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## A Research Study on the Influence of Financial Technology in the Banking Industry of India

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**Abstract** The banking industry has undergone a significant transformation in recent years due to the emergence of new fintech companies. These companies offer innovative technologies and services that are revolutionizing the way banks conduct their business. Fintech not only changes the financial landscape but also poses a threat to traditional banks that must adapt or risk being left behind. Fintech companies provide a wide range of services, including payments, wealth management, data analytics, and investment banking. In order to remain competitive in today's market, banks must embrace the fintech revolution or face the consequences of falling behind. By utilizing the advantages of fintech, banks can create new opportunities for growth and stay ahead of the curve. Fintech refers to the legitimate use of technology to offer new financial products and services to previously untapped market segments in a financially viable manner. From a business model perspective, the fintech sector is characterized by technology companies that either aim to disrupt traditional banks or collaborate with them based on strategic considerations and market conditions. As a result, fintech is increasingly becoming a focal point for all key stakeholders in India's financial services industry, including regulators, traditional banks, non-banking financial companies, payment banks, investors, payment service providers, broking and wealth management companies, insurance providers, and pure-play fintech players. Therefore, the purpose of this paper is to discuss various aspects of fintech in banks.

**Keywords** banking industry, fintech, economy

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### 1. Introduction

Financial Technology, also known as fintech, refers to the latest technology and innovation that revolutionizes traditional financial methods in order to provide financial services. Examples of fintech include the use of smartphones for mobile banking, investing, and cryptocurrency, which make financial services more accessible to the general public. Fintech companies consist of both startups and established financial and technology companies that aim to enhance or optimize the utilization of financial services offered by existing financial institutions. In essence, fintech represents a new financial industry that leverages technology to enhance financial activities. It encompasses new applications, processes, products, or business models within the financial services sector, offering one or more complementary financial services as an end-to-end process through the internet.

On an international scale, technology is driving a wave of innovation in the finance industry, fundamentally altering the structure of markets and the delivery of services. Artificial intelligence and machine learning are facilitating the development of a more accessible trading system that is not only cost-effective, but also more innovative and efficient. In the context of developing countries, India is emerging as a key player in financial service innovation and experimentation, following in the footsteps of early leaders such as Kenya and the Philippines. The integration of fintech in India is a result of a combination of factors, including a government policy that promotes innovation, a strong foundation in technology, and a high demand for financial services.



These factors have attracted over \$2.5 billion in investments in Indian fintech businesses. The government's policy of demonetization, announced in November 2016, has played a significant role in driving consumers away from cash transactions and towards digital alternatives, thereby stimulating economic growth. The objective of this research paper is to provide an overview of the fintech landscape in the banking sector of India. India, with its population of 1.3 billion inhabitants, is emerging as a significant market for fintech. The youthfulness of the nation, coupled with a substantial portion of the population being unbanked or underbanked, has resulted in a remarkable surge in digital penetration. Consequently, India has become an exhilarating global arena for fintech. Moreover, the government and regulatory bodies have implemented numerous measures to stimulate the fintech ecosystem and offer startups fresh avenues to introduce competitive products.

## **2. Review of Literature**

Indirani (2021) emphasizes that the Digital Securities market is poised for significant success. Presently, high-speed computers employed by traders can execute transactions in nanoseconds, surpassing human capabilities. The integration of Algorithms into the markets has revolutionized the decision-making process for stock brokers in determining which stocks to purchase and sell. However, alongside these advantages, there is also the risk of fraudulent manipulation of stock prices. Notably, China has experienced one of the swiftest adoptions of the digital securities market.

Ahmad et al (2020) conducted an examination of the impact of digital financial inclusion and human capital on the economic growth of China's provinces. In contrast to previous studies, this research utilizes a novel proxy for digital financial inclusion, which considers the breadth of coverage, depth of usage, and level of digitalization. The findings of this study demonstrate a significant influence of digital financial inclusion and human capital on China's provincial economic growth. Consequently, Ahmad et al recommend investing in the development of human capital, while simultaneously enhancing digital financial inclusion in order to achieve higher levels of economic growth. It is also important to consider the potential negative effects of digital financial inclusion on the stock market, which warrants further analysis.

Sekmen et al. (2019) conducted a study that examined a particular facet of the subject at hand. Specifically, the authors investigated the correlation between technological advancements in financial markets and the volatility of stock market indexes in Turkey. The proliferation of advanced digital trading platforms, high frequency trading, and algorithmic trading has resulted in reduced market friction, leading to a significant increase in volatility of the indexes, unlike any seen before. The commercialization of the stock market through electronic trading has transformed the process of purchasing securities into an activity that is akin to online shopping.

## **3. Types of Fintech**

The fintech industry is undergoing rapid advancements and holds the potential to bring about a revolutionary transformation in the banking sector. Within this realm, there exist four primary categories of fintech services, each presenting distinct advantages and challenges for traditional banks.

The initial category pertains to payment processing and money transfers. This particular form of financial technology facilitates swift and secure payment transactions and the movement of funds for customers. Fintech companies play a crucial role in enabling banks to provide customers with a more convenient and secure payment experience, as well as access to expedited money transfers.

The subsequent category of fintech encompasses investments, which encompasses activities such as trading stocks, bonds, ETFs, mutual funds, hedge funds, and so on. Banks can harness this technology to offer customers an improved means of managing their investments and navigating the complexities of these markets.

The third category of fintech offerings revolves around loan origination, which empowers banks to streamline the loan application process. This technology enables customers to apply for loans online and receive approval within minutes, as opposed to the traditional timeframe of days or weeks.

Lastly, the fourth category of fintech offerings pertains to wealth management, which encompasses services such as asset allocation and portfolio optimization. This technology assists banks in providing customers with superior advice and more personalized investment solutions tailored to their individual needs.



#### 4. The Evolution of Fintech in India

The establishment of the fintech sector in India was initiated through the liberalization of its banking industry after 1990, which involved the introduction of technologically advanced banks. Additionally, the government implemented legislative measures to enhance the banking system and promote new technologies such as MICR, electronic funds transfer, and other electronic payment methods. These advancements revolutionized the banking system and led to a significant digital transformation in the Indian economy. Nevertheless, for a period of two decades starting from 1991, the progress of technological innovation in financial services and banking was primarily driven by the government and experienced sluggish growth.

The Indian government has initiated the integration of fintech startups in India for consumer offerings since the mid-2000s, following the global trend. One of the initial offerings, which emerged around 2005, was the banking correspondent (BC) model, which facilitated the provision of financial services to rural households. This model promoted financial transactions through agents who possessed basic technological knowledge. By offering a cost-effective alternative to setting up full-featured bank branches, these agents enabled financial institutions to serve the rural population and contribute to regional development. FinoPayTech and Eko India were major startups that capitalized on the BC model and seized the opportunity it presented.

The emergence of e-wallets, also known as mobile wallets, was witnessed in 2010. These startups were designed to facilitate e-bill payment and mobile recharge services. Prominent fintech startups such as Oxigen, MobiKwik, Paytm, and Freecharge originated between 2005 and 2010. Since 2010, numerous fintech startups have flourished in various segments, including lending (100+ startups), personal finance management (40+ startups), and investment management (90+ startups). Venture capitalists seeking to maximize profits have shown keen interest in the 40% growth in investments in the fintech sector, leading to significant funding activity between 2014 and 2016.

Another notable trend in the fintech ecosystem is the increasing number of collaborations between banks and fintech startups. For example, HDFC Bank has partnered with the fintech startup "Tone Tag" to provide phone-based proximity services, while Yes Bank has partnered with Ultracash Technologies to enable sound-based proximity payments. These collaborations not only enable banks to offer efficient services to their customers digitally and at a lower cost, but also position these startups to adopt the government's digital and smart city initiatives, thereby establishing last-mile digital connectivity.

#### 5. Reasons for the Success of Fintech in India

There are several factors that have contributed to the success of the fintech industry in India. The widespread use of internet and smartphones among the Indian population has played a significant role in this regard. Additionally, the government's initiatives towards a cashless economy and digital India have provided a conducive environment for the industry to thrive. India, being the youngest country in the world, has a generation that values speed and convenience over traditional banking methods that are often slow and cumbersome. This has created a huge opportunity for the fintech industry to cater to the needs of this demographic, which is quick to adopt new changes.

Furthermore, a significant portion of India's population has been underserved by traditional financial services, and the fintech industry has been quick to tap into this unexplored market. The growth of the e-commerce industry has also provided a boost to the fintech sector, which has expanded rapidly in recent years. The outbreak of Covid-19 has further accelerated the pace of growth in the fintech industry, as people increasingly sought touchless transactions during this period.

Fintech solutions offer a wide range of services, including payments, wealth management, data analytics, and investment banking. By embracing the fintech revolution, banks can create new opportunities for growth and stay ahead of the curve. It is essential to uncover the eight game-changing forces of fintech that are revolutionizing banking.

- Increased Efficiency
- Access to New Technologies
- Cost Reduction
- Improved Security
- Enhanced Customer Experience
- Increased Transparency



- Improved Accessibility
- Faster Payments

**6. Objective of the Study**

- To find out the importance of Fintech. in banking industry.
- To find out the consumer point of view about using of Fintech. in banking industry.

**7. Research Methodology**

The researcher has chosen a sample of 100 employees of banks and financial institutions.

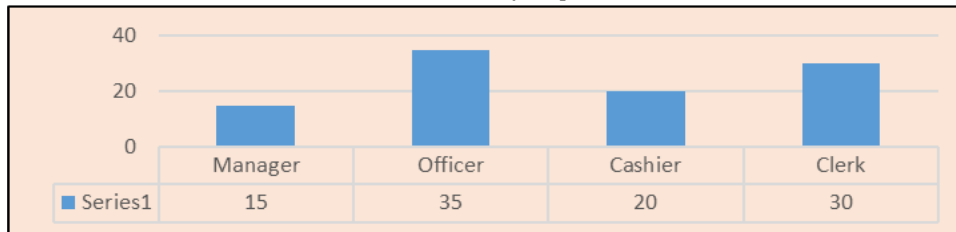
**8. Data Analysis**

**8.1 Occupation of the respondents**

**Table 1:** Gender of respondents

Occupation	Numbers	Percentage
<b>Manager</b>	15	15%
<b>Officer</b>	35	35%
<b>Cashier</b>	20	20%
<b>Clerk</b>	30	30%
<b>Total</b>	100	<b>100</b>

*Chart 1: Gender of respondents*



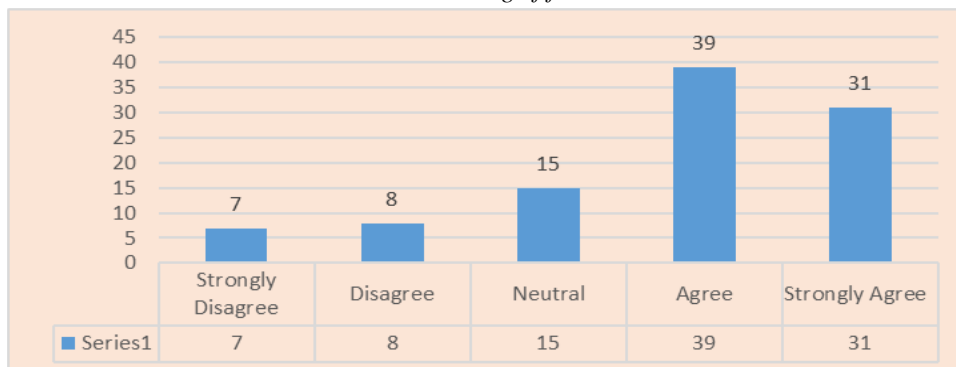
It was found that 15 respondents were manager, 35 respondents were from officer level, 20 respondents were cashier and 30 respondents were clerk.

**Using of fintech. in banking sector is useful and time saving tool**

**Table 2:** Using of fintech

s.no	Particular	Observation N	Result
1	Strongly Disagree	7	<b>AGREE</b>
2	Disagree	8	
3	Neutral	15	
4	Agree	39	
5	Strongly Agree	31	
	sum	100	
	Count(N)	5	
	Mean Score	3.79	
	Standard Deviation	14.32	

*Chart 2: Using of fintech*



31 respondents were strongly agree with the statement, 39 respondents were agree with the statement, 15 respondents have natural opinion in it, 8 respondents were disagree with the statement and only 7 respondents were strongly disagree with the statement. Mean score was found 3.79 it clearly defines that Using of fintech in banking sector is useful and time saving tool.

**Banks are providing new solutions that allow customers to access services faster by using of fintech.**

**Table 3:** Using of fintech

<b>t-Test</b>		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	10	10
Variance	50.5	28.5
Observations	5	5
Pearson Correlation	0.909392	
Hypothesized Mean Difference	0	
df	4	
t Stat	0	
P(T<=t) one-tail	0.5	
t Critical one-tail	2.131847	
P(T<=t) two-tail	1	
t Critical two-tail	2.776445	

It was found that value of t-Critical one-tail (2.131847) is higher than value of t Stat (0) it clearly defines that banks are providing new solutions that allow customers to access services faster by using of fintech.

## 9. Conclusion

India is currently making significant strides in the Fintech industry, offering numerous opportunities for startups to enter the diversified market and achieve success. However, this success is contingent upon a careful solution-customer match and a robust go-to-market strategy. The emergence and utilization of financial technologies have significantly transformed the Banking and Financial Services sectors. The extensive range of fintech applications available today has enabled individuals to cultivate a banking and investment culture, as well as facilitate a cashless society through digital payments. Fintech has the potential to revolutionize the finance industry by leveraging technology to foster stronger relationships between merchants and consumers.

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