



THE IMPACT OF FIN-TECHS ON BRICKS AND MORTAR BANKING IN INDIA

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ABSTRACT

The advent of FinTech dates back to the 1950s when the first credit card was invented by a diner's club. Yet, the official use of technology in financial services can be traced back to 1967 when Barclays bank installed the first ATM. This marked the real shift from technology to digital technology. If we talk about the banking industry, finTech is no longer jargon. Instead, it has become a familiar term in technology. The digital revolution created a huge impact on all banks and financial institutions globally. The term FinTech or Financial Technology is derived from two words: financial services and digital technology. In simple words, FinTech is the innovative use of technology in the formation and delivery of financial services. FinTech encourages the use of digital technology in startups so that they can come up with innovative products and services, such as mobile payments, alternative finance, online banking, big data, Robo advisors, peer-to-peer lending, crowdfunding, and overall financial management. FinTech was introduced as a back-end system technology for financial institutions and banks. However, since then, its definition has changed significantly. Today it encompasses several consumer-based applications which can help you trade stocks, manage funds, and pay for your insurance and food via this technology.

India's financial insertion has significantly improved during the last several years. In recent years, there has been a rise in the number of Indians who have bank accounts, with this figure believed to be close to 80% at present. Fintech businesses in India are increasingly becoming more noticeable as the Government of India (GoI) continues to strive for expanding financial services to the underbanked sector of the population. To reach the under banked segments of the population and provide a stable operating environment for fin-tech businesses, India must seek to increase financial inclusion. In this study, regression and correlation were employed, together with secondary data gathered from the RBI, to analyze this influence. The aim was to determine the impact of fintech and digital financial services on financial inclusion in India. According to the results, fintech businesses have significantly aided financial inclusion in this nation, especially for the middle class. These findings will be helpful for policy-makers working hard to bring every individual in this country into an organized financial system.

Keywords:

Fintech, Financial inclusion, RBI, crowd funding, fintechbusiness, financialsystem, Artificial intelligence.



INTRODUCTION

The primary purpose of this research was to review the impact of behavioral objective of people on the use of fintech services. People's behavioral intention is driven by belief usability, and social manipulate. Hence, this research also assessed the collision of these three factors as an important measurement in the use of fintech services for financial inclusion. India is one of the fastest-growing and one of the most populous countries in the world . However, a significant portion of rural and tribal land is cut off from official banking services, contributing to slow-moving economic development and extensive poverty in the region The deprived have a more difficult time managing their money than anybody else as their income is often changeable .They need simple access to savings, extensive diversity of economic and acceptable financial services. However, due to constrained access to official financial services, they make use of informal networks, which are characterized by lower levels of reliability and security and higher costs than standard services .Financial technology, often known as fintech, came into existence during the financial crisis between 2007 and 2008 and have since revolutionized the financial services sector by introducing new technologies to the marketplace. Technology-based banking has served as the two pillars around which the growth of modern banking has been built . In India, over the course of the last decade, the fast development of mobile networks in previously unserved areas and communities has also served as a major steam engine for this cause. Payment banks have emerged as an additional alternative to online and mobile banking, contributing to an increase in operational efficiency and a reduction in the expenses associated with providing services to clients located in rural and semiurban areas.

The enterprise of an inclusive financial sector provides two contributions that complement one another . First, those who are debarred from the market may be connected to economic development via financial inclusion. Second, new people are drawn into the economy and financial system as a result of economic growth Inclusive financial advances can assuage poverty by funding growth elements, such as increasing people's access to possibilities for savings enlistment and entrepreneurship, lowering people's susceptibility to risk, and enhancing their standard of living . The mission of expanding access to financial services has led to the development of new kinds of banks, such as small banks, mobile money services, and payment banks catering to persons who do not have bank accounts . Additionally, in today's digital era, customers are not keen to go for services provided by traditional banking systems. Instead, they prefer services that are quick and safe. Due to this, FinTech is gaining popularity and is disrupting the banking industry.Now that we are clear about what fintech is and the stats that make it an essential aspect of banking, we must understand why fintech and banks should work together:

Boost in the use of smartphones

A STUDY says that there were around 7.25 billion smartphone users as of 2022. This statistic is enough to interpret that there is a significant increase in the use of smartphones in the modern world.So, all these users are potential customers of both banks and fintech. But, banks could not reach every location owing to operating costs. Here's where fintech helps banks to reach and acquire more customers.



Almost every service is available online

Today, people can buy anything and everything online. Be it the products like medicines and groceries or the services like cleaning and grooming, everything can be found and bought online.

Security is the priority

Fintech companies are utilizing advanced technologies to protect customers' financial information. They use AI for fraud detection, blockchain for secure data storage, RegTech for compliance, and multi-cloud and IoT for smarter security solutions.

These measures ensure that customers' financial information is safe from threats like fraud and hacking. Fintech companies are taking a holistic approach to security by implementing a range of technologies and solutions to keep customers' data safe and secure.

Branding

Fintech companies are utilizing modern tools such as gamification to make financial tasks, such as budgeting, more engaging for customers. This refreshing approach to branding legacy services is something that banks should take note of, as it can help them attract and retain customers.

By incorporating these modern techniques, banks can improve their customer experience and stay competitive in the market.

Customer Satisfaction

Fintech companies have disrupted the financial services industry with their innovative approach to customer experience. They have a reputation for being faster, more efficient, and more secure than traditional banks, while also having lower costs. This has led to many fintech companies earning the trust of their customers through exceptional service and referral-based client acquisition. Banks can leverage this by taking a cue from fintech and focusing on improving their own customer experience. This can lead to better service for customers, and ultimately, increased trust and loyalty to the bank. In short, Banks can improve their services by adopting the customer-centric approach of fintechs. FinTech is changing the banking and financial industry

E-wallets

E-wallet is one of the top fintech solutions in the financial industry. The immense growth of E-wallets is an indicator of the rise of FinTech services. The world pay reports indicates that e-wallets remain a preferred payment method among global e-commerce consumers, registering 44.6% of global e-commerce transaction volume by 2020, an increase of 6.5% from 2019. By 2024, digital wallets are projected to represent 52.7% of e-commerce payment volumes. While Samsung Pay, PayPal, and Apple Pay are some of the well-known e-wallet companies in the world, these wallets are used for a plethora of purposes, namely P2P payments, utility bills, top-ups, ticket booking, international remittances, and many more. In addition, there are also some standalone wallets, such as Starbucks and Walmart Pay. E-wallets have attracted users due to their tempting offerings like exciting offers, lucrative



cashbacks, reward points, and many more. E-wallets are positively impacting the banking industry by being the major source of digital payments as the users need to add their bank account details to the wallet for adding funds to it. Also, e-wallets have increased the number of users making digital payments, ultimately benefiting the banks. Moreover, the huge success of E-wallets has led many banks to realize their importance and recognize e-wallets as a collaborative measure to embrace technological advancements.

Smart Chip machinery

According to a report as of 2020, there were around 10.82 billion EMV cards. Smart chip technology, also known as EMV (Europay, Mastercard, Visa) technology, is a type of chip-based payment system that uses microprocessor chips to secure payment transactions. These chips are embedded in credit and debit cards and are designed to make it more difficult for fraudulent transactions to occur. One of the most noticeable impacts of smart chip technology on the banking industry is that it has increased the security of payment transactions. These chips create unique codes for each transaction, which makes it difficult for fraudsters to use stolen card data to make unauthorized purchases. Hence, there has been a significant reduction in card fraud and has increased consumer confidence in electronic payments. Additionally, smart chip technology has also made it easier for banks to comply with Payment Card Industry (PCI) security standards, which require banks to take steps to protect cardholder data. This has reduced the risk of data breaches and the associated costs for banks.

Biometric Sensors

FinTech in the banking industry has given birth to many innovations, and biometric sensors are one of them. Almost all the top fintech predictions and trends have mentions of this innovation. Biometric sensors, along with Iris scanners, are two technological advancements that ATMs are witnessing. According to a research report, the number of biometric sensor cards is estimated to reach up to 20.7 million by 2025. These advancements are path-breaking since they eliminate the need to carry a plastic card and there's no need to remember the PINs. This offers immense convenience and ease to the customers. Apart from providing convenience and ease, these advancements also make ATMs more secure than ever since the user can access their account without any password. The biometric ATMs use integrated mobile applications, fingerprint sensors, palm scans, and eye recognition to identify the account owner. For more accurate and secure identification, ATMs also use micro-veins which eliminate the errors made by ATMs in customer recognition. The biometric technology brings a huge sigh of relief to all the customers who panic at the thought of losing their ATM card. With biometrics, they can access their funds even if their card gets lost. Thus, there is a significant impact of biometric technology in the banking sector.

Mobile Banking

The increase in the use of smartphones has compelled banks to come up with mobile applications that offer convenient FinTech banking services. The use of these applications is called mobile banking. According to a study by Allied Market Research, the global mobile banking market is expected to reach around US Dollars 1824.7 million by 2026. Today, most banks have a mobile banking application that has a user-friendly interface and delivers almost



every service available in traditional banks. They have also introduced a feature of fingerprint recognition for users. The application performs this function without any biometric app or hardware. A mobile banking app provides quick access to funds, and the user can perform several banking functions such as quick bill payments, check deposits, account balances, statements, and many more.

AI (Artificial Intelligence)

Over the years, AI has become essential in FinTech banking services. The global AI in the banking market is estimated to reach \$ 64.03 billion by 2030, up from \$ 3.88 billion in 2020, with a CAGR of 32.6% during the forecast period. And AI combined with machine learning is vital for fraud detection. Banks use software for fraud detection that generates alerts whenever there is a potentially fraudulent transaction. Later it is backed up by the human investigation that determines if the attack was real or false. However, with time the detection of attacks is becoming difficult since the attacks are becoming more sophisticated as the day passes. So, the old method is only costly and time-consuming. Moreover, the risk of customer data loss is always there. To combat this issue, banks are now adopting AI technology.

AI-powered service chatbots

FinTech providers have also come up with AI-based customer service chatbots that have become popular in the recent past. According to a study it was found that the service conversations by chatbots were expected to deliver around \$8 billion worth of cost savings by the end of 2022. Chatbots are nothing but software that uses machine learning and natural language processing to impersonate human conversation, either by voice or text communication. Chatbots can be used to deliver fast and efficient customer service, responding to frequently asked questions and helping with simple tasks such as account balance inquiries and bill payments. Chatbots can handle a high volume of customer inquiries simultaneously, freeing up human employees to focus on more complex tasks. It can also provide personalized guidance and help, leading to a more positive customer experience.

Impacts and Works

The goal of the RBI and concurrent government initiatives has been to promote financial inclusion. This has meant promoting competition and creativity on a more or less level playing field in India's emerging fintech industry. Due to this, both online and offline solutions have been developed, creating a more secure financial system with open access. A multidisciplinary committee has just been established by the RBI to investigate the fintech industry in India. The objective is to comprehend the risks involved and the development of new models in order to evaluate how the financial system may adapt and deal with them. The Unified Payments Interface, the Bharat Bill Payments System, digital payments, peer-to-peer lending, and the use of computer algorithms to provide financial advice have all been supported by the RBI so far. Additionally, the RBI has authorized 11 fintech companies to launch payment banks that provide savings, deposit, and remittance services. Normally, clients are less inclined to accept new technology as they have faith and trust in the existing banking system. New technologies will not be effective unless users are comfortable with security and privacy concerns. Even if it is simpler and less expensive than the old ways, it will still take some time to gain consumer trust. AePS, Aadhar Pay, remittances, and recharges are just a few of the financial services that the general population can now access more easily due to fintech companies. This has improved online banking accessibility and democratized electronic



payments. Therefore, this concept offered the authors of this study the notion that fintech may be a game changer in the effort to fulfil the financial inclusion of rural people and prompted us to investigate its numerous facets.

Fintech companies can help boost competition and accelerate financial inclusion in India by lowering costs and enhancing access to financial services for people in low-income groups, rural areas, and other underserved sectors of the Indian economy. This is achieved by introducing new business models, applications, and innovations. To understand the contribution of fintech in financial inclusion, it is important to know their various perspectives. The exploration of these factors constitute the main aim of this study.

➤ **Reviews of Literature**

The promotion of much-needed financial sector growth was the fundamental reason for the introduction of the concept of microfinance in countries that were still in the process of developing. Financial inclusion and economic expansion and development are strongly associated with each other. It is important to determine all the possibilities and difficulties for each of the different stakeholders. The majority of Indian financial institutions have an eye on the industry and are attempting to gain knowledge from the experiences of others. Indian MFIs are about to launch again by embracing fast change and mobile money, while new players are investigating potential alternatives and partnerships. Several institutional shortcomings and other issues contribute to the significant lack of access to financial services in India's impoverished areas. As a consequence, the economy cannot grow to its full potential as people are not making full use of their own economic opportunities. As a direct consequence of this, microfinance programs have been launched in industrialized nations, such as India, in order to provide assistance to those living in impoverished areas, such as inner-city neighborhoods. By analyzing data from 534 institutions from 24 OIC nations, this research examined whether increased fintech-based financial inclusion (FFI) leads to an increase in risk-taking by banks. The findings show that banks' risk-taking behavior is controlled to a great extent by FFI. In the period of the Post-Industrial Revolution 4.0, the nexus has become more powerful. The study highlights how crucial it is to comprehend block chain technology as an ecosystem as its potential depends on network acceptance and expansion for the good of the whole community.

Scope of Future Research

Fintech has seen explosive growth in recent years as new businesses and technologies have transformed the way we think about banking and money. The future of fintech, according to experts, will entail even more innovation, with an increasing emphasis on offering seamless, 360-degree financial services and lowering conventional hurdles, such as high fees and onerous regulations. Therefore, in a future perspective, researchers can explore how commercial banks understand their role in creating this fascinating new environment as this transformation takes place. Banks should make sure they stay at the forefront of financial services by collaborating with creative entrepreneurs and using their own resources to adopt technological advancements.



Conclusions

It is generally agreed that financial inclusion is necessary for the alleviation of poverty, the promotion of balanced economic growth, and the maintenance of economic stability. In underdeveloped nations, a significant portion of the population do not have access to even the most fundamental banking services. The vast majority of them come from Asian and Middle Eastern countries. The provision of elementary monetary services, such as banking, is still largely out of reach for millions of individuals, particularly those living in India's most rural and isolated areas. It is necessary to make use of financial technology and services related to mobile money in order to complete financial transactions and to improve one's standard of living by investing in the creation of new enterprises or initiatives related to self-employment. The sharing economy, legislation, and information technology are all contributing to the rapid progress that is being made owing to these initiatives.

References

1. Ajzen, Ick. 1991. The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes* 50: 179–211.
2. Anagnostopoulos, Ioannis. 2018. Fintech and Regtech: Impact on Regulators and Banks. *Journal of Economics and Business* 100: 7–25.
3. Aron, Janine. 2018. Mobile Money and the Economy: A Review of the Evidence. *The World Bank Research Observer* 33: 135–88.
4. Bagozzi, Richard P., and Youjae Yi. 1988. On the Evaluation of Structural Equation Models. *Journal of the Academy of Marketing Science* 16: 74–94.
5. Banna, Hasanul, M. Kabir Hassan, and Mamunur Rashid. 2021. Fintech-Based Financial Inclusion and Bank Risk-Taking: Evidence from OIC Countries. *Journal of International Financial Markets, Institutions and Money* 75: 101447.
6. Black, William, and Barry. J. Babin. 2019. Multivariate Data Analysis: Its Approach, Evolution, and Impact. In *The Great Facilitator*. Berlin/Heidelberg: Springer, pp. 121–30.
7. Burns, Scott. 2018. M-Pesa and the 'Market-Led' Approach to Financial Inclusion. *Economic Affairs* 38: 406–21. .
8. Chavan, Palavi, and BhaskarBirajdar. 2009. Micro Finance and Financial Inclusion of Women: An Evaluation. *Reserve Bank of India Occasional Papers* 30: 109–29.
9. Chouhan, Vineet, Bibhas Chandra, Pranav Saraswat, and ShubhamGoswami. 2020. Developing Sustainable Accounting Framework for Cement Industry: Evidence from India. *Finance India* 34: 1459–74.
10. Chouhan, Vineet, Raj Bahadur Sharma, and ShubhamGoswami. 2021a. Factor Affecting Audit Quality: A study of the companies listed in Bombay Stock Exchange (BSE.). *International Journal of Management* 25: 989–99.
11. Chouhan, Vineet, Raj Bahadur Sharma, and ShubhamGoswami. 2021b. Sustainable Reporting: A Case Study of Selected Cement Companies of India. *Accounting* 7: 151–60.
12. Chouhan, Vineet, Raj Bahadur Sharma, ShubhamGoswami, and Abdul Wahid Ahmed Hashed. 2021c. Measuring Challenges in Adoption of Sustainable Environmental Technologies in Indian Cement Industry. *Accounting* 7: 339–48.



13. Chouhan, Vineet, ShubhamGoswami, and Raj Bahadur Sharma. 2021d. Use of Proactive Spare Parts Inventory Management (PSPIM) Techniques for Material Handling Vis-À-Vis Cement Industry. *Materials Today: Proceedings* 45: 4383–89.
14. Chouhan, Vineet, ShubhamGoswami, Manish Dadhich, Pranav Saraswat, and PushpkantShakdwipee. 2021e. Chapter 5 Emerging Opportunities for the Application of Blockchain for Energy Efficiency. In *Blockchain 3.0 for Sustainable Development*. Edited by Deepak Khazanchi, Ajay Kumar Vyas, Kamal Kant Hiran and SanjeevikumarPadmanaban. Boston: De Gruyter, pp. 63–88.
15. Dang, Van Cuong, and QuangKhai Nguyen. 2021. Internal Corporate Governance and Stock Price Crash Risk: Evidence from Vietnam. *Journal of Sustainable Finance & Investment*.
16. Davis, Fred D., and Davis Fred. 1989. Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly* 13: 319.
17. Demir, Ayse, Vanesa Pesqué-Cela, YenerAltunbas, and Victor Murinde. 2022. Fintech, Financial Inclusion and Income Inequality: A Quantile Regression Approach. *The European Journal of Finance* 28: 86–107.
18. Gautam, Amit, and Siddhartha Rawat. 2017. Cashless and Digital Economy and its Effect on Financial Inclusion in India. *Financial Sector in India* 20: 77–85.
19. Ghosh, Saibal. 2020. Financial Inclusion in India: Does Distance Matter? *South Asia Economic Journal* 21: 216–38.
20. Haque, Sabrina Sharmin, Monica Yanez-Pagans, Yurani Arias-Granada, and George Joseph. 2020. Water and Sanitation in Dhaka Slums: Access, Quality, and Informality in Service Provision. *Water International* 45: 791–811.
21. Iqbal, Sana, Ahmad Nawaz, and SadafEhsan. 2019. Financial Performance and Corporate Governance in Microfinance: Evidence from Asia. *Journal of Asian Economics* 60: 1–13.
22. Mader, Philip. 2018. Contesting Financial Inclusion. *Development and Change* 49: 461–83.
23. Mia, MdAslam, Miao Zhang, Cheng Zhang, and Yoomi Kim. 2018. Are Microfinance Institutions in South-East Asia Pursuing Objectives of Greening the Environment? *Journal of the Asia Pacific Economy* 23: 229–45.
24. Nguyen, QuangKhai. 2022. The effect of FinTech development on financial stability in an emerging market: The role of market discipline. *Research in Globalization* 5: 100105.
25. Okoye, Lawrence Uchenna, KehindeAdekunleAdetiloye, Olayinka Erin, and Nwanneka Judith. 2017. Financial Inclusion as a Strategy for Enhanced Economic Growth and Development. *Journal of Internet Banking and Commerce* 22: 1–14.
26. Omojolaibi, Joseph A., Adaobi Geraldine Okudo, and Deborah A. Shojobi. 2019. Are Women Financially Excluded from Formal Financial Services? Analysis of Some Selected Local Government Areas in Lagos State, Nigeria. *Journal of Economic and Social Thought* 6: 16–47.
27. Orlov, EvgeniyVladimirovi, Tatyana MikhailoRogulenko, Oleg AlexandrSmolyakov, NataliyaVladimiroOshovskaya, Tatiana Ivan Zvorykina, Victor GrigoreRostanets, and Elena PetrovDyundik. 2021. Comparative Analysis of the Use of Kanban and Scrum Methodologies in IT Projects. *Universal Journal of Accounting and Finance* 9: 693–700.
28. Oskarsson, Patrik. 2018. *Landlock: Paralyzing Dispute over Minerals on Adivasi Land in India*. Canberra: Australian National University Press, p. 204.



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29. Rathod, Saikumar, and Shiva Krishna Prasad Arelli. 2013. Aadhaar and Financial Inclusion: A Proposed Framework to Provide Basic Financial Services in Unbanked Rural India. In *Driving the Economy through Innovation and Entrepreneurship*. New Delhi: Springer New Delhi, pp. 731–44.
 30. Reddy, Amith Kumar. 2021. Impact of E-Banking on Customer Satisfaction. *PalArch's Journal of Archaeology of Egypt/Egyptology* 18: 4220–31.
 31. Russell, James A. 1980. A circumplex model of affect. *Journal of Personality and Social Psychology* 39: 1161–78.