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# FINTECH IN INDIAN BANKING SECTOR: OVERVIEW AND CHALLENGES

Dr. Mamta*
Payal Goyal**

**ABSTRACT**

*Technology has a very important role in today's digital era, it has put a very special impact on the banking sector. Modern technology has changed the way people manage their finances. It is expected that work performance can be improved with the efficient use of technology. Due to new innovations, banking operations have become very easy and these are done in a very short time. Access to banking services have become very convenient for banks' customers, but no technology comes without risk. Hence, keeping in mind these risks, banks have to manage the risks in more efficient manner. This study aims to investigate the risks associated with Fintech for banking sector. It explains the history of Fintech, its risks and challenges in Indian banking sector.*

***Keywords:*** *Banking Sector, Innovations, Fintech.*

## Introduction

Definition of Fintech is differently explained by different authors. There is no widely accepted definition of what lies under the term Fintech. Fintech can be generally explained as digitization of financial services within the finance industry or it can be stated as a technology that is designed to provide financial services in an easy manner. Some of the key enabling financial technologies are Mobile payments, Cloud computing, Biometrics, Artificial intelligence, Blockchain. In the recent years, Fintech has gained awareness and continuously growing. More than 27,000 consumers from 27 different countries were surveyed for the Global Fintech Index (2019) by EY, and it was discovered in the survey that 64% of consumers have accepted Fintech. The research showed that India is on second place after china with regard to adoption of fintech services. The increased adoption of such technologies has also imposed the risks for finance industry.

Following is a discussion of some of the most popular Fintech innovations, not just those utilised in banks:

- **Mobile Payments**

It's an electronic payment that needs to be made using one of the following mobile devices: a tablet, smartwatch, or smartphone etc. If the business has a physical store, a POS (Point of Sale) terminal is required for the acceptance and processing of transactions. Mobile payments can be made in different ways such as mobile wallets, digital wallets and bank cards.

- **Cloud Computing**

Instead of using a personal computer or local server, cloud computing enables banks to more easily store, manage, and process data on a network of remote servers hosted on the internet.

- **Artificial Intelligence**

The use of AI technologies has transformed many industries' operations, and they are being used for a variety of purposes. The use of AI in banking has various benefits. It enables banks to easily and affordably improve their functionality. Customers can get personalised banking service recommendations with the use of AI.

* Assistant Professor, Department of Commerce, Indira Gandhi University, Meerpur, Rewari, Haryana, India.
** Research Scholar, Department of Commerce, Indira Gandhi University, Meerpur, Rewari, Haryana, India.

- **Biometrics**

Biometrics are characteristics of a person's physical or biological makeup with the help of which they can be identified. Facial recognition, retina scanning and fingerprint mapping are three examples of biometric technology. Biometric technology not only serves to safeguard individual financial profiles and stop fraud and identity theft, it also helps to strengthen the banking infrastructure.

- **Blockchain**

In essence, blockchain technology is a method of storing data. The data captured in this manner is extremely secure, making it nearly difficult to alter, hack, or tamper with it. This, together with its great utility, has led to blockchain technology becoming a mainstay in numerous industries, most notably the banking industry.

**Literature Review**

A few papers have explored Fintech adoption in banks. Gomber et al. (2018) found that Fintech revolution has opened up new delivery channels for consumers. Due to the Fintech revolution, transaction costs have decreased, consumers are able to access banking services anywhere at any time. Priya (2019) found that there are a tonne of new fintech companies popping up in India. The financial services industry in India has changed as a result of Fintech companies. However, Khatun and Tamanna (2020) made an effort to assess the elements influencing Fintech adoption. The study focused on financial institutions in Bangladesh and discovered that people are more likely to connect with Fintech if they find it convenient and understandable. Khurana (2018) examined the impact of Fintech sector on banking in India. It was found in the study that the Fintech industry in India offers tremendous prospects for the country's overall economic development, but the challenges associated with it cannot be ignored.

**History of Fintech**

The financial sector has always been heavily reliant on technology, thus Fintech is nothing new. The significant periods of the Fintech timeline is described below:

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| Fintech 1.0 (1865-1966) | • Transatlantic cables-First valid footprints of Fintech was seen in the year 1866, when transatlantic cablewas set up. As a result, a global era begins, where infrastructure and links are built all over the world.<br>• Fedwire's 1918 invention of Electronic fund transfers using telegraph and Morse code This marked the beginning of themoney's conversion to digital form.<br>• Credit card-It was introduced by the Diners' Club, Inc., in 1950, the first universal credit card, to make cashless payments |
| Fintech 2.0 (1967-2008) | • Barclay's first ATM was introduced in 1967.<br>• Later on, in order to modernise the bidding procedure, the NASDAQ was the first electronic stock market in 1971.<br>• Society for Worldwide Interbank Financial Telecommunications, or SWIFT, was founded in 1973. Financial organisations used this messaging network to securely transfer instructions and information using a set of codes.<br>• The Fintech sector witnessed a major shift during the following years as a result of the need of innovation and the impact of the financial crisis of 2008. |
| Fintech 3.0 (2008-2014) | • The financial crisis led to reforms that increased regulatory requirements for traditional banks in addition to create new market for niche firms as well. It became easier for the general customer to operate with the introduction of new technologies like Bitcoin (2009) and P2P (2011) |
| Fintech 3.5 (2014-2018) | • The two most populous countries in Fintech, China and India, have shown a non-linear rise since 2014. This is regarded as the growth engine for 2014–2018, together with Fintech advances in Africa. SaaS developments, such as those made by Indian companies that develop financial software, payment banks in India, m-Pesa in Africa, and Alipay in China, among others, are what are driving this. |
| Fintech 4.0 (2018-present) | • Blockchain commercial model for Fintech. |

Source: www.fintica.com

**Fintech in India**

Fintech is crucial in developing economies as it is anticipated that Fintech will promote financial inclusion. The Indian government has implemented a number of initiatives to increase financial inclusion in the nation; such as a) the Unified Payment Interface which assists in combining various banking services and other features under one payment system, b)Pradhan Mantri Jan Dhan Yojana which has allowed Fintech start-ups to develop technology products to reach a large consumer base in India, c) Building public digital infrastructure, India Stack, a societal initiative expected to encourage the use of technology in the finance sector.

**Challenges and Risks Posed by Fintech to Indian Banks**

- **Cyber Risk**

The banking sector may be increasingly vulnerable to cyberattacks and exposed to probable data breaches as a result of a greater dependence on advanced technologies.

- **Operational Risk**

Because of the increased technological dependence between market infrastructures and market participants (Fintechs, banks, and others) brought on by the expansion of Fintech, an IT risk event could develop into a systemic crisis. Particularly in situations where services are concentrated among a single or a small group of dominating firms, this is evident.

- **Data Privacy Risk**

The risk of breaking data privacy regulations may increase with the development of big data and the expansion of outsourcing as a result of alliances with Fintech firms. Additionally, there are regional variations in data privacy laws, due to which drives up the cost of compliance for international institutions including multinational banks.

- **Technological Risk**

One drawback in the effort to fully digitising the banking industry is that some traditional banking procedures might not function with new technologies. Any IT-based approach carries the additional risk of technological failure.

- **Training and Development Challenges**

Employees play a crucial role as one of the major components for managing functions of the bank. Though frequently disregarded, this affects each and every banking procedure. As a result, banks should consider staff development practices to ensure that all bank personnel are educated of and capable of managing Fintech challenges.

- **Customer Retention Challenges**

Customers of financial services wants simple and personalized experiences through intuitive interfaces which they can avail anytime, anywhere, and on any device. It is a challenging task to measure customer experience but what can be seen is customer turnover further customer loyalty is a notion that is gradually losing ground. Financial institutions can maximise customer satisfaction through good communication and by maximising interactions with them in a way that benefits both parties.

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