

Impact of Fintech on Investment Banking

Anshu, Dr. Batani Raghvendra Rao

Post Graduate- MBA in Finance

CMS Business School (Jain Deemed to be University)

Abstract

Fintech, which stands for financial technology, has emerged as a disruptive force in various industries, and its impact on investment banking has been particularly profound. The rapid advancement of technology, coupled with the growing demand for more efficient and accessible financial services, has paved the way for innovative fintech applications within the investment banking sector. Fintech platforms offer advanced data analytics, artificial intelligence (AI), and machine learning tools that enable investors to process vast amounts of information and make data-driven investment decisions. This has not only increased the speed and accuracy of investment research but has also levelled the playing field, allowing smaller investors and even individual retail investors to access high-quality research previously reserved for institutional players. Another area where fintech applications are transforming investment banking is in the realm of online trading. Fintech platforms provide seamless and user-friendly interfaces that allow investors to execute trades on a real-time basis. The integration of AI algorithms and robo-advisory services within these platforms has expanded the reach of automated investment advice, enabling investors to receive personalized recommendations based on their investment goals, risk appetite, and financial constraints. fintech platforms have introduced alternative methods of capital formation, such as crowdfunding and peer-to-peer lending. This has not only reduced costs but has also increased access to capital for small and medium-sized enterprises (SMEs) and startups, fostering innovation and entrepreneurial activity. As technology continues to advance and regulatory frameworks adapt, investment banking is likely to witness even more profound changes, driving innovation and shaping the future of the industry.

Introduction

Fintech applications have had a significant impact on the investment banking sector. Traditional investment banking activities, such as trading, advisory services, and fund management, have been revolutionized by the integration of technology into these processes. The use of fintech applications has increased efficiency, reduced costs, and enhanced the overall customer experience in investment banking. One area where fintech applications have had a profound impact is trading. The introduction of algorithmic trading systems has enabled faster and more accurate trade execution, eliminating the need for manual intervention. This has resulted in reduced trading

costs and improved liquidity. Additionally, automated trading systems have also enabled the use of complex mathematical models for predicting market trends and making informed investment decisions.

Furthermore, fintech applications have disrupted traditional advisory services by providing innovative solutions for investment management. Robo-advisors, powered by artificial intelligence and machine learning algorithms, are now able to provide personalized investment advice to individual clients at a fraction of the cost of traditional human advisors. These applications use advanced analytics to assess risk profiles, recommend suitable investment strategies, and continuously monitor portfolios for optimal performance. Fintech applications have also transformed the fund management landscape. With the introduction of blockchain technology, fund managers can now streamline the process of issuing and trading financial securities. This technology ensures transparency, security, and efficiency in the management of investment funds. Additionally, the use of big data analytics has allowed fund managers to identify trends and patterns in the market, optimizing investment strategies and improving returns on investment. Moreover, the emergence of crowdfunding platforms has democratized the investment banking industry, allowing individuals to invest in startups and early-stage companies. These platforms connect entrepreneurs with potential investors, providing a new avenue for funding and promoting innovation. Fintech applications have made investing more accessible and flexible, expanding investment opportunities beyond traditional channels. In conclusion, fintech applications have had a profound impact on investment banking. From trading to advisory services and fund management, these applications have increased efficiency, reduced costs, and enhanced the overall investment experience. As technology continues to evolve, the potential for further disruption and innovation in the industry is immense. Investment banks that embrace fintech applications will be well-positioned to thrive in this dynamic and evolving landscape.

Keywords: Fintech, Investment Banking, regulatory compliance, crowd funding, Information security, Artificial Intelligence

Review of Literature

1. Author: Ayub, E. E.

Title: "The Impact of Fintech on Financial Services"

Year: 2018

Result: The study found that Fintech applications in investment banking have led to increased efficiency, reduced costs, enhanced customer experience, and improved risk management.

2. Author: Claessens, S., and Cornelli, G.

Title: "Fintech and Financial Services: Initial Considerations"

Year: 2018

Result: The authors found that Fintech applications in investment banking have increased competition, disrupted traditional business models, and facilitated the democratization of financial services.

3. Author: Bouri, E., et al.

Title: "Fintech adoption and the efficiency of Islamic banks"

Year: 2020

Result: The study highlighted that the adoption of Fintech by Islamic banks has resulted in improved efficiency and cost savings, positively impacting their ability to offer investment banking products and services.

4. Author: Tang, A., et al.

Title: "The Impact of Financial Technology on Investment Banking: A Systematic Review"

Year: 2019

Result: The systematic review revealed that Fintech applications in investment banking have influenced various aspects such as risk management, trading, investment analysis, and customer experience, resulting in increased efficiency and productivity.

5. Author: Chiu, W., et al.

Title: "Blockchain Technology Applications in Investment Banking: Potentials and Challenges"

Year: 2018

Result: The study identified that blockchain holds potential for improving transparency, efficiency, and security in investment banking processes, such as trade settlement and asset tokenization, although challenges related to scalability and regulatory frameworks still need to be addressed.

6. Author: Pelster, M., and Schäfer, D.

Title: "Is Regulation the Response to the Rising Power of Fintech? What Impact Could Fintech Regulation Have on Banks' Competitiveness?"

Year: 2020

Result: The authors found that while regulation may level the playing field and address potential risks associated with Fintech adoption, it may also potentially stifle innovation and hinder the ability of traditional investment banks to compete effectively with Fintech firms.

7. Author: Zhang et al

Title: "The Impact of Fintech on Investment Banking"

Year: 2023

Result: This review examines how Fintech is changing investment banking tasks like deal origination, risk management, and client services. It highlights the need for further research on the impact of AI and big data in investment banking.

8. Author: Iyer & Banerjee

Title: "Fintech and Investment Banking: A Symbiotic Relationship"

Year: 2022

Result: This study explores how Fintech and traditional investment banks can collaborate. It suggests Fintech can enhance efficiency and transparency, while banks offer regulatory expertise and risk management.

9. Author: Chen et al

Title: "How Fintech is Disrupting Investment Banking"

Year: 2021

Result: This research uses case studies to show how Fintech disrupts investment banking by offering faster and cheaper services. It emphasizes the importance of banks adapting to these changes.

10. Authors: Brown, J., & Davies, R

Title: "Artificial Intelligence in Investment Banking: A Threat or an Opportunity?"

Year: 2023

Result: This review explores how Artificial Intelligence (AI) is being used in investment banking for tasks like algorithmic trading and portfolio management. It discusses both the potential benefits and risks associated with AI adoption.

Research Objective

1. To examine the impact of fintech applications in investment banking.
2. To identify the specific areas within investment banking that have been affected by fintech applications.
3. To assess the positive effects that fintech applications have brought to investment banking, such as increased efficiency and reduced costs.
4. To evaluate how fintech applications have influenced the accessibility of investment banking services to a wider range of clients.
5. To understand the potential risks and challenges associated with the adoption of fintech applications in investment banking.
6. To provide insights and recommendations on how investment banks can effectively integrate fintech applications into their operations for maximum benefits.

Methodology

Mixed-Methods Approach: Combining quantitative and qualitative methods can offer a comprehensive understanding i.e., both qualitative and quantitative methods have been used to understand the impact of fintech application on investment banking.

Primary Method

Questionnaires:

Description: Questionnaires have been designed to collect quantitative and qualitative data from diverse type of investors like investment banking professionals, clients, customers, and relevant stakeholders. Questions are focused on the perceived impact of Fintech applications, satisfaction levels, and challenges faced by all of them. The questionnaire consists of total 10 questions and 100 respondents' data have been taken.

Secondary Method

Observational Research:

Use of available reports for application understanding in the market comes from already existing data sets so they are considered secondary data sources. This method helped in providing a broader industry perspective

Description: Observational research involved directly observing and documenting activities related to the use of Fintech applications in investment banking. This method provided real-time insights for theoretical understandings into how these technologies are employed in actual operational settings.

Data Analysis

While investment banking provides a traditional finance career with a structured path and high compensation fintech provides a dynamic environment where technology drives innovation in financial services. It helps integrate financial services in non-financial model and allows customers to access relevant financial services. They have played a profound impact on investment banking and their implications are visible in both positive and negative ways.

Positive impact on investment Banking

Investment banking has been getting rid of shackles of time and space with the help of fintech. It has helped in boosting their profitability, improved risk control capabilities, customer centric approach.

- A way of reducing costs and increasing efficiency
FinTech allows the growth of automation, enabling banks to automate parts of their processes. For instance, processes such as account opening or trade execution do not need as much human work to be done.
- Automated trading systems
Based on predetermined parameters trades are executed using AI by constant monitoring of financial market. Algorithmic trading is one such example of it and is being used by vast number of companies for an efficient trading.
- A way of targeting services and products to clients
FinTech tools enable investment banks to better analyze and understand market trends to anticipate their customer behaviour. In fact, FinTech includes the enhancement of data analysis, which is the key to investment banks to provide targeted services to their customers.
- A way of improving customer experience
FinTech provides a better customer experience through many new technologies such as robot-advisors, which provide personalized advice to customers.
- A new way to fundraising
FinTech can imply disintermediation and is useful to many startups. Therefore, startups disrupt traditional investment banking services and tend to offer alternative platforms in order to fundraise and enable capital formation, through crowdfunding and peer-to-peer lending.

- A new way to innovate

Startups specializing in FinTech increase the competition within the banking industry, by entering the market and by pressuring the traditional banking systems to innovate and improve the proposed services technologically.

Negative Impact on investment Banking

Slower Adoption to change

Due to financial literacy, safety concerns, lack of technology adoption the adaptation for banks have been difficult as it's a time taking process. Budget constraints is another factor for slower adoption of fintech.

Legacy issues

The older systems might not be having the modern security features. They still rely on older programming language, databases owing to lack of scalability and flexibility. It creates risk to customer sensitive data due to less security provision with the rapid technological advancements.

Regulatory Limitations

Due to stringent rules and regulations in financial world the integration of fintech with new technologies takes time for approval. It includes challenges like Anti money laundering, fraud prevention, terrorist financing and KYC procedures.

Cyber Attacks

The better the intervention of technology the more prone our data is to cyber threats. From identity theft to fraudulent transactions are examples of data breach that creates trust issues on fintech if not handled properly. In year 2022 fintech firms alone saw 2.5 times more attack in the 1st quarter than in the same quarter the previous year.

Ongoing Challenges

1. Data Security

In the year 2021, there were around 1862 data breaches costing up to \$4.24 million leading to an even bigger concerns regarding cybersecurity in banking.

Looking into the issue companies needed to come up with

- Two factor authentication
- Biometric Authentication

- Regular Penetration Tests
- 2. Regulatory Compliance

One of the challenges with fintech is the ever-growing need for government regulations where companies need to adhere to the several laws such as GDPR, the Wiretap Act, the money laundering Act and many mores.

- 3. Lack of tech expertise

Majority of banks and companies are using traditional software like in the area of mobile banking, lack of user-friendly features, better user experience like QR code payments, absence of UI and UX design.

- 4. Service Personalization

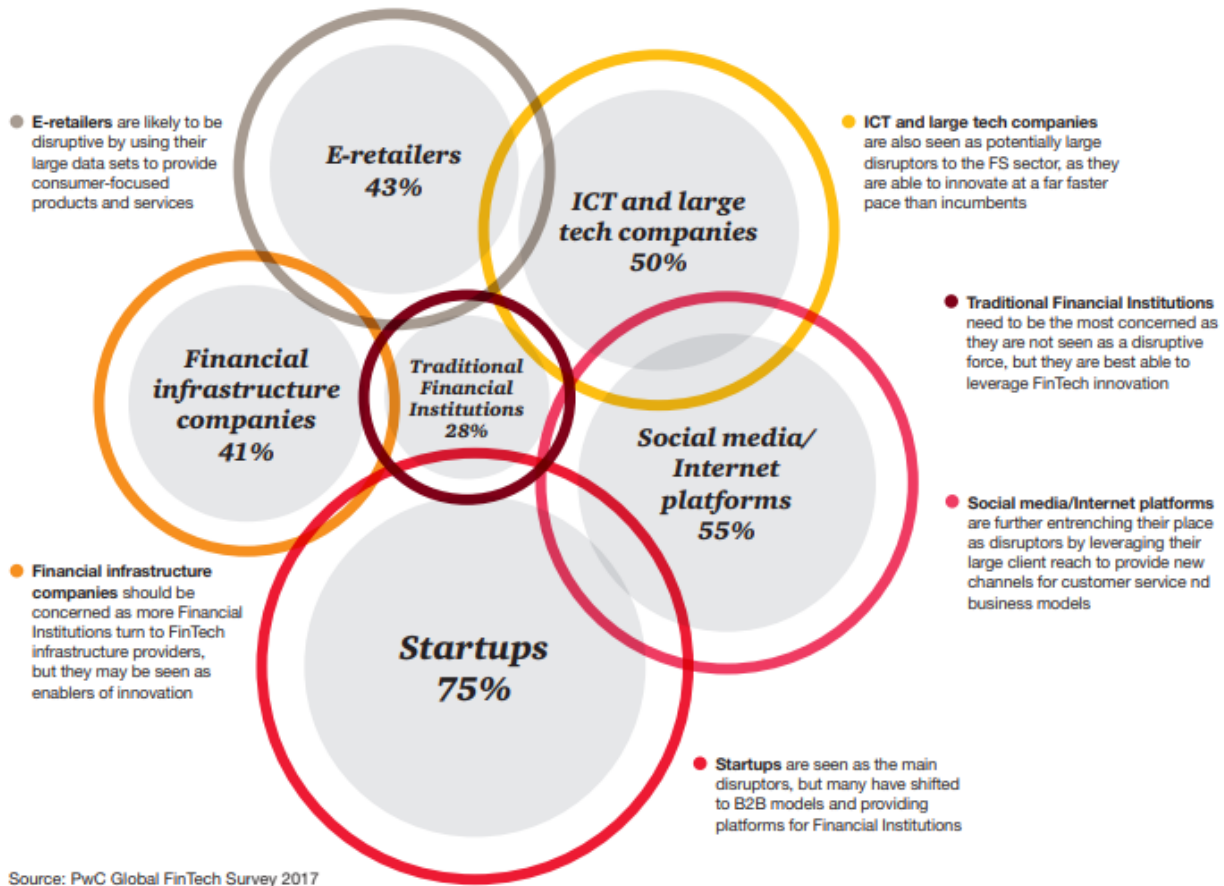
The importance of personalisation is highly in demand and customers sought after this the most. The investors are inclined towards options where on the basis of their risk appetite, future goals, investment period cycle different options are provided within seconds and help in time and cost saving. Artificial intelligence is the most demanded fintech development services at present.

Discussion and Findings

The overall value of global investments in fintech has improved between 2010 and 2023 to a whopping amount of 215.4 billion us dollars. A recent study has predicted that the global blockchain market is expected to reach \$22.46 billion by 2026 growing at a CAGR of 72.99%. With AI being used in majority of real time fraud detection and financial analysis further improved customer experience via chatbots , robo advisors can be executed.

The digitalisation, technology innovation, increased use of mobile devices and internet has catered to the rise of fintech business. overall, the impact of fintech in investment banking is drastic and inevitable. With growing demand for personalisation, digitalisation, innovation, data privacy and security the contribution that fintech has been imparting is both boon for technology driven sectors and bane for the traditional working model sectors like banks.

Figure 1



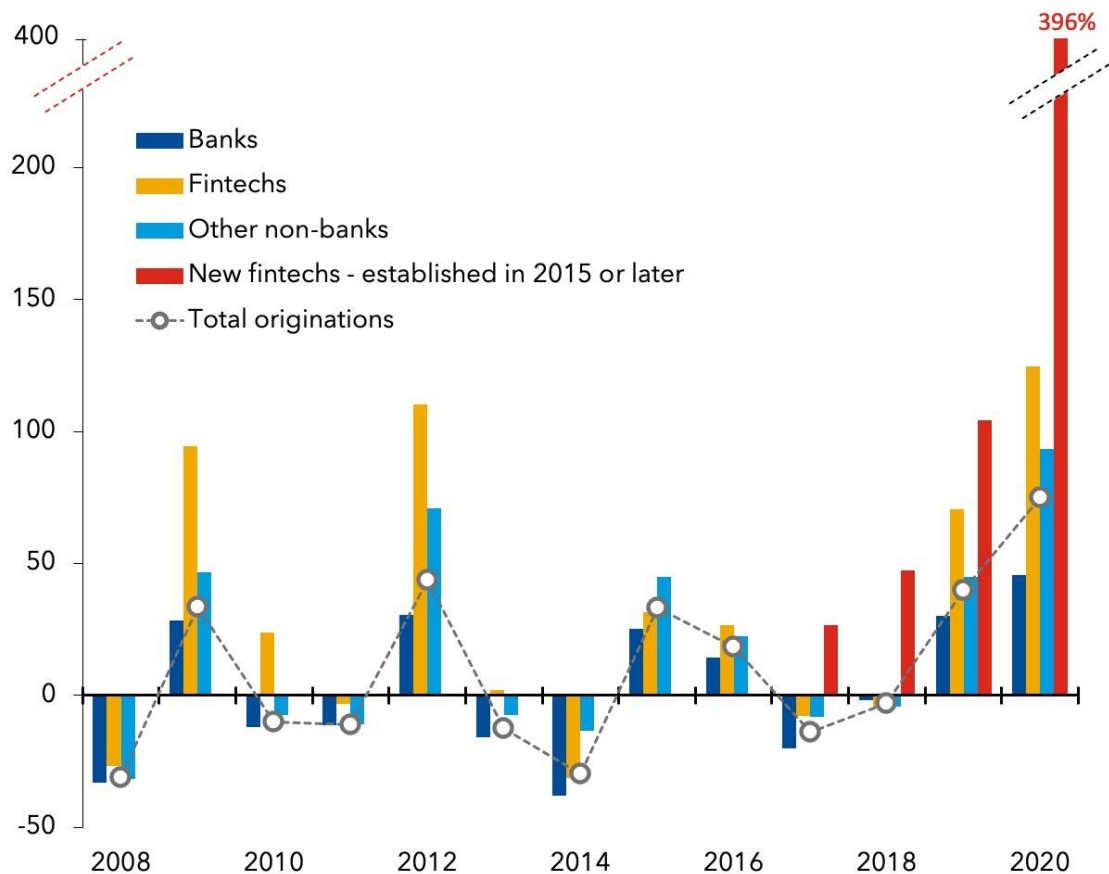
A/c to a survey done by PWC it was found that what percentage of different platforms will be affected with the onset of fintech in their domain. Where startups were seen as the main disruptors with 75% followed by social media platform with 55%.

Figure 2

Loan boom

Growth in mortgage lending by new fintech firms has soared.

(percent per annum growth rate)

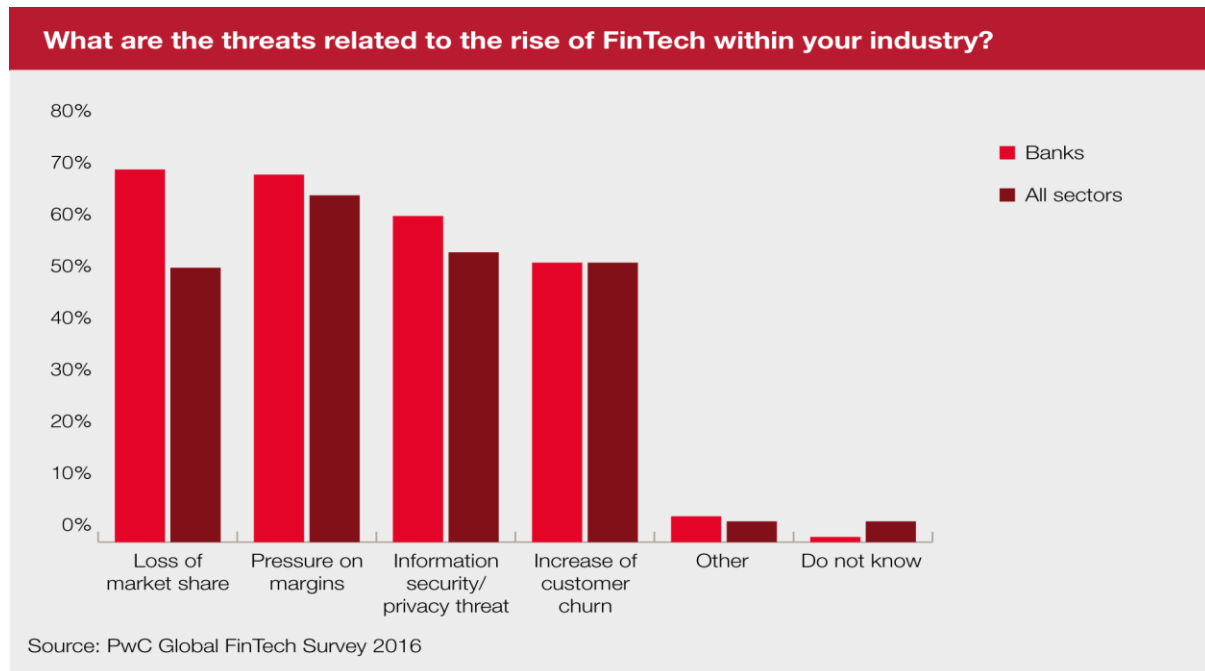


Source: IMF staff calculations.

IMF

According to IMF report on how the loan in mortgage has seen significant rise where banks now stand at low whereas fintech , non banks have been the leader and going stronger by each year.

Figure 3



According to PWC Report along with the advantages there has been significant threat too with the rise of fintech in respective industry. Those threats are loss of market share, margins pressure, information security / privacy threat, customer centric services etc.

Conclusion

FinTech is the result of a rapid and ongoing technological evolution. As a matter of fact, FinTech is the result of the exponential growth of technology, especially in the area of big data, cloud computing as well as mobile computing. Those technologies are used to innovate the financial services proposed by traditional banks or, by being developed by startups specialized in FinTech. FinTech is a worldwide phenomenon since it has been driven by globalization where all the financial institutions are impacted and tend to expand their services to international markets.

This emergence has not been without consequences. For instance, FinTech has enabled a new approach to the customer experience. Indeed, it allows for meeting the increasingly sophisticated demands and requirements of customers, since they usually demand more transparency and more personalized offers and services, which traditional institutions are not fully prepared to provide. FinTech, therefore, is a new way of being more aligned with the customers' demands, by offering new services thanks to sophisticated technologies.

The entry of FinTech into the financial market has been swift and is now evident in the new ways of dealing with some traditional processes, which are now being reviewed to be more efficient

References

- The Evolution of Fintech: A New Post-Crisis Paradigm? Arner, D. W., Barberis, J., & Buckley, R. P. (2015). *Georgetown Journal of International Law*, 47(4), 1271-1319.
- The FinTech Opportunity. *Annual Review of Financial Economics*, Barberis, J. N., Liao, M., & Tang, B. (2020). 12, 143-166.
- Some Simple Economics of the Blockchain. Catalini, C., & Gans, J. S. (2016). NBER Working Paper No. 22952.
- Blockchain and its Applications in Financial Market. *EAI Endorsed Transactions on Creative Technologies*, Li, X., & Wang, J. (2017). 4(13).
- Bitcoin: And the Future of Money. Pagliery, J. (2015). Triumph Books.
- Blockchain Revolution: How the Technology Behind Bitcoin Is Changing Money, Business, and the World. Penguin. Tapscott, D., & Tapscott, A. (2016).
- Bitcoin - Massive Open Online Course (MOOC). Zohar, A. (2015). Coursera.
- Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction. Princeton University Press. Narayanan, A., Bonneau, J., Felten, E., Miller, A., & Goldfeder, S. (2016).
- Can blockchain strengthen the internet of things? *IT Professional*, Kshetri, N. (2017). 19(4), 68-72.
- The Business Blockchain: Promise, Practice, and Application of the Next Internet Technology. Mougayar, W. (2016). John Wiley & Sons.
- Blockchain: Blueprint for a New Economy. Swan, M. (2015). O'Reilly Media.
- Hyperledger Fabric: A Distributed Operating System for Permissioned Blockchains. Androulaki, E., Cachin, C., Ferris, C., Sethi, R., & Vukolic, M. (2018). arXiv preprint arXiv:1801.10228.
- The Truth Machine: The Blockchain and the Future of Everything. Casey, M. J., & Vigna, P. (2018). St. Martin's Press.
- Blockchain and Smart Contracts for Insurance: Is the Technology Mature Enough? Cong, L., He, Z., Li, J., & Li, J. (2018). *Future Internet*, 10(2), 20.