Assessment of the Level of Development of Digital Technologies in the Banking Sector

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Abstract

The banking system is of paramount importance for a market economy, because thanks to banks, the function of an intermediary is performed, and financial resources are distributed among the business entities. A key element of the banking system is its infrastructure. Banking is recognized as a commercial activity, that is, aimed at obtaining a certain profit, therefore the main, fundamental characteristic of its activity is the effective use of assets. Consequently, as long as there are banks and banking operations, there will always be topical tasks of braving the bank's infrastructure, and today digitalization.

Introduction

Digitalization is changing our world by the standards of geometric progression. In other words, the geometric progression becomes a new proportion of linear development. While most are only now beginning to understand the scale, a new factor has entered the game, which introduces another disproportionately more influential wave of transformations - artificial intelligence (Artificial Intelligence or AI). This is not about fantasies taken from a popular science film or literature, but about the specific use of artificial intelligence in important areas of human life. At the moment, it becomes obvious the need to update the primary values of our society. Society and politicians should pay attention to these changes, introduce new standards for coexistence in the modern, digital world. This is the only way to achieve freedom, justice, and solidarity in the 21st century, as well as deliver informational progress in the banking sector and in society [3].

Method

In this regard, the traditional banks engaged in digital banking, are undergoing a transformation that allows them to position themselves in a new ecosystem. This digital transformation depends on a number of circumstances from which each institution begins, although it is obvious that there are several stages depending on the level of maturity. Thus, it can be divided into 3 stages:

a) At the initial stage, banks respond to changes in the demand and supply of financial services for the development of new digital channels and products with which you can position yourself in a new competitive environment.

b) The second phase in the banking digitalization process is to transform the technology platform in order to transform it into a more modular and flexible infrastructure that allows you to integrate new technologies and accelerate the development of new products.

c) The most advanced financial institutions in the process of digital transformation are trying to make large investments in technology profitable, following digital strategies that involve deep organizational changes.

Another noticeable change is the use of fast approaches to software development, in contrast to the long cycles in the previous stages, when the time elapsed between the needs analysis and the software entering the stream was so long that the result often did not meet the needs of the business this moment [2].

Institutions that reach this stage in the digital transformation process will be better prepared to compete in the new technological environment in which society is immersed, and they can move from responding to new entrants to taking the lead in providing financial services in accordance with their customer base.

Theory

Digitalization creates serious challenges to existing business models, especially in banks, which are currently undergoing a process of active transformation around the world. The market for mobile and contactless payments, peer to peer services, digital currencies and many other factors are rapidly growing. Banks are actively exploring the possibility of adapting technology blockchain, big data and others [5].

Customer centricity, personalization, mobility are key factors in the concept of a digital bank. For their effective implementation, you need to solve problems focused on customer preferences, and most importantly on introducing innovations that allow you to maintain customer loyalty. At the same time, digital banks should develop at the same rate of change in the world. To ensure an innovative pace, the bank needs the flexibility that Agile-culture can provide - both for the purpose of developing solutions and in the tasks of the IT formation architecture. Innovative digital bank products tend to create their own digital teams that accumulate business, IT and marketing

competencies. Most large banks have the task of focusing digital expertise inside, with huge IT departments and focusing on the development of self-written solutions [4].

The larger the banks become, the more difficult it is to introduce innovations in them. Acceleration paths are required, through partnerships with start-up teams, respectively. In order to introduce innovations, banks buy fintech projects and sponsor the development of financial technology, investing in it, in order to improve their services and increase customer loyalty. In parallel, FINTECH companies act as a factor of change in the bank that requires a response — by converting business models to mobile and digital form, or by revising business culture to offer a better consumer experience. In this understanding, banks are transformed from the classical understanding of a financial institution into digital organizations.

Digital bank represents most of its services in digital form using modern digital channels. The infrastructure of such a bank is optimized for digital communications and is ready (together with the corporate culture) to change technologies in a significantly short period of time.

However, despite the growing pace of digitalization, there are still a few fully digital banks in the Russian financial market. The reason for the inhibition is the use of "zoos" of systems, determined by the specifics of each particular bank, also by strict regulations. The previously formed IT infrastructures are characterized by low flexibility and complexity of integration with new solutions. However, traditional banks create in their structure and strive to be in trend, introducing individual digital solutions to the bank [1].

Result

According to the TAdviser survey, all large banks (TOP30) confirm their readiness and interest to move towards digitalization. All of them have already automated the remote banking service (Internet and mobile bank). Individual banks are currently looking for methods for these solutions, or are considering replacing them. 95% of respondents automated loyalty programs. All 100% implemented the loan conveyor method.

New additional opportunities for business expansion - for example, due to sales of the bank's partner's products (through the digital marketplace, as well as the implementation of the white label concept) are of little interest to Russian banks TOP30. The first deterrent here is the obviousness of monetization, the lack of obvious successful cases, including in world practice 50% of respondents use the described software for digitalization tasks, figure 1. Most banks point out that they do not find a suitable turnkey solution on the market, and therefore they consider foreign platforms as well. Large banks are interested in maximizing their competitive advantage in digitalization. This determines the shift of priorities towards its own development [7].
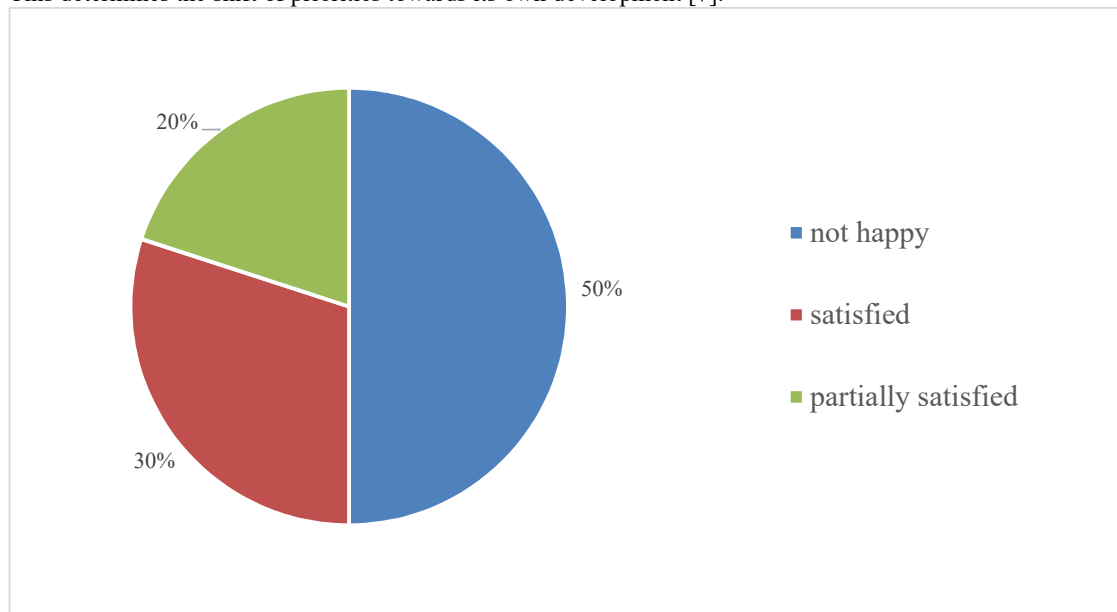

Fig. 1: Level of Satisfaction with the Implemented Software

Plans to replace the solutions used are confirmed by 15% of the surveyed banks. The replacement of the used solutions may be prompted by the presence of a unique functionality, innovation (reflecting the most promising technological trends), as well as the low (relatively) cost of the new product. 85% also note that they plan the development of already introduced products. Figure 2 provides information on digital solutions.
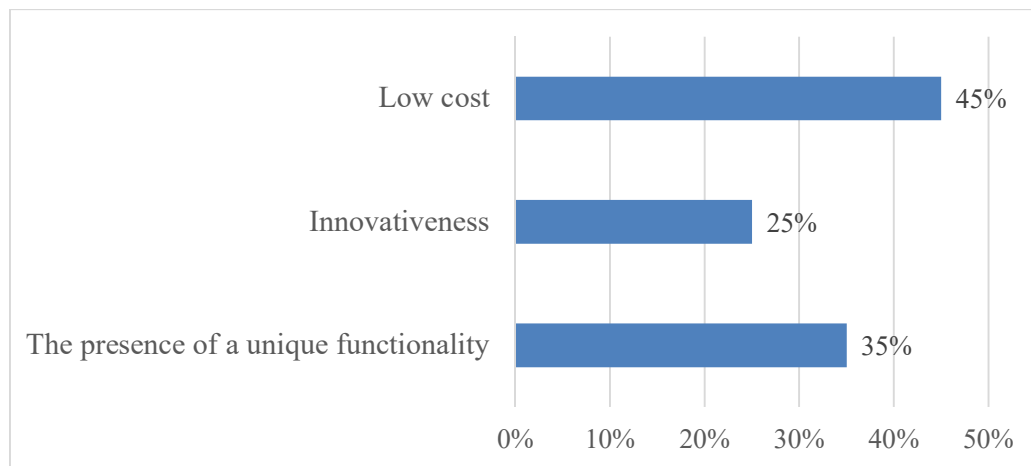
Fig. 2: Factors of Transition to New Digital Solutions

75% of respondents believe that digitalization tasks should be accumulated within a single platform that can combine disparate solutions. In the new digital solutions, banks are primarily interested in high availability and flexibility of services, fullness of functions, ease of use, Figure 3. For the vast majority, safety is a priority.
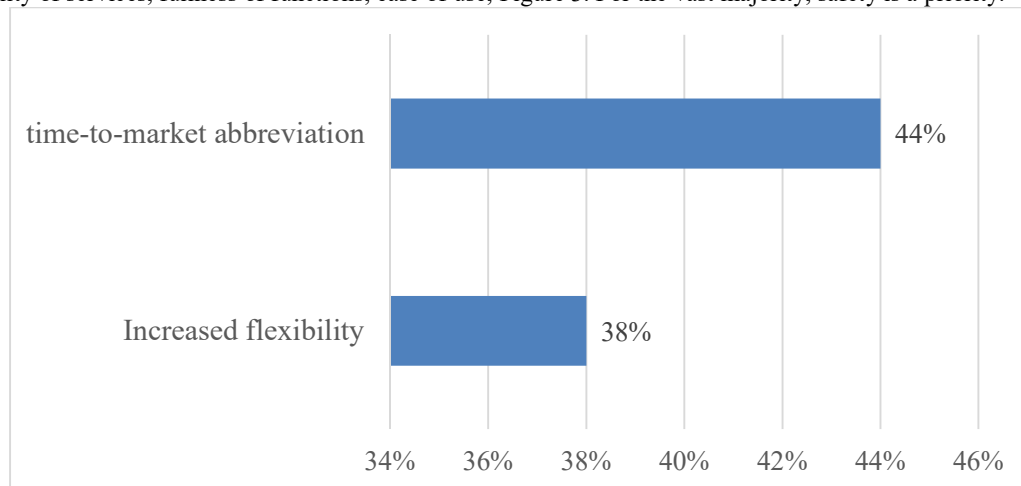
Fig. 3: Top Priorities of the Top 30 Banks

The top priority of Russian TOP30 banks is to accelerate the launch of products on the market (time-to-market, this can be a reduction in the period from 1-1.5 years to less than 6 months) and, accordingly, an increase in flexibility (agile), which will support higher the pace.

Conclusion

An important feature of the sector is efficiency, accuracy and work with a huge amount of information that should be stored and protected. For more efficient and faster promotion of their products and services, credit organizations use the latest developments in the field of IT. The key tasks today are a competent approach to the choice of software and hardware solutions, an adequate methodology for managing all the systems of the organization, ensuring the continuity of their work and security, and today digitalization helps us.

The prospects for the development of the banking sector are largely connected with the improvement of the methods of carrying out banking activities based on advances in information technology. In this regard, we believe that the development of the IT technologies market of the banking sector in the Russian Federation is one of the important factors influencing the transition of the entire banking sector to a predominantly intensive development model [11].

IT technology today is the main tool for the development of not only the banking sector, but also all areas of human activity, education, medicine, construction and much more. Consequently, the development of IT infrastructure is one of the main stages of development of banks in the 21st century, as the world has become more dynamic compared to the past and the amount of information is increasing exponentially every year, the old methods of transmitting, storing and processing information have become little effective and financially costly. The world is committed to the next stage of development, where paper carriers will perform a minimum of tasks and everything will be stored on cloud data, on the Internet.[12,13]

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