

# Impact of FinTech on Conventional Banking: A Comparative Review

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## Abstract

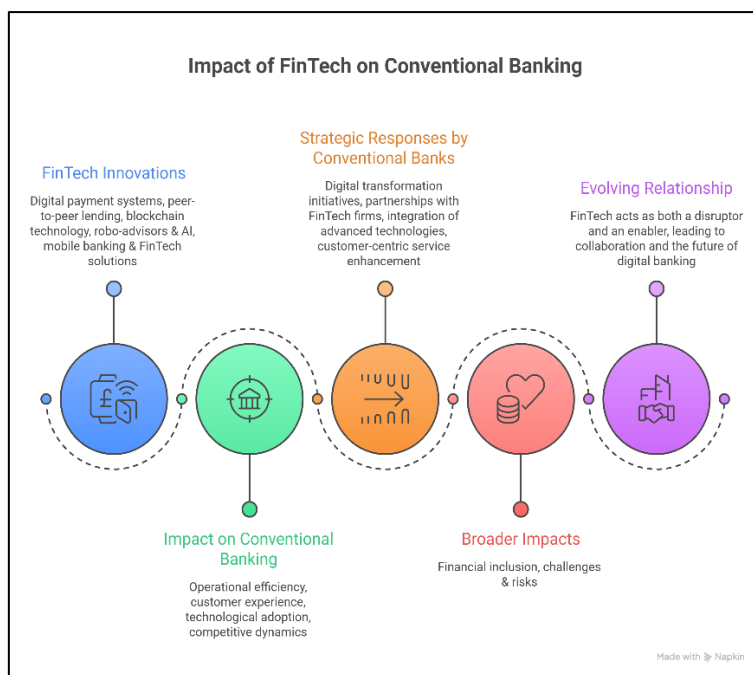
Financial Technology has redefined the operations of banking systems. This paper provides a comprehensive overview of the impacts of FinTech on conventional banking based on a comparative analysis. The review considers six main spheres which include operational efficiency, financial performance, customer experience, technological readiness, risk, and market dynamic. The research FinTech makes operational processes more efficient due to their automation and digital nature. It improves customer experience thanks to speed and availability of services provided by Fintech companies. Moreover, the technology contributes to financial inclusion through wider accessibility of financial services via digital platforms. In turn, conventional banks benefit from their strengths including stability, regulations, and reputation. The analysis reveals a transition from competition to collaboration between institutions. Thus, banks implement digitalization and develop partnerships with Fintech companies in order to survive in the changing environment. As a result, hybrid financial solutions can be considered as a perspective model for future financial systems. In addition, the study defines several challenges as cybersecurity threat, lack of regulations and limitations of old-fashioned approaches.

**Keywords:** FinTech, Conventional Banking, Digital Transformation, Financial Performance, Customer Experience, Financial Inclusion, Risk Management.

## 1. Introduction

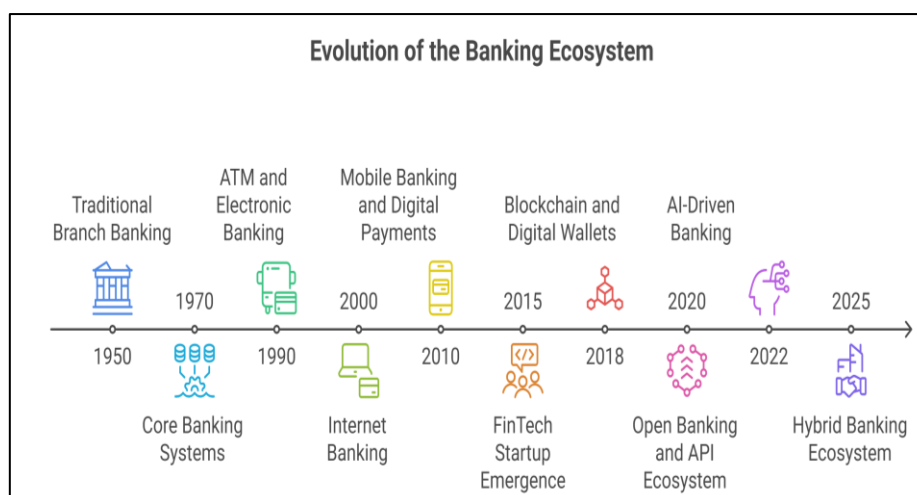
The rapidly changing world of finance due to new technology has led to an increased focus on financial technology, or "FinTech," as a means to innovate and improve banking and finance. FinTech describes using new technology within the world of finance and banking to create better and more efficient financial products and services, make them more accessible and enhance the customer experience [17], [19]. These technologies transformed over the last 10 years from a niche concept to a core element of the overall global financial industry and has changed the methods used to deliver and access financial services.[4] Recent innovations in digital payment systems, peer-to-peer lending, the use of blockchains and the emergence of robotics advisors are some of the major innovations being utilized in the financial industry today, which have created a need for traditional banks to respond to the changes resulting from the introduction of fintech [3], [5]. Research has revealed that adoption of fintech increases operational efficiencies, decreases the cost of transactions and improves the delivery of financial services compared to traditional financial institutions, in addition to creating competition for many of the traditional banking institutions [1], [6].

Such innovations changed how banks operate in many ways including how banks are run more efficiently than ever before with better customer service, than what is possible through traditional banking methods; however, the extent to which this occurs will depend on many factors, including local regulations, societal technological capabilities, and more [2], [15]. Furthermore, those unable to access financial services in the past may start to do so through digital channels made available by the advancements in the financial technology industry [4], [18]. Many of the opportunities associated with financial technology integration come at a cost and include problems associated with fraud, security, and competition [22]. Traditional banks and FinTech were once thought to be in a constant state of competition but with recent developments there is an increasing trend toward banks and FinTech collaborating and forming hybrid models [20], [21]. Although several studies have examined this matter; very few have identified what comparable characteristics exist between FinTech and conventional banking systems, indicating the necessity for further research on how FinTech will facilitate major changes to conventional banking models.



**Figure 1.** Overview of Relationship between FinTech Innovations and Conventional Banking

Above Fig. 1 shows the process of innovation, change, and collaboration in the finance industry. The current research advances the existing body of knowledge through a systematic comparison of the FinTech and conventional banking systems on important attributes such as operational efficiency, financial performance, customer experience, technology capacity, risk management, and competitive environment. This paper is different from previous studies that have only considered a particular aspect of the topic under study; hence, it incorporates multiple viewpoints within one analytic model. In addition, the paper underscores the dynamic connection between FinTech firms and the conventional banking system, focusing on the transition from competition to collaboration among these two players to establish financial ecosystems. The emergence of these changes comes as a result of a well-defined process whereby FinTech innovation leads to change in the conventional banking sector. Consequently, strategic moves by the conventional banks trigger further impacts on financial ecosystems in terms of collaboration among different financial actors.



**Figure 2.** Evolution of the Banking Ecosystem from Traditional Banking to Hybrid Banking Models

Fig. 2 illustrates the evolution of the banking ecosystem from traditional branch-based banking to a modern hybrid financial system. The progression highlights major technological milestones, including the introduction of core banking systems, ATM networks, internet banking, mobile banking, FinTech innovations, blockchain applications, open banking frameworks, and artificial intelligence. The timeline demonstrates how technological advancements have continuously transformed banking operations, customer interactions, and service delivery, ultimately leading to the emergence of collaborative hybrid ecosystems where FinTech firms and conventional banks coexist and complement one another.

## 2. Literature Review

The growing importance of Financial Technology (FinTech) has led to a substantial body of research examining its impact on traditional banking systems. Researchers have explored various aspects such as performance, efficiency, financial inclusion, risk, and competition, highlighting both the opportunities and challenges associated with FinTech adoption.

Xu et al [1] systematic review established that improvements to efficiency, via Financial Technology (FinTech) would result in greater operational performance for banks. Additionally, due to FinTech facilitating increased competition, traditional banking has been required to re-assess their traditional methods of conducting business. The study of Xie and Deng [2] established a link between FinTech with respect to the operational performance of Chinese Banks, with banks who use FinTech depicted as performing better (operationally) than

banks who that not use FinTech. Lastly, any improvement in operational performance due to FinTech depends on the bank's technological infrastructure and regulatory environment.

According to Gupta and Gautam et al. [3], "FinTech is redefining the way we conduct business in the financial services sector." The authors point to the advantages of using fintech over traditional banks: enhanced efficiency and innovation, as well as to the risks associated with the increased number of competitors entering traditional banking, primarily in the area of payment processing and lending. The new entrants into this marketplace are rapidly growing to establish a firm foothold in each industry. One particular area that has seen significant change in FinTech, however, is in relation to financial inclusion. According to Mittal and Singh et al. [4], many of the underserved individuals previously unavailable to access banking services have now become available due to the ability for those people to access these services through digital means.

According to a study conducted by Davey et al. [5], These technologies made a significant impact on traditional banking by helping banks to offer better services and become more efficient in their operations. The study concluded that FinTech's disruptions require banks to change continuously. It also showed that FinTech's transformation of associated service delivery models would ultimately benefit customers by allowing banks to develop new ways of engaging with them more effectively and at lower costs; however, there are still challenges associated with integrating new technologies into existing systems and how organisations will respond to the resulting organizational shift, according to Thomas et al. [6].

As far as innovation is concerned, according to Elia et al., [7] FinTech can be considered as one of the significant catalysts that promote innovation in the banking sector. The research of Elia et al. [7] reveals that FinTech promotes banks' system development and orientation towards customers. Liu et al. [8] contribute a broader overview of FinTech literature by structuring existing research on FinTech in such areas as payments, lending, blockchain, and digital banking. Liu et al.'s [8] contribution is aimed at highlighting the fast growth in the number of FinTech literature.

With regard to efficiency, Onorato et al. [9] present a comparative analysis of FinTech companies and traditional banks, which demonstrates that the former are more efficient. According to the research results, FinTech companies tend to be more efficient especially in their lending operations due to advanced data analytics and simpler processes. In addition,

Huang and Tan et al. [10] focus on the influence of digitalization on banks' risk-taking behavior. While the digital revolution makes banks more efficient, it also makes them riskier.

Customer acceptance has been considered a key topic among researchers in the field. Idrees & Ullah et al. [11] explore how FinTech services are adopted by customers based on the UTAUT2 framework. The findings revealed that ease of use, usefulness, and education influence the adoption behavior of customers in favor of adopting these technologies. Kaushik et al. [12] explores how FinTech slowly affects the structure of conventional banking structures.

Yudaruddin et al. [13] investigates the effects of FinTech adoption on the performance of Islamic versus conventional banking systems. The findings indicate that FinTech adoption influences the performance of both banking institutions, but the degree of influence depends on a number of factors such as institution and regulation. Issues related to risk have also received attention. For instance, Liu et al. [14] mention problems such as cybersecurity, data protection, and regulatory uncertainties as major risks involved.

However, Tarawneh et al. [15] concentrate precisely on the concept of profitability and prove that FinTech could improve profitability of banks through lower expenses and more effective operations. Nonetheless, they claim that increased competition might have some impact on the profitability. In turn, the work by Diener and Špaček et al. [16] investigates problems which may appear for banks in relation to digital transformation. Organizational resistance and technology limitation may be one of such problems.

Another study by Boot et al. [17] gives some insight into the relationship between traditional banks and FinTech as they claim that it is unlikely that FinTech would ever replace traditional banking systems and vice versa because they would co-exist since traditional banks possess certain advantages in terms of trust and compliance. Lastly, FinTech can play a significant role in providing better financial resilience during financial crises, which is proven by the research by Demirgüç-Kunt et al. [18].

Thakor et al. [19] further asserts that even though FinTech offers innovations, conventional banks are important because of their existing position within the financial world. There has been changes in the interaction of FinTech and banks. This notion is articulated by Sharma et al. [20], who notes that despite being competitors at first, cooperation is becoming an increasingly common phenomenon among the two parties. This assertion is also

corroborated by Judijanto et al. [21], who describes a transition in the financial environment from competition to cooperation between FinTech companies and traditional banks. Security continues to be one of the main issues in the adoption of FinTech solutions. Mehrban et al. [22] explore different cyber security problems and emphasize the importance of security architecture in FinTech operations.

Chen et al. [23] evaluate the benefits of FinTech innovations and state that although these contribute considerably to the development of the financial sector, at the same time they pose certain risks. These risks require proper management. Vives et al. [24] offers an overview of the issue from another perspective, namely, the balance between competition and financial stability. The paper puts emphasis on the role of regulation in keeping the required balance. Finally, Nur et al. [25] evaluates the effect of FinTech lending on international finance. The author demonstrates that digital lending platforms transform conventional banking practices.

Overall, FinTech exerts a great influence on conventional banking practices in different areas including improvements in efficiency, inclusivity, and innovation, among others. However, FinTech also entails considerable risks and challenges. Although traditional banks are not about to become a thing of the past, it seems that FinTech tends to become their complement in the future. In order to have a better understanding of the issues covered in the analyzed papers, Table 1 summarizes key findings and themes of these publications.

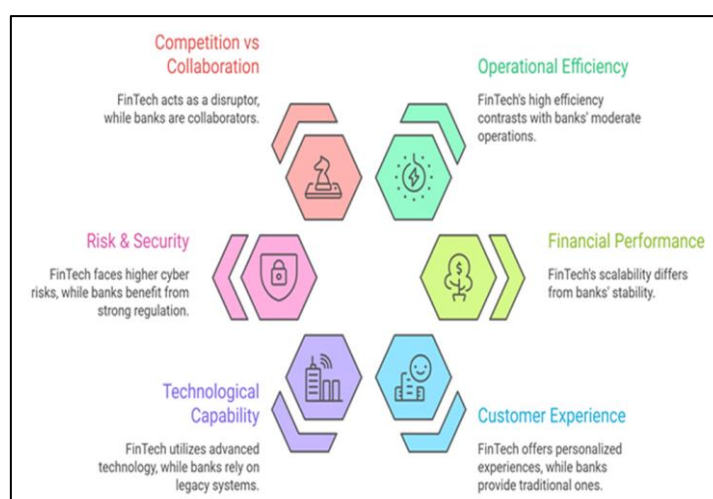
**Table 1.** Summary of Literature on FinTech and Conventional Banking

<b>Key Studies</b>	<b>Ref</b>	<b>Focus Area</b>	<b>Key Findings</b>
Performance & Profitability	Xu et al. [1], Xie and Deng [2]	Bank performance, profitability	FinTech improves efficiency, reduces costs and enhances the overall bank performance.
Efficiency & Operations	Onorato et al. [9], Davey [5]	Lending efficiency, operations	Due to their use of advanced technology, FinTech firms operate faster and more efficiently than traditional banks.
Financial Inclusion	Mittal and Singh [4], Demirgüç-Kunt et al. [18]	Access to financial services	The use of FinTech services is beneficial to underserved communities, enhances access to financial services

Digital Transformation	Elia et al. [7], Diener and Špaček [16]	Technology adoption, innovation	FinTech drives digital transformation and modernization of banking systems
Competition vs Collaboration	Sharma [20], Boot et al. [17]	Market dynamics	FinTech acts as both competitor and collaborator; hybrid models are emerging
Adoption & User Behavior	Idrees and Ullah et al. [11]	Customer acceptance	Ease of use, level of familiarity, and educational ability are all factors that will impact the success of FinTech adoption by customers.
Risk & Security	Liu et al. [14], Mehrban et al. [22]	Cybersecurity, regulation	Data privacy and security along with financial stability are all risks associated with the increasing usage of FinTech for customers and businesses.
Research Trends & Evolution	Liu et al. [8], Nur [25]	Bibliometric analysis	Scholarly research on these issues is also on the rise, particularly concerning lending, payments, and blockchain.

### 3. Comparative Analysis

Financial Technology (FinTech) has played a crucial role in changing the landscape of the financial services industry, thus bringing about a significant difference between the FinTech firms and traditional banks. This chapter gives a detailed comparative analysis of the two different industries along six dimensions: efficiency, performance, customers, technology, risk management, and competition. Key dimensions for comparative analysis are shown in Fig. 3.



**Figure 3.** Key Dimensions Used for Comparing FinTech and Conventional Banking Systems

### **3.1 Operational Efficiency**

The efficiency of operations of the FinTech enterprises is significantly higher compared to those of traditional banking institutions because of the application of technologies like artificial intelligence (AI), big data analysis, and automation. The benefits include fast transactions, savings, and efficient services provided by FinTech companies. As stated by Onorato et al., FinTech enterprises benefit from data analysis for decision-making purposes and streamlined operations especially in loan operations [9]. On the other hand, traditional banks operate in an old fashioned way where their systems do not permit flexibility and make operations inefficient [1] [6].

### **3.2 Financial Performance and Profitability**

FinTech influence on financial performance has a somewhat complex but relatively favorable effect. As stated in available literature, usage of FinTech technologies is capable of increasing financial performance as a result of lowering transaction costs [15]. Xie and Deng [2] found out that FinTech utilization leads to favorable effects on bank performance due to technological development in the field. On the other hand, the growth of FinTech companies will lead to reduced margins of profits for banks because of intensified competition [3]. Therefore, although FinTech improves performance, it simultaneously creates competition.

### **3.3 Customer Experience and Accessibility**

The biggest benefit of FinTech is its capability of improving customer experience using user-friendly interfaces, real-time services, and customized financial solutions. FinTech provides users with 24 hours a day availability, speedier services, and customization of services thus enhancing customers' satisfaction. Mittal & Singh [4] state that FinTech helps to achieve financial inclusion of financially underprivileged individuals as they gain access to financial services through FinTech companies. While traditional banks used to be confined to certain boundaries due to their structure, they too have resorted to use FinTechs to satisfy their customers [18].

### **3.4 Technological Capability and Innovation**

FinTech organizations are technology-based by nature and characterized by flexibility in relation to innovative developments including blockchain, cloud computing, and machine learning. Such characteristics enable these organizations to quickly launch innovative products.

According to Elia et al., FinTech is seen as an innovative force that drives banks to invest in technology. However, conventional banks encounter difficulties when implementing technological advancements on account of various factors [16]. Nonetheless, collaboration among banks and FinTech organizations is facilitating the process.

### **3.5 Risk Management and Security**

Even as FinTech increases efficiency and innovation, it has raised issues of cyber risk, data privacy, and regulatory risks as well. Increased exposure to cyber risk and data breaches have been highlighted as major risks resulting from FinTech as stated by Liu et al. [14] and Mehrban et al. [22]. The traditional banks, with their robust regulatory regimes and risk management strategies, tend to be more stable and reliable. Nevertheless, incorporation of technology has exposed them to cyber risks as well. Vives [24] underlines the significance of achieving a balance between innovation and financial stability.

### **3.6 Competition vs Collaboration**

Relationships between FinTech firms and traditional banks have changed from competing for customers to collaboration. Initially, FinTech firms were regarded as disruptive competitors who could easily replace traditional banking products. Recent research, on the other hand, indicates an inclination towards cooperation and coexistence. According to Sharma [20], FinTech startups and traditional banks are becoming partners in order to exploit each other's strengths. Similarly, Judijanto [21] talks about hybridization of the current financial ecosystem. FinTech firms are not expected to completely displace traditional banks because of the latter's reliability, regulation compliance, and huge client network. Both FinTech firms and banks will rather come together and complement one another. Comparative analysis between FinTech firms and conventional banks in terms of various aspects can be found in Table 2 below. In conclusion, comparative analysis between FinTech firms and traditional banks in respect of various aspects has been made.

**Table 2.** Comparative Evaluation of FinTech and Conventional Banking Across Key Dimensions

References	Dimension	FinTech Firms	Conventional Banks	Key Insight
Onorato et al. [9], Xu et al. [1]	Operational Efficiency	Highly efficient due to automation, AI, and data-driven processes; faster service delivery and lower operational costs	Moderate efficiency; reliance on legacy systems leads to slower processes and higher costs, though improving via digitization	FinTech leads in speed and cost efficiency; banks are catching up through digital transformation
Xie and Deng [2], Tarawneh et al. [15]	Financial Performance	Scalable models with potential for high growth; profitability driven by innovation and lean operations	Stable and consistent returns; strong asset base but facing margin pressure from FinTech competition	FinTech emphasizes scalability, while banks offer stability and resilience
Mittal and Singh [4], Idrees and Ullah [11]	Customer Experience	User-centric platforms with 24/7 access, real-time services, and personalized solutions	Traditionally service-oriented; increasingly adopting digital channels to enhance customer engagement	FinTech excels in personalization and convenience; banks are evolving toward customer-centric models
Elia et al. [7], Diener and Špaček [16]	Technological Capability	Built on advanced technologies (AI, blockchain, cloud); highly adaptable and innovation-driven	Dependent on legacy infrastructure; slower adoption due to regulatory and organizational constraints	FinTech drives innovation; banks are modernizing through integration and partnerships
Liu et al. [14], Mehrban et al. [22]	Risk & Security	Higher exposure to cybersecurity risks and regulatory uncertainty due to rapid innovation	Strong regulatory compliance, established risk frameworks, and higher customer trust	FinTech faces higher digital risks; banks provide greater stability and trust

Sharma [20], Boot et al. [17]	Competition vs Collaboration	Initially disruptive; increasingly forming partnerships with banks to expand reach and capabilities	Transitioning from competition to collaboration; leveraging FinTech for innovation and efficiency	Industry is shifting toward hybrid models combining strengths of both sectors
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To better understand the technological foundations of FinTech, Table 3 presents the major technologies driving digital transformation in the banking sector and their corresponding impacts on banking operations. These technologies enable financial institutions to improve efficiency, enhance customer experience, strengthen security, and expand access to financial services.

**Table 3.** Major FinTech Technologies and Their Impact on Banking

<b>FinTech Technology</b>	<b>Function</b>	<b>Banking Impact</b>
Artificial Intelligence (AI)	Risk Management, Operations	Fraud detection, credit scoring, process automation
Big Data Analytics	Customer Relationship Management	Customer behavior analysis, risk assessment, personalized services
Blockchain	Payments, Security	Secure transactions, cross-border payments, reduced intermediaries
Cloud Computing	IT Infrastructure	Scalable infrastructure, cost reduction, faster deployment
Mobile Banking Applications	Customer Service	Improved customer access, real-time transactions, service availability
Robotic Process Automation (RPA)	Operations	Reduced manual work, faster back-office operations
API and Open Banking	Service Integration	Integration with third-party services, ecosystem expansion
Machine Learning	Risk Management	Predictive analytics, risk management, dynamic pricing
Biometric Authentication	Security	Enhanced security and identity verification
Digital Wallets	Payments	Cashless payments and expansion of financial inclusion

#### 4. Discussion

The findings from the review and comparative analysis offer an exhaustive insight into the impact of the FinTech phenomenon on conventional banking. It will be important to interpret the findings in detail, identify emerging trends, address contradictory views from previous studies, and provide practical implications of the study. In this case, it is worth noting that FinTech plays an important role in the conventional banking systems. Application of FinTech technologies such as artificial intelligence, big data analytics and digital platforms creates efficiency, customer satisfaction and financial inclusion.

However, it is worth noting that conventional banks continue to play an important role in the economy due to the credibility they have in providing financially stable services. In other words, FinTech technologies do not pose threat to the conventional banks and are not making the latter to go out of business but, instead, embracing the technology to enhance their efficiency. An emerging trend from the literature is that of collaboration. Initially, FinTech companies entered the market competing with conventional banks. Current developments show that collaboration between the two is increasing significantly. Collaboration helps conventional banks develop digitally as well as FinTech firms gaining knowledge on regulation and other important issues.

Moreover, the idea of digital transformation has been recognized as another critical strategic need that have arisen due to the increased usage of FinTech. The financial industry has begun to employ innovations like digitalization, automation, and analysis to increase their efficiency and connect to their customers. Not only does it involve using innovative technologies but also transforming the whole organization, especially through reengineering of business process, infrastructure enhancement, and innovation. Nonetheless, in spite of the common acceptance of the positive effects of FinTech usage, there exist some discrepancies in the literature. For instance, some scholars stress that FinTech greatly enhances efficiency and profits while others claim that due to increased competition by FinTech organizations, traditional banks' profits will be reduced in the long term. Likewise, although digital transformation increases the efficiency of financial organizations, it is accompanied by new risks as well.

A further critical contradiction concerns the question as to whether the FinTech will eventually replace the traditional banks. Whereas at the initial stages it was believed that there could be disruptive effects due to FinTech applications, recent studies show that co-existence

and collaboration are more realistic scenarios. The results have important implications for the involved parties in the industry. It is highly important for the banks to accept the technology since failure to do so would render them irrelevant in the existing business environment. The banks must therefore engage in digital transformation through IT investments, enhance cybersecurity, and collaborate with Fintechs. For the regulators, there is the need to find a balance between innovation and stability through regulatory policies.

## **5. Challenges and Risks in Fintech Adoption**

While there are many advantages that can be realized from FinTech, the quick acceptance of the technology has created various problems for banks. Cybersecurity, regulatory issues, privacy issues, and technical constraints are some of the main problems that have been identified in connection with FinTech, and each of them needs to be addressed.

As technology adoption has increased, so have cybersecurity threats to the financial industry. The use of technology in finance, through FinTech, exposes the industry to different types of cyber threats, such as data leaks, phishing attacks, and ransomware attacks. Although the introduction of technology into financial activities brings about efficiency, it equally creates some weaknesses that could be taken advantage of by cyber criminals [14], [22].

Innovation in the field of FinTech comes faster than regulation and law-making. This situation creates regulatory uncertainty for FinTech when compared to banking. Unlike banking, which has clear rules and boundaries, FinTech works in an environment where either there are no rules at all or they are unclear. This situation can create problems such as financial instability. According to Vives [24], there is a need for dynamic regulation that ensures both financial stability and innovation.

Data has become an important resource in FinTech-based services through offering customization and making decisions through data analysis. In this regard, data collection and analysis have brought about major challenges concerning privacy. This is because data usage without permission, misappropriation of data, and lack of proper measures put consumer trust in jeopardy. In light of the above, compliance with data protection regulations and data management practices is necessary [22], [23].

Even though FinTech technology helps foster innovation, there are certain challenges posed by this technology because of some challenges associated with the technology used in

conventional banks. These challenges include outmoded technologies, high costs of innovation, and lack of openness to changes. According to Diener and Špaček [16], digitalization of banks encounters various barriers due to organizational and technological limitations. It should be stated that technological readiness is not homogeneous across regions.

## **6. Opportunities and Future Trends**

As there is a continuous evolution of Financial Technologies (FinTechs), apart from the fact that the present scenario of banking is going to revolutionize, there is scope for more innovation in the field of finance. With the pace at which technology is growing and advancing, the future stands to hold a lot more opportunities for innovation by both the FinTech companies and the traditional banks. Apart from others, there stands the prospect of advancement within the digitalization of the financial sector. More and more banks are taking advantage of emerging technologies such as artificial intelligence, cloud computing, and big data analytics.

There is a trend towards intelligent banking processes that include the use of customization, personalization, and predictive analytics. Simply put, the future stands to hold an advancement in how banking institutions interact with their clients. The financial technology can help in revolutionizing financial inclusion because it gives the necessary assistance in areas where traditional banking could not reach. With smartphones and the Internet, it is becoming easy to offer banking and other financial services.

This shows an indication of moving towards more convenient and efficient financial services which will be driven by technological innovations. There are some innovative technologies like blockchain and Decentralized Finance (DeFi) which are creating possibilities for executing financial transactions in a more efficient and secure manner. Technologies like these create systems that are efficient and also do not require any intermediary parties for completing the transaction or process. In future, use-cases of blockchain technologies like cross-border payment systems, smart contracts, and digital identity management will create ways of completing financial transactions efficiently and in a more secure way. In the future, there could be increased collaboration between fintech companies and traditional banks instead of competition through partnerships, collaborations, and mergers. Through collaborations between fintech (technology) and financial expertise (traditional bank), financial institutions will create more value for themselves and clients.

Development of regulatory frameworks will follow the developments that are going to take place within the realm of FinTech. There will be an effort from both financial authorities and governments in order to create technology-based regulatory mechanisms called “RegTech.” The objective of this kind of regulatory mechanism is to create a balance between innovation and risk management and also promote technological development without creating any kind of instability. It will be of utmost importance for regulating sustainable usage of FinTech solutions. As far as technological developments in FinTech industry are concerned, machine learning, Internet of Things (IoT), and biometrics will be some of the advanced technology solutions that will make their way. These advanced technologies will enable financial institutions to have an increased capacity of detecting frauds.

## **7. Conclusion**

This study paper focuses on analyzing the effects of FinTech on conventional banking systems with regard to the results of a literature review and comparative analysis. It becomes clear that FinTech significantly affects the financial sector, as it promotes higher efficiency, better customer service, and more significant technological development. FinTech organizations use modern technologies to offer their services in a fast, efficient and customer-oriented manner, which causes the need for a reassessment of customers’ expectations. At the same time, banks have other competitive advantages related to regulations, stability, and customers trust. Therefore, instead of competing with banks, FinTech is being used by banks more actively to promote new financial solutions, which means that it represents an opportunity for collaboration rather than rivalry. It results in mixed financial solutions combining innovative methods and more stable and proven methods of operation. However, several challenges exist in using FinTech technologies that relate to issues associated with cybersecurity, data security, legal regulation, and technology itself. These challenges need to be overcome properly in order to facilitate innovation. Future banking models will be characterized by the necessity of FinTech and the traditional industry being more tightly integrated. Blockchain, machine learning, and RegTech technologies will enhance transparency and control within the systems. Future sustainability will hinge on achieving a balance between innovation and regulation.

## References

- [1] Xu, Feng, Yuliya Kasperskaya, and Marti Sagarra. "The Impact of FinTech on Bank Performance: A Systematic Literature Review." *Digital Business* 2025, vol. 5, no. 2: 100131.
- [2] Xie, Meijing, and Hengshan Deng. "FinTech and Traditional Banking Performance in China." *Sage Open* 2025, vol. 15, no. 4: 21582440251387934.
- [3] Gupta, Jai Kant, and Rajani Gautam. "A Study of Impact of Financial Technology on Traditional Banking." *RESEARCH REVIEW International Journal of Multidisciplinary* 2025, vol. 10, no. 6: 160-166.
- [4] Mittal, Palak, and Ravi Inder Singh. "Changing Landscape of Financial Inclusion Through Fintech: A Systematic Literature Review." *Paradigm* 2025, vol. 29, no. 1: 27-43.
- [5] Davey, A. "Impact of Financial Technology on Traditional Banking." *Shanlax International Journal Of Management* 2024, vol. 11, 208-216.
- [6] Thomas, Liam. "The Impact of Financial Technology (FinTech) on Traditional Banking Models." *American Journal of Business, Commerce and Economics* 2024, vol. 5, no. 3: 1-5.
- [7] Elia, Gianluca, Valeria Stefanelli, and Greta Benedetta Ferilli. "Investigating the Role of FinTech in the Banking Industry: What do We Know?." *European Journal of Innovation Management* 2023, vol. 26, no. 5: 1365-1393.
- [8] Liu, Qianhua, Ka-Ching Chan, and Ranga Chimhundu. "FinTech Research: Systematic Mapping, Classification, and Future Directions." *Financial Innovation* 2024, vol. 10, no. 1: 24.
- [9] Onorato, Grazia, Francesca Pampurini, and Anna Grazia Quaranta. "Lending Activity Efficiency. A Comparison Between Fintech Firms and the Banking Sector." *Research in International Business and Finance* 2024, vol. 68, 102185.
- [10] Huang, An-qi, and Da-wei Tan. "An Overview of the Impact of Digital Transformation on the Risk-Taking of Commercial Banks." *Journal of Risk Analysis and Crisis Response* 2024, vol. 14, no. 2: 272-283.

- [11] Idrees, Muhammad Abdullah, and Saif Ullah. "Comparative Analysis of FinTech Adoption Among Islamic and Conventional Banking Users with Moderating Effect of Education Level: A UTAUT2 Perspective." *Journal of Open Innovation: Technology, Market, and Complexity* 2024, vol. 10, no. 3: 100343.
- [12] Kaushik, Puja U. "The Impact of FinTech on Traditional Banking Models." *Journal of Foundational Research* 2024, vol. 32, no. 1: 93-101.
- [13] Yudaruddin, Rizky. "Financial Technology and Performance in Islamic and Conventional Banks." *Journal of Islamic Accounting and Business Research* 2023, vol. 14, no. 1: 100-116.
- [14] Liu, Jin, M. H. Yahya, and Saidatunur Fauzi Saidin. "A Bibliometric Review of FinTech's Impact on Banking Risk." *Cuadernos de Economía* 2023, vol. 46, no. 132: 147-156.
- [15] Tarawneh, Adey, Aisyah Abdul-Rahman, Syajarul Imna Mohd Amin, and Mohd Fahmi Ghazali. "A Systematic Review of Fintech and Banking Profitability." *International Journal of Financial Studies* 2024, 12, no. 1: 3.
- [16] Diener, Florian, and Miroslav Špaček. "Digital Transformation in Banking: A Managerial Perspective on Barriers to Change." *Sustainability* 2021, vol. 13, no. 4: 2032.
- [17] Boot, Arnoud, Peter Hoffmann, Luc Laeven, and Lev Ratnovski. "FinTech: What's Old, What's New?." *Journal of financial stability* 2021, vol. 53: 100836.
- [18] Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, and Saniya Ansar. "Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19." *World Bank Report* (2021).
- [19] Thakor, Anjan V. "FinTech and banking: What do We Know?." *Journal of financial intermediation* 2020, vol. 41, p. 100833.
- [20] Sharma, Pragya. "FinTech Startups and Traditional Banking: Rivals or Collaborators." *Computer Fraud & Security* 2024, vol. 2024, Iss. 12, 1873-7056.
- [21] Judijanto, Loso. "FinTech Disruption in Traditional Banking: A Bibliometric Review." *The Es Economics and Entrepreneurship* 2025, vol. 3, no. 03: 333-346.

- [22] Mehrban, Sobia, Muhammad Waqas Nadeem, Muzammil Hussain, Mohammad Masroor Ahmed, Owais Hakeem, Shazia Saqib, ML Mat Kiah, Fakhar Abbas, Mujtaba Hassan, and Muhammad Adnan Khan. "Towards Secure Fintech: A Survey, Taxonomy, and Open Research Challenges." *IEEE Access* 2020, vol. 8, pp. 23391-23406.
- [23] Chen, Mark A., Qinxi Wu, and Baozhong Yang. "How Valuable is FinTech Innovation?." *The Review of financial studies* 2019, vol. 32, no. 5: 2062-2106.
- [24] Vives, Xavier. "Competition and Stability in Modern Banking: A Post-Crisis Perspective." *International Journal of Industrial Organization* 2019, vol. 64, 55-69.
- [25] Nur, Muh. "How is FinTech Lending Transforming Traditional Banking Systems Globally? A Literature Review Analysis." *International Journal of Economics Management and Social Science* 2026, vol. 9, no. 1: 16-26.