Ushus-Journal of Business Management
2024, Vol. 23, No. 4, *v-x*
ISSN 0975-3311 | https://doi.org/10.12725/ujbm.69.0

Editorial

The Impact of Fintech and AI Disruption on Banking, Finance, and the Regulatory Environment.

The finance and banking world is evolving rapidly due to the fast advancements in new tech for financial activities and artificial intelligence (Mărăcine et al., 2020). According to research done by (Belanche et al., 2019), the FinTech and BigTech are providing novel consumer-centric services such as digital wallets, Personal mobile banking, Robo advisors, chatbots, and peer-to-peer lending, which are reshaping the industry. Such disruption has remodelled traditional financial services, providing access to a variety of financial products, and has significantly upgraded operational efficiency. The digital reforms call for a revamping of old school banking system, in a way has influenced the traditional banking system to adopt new technologies to remain updated and competitive, (Coker, 2020). As these technologies continue to permeate the banking and finance sectors, they bring opportunities for innovation and inclusive growth but also pose new challenges for regulators. (Saini, 2023)

However, Tech-Enhanced Banking and Automated Transformation are multifaceted, which not only facilitate easy and convenient functioning but also pose threats in the form of cybercrime, tech failure, hacking etc. India's fintech domain is witnessing explosive growth because of internet penetration, tech-based devices, smartphones etc. The government is also boosting digitalisation in every domain of the economy. According to the Ministry of Electronics and Information Technology (MEIT), India's total fintech market was valued at USD 50 billion in 2021 and is forecasted to flourish to USD 150 billion by 2025. The digitalisation has transformed various financial services from money transfers, payments, lending, and investment to wealth management and insurance etc.

Many consumers are increasingly adopting digital wallets, peer-to-peer (P2P) lending platforms, robo-advisors, and insurance tech etc such dynamic reform has commissioned millions of consumers to access banking and finance products, mainly in rural and semi-urban areas. Automotive technologies incorporating artificial intelligence, knowledge engineering, natural language processing, and data modelling have attracted exceptional financial market attention. It facilitates financial institutions to promptly analyse a plethora of data with greater reliability and also furnishes insights for more accurate credit rating, fraud detection, and cybercrime.

Another dimension of digitalisation is digital currency, digital currencies have evolved as a metamorphic drive in the financial market, which provides the potential to boost financial inclusion, sustainability, and investment opportunities (Bizama et al., 2024). (Kuzmina-Merlino and Saksonova 2018; Shoaib et al. 2020) define blockchain technology to be a catalyst for banking sector growth, while other researchers (Fauzi et al. 2020) consider bitcoin and other digital coins very volatile which has a negative influence not only on the financial sector but on the entire economy.

The growth of digital coins, such as Bitcoin, is challenging the fiat currency in terms of safety, transparency, and convenience and also questioning the traditional role of central banks in monetary policy (Raskin & Yermack, 2016). These decentralized currencies have the potential to compete with fiat currency and pressure central banks to pursue tighter monetary policies. As the digitalisation process is shaping economic market activities, the central banks, policymakers' regulators etc are intrigued to investigate the prospective of the central bank digital currency (CBDC) to handle the ever-changing needs of the banking sector.

At present, the banks apply AI-powered chatbots, robo advisors, and virtual assistants to answer customers' queries, which decreases the waiting period, and enhances customer satisfaction and service efficiency. prospective research assists the banking sectors to provide custom-made products to various customers based on their financial requirements, spending habits, age, income, creditability and risk profile.

Fintech companies are pushing traditional banks to adopt technology-driven approaches to enhance the customer experience. Services like UPI (Unified Payments Interface) and digital wallets have streamlined digital payments, making cashless transactions simple and accessible. This ease of use has set new standards for customer satisfaction, pressuring traditional banks to upgrade their digital capabilities.

Digital currency, financial inclusion, AI, and fintech in the financial market are boosting the efficacy and assisting the banks to optimise their operations. This new technology is also helping the banks to cut down the operational costs and the other costs associated with human mistakes. There are many aspects of the fintech sector, one of which is "neobank" which brings the competition in the financial world. This modern tech-based banking facilitates smooth digital functioning and provides personalised products and services.

As a result, many financial institutions are associating with fintech firms to remain competitive and updated in the market. The most important influence of fintech evolution in the world is financial inclusion advancement. Financial inclusion is defined as a platform which provides customers and organisations with various significant and affordable banking products and services such as transactions, payments, savings, credit and insurance – which is aimed at delivering responsibly and sustainably.

Such substantial aspects of fintech collaboration in the form of financial inclusion can be witnessed in India as well. According to the World Bank's Global Findex Report (2014), only about 53% of Indian adults had a bank account in 2014. By 2021, this figure rose to over 80%, driven largely by fintech innovations such as mobile banking, digital wallets, and micro-lending platforms. India has obtained extraordinary growth in expanding financial reach to millions of people living in rural and underprivileged areas via many state and central government welfare schemes such as Pradhan Mantri Jan Dhan Yojana (PMJDY), Pradhan Mantri Jivan Bima Yojana, Kanya Suraksha Yojana, etc.

A few fintech start-ups like neo bank, microfinance corporations, P2P platforms, etc are reaching out to those who are underprivileged and underserved including small businesses, low-income individuals, and rural communities. These innovations have provided affordable credit, allowing individuals and entrepreneurs to manage expenses, invest in education, and build businesses. In short, fintech has democratised financial access, supporting India's journey toward a more inclusive economy.

Regulatory Challenges and Responses

Though there is an immense growth of fintech-based products and services and they bring a bundle of significant advantages, they are also a regulatory threat to the economy. Such AI and fintech disrupt the traditional banking system and present the double challenge of encouraging innovation while safeguarding consumer interests and systemic stability for any government. At present, the central banks of any nation are prompted to come up with new regulatory policies to adapt to this ever-evolving landscape.

The importance of a stringent data privacy regulatory policy has become increasingly paramount with the increase of such data-driven products and services. In India, the Parliament introduced the "Digital Personal Data Protection Bill" in 2023 to handle the challenges of data privacy concerns and protect user information from misuse. However, there have been issues raised by many stakeholders that balancing data-driven innovation with complete customer privacy is challenging. The policymakers have also emphasised the growth of digital finance with instruction and guidelines on "Know Your Customer (KYC) and Anti-Money Laundering (AML) practices". In India, the central bank (Reserve Bank of India) has issued guidelines and directives to encourage digital KYC processes, which enable banking institutions to authenticate customer creditability, and identities remotely. Though, such regulations and measures increase convenience, regulators remain vigilant against fraudulent activities enabled by technology.

In response to complaints of predatory practices by certain digital lending apps, the RBI issued guidelines to regulate digital lenders. These guidelines mandate transparency in loan terms, fair collection practices, and the disclosure of interest rates, thereby protecting borrowers from exploitation.

Cryptocurrencies and blockchain technology are part of India's fintech revolution but present a regulatory grey area. The government has expressed concerns over the risks of cryptocurrencies, such as market volatility, money laundering, and the potential for illicit activities. However, blockchain's potential for secure, transparent transactions holds promise, and regulators are exploring ways to harness its benefits without compromising financial stability.

To encourage innovation while ensuring consumer protection, the RBI introduced a regulatory sandbox framework, allowing fintech firms to test new products and services in a controlled environment. This initiative has provided a space for experimentation without exposing consumers to unproven technologies. The regulatory sandbox has already seen participation from companies working on digital payments, blockchain applications, and AI-based financial services. This approach balances the need for innovation with consumer safety, enabling regulators to understand emerging technologies' impact before permitting broader market adoption.

The Future of Fintech and AI in India's Financial Sector

As India's fintech and AI ecosystems continue to evolve, several trends are likely to shape the future of banking, finance, and regulation:

Open banking, which involves banks sharing customer data with authorized third-party providers, has the potential to further transform India's financial landscape. By enabling seamless integration with fintech apps, open banking can offer consumers personalized financial insights and products. However, open banking also raises privacy and data security concerns, which will need to be addressed through regulatory oversight.

The role of AI in India's finance sector is set to grow, particularly in areas like credit assessment, risk management, and fraud prevention. AI-powered predictive models will allow banks and fintech firms to enhance their offerings and provide more targeted products. Regulators will likely face the challenge of developing frameworks that ensure AI transparency, fairness, and accountability.

Blockchain technology, while currently limited to pilot projects, could be transformative for India's financial infrastructure. Additionally, the RBI has explored introducing a central bank digital currency (CBDC) to complement India's digital economy. A CBDC could reduce transaction costs, increase transparency, and streamline cross-border payments. However, implementing blockchain and digital currencies will require careful regulatory planning to avoid destabilizing existing financial systems.

As fintech and AI continue to disrupt finance, regulators will prioritize consumer protection. With the rise of digital lending, decentralized finance, and cryptocurrency exchanges, ensuring that consumers are protected from fraud, predatory practices, and financial instability will be paramount. Regulatory bodies may introduce stricter guidelines and monitoring systems to safeguard consumer rights.

Conclusion

The convergence of fintech and AI has revolutionised India's financial sector, offering new possibilities for inclusion, innovation, and efficiency. (Varma et all 2022) concluded in their study that partnering with fintech and incorporating advanced technology in banking will improve system-wide financial stability. Traditional banks are adapting to these changes, while fintech companies are pushing the boundaries of what is possible in finance. However, this rapid transformation also brings regulatory challenges, the critical issues raised by various intellectuals areas (Rupeika-Apoga and Wendt 2022; Siciliani 2020) that many nations monitor the FinTech sector applying an activity-based approach, while the banking sector is an entity-based regulation. These papers suggest that regulation should allow for variations in the regulatory treatment of a specific sector. Thus, India's regulatory bodies must navigate a complex landscape that balances innovation with risk management and consumer protection.

As fintech and AI continue to reshape India's financial ecosystem, a dynamic and adaptive regulatory framework will be essential. By fostering a collaborative relationship with the fintech and banking sectors, regulators can enable the growth of a secure, innovative, and inclusive financial landscape. The future of banking and finance in India is bright, with the potential to empower individuals, fuel economic growth, and position India as a leader in global financial technology.

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