



# IJRASET

International Journal For Research in  
Applied Science and Engineering Technology



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# INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

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**Volume: 9      Issue: XI      Month of publication: November 2021**

**DOI: <https://doi.org/10.22214/ijraset.2021.38893>**

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# Introduction of Financial Technologies in Digital Banking

Kudratova Feruza Nasriddinovna  
Student of Tashkent Institute of Finance

**Abstract:** Presently, the whole world is concerning about digitalization that has affected all areas of people's lives, and financial sector is no exception. Today, Financial Technology (FinTech) is recognized as one of the most important and rapidly evolving innovations in the financial industry. FinTech has promised that technology startups will reduce costs, improve financial services quality and create a more diverse and sustainable financial outlook. Fintech services are indispensable part of every single financial products and services. In this regards, it is of great importance to consider carefully their services in banking system and opportunities provided by them in, which is the main subject of this article.

**Keywords:** financial technologies, digital banking, digital economy.

## I. INTRODUCTION

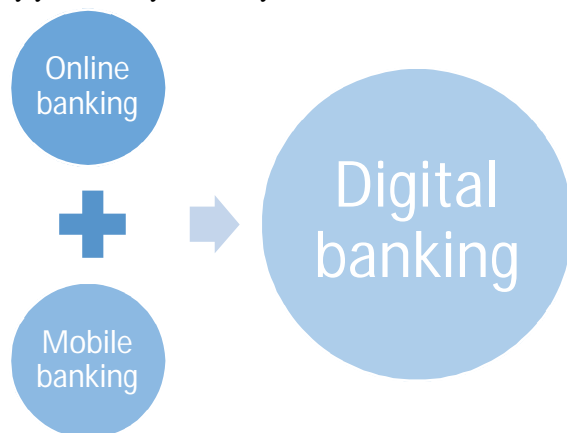
Today, at a time when artificial intelligence and the digitalization process are rapidly evolving, the demand for financial technology is also increasing. The introduction of fintechs in the financial sector allows to reduce the cost of services and use them anytime and anywhere. In particular, the application of financial technologies in the banking system creates a lot of convenience for bank customers. The importance of the widespread use of financial technologies in the banking system is stated in the Decree of the president of the republic of Uzbekistan 'On the banking system reform strategy of the Republic of Uzbekistan for 2020-2025'<sup>1</sup>:

Expanding the scope and improving the quality of banking services through the involvement of advanced international experience and technology; Introduction of modern information technologies: expansion of the number and coverage of remote banking services, including contactless payments; extensive use of automated blood scoring system, digital identification and credit conveyor; strengthening the information security of banking data and systems; introduction of new concepts and technologies in the banking sector (fintech, marketplace, digital banking);

## II. MAIN PART

Financial technology (Fintech) is used to describe new tech that seeks to improve and automate the delivery and use of financial services. At its core, fintech is utilized to help companies, business owners and consumers better manage their financial operations, processes, and lives by utilizing specialized software and algorithms that are used on computers and, increasingly, smartphones. Fintech, the word, is a combination of "financial technology". When fintech emerged in the 21st Century, the term was initially applied to the technology employed at the back-end systems of established financial institutions. Since then, however, there has been a shift to more consumer-oriented services and therefore a more consumer-oriented definition. Fintech now includes different sectors and industries such as education, retail banking, fundraising and nonprofit, and investment management to name a few.

Digital banking is the combination of online banking and mobile banking. Utilizing digital banking services helps to reduce your expenses, as it saves not only your money but also your time.



Picture 1<sup>2</sup>.

<sup>1</sup> [www.lex.uz](http://www.lex.uz) - National Database of Legislation of the Republic of Uzbekistan

<sup>2</sup> Prepared by the author.

Online banking means that using bank’s services via bank’s website from your own device. It provides you check your balance and pay your electricity bill through logging into your bank account. You can access additional banking features, such as applying for a loan or credit card, at many banks via your online banking portal.

Mobile banking means that you use bank’s mobile application which is downloaded from the play market or app store to use bank’s all services and features. These apps provide the same services and features which are available in online banking.

Online banking in the U.S. has its roots back in the 1990s. In October 1994, Stanford Federal Credit Union was the first institution to let its customers access banking functions via the new World Wide Web. By the time the 21st century rolled around, it’s estimated that 80% of U.S. banks offered their customers the ability to bank online.

As mobile devices gained popularity and adoption, banks were encouraged to put their services at their customers’ fingertips and create their own mobile banking apps. As of its most recent biennial, “How America Banks,” the FDIC reported that 34% of Americans used mobile banking as their primary way of accessing their accounts in 2019.

### III. TYPES OF FINANCIAL TECHNOLOGIES IN DIGITAL BANKING

ATM - an automated teller machine which helps bank’s customers conduct financial transactions without going bank branches. Mostly, people use it to get cash from their own bank credit or debit cards.

Mobile apps - these are software that provides bank’s customers use bank’s services or features and conduct financial transactions remotely anytime and anywhere.

Bank’s official websites where customers can get all information about the financial transactions.

Table 1<sup>3</sup>.

Information about ATM's and Self-Service Kiosks as of September 1, 2021, also transactions carried out through POS-terminals in January-August of 2021

№	Commercial banks	Number of installed ATMs and Self-Service Kiosks
1	National bank	648
2	Uzbek Industrial and Construction Bank	462
3	Agrobank	1 890
4	Mikrokreditbank	230
5	Xalq bank	1 323
6	Savdogar bank	222
7	Qishloq qurilish bank	248
8	Turonbank	488
9	Hamkorbank	814
10	Asaka bank	257
11	Ipak Yuli bank	428
12	Ziraat Bank Uzbekistan	6
13	Trastbank	260
14	Aloqabank	266
15	Ipoteka-bank	640
16	KDB Bank Uzbekiston	9
17	Turkistonbank	35

<sup>3</sup> <https://cbu.uz/en/statistics/paysistem> - An official website of Central bank in Uzbekistan

18	Saderat bank Tashkent	1
19	Universal bank	133
20	Kapitalbank	3 188
21	Ravnaqbank	42
22	Davr-bank	45
23	Invest Finance bank	322
24	Asia Alliance bank	269
25	Hi-Tech bank	9
26	Orient Finans bank	260
27	Madad Invest bank	11
28	Uzagroeksportbank	7
29	Poytaxt bank	39
30	Tenge bank	31
31	TBC bank	0
32	Anor bank	0
Total		12 583

According to Table 1, the first three leading banks which installed ATM throughout our country are Kapitalbank, Agrobank and Xalq bank, whereas two digital banks have not done yet. So, the digital banking system is not well organized.

**Global ATM installed base (millions), 2015-2021**



Source: Global ATM Market and Forecasts to 2021 (RBR)

Picture 2<sup>4</sup>. Global ATM installed base (millions), 2015-2021.

The number of ATMs worldwide grew 5 percent in 2015, reaching 3.2 million by year-end, according to "Global ATM Market and Forecasts to 2021," a new report from RBR.

China and India are the largest contributors to this growth; in both nations, authorities are urging financial institutions to deploy greater numbers of ATMs as a means to bring unbanked populations into the formal banking system, RBR said in a press release. RBR forecasts 4 million ATMs will be installed worldwide by 2021. Asia-Pacific will grow 46 percent and will account for well over half of the global total<sup>5</sup>.

<sup>4</sup><https://www.atmmarketplace.com/news/global-atm-installed-base-to-reach-4m-by-2021/> - an official website of ATM marketplace

The traditional banks had the following issues that led to the fintech revolution:

- 1) Highly regulated and bound to many rules and compliance norms;
- 2) High operating costs due to a large network of branches across the globe;
- 3) Poor visualization beyond the traditional business lines as they are mostly publicly held companies averting risk propositions;
- 4) Low involvement of customers in the center of operations;
- 5) Low investment in value creation from ideas, innovations, and technology;
- 6) Low collaboration with progressive minds to build capabilities and competencies;
- 7) Lack of focus on individual profit-making products/services due to the neutral approach applied;
- 8) Difficulties in deciding changes for upgrading or replacing legacy core banking infrastructure built over a long period.

#### IV. CONCLUSION

The banks and financial services market across the globe is going through a process of revolutionary change in technology by reducing the role today's banks and giving institutions and individuals an opportunity to create better, faster, and cheaper services that make them an even more essential part of everyday life. The need for open innovation, collaboration, and investment in the right direction will lead traditional banks to the path of digital banking.

Banks should challenge this technological change positively by not being complacent and not just waiting for interest changes from regulators; rather they should work on the key strategies that can redefine in this new digital and competitive era. They should find ways and means to collaborate with fintech firms/start-ups/other market players considering all the financial and regulatory implications that will keep them ahead in the race.

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<sup>5</sup><https://www.atmmarketplace.com/news/global-atm-installed-base-to-reach-4m-by-2021/> - Official website of ATM marketplace





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