (2011), King, B. 2018, Vasilyeva, T.A. (2016)

Taking into account the technological drivers for changing banking concepts and supplementing the study of Vasilyeva T. A., taking into account the release of the final book in the digital banking series by King B. "Bank 4.0. Banking everywhere, but not in banks" (King, B. 2018), we confirm the inevitability of a complete transformation of banking activities in an unstable global environment, which becomes an increase in the consumer's digital life and moves from the multi-channel principle to the omni channel principles, that is, the large-scale distribution of banking services and integration into the customer's life for to meet his financial needs (see table 1.2.)

**Table 3 Technological drivers and transformation of banking services**

The concept	Period	Technological drivers	Banking services
"Bank 2.0"	1970-1980	ATMs	– cash withdrawal and execution of standard banking operations by ATM; – ATM distribution in cities. The masses are beginning to interact with a machine instead of a person to receive banking services.
	1990-2000	Internet	– it becomes possible to use remote access to accounts – reliable and user-friendly interfaces appear Eliminates the need to leave home for a variety of banking services and transactions
"Bank 3.0"	2000-present	Smartphones that support banking transactions Cloud technologies, big data, Internet of Things	– applications for payments, transfers and account access (details); – some banks offer deposits by providing a photo from a mobile camera; – applications act as ATMs. Further elimination of the need to visit bank branches to use banking products and services.
"Bank 4.0"	Future time (next decade)	Artificial intelligence, augmented reality.	– with the help of artificial intelligence, banks become financial advisors and assistants to their clients; - the use of augmented reality technology in the banking field. Full integration of banking services into a person's life by adding to their digital life; ubiquitous channels of communication with the client.

**Source:** elaborated by author based on King, B. (2010, 2012, 2018)

## RESULTS AND DISCUSSION

The key trend in the development of modern banking services is internet platforms that allow managing the purchase (sale) of financial products without visiting a bank office. Today's customers do not want to contact the bank, they include communication with the bank in the process of obtaining real products and services, focusing on the convenience of its mobile applications, access through them to certain stores, etc.

Accordingly, the transformation of banking in the transition from Bank 2.0 to Bank 3.0 lies in the fact that customers choose a bank that they can completely entrust with the provision of their financial transactions, while not contacting it directly. That is, the main task of the bank is to establish contacts with partners and adjust the technology of the transaction processes of their common customers. With the transition to Bank 4.0, the transformation takes the form of a qualitative leap in the development of mankind and comes close to solving the problem of creating and interacting with artificial intelligence.

The author's view on the characteristics of banking activities when changing the above named concepts is presented in table 4.

**Table 4 Characteristics of the bank's activities in a global environment**

Bank type	Activity characteristics
"Bank 1.0"	The bank uses a traditional business model and is based on classic management principles. It plays the role of the most important financial intermediary and ensures the needs of the state, corporations and the population, providing standard services.
"Bank 2.0"	The bank is still based on classic principles, but is expanding its channels to bring its services to the consumer through the development of online and mobile banking.
"Bank 3.0"	The bank begins to interact with partners, forming ecosystems and building a value chain around the customer, and also increases the efficiency of its activities by automating processes.
"Bank 4.0"	A bank is a tool embedded with the help of technology in the daily life of a customer to meet his financial needs. The involvement of the bank in the consumer's life helps him make informed financial decisions, including with the help of artificial intelligence (in the future).

**Source:** elaborated by author based on King, B. (2018)

It is possible to distinguish the following advantages of globalization for the economy and business (12):

- liberalization of external economic ties;
- transnationalization of capital and production;
- regional economic integration;
- internationalization of economic life;
- unification of rules of economic life, creation of a system of international regulation of international relations.

The concept of globalization 4.0 was created by Klaus Schwab – German economist, founder and long-term president of the World Economic Forum in Davos. The introduction of this concept is connected with the transition to Industry 4.0 (due to the IV industrial revolution, which



opens the possibility of digital production, controlled by artificial intelligence and not limited to the scale of one enterprise) (Schwab, K. 2016).

Globalization 4.0 must offer a new idea to replace the aggressive neoliberalism of the last few decades. Necessary more cooperation between governments to rewrite the rules of trade, wages and taxation. Only then can it be guaranteed that globalization 4.0 will benefit ordinary people (11).

Finance, according to McKinsey (10), occupies the third place after information and communication technologies as an area that demonstrates a fundamental change due to the action of a paradigm shift, and Big data played an important role here. The fundamental nature of changes in finance under the influence of Big data is based, in particular, on the demonopolization of the financial sector, connected, among other things, with the appearance of new participants in the financial market, who today have access to such data, which, it would seem, were the exclusive property of traditional players financial market. Necessity of decentralization of regulation of the financial market under the influence of blockchain technology, which is also connected with Big data, is the second cause of fundamental changes in this area.

Let us give specific examples of changes in the banking business under the influence of Big data. These are primarily the following areas:

- open banking (Open Banking);
- remote identification of clients and biometrics;
- development of interbank communications: for example, the introduction of new messaging standards by the SWIFT interbank payment system in 2018-2019, associated with an attempt to increase competitiveness in the context of the development of cloud technologies and blockchain.

Thus, both at the level of individual industries, considered on the example of banking, and at the level of countries and economic associations, instability reigns. Globalization, coupled with the information revolution, increases the influence of political factors, namely, each political decision on the economies of countries through international business and exchange rates. In addition, the economies of countries (including the area of finance) are also interdependent, which creates additional risks. Moreover, today countries are faced with completely new phenomena and challenges, such as big data processing, the emergence of new participants in the financial market, which are also sources of risk, including due to the fact that there is still no experience in mastering these phenomena.

The transformation of a bank is a complex and expensive process that requires additional investments from the owners of a credit institution and high professionalism of the bank's management.

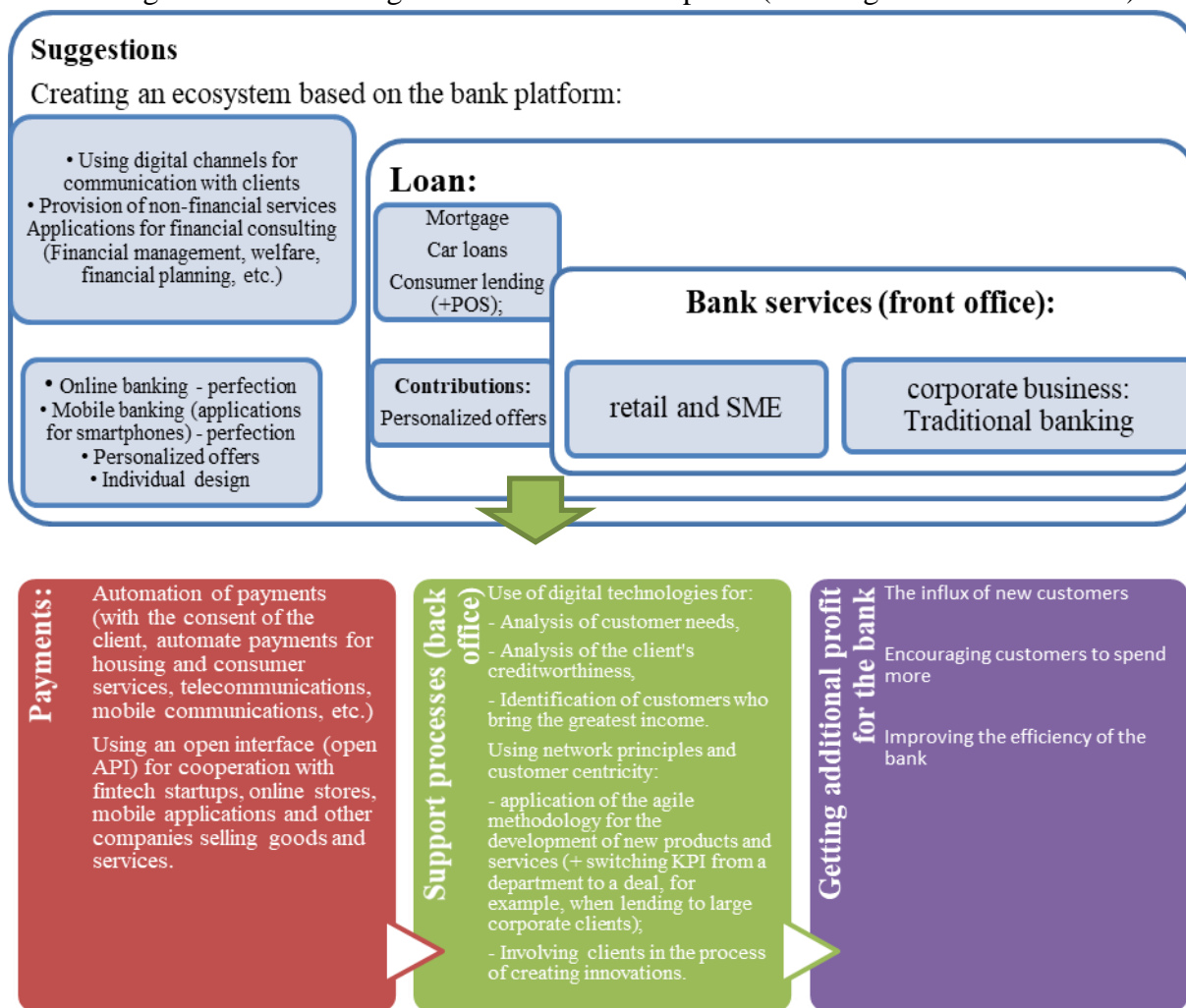
We aim to achieve digital transformation both in the bank's front and back office. Since most lenders are universally licensed banks, it is recommended to start with the retail and SME segment to access the niche most affected by digital trends, but without taking significant risks.

In figure 1 it is presents the proposals for using digital technologies to increase customer loyalty towards banking services.

Digitization of support processes will help the bank increase efficiency by using digital technologies when analyzing customer data, and an open interface will bring new customers to fintech companies. Thus, digital transformation is capable of turning competitors for banks into partners.

Obtaining additional profit is achieved by the bank through:

- a) attracting new customers (customers of partner companies, fintech startups, application users);
- b) encouraging the customer to consume more (apps, car payments, online platforms);
- c) improving the efficiency of the bank by reducing transaction costs for staff, reducing outstanding debts through a more accurate analysis of the customer's creditworthiness and understanding which customers generate the maximum profit (focusing on these customers).



**Figure 1.** The proposals for using digital technologies to increase customer loyalty

**Source:** elaborated by author

## CONCLUSIONS

Today, there is an active implementation of the "Industry 4.0" concept in the banking sector, manifested in the creation and development of banking ecosystems. This direction has more effective prerequisites for development than in many other national sectors of the economy, so it is the banking sector that has all the grounds for strengthening existing trends in the implementation of the elements of "Industry 4.0" and the formation of positive experience in the organization of highly effective digital management systems. However, along with the advantages obtained from the creation of ecosystems by banks, there are a number of problematic points that require control and regulation already at the state level to preserve market conditions in the banking sector.



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