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STUDY OF FINTECH ON INDIAN BANKING SECTOR: CONCEPTUAL FRAMEWORK

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ABSTRACT

The economic development of any country depends upon the development of economic activities like agricultural activities, industrial activities, trade and commerce, fishing, mining, construction work etc. The banks are playing a significant role in establishing and promoting these activities by providing financial support. As a result, a country's economic success is ultimately dependent on the survival and growth of its banking sector. India has seen a significant increase in FinTech developments due to rising smartphone usage, digital infrastructure development, and government measures to foster a cashless economy. The amazing change of FinTech in recent years has revolutionized the country's financial services business. Fintech firms use technology to create novel solutions for financial services such as banking, payments, investments, and insurance. Fintech companies frequently offer their services via digital platforms or mobile apps, giving customers easy and accessible ways to manage their finances. Fintech enterprises include peer-to-peer lending platforms, digital banks, robo-advisors for investment management, mobile payment systems, and cryptocurrency exchanges. Fintech can alter the financial services industry by making them more accessible, efficient, and affordable to customers. However, the rapid expansion of fintech has created worries about privacy, cybersecurity, and regulatory compliance, as well as the possibility of job displacement as technology automates routine in economic and financial development in the country.

Keywords: Fintech, Banking, payment systems etc.

1. INTRODUCTION

The “FinTech” is implied by the terms “Finance” and “Technology”. The technologies are playing a significant role in providing digital platforms to perform financial activities and its help us in banking and financial services for smooth conduction and essay access. FinTech are applying by financial service companies for use and to improve the satisfaction level of consumers & investors. FinTech are offering various kind of financial services such as rob advisors or artificial intelligent, mobile payment & payment apps, digital portfolio management & investment apps, crowdfunding, peer- to- peer (P2P), Big

data, smart contracts, Insurtech, cryptocurrency, block chain, cyber security etc. Fintech is a new regime and a new trend in financial literacy. It refers to the term FinTech is primarily used for innovation and people make smooth business and financial transactions. The current technological performance in the various sectors while applying of fintech. The study also determined the role of fintech pre and post pandemic. The technology positively changes the trend of financial services such as payment, digitalization and techno friendly financial performance has been measured. The study found the gap between financial awareness and Fintech opportunities in future. The upcoming studies are based on getting a full acquaintance of Fintech in different financial sectors as well as make an awareness policy to build up financial understanding & elaborate its benefits and use of it.

1.1. KEY ENABLING TECHNOLOGIES USED BY FINTECH

- **Artificial intelligence (AI):** AI technology is used to provide personalized financial advice, fraud detection, and risk management. AI can also be used to automate processes and improve customer service.
- **Big data analytics:** Fintech companies use big data analytics to analyse large amounts of financial data to identify trends and patterns, make informed decisions, and improve risk management.
- **Block chain:** Block chain technology is used to create secure, decentralized systems for transactions, record-keeping, and identity verification. It is also used to create cryptocurrencies and other digital assets.
- **Mobile technology:** Mobile technology is used to provide convenient and accessible financial services to users through mobile apps, such as mobile banking and payment apps.
- **Cloud computing:** Fintech companies use cloud computing to store and process data, as well as to offer scalable and flexible services to customers.
- **Internet of Things (IoT):** IoT technology is used to create connected devices that can collect and transmit financial data, such as wearables that can track spending and monitor financial health.

- **Robotic Process Automation (RPA):** RPA technology is used to automate routine and repetitive tasks, such as data entry and document processing, to improve efficiency and reduce costs.
- **Biometrics:** Biometric technologies, such as facial recognition and fingerprint scanning, can be used for secure authentication and identity verification in financial transactions.
- **Application Programming Interfaces (APIs):** APIs are used to connect different systems and platforms, allowing fintech companies to access and share data with other financial institutions and third-party providers.

2. REVIEW OF LITERATURE

With a view to evaluate the objectives of the study, it was considered desirable to have an idea of the findings of some earlier researches and the methods adopted for arriving at the same. It is hoped that such a review of literature connected with the main objective of the study would provide a basis either for confirming the earlier findings or for contradicting the same and thereby to suggest points of departure for further studies. Hence the present study has conducted to **Impact of Fintech on Indian Banking Sector.**

D. Murugun (2023) in his research article entitled Technology Adoption in Indian Banking Sectors. The objective of this paper is to study intends to investigate the utilization of technology in the Indian banking industry and paper also examines the utilization of Core Banking Solution (CBS) to enhance customer convenience with Anywhere and Anytime Banking. The research utilized secondary sources of information such as textbooks, newspapers, scholarly journals, and the Internet to gather data on the adoption of technology in the banking industry of India. The research findings are The implementation of technology in the banking sector has increased customer satisfaction levels and improved convenience by providing anytime and anywhere banking services. He concluded that In India, The use of technology in banking has boosted customer satisfaction and convenience with anytime and anywhere services. Banks should also generate trust in the minds of customers that Technology banking is safe.

Anupa Baliga B.S & Carmelita Goveas (2023) the case study research paper entitled *Makeover of Banks by Digital Interventions and Innovations by Fintech*. The primary objective of this research paper is to analyze the role of fintech in banking and provide suggestions to assess fintech and banking digital transformation and to evaluate Fintech in banking using SWOC analysis. The data for this case study has been gathered from secondary sources of information by referring to a number of research articles in journals and information from the internet. The author concluded that to remain competitive and provide value-added services, banks must adapt to the increasing expectations of tech-savvy customers and successfully use technology in their initiatives. The paper provides suggestions for banks to navigate the digital transformation and leverage fintech effectively.

Reena Rani et al. (2023) the Article entitled *A Study on Chatbots in the Indian Banking Sector*. This Paper discusses the role and use of chatbots adopted by the different categories of banks (both private and public sector banks) in India. This study is based on secondary data collected from banks' websites and articles from various journals. The study is based on nine banks (both private and public sectors) those are having working chatbots (SBI, HDFC Bank, ICICI Bank, Yes Bank, IndusInd Bank, Kotak Mahindra Bank, Axis Bank, Andhra Bank, Bank of Baroda). The present study is focused on chatbots, their services, and software applications for various customer-handling capacities. Findings of the study is that Indian banks are investing a small amount in using chatbots, yet Indian chatbots are deficient regarding far too provincial directions as they are adequate just for standard and basic inquiries. Also, Indian banking customers are not properly aware of chatbots and virtual assistance. Authors concluded that most of the questions answered by the Indian chatbots are already available on the banks' websites, and it is found that Indian banks need to update their AI/Virtual assistance with more features.

Ana belen tulcanaza-prieto et al. (2023), The article entitled *Influence of Customer Perception Factors on AI-Enabled Customer Experience in the Ecuadorian Banking Environment*. This study reviews the relationship between customer perception factors and AI-enabled customer experience in the Ecuadorian banking industry. The study employs a self-designed online questionnaire with five factors for customer perception (convenience in use, personalization, trust, customer loyalty, and customer satisfaction)

and two categories for AI-enabled customer experience (AI-hedonic customer experience and AI-recognition customer service). The final valid dataset consisted of 226 questionnaires. The data analysis and the hypotheses tests were conducted using SPSS 26 and structural equation modelling (SEM), respectively. The main findings displayed that all five customer perception factors (individual and joint effect) have a positive and significant effect (at least at the 5% level) on AI-enabled customer experience, AI-hedonic customer experience, and AI-recognition customer service in the Ecuadorian banking industry. Study results are aligned with previous findings from other countries, particularly the banking environment in the United Kingdom, Canada, Nigeria, and Vietnam. The AI techniques involved in the financial sector increase the valuation of customer experience due to AI algorithms recollecting, processing, and analysing customer behaviour. This study contributes a complete statistical and econometric model for determinants of AI-enabled customer experience. The main limitations of the study are that, in the analysis of the most demanded AI financial services, not all services and products are included and the 12 inexistence of a customer perception index. For upcoming research, the authors recommend performing a longitudinal study using quantitative data to measure the effect of AI-enabled customer experience on Ecuadorian banks' performance.

U. Midhunde et.al (2023) in their study about An Empirical Investigation of Innovation and Technology in banking. Objectives of the Study are to investigate the impact of new technology on customer satisfaction in commercial banks in Bhopal, to compare the innovative successes of private and state banks. The article also studies about to understand how technological innovation affects financial services at the bank's location level and examines the empirical study's practical implications, strengths, and limitations. It also examines the emergence of FinTech and its role in propelling innovation within the financial services sector. The study utilized customer data obtained from public and commercial banks in Bhopal, which was reviewed to investigate the impact of new technology on customer satisfaction. The study discovered that private banks surpassed Government banks in terms of successful innovation. The authors concluded that Banks have improved customer service by using new approaches, personalized strategies, tailored retail banking services, self-service, and Internet transactions. Improved customer service results in better transaction quality and security. Banks can gain a competitive

advantage in the financial sector by cooperating with start-ups and adopting FinTech, thereby establishing themselves as industry leaders.

Nguyen (2022) Indian financial institutions or fintech companies in India should create more user-friendly fintech products and services so that even older people can use them. The customer safety ought to be a top priority for governments in developing nations, where people are thought to be less financially savvy.

Shubham Goswami (2022) As Fintech Mobile Money India and Digital Wallets address to conduct financial transactions affordably and dependably by eliminating spatial barriers, they can be used to bridge the gap between banked and unbanked. The Fintech projects in India, which are regarded as some of the most significant advancements in the financial sector, have also clearly been driven by the growth of digital transformation. This paper researches the basic

Jain and Bansal (2022) the biggest social benefit of fintech India is financial inclusion, which has offered access to financial services to a lot of small and medium-sized firms and low-income people.

Mohammad Asif, et al., (2023) the government's focus on enhancing financial services and the rise of bank accounts in Indian banking sector have improved financial inclusion. Financial inclusion has been greatly aided by fintech companies, especially among the middle class. The results provide insightful information for decision-makers working to integrate everyone into India's organized financial system.

3. **OBJECTIVES**

To study the types of products and services are provided by Fintech companies and which of them are most attractive to users in the Bengaluru city customers.

4. **RESEARCH METHODOLOGY**

4.1. **RESEARCH DESIGN**

This research is desk and conceptual research based on fundamentals framework. The research design is based on elaborating the role of fintech in various financial sectors in India.

4.2. DATA COLLECTION

Secondary data has been made for accomplishment of this research study. The data mostly collected from journal articles, fintech reports, working papers, online platforms and books etc.

4.3. SCOPE OF THE STUDY

The scope of FinTech service has covered and helped in banking platforms such as managing business transactions, helpful in mortgage services, trading, credit management, portfolio management digital banking etc. The banking sector core business functions are various payments; financial transactions and lending perform by fintech.

4.4. LIMITATION OF THE STUDY

Traditional financial institutions are at present not able to catch up with Fintechs on account of their slower adoption to change, legacy issues as wells regulatory limitations.

5. THE ROLE OF FINTECH IN OTHER FINANCIAL SECTOR IN INDIA

The dynamic collaboration and disruption between traditional banking and Financial Technology (Fintech) have characterized their relationship. The emergence of Financial Technology (Fintech) has brought about a significant transformation in the financial sector, introducing novel approaches that disrupt conventional banking methods and improve the overall satisfaction of customers. To foster a symbiotic relationship between the banking sector and the emerging field of Financial Technology (FinTech), it is imperative to thoroughly analyse their interplay, identify potential areas of collaboration, and address the obstacles that may arise. Such an investigation is crucial for comprehending the potential ramifications that these dynamics may have on the future of the financial industry. The banking industry plays a critical role in advancing and integrating financial technology (Fintech). Banks are a vital part of the financial system, with large client bases, established regulatory frameworks, and strong infrastructure.

Adopting Financial Technology (Fintech) can help banks improve services, optimise operations, and increase customer happiness. FinTech tools like digital payments, mobile banking, and robo-advisory let banks provide more accessible, efficient, and personalised financial services. Collaboration between financial institutions and Fintech firms fosters innovation and advances technology, benefiting both parties and their customers.

Table No 1.01: FinTech Activities in Indian Banking sector

<i>Type of Technology</i>	<i>Financial Services and Banking Activities</i>
<i>Digital Payments technology</i>	<ul style="list-style-type: none"> • <i>Peer-to-peer transactions</i> • <i>Online purchases</i> • <i>Contactless payments</i> • <i>Mobile wallets</i> • <i>Digital wallets</i>
<i>Mobile banking Apps</i>	<ul style="list-style-type: none"> • <i>Account management</i> • <i>Fund transfers</i> • <i>Bill payments</i> • <i>Mobile check deposits</i> • <i>Transaction alerts and notifications</i> • <i>Investments</i>
<i>Internet Banking Technology</i>	<ul style="list-style-type: none"> • <i>Online account access</i> • <i>Electronic fund transfers</i> • <i>Bill payments</i> • <i>Account statements and transaction history</i> • <i>Deposits and loan applications</i> • <i>Investments</i>
<i>Biometric Authentication</i>	<ul style="list-style-type: none"> • <i>Secure login and access control</i> • <i>KYC (Know Your Customer) processes</i> • <i>Biometric ATM transactions</i> • <i>Secure mobile banking Login</i> • <i>Transaction authorization via fingerprint</i>
<i>Robo-Advisory Technology</i>	<ul style="list-style-type: none"> • <i>Automated investment advice</i> • <i>Portfolio management</i> • <i>Goal-based financial planning</i> • <i>Algorithmic trading</i>
<i>Peer-to-Peer Lending (P2P)</i>	<ul style="list-style-type: none"> • <i>Online lending and borrowing platforms</i> • <i>Crowdfunding</i> • <i>Personal and business loans</i> • <i>Interest rate and credit risk assessments</i>
<i>Open Banking APIs</i>	<ul style="list-style-type: none"> • <i>Third-party financial services integration</i> • <i>Enhanced customer experiences</i> • <i>Data sharing for personalized services</i>
<i>Chatbots and Virtual Assistants</i>	<ul style="list-style-type: none"> • <i>Customer support and inquiries</i> • <i>Account balance inquiries</i> • <i>Transaction history requests</i> • <i>Service-related FAQs</i>

Big Data Analytics	<ul style="list-style-type: none"> • Customer behaviour analysis • Risk management • Fraud detection • Credit scoring and underwriting • Personalized product recommendations • Customer segmentation • Risk assessment • Trend analysis • Predictive modelling
API Integration	<ul style="list-style-type: none"> • Integration with third-party financial services • Cross-platform connectivity • Real-time data exchange • Seamless customer experiences
Core Banking Solutions (CBS)	<ul style="list-style-type: none"> • Centralized banking operations • Real-time transaction processing • Account management across branches
Unified Payments Interface (UPI)	<ul style="list-style-type: none"> • Instant peer-to-peer transfers • Merchant payments • Bill payments via mobile
Artificial Intelligence (AI)	<ul style="list-style-type: none"> • Customer service Chatbots • Personalized product recommendations • Fraud detection • Credit scoring
ATM Technology	<ul style="list-style-type: none"> • Cash withdrawals • Account inquiries • Deposits • Bill payments

Source: www.pwc.in

6. FINDINGS

The major finding in this research paper is to identify various fintech services in India. The role of fintech in financial institutions such as banking and non- banking and other services. This study has highly determined the role of fintech at present in India as well as look out the global scenario. Fintech has covered the huge financial markets and also has expanded financial services by technology. The fast delivery and smooth conduction of financial activities applied by financial institutions such as Banking, NBFCs, Corporate or firms, Insurance companies and financial markets. In this study have four major findings: Number one is to get full epistemology of fintech, second the role of fintech in financial institutions such as banking, non – banking, insurance companies, financial market and services. Third, covering the major trend has introduced by fintech. And fourth is to look

out the major performance of fintech in India as well as the global scenario. In other contexts, financial technology is also valuable and depicts innovation in very sophisticated manners; it is useful for service takers to attract the interest towards acquainted with digital transformation and digital support. Overall, findings are expressing the technologically financial innovation in business or organizations to change model of applications, processes, or products with an associated products effect on financial markets and institutions as well as the provision of financial services.

7. CONCLUSION

Fintech is all about the umbrella of financial services. It is offered by financial services companies through technology as well as improving and automation of financial services delivery to the consumer and service renders or investors. Significant advancements in fintech have altered various aspects of banking operations and customer relations. FinTech is a regulator and technology-based platform to serve financial services very smoothly. The term FinTech is primarily used for innovation and people make smooth business as well as financial transactions. It is valuable for the Financial Corporations, Firms and Individuals. Fintech not only manages mortgage or credit services but it is help with efficiency improvement and cost reductions also. The value of Fintech at present is to cover a wider range; it is concerned for individuals, corporate, and firms also. And it is delivering financial services with full access to technology driven to changing traditional and old fundamental access. The financial technology is to provide an electronic platform to investment, payment, mortgage or credit, etc. Fintech has performed multi-face financial activities to promote as well as enhanced financial inclusion. The scope and value of fintech encompasses the wider services for all domains and it has covered beneficial associated risk and opportunities. Fintech is open for all such as lenders, borrowers, retail investors, consumers, shareholders, seekers and services providers while industries, companies and firms are operating and using financial services via Fintech platforms. The increasing importance and widespread usage of online and mobile banking services, providing customers with easy access to financial management tools. The popularity of digital payment methods has surged due to their secure and efficient transactional choices.

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