International Journal of Research Publication and Reviews, Vol 6, Issue 6, pp 4793-4802 June 2025

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Disruptive Innovations and Risk Management in Banking and Financial Institutions

Adarsh Kumar Singh

MBA Student, School of Business, Galgotias University, Greater Noida, Uttar Pradesh

ABSTRACT

Rapid technological breakthroughs and changing consumer expectations are causing an unparalleled upheaval in the financial services sector. Fintech, a potent disruptor that is changing the way traditional banking and financial institutions function, is in the vanguard of this shift. Customers are increasingly enjoying more easily available, effective, and personalized financial solutions because to the rise of digital banking platforms, automation, and blockchain-enabled services. These developments have increased consumer happiness and operational effectiveness, but they have also brought forth new hazards and regulatory difficulties, especially in the areas of cybersecurity and credit risk assessment. This study aims to examine how disruptive developments like fintech and digital banking have affected traditional banks' operational models and examine how risk management tactics have changed, particularly with regard to credit risk and regulatory compliance. The study also looks at how central bank policies affect the performance of commercial banks and how digital transformation boosts profitability and customer retention. The study uses a mixed-approaches strategy that incorporates both qualitative and quantitative methods. While secondary data was gathered from industry papers, academic journals, and regulatory publications, primary data was gathered through structured surveys and interviews with banking professionals and clients

Introduction

2. Background of the Study

Many important transformations in banking and finance are being driven by the rise of fintech, blockchain, AI and digital services. Not only are these advancements helping old services, but they are transforming basic bank and financial institution activities, communication with customers and risk management. In India and around the world, fintech businesses and new forms of digital banking have changed how traditional banking used to work. Quick, easy-to-use and clear services like mobile wallets, digital lending, automated investment and DeFi are leading consumers to want more from companies in these areas

3. Rationale of the Study

With the rise of new technologies, banks and financial institutions face many kinds of new risks, including cybercrime, problems with operations and gaps in their compliance with regulations. Generally, existing risk management systems are not great at addressing threats that are just emerging.
As a result, this review looks at how disruptive innovations affect banking services and how well current strategies address these changes.

4. Research Problem

Because there are many new technologies in finance, it seems that not enough is understood about changes in risk management to deal with fintech and the shift to digital. The majority of financial institutions are using outdated risk models that may not match well with today’s fast and volatile digital changes.

5. Research Questions

1. What major new technologies are impacting banking and financial sectors?
2. What has been the effect of these new technologies on banks’ risk levels?
3. How are companies responding to challenges caused by new technology?
4. Do current systems for managing risks have what it takes to deal with fintech challenges?

Research Objectives

This research aims to clarify the ways disruptive innovations affect the evolution of risk management in banks and financial institutions. Since technology is rapidly transforming finance, knowing what these changes mean is very important.

This study has the following main research objectives:

1. To locate and emphasize major technological and strategic advances taking place in the financial industry.

It is hoped that the research will determine how new inventions such as digital banking, blockchain, AI, machine learning and fintech integration are impacting how banks and financial institutions work and serve their customers.

2. To analyze how these changes affect the company's risks relate to its operations and finances:

Bringing in new ideas leads to facing new types of risks. With this objective, one aims to learn how new advancements interact with ongoing risks such as credit, operational, cyber, fraud and compliance risks in the financial sector.

3. To study the changes in how risk management is done in the digital age.

The evolution of finance brings about new tools for handling risk. It looks at the form of change in risk management methods by institutions, for example, by using current-moment tracking tools, predicting future risks, automating computerized controls and following progress in governance models.

4. To identify and suggest risk mitigation strategies that fit with innovation:

Using the results, the study seeks to give useful advice to financial institutions and regulators. These strategies match up with existing trends and advancements which helps institutions keep up and respond well to emerging changes.

Scope of the Study

This study pays special attention to evaluating the shifts and risks taking place in banking and financial sectors due to disruptive innovations. A variety of data is used in the research to give a balanced understanding. Some of the sources used are original surveys with both customers and banking professionals, in-depth industry studies, regulations issued by the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI) and research from academic journals.

Two main dimensions are made up of this study's scope.

1. Disruption and Innovation Related to Technology:

It looks at how innovations such as artificial intelligence (AI), blockchain, digital payments, robo- advisory services and mobile banking influence the field. It goes into detail on how these improvements are changing how banking is done, what customers expect and the standard ways banks function.

2. Managing Risk and Adapting to New Regulations.

Apart from innovation, the study makes sure to study and spot potential threats in the areas of cybersecurity, data privacy, fraud, system reliability and complying with regulations. It looks at how banks and other financial institutions are reacting to the new risks with stronger risk management and internal regulations. Besides this, it looks into how regulators change their policies to keep up with newer technologies yet ensure the stability of financial institutions.

6. Significance of the Study

It matters in today's fast-changing financial world, since technology and handling risks now go hand in hand. Experts in the field, managers, government officials and professors can use the ideas and advice found in the study.

These are the major findings and their significance from the study:

- Tips for banking professionals and regulators on how to control digital risks:

The research provides practical suggestions for bank managers, risk officers and people in charge of regulations. It points out the kinds of new digital risks such as cyberattacks, data breaches, system weaknesses and difficulties meeting regulations and gives actions to handle and reduce them alongside technological advancement.

- An outline for future study focused on managing risks caused by technology:

This research builds a model based on existing research, survey results and cases which can assist both scholars and institutions in studying the best ways for financial institutions to handle risks online.

- Advancing knowledge in both academia and industry about fintech and risk governance:

The findings of this study provide fresh insights at where fintech and risk management interact. It links creative innovation with crucial regulation, helping to make banking and finance regulations more agile and fit for the future. Basically, the goal of this research is to spot challenges and support banks in making use of new technology safely and sustainably. Because of rapid disruptions, it ensures that both institutions and the financial system remain secure and at the competitive forefront.

Chapter 2: Literature Review

In this chapter, I overview the literature on important topics for the thesis: the introduction of financial innovations and the changes in risk management at banks. The review presents key ideas, new trends and existing research gaps that explain why the present study is needed.

2.1 Concept of Disruptive Innovation

Clayton Christensen showed in 1997 that new competitors can enter the market by aiming for special areas first, growing quickly using better technology and being more flexible. In banking, this appears because fintech businesses which have flexible approaches, compete with the rigid systems of standard banks.

What Marks Disruptive Changes in Banking?

- Everyone can use these services as mobile platforms allow access all the time, anywhere.
- Rapid automation can reduce business expenses.
- Swiftness: Achieving new versions of the product much faster.

Helping users directly by using AI and big data to deliver personalized experience.

2.2 Evolution of Fintech and Its Role

Fintech describes using technology in financial services to enhance both how the services work and the experiences of people using them. From what literature suggests, fintech has helped make banking accessible to everyone in developing countries like India.
Studies:
According to Arner et al. (2015), fintech is leading a new technical revolution in banking that is reorganizing how services are delivered.

- In their article, Gomber et al. (2017) define fintech as being associated with digital payments, lending, robo-advisory, insurance tech and blockchain.

2.3 Risk Management in Traditional vs. Digital Banking

Risk management specialists have mainly focused on risks related to finances, operations, regulations and the markets. On the other hand, digital banking leads to new issues of risk:
Threats to cybersecurity

- Technology problems that cause the system to fail
- When privacy is interrupted
- Regulations are not well defined.

Risk models used in financial institutions should be aware of rapidly changing technology, says the Basel Committee on Banking Supervision (2019). Older financial institutions now use structures that integrate current risk views with scenarios and quick risk assessment.

2.4 Integration of Innovation and Risk Management

It has been found that many financial organizations face challenges when it comes to combining innovation and good risk control. Only 30% of banks have created a digital risk approach that matches their level of innovation, McKinsey states (2021).
Important points found in literary works:

- Those who follow innovation without paying attention to their risk management can suffer reputation and financial damage (PwC, 2020).
- Because blockchain is already secure, it still needs better guidelines from regulators to prevent legal risks (World Bank, 2022).

2.5 Role of Regulatory Bodies and Central Banks

How financial institutions use new innovations depends greatly on the actions of regulatory bodies. Globally, banks have put sandboxes, fintech rules and digital currency experiments in place to promote new ideas and keep the system steady.

- RBI (2023) created a new framework aimed at controlling the risks of lending via digital apps.
- The European Central Bank (ECB) urges central banks to prioritize both responsible innovations and to proactively review their cyber risks.
- BIS backs the creation and use of RegTech and SupTech technologies.

2.6 Gaps in the Literature

- Not many studies focus on how banks put digital risk governance into action.
- There are not many facts available on people’s views about risk when it comes to
- technology-driven financial services.

- Not many case studies in India look at how traditional banks are updating their risk management strategies.
- The reason for conducting this research and the need for primary and secondary investigations come from these gaps.

2.7 Theoretical Framework

The research is built around two key theories.

- Christensen’s (1997) Disruptive Innovation Theory: Shows how fintech companies change the way the industry is run.
- ERM allows you to see how risks are found, assessed and minimized in a mainly innovation economy

Chapter 3: Research Methodology

In this chapter, the methods, tools, procedures and research design are introduced to meet the research aims and questions set earlier. The goal is to discover how new technologies from fintech are changing how risk is managed in banking and financial organizations.

3.1 Research Design

This study combines using surveys as a quantitative approach and open-ended replies and literature insights as a qualitative approach.

The reasons for using mixed methods

- The numbers collected in the quantitative section give a clear picture of fintech impacts and digital risk.
- Through the qualitative part, we can look into expanding expectations, new regulations and views from manager.

3.2 Research Objectives (Recap)

1. Find top innovations that are changing the banking industry.
2. Discuss how these new innovations can change operational and financial risks.
3. Look at both current and new approaches to risk management.
4. Introduce useful approaches to handle risks in innovative work environments

3.3 Sampling Design and Plan

- People in this research: Bankers, people who use various financial services and technology-savvy respondents.
- Sampling Method: Sampling by choosing with purpose and taking convenience as a guide.
- 25 to 50 respondents are expected, while 5 respondents have contributed so far for the pilot part.
- Individuals born from different sectors (finance and others) and those in the financial sector are in the sampling group.

3.4 Data Collection Methods

Primary Data

I sent an online survey (Google Form) that used Likert-scale, multiple choice and open answer questions.

- What are the main patterns in people’s movements?

1. Fintech’s effect on traditional banking
2. Responsibilities of central banks
3. Helping customers remain loyal to us with digital services
4. How easily and quickly can people use the service?
5. How much case study teachers prefer

Secondary data

Along with my own findings, reputable industry data from McKinsey, RBI and PwC has been included to highlight changes in fintech disruption and risk management.

Patterns in Fintech Financial Investment

According to recent KPMG and PwC reports, fintech investment has gone up year after year in India. Such growth reveals how much cryptocurrencies are becoming a part of regular banking.

Factors behind Fintech Investment in India during the years 2019–2023

The growth of fintech investment is shown in Table 3.1.

Years are listed below, as well as investment figures in USD billion.

YEAR	INVESTMENT IN USD BILLION
2019	3.5
2020	4.2
2021	5.7
2022	6.1
2023	7.3

Incidents of cybersecurity are on the rise.

CERT-In and RBI noticed that as more BFSI companies use digital services, the number of cybersecurity breaches is also growing, according to their report.

Incidents of Cybersecurity in BFSI Between 2019-2023

Three categories of cybersecurity encompass the cases reported in Table 3.2.

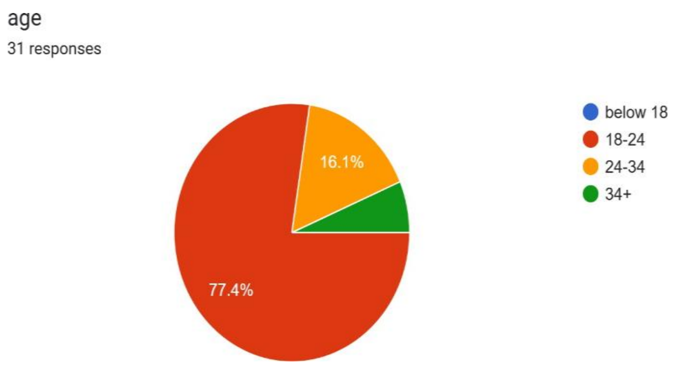
YEAR	Cyber Attacks
2019	28
2020	42
2021	57
2022	75
2023	93

These results suggest that a flexible and speedy risk management approach is key to address digital financial threats now.

Chapter 4: Data Analysis and Findings

This part of the book presents what was found through primary research on how fintech is changing banking and what risks are now facing financial institutions. The information was obtained using a questionnaire and examined by looking at descriptive statistics and visuals.

4.1 Demographic Profile of Respondents

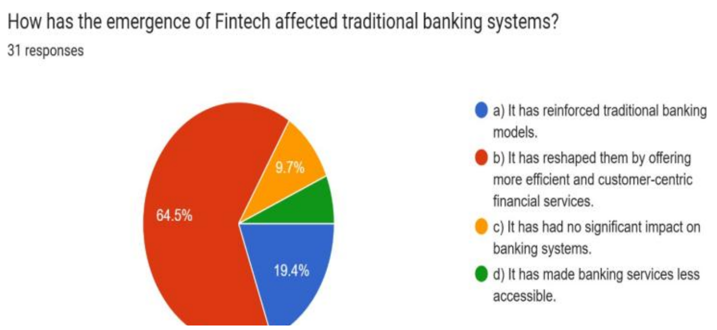


Participants in the survey covered a range of ages, each with knowledge of banking and fintech. The distribution of respondents by age group is shown.

Key Findings:

Many more respondents were in the 18–34 age group, showing that younger, tech-skilled people shape fintech views the most.

4.2 Perception of Fintech's Impact on Traditional Banking



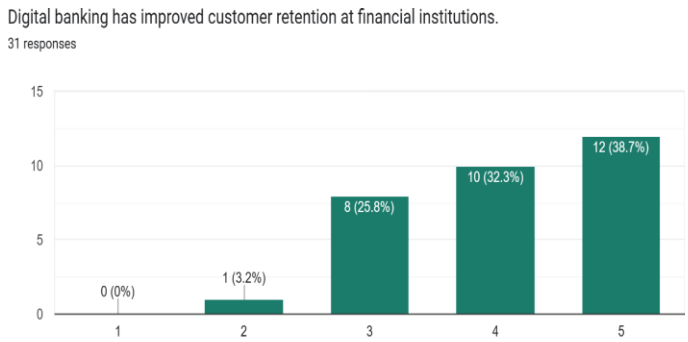
The study asked individuals to describe how they think fintech is altering traditional banking.In Figure 4.2, we can see how people think about the effects of Fintech.

Key Finding:

65% of people who responded felt that fintech redefined banking through higher efficiency and attention to customers.

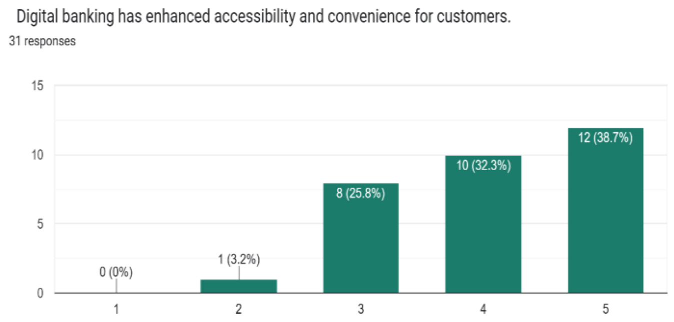
Only a minority thought that fintech had mainly maintained the classic ways of banking.

4.3 Customer Retention and Accessibility



To find out if digital banking changes enhance how customers use the service. Customer Retention Rating can be seen in Figure 4.3.

Figure 4.4 focuses on the ease of access and comfort of users.

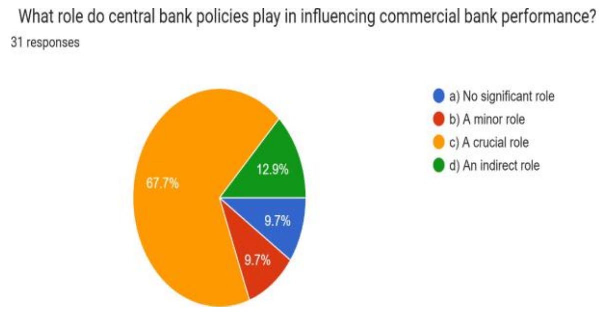


Insights:

Most people gave scores of 4 or 5, reflecting that digital banking improves how convenient and easy it is to use the service.

4.4 Role of Central Bank Policies

People taking part in the survey were asked to evaluate the effect of regulations on banks. Central bank policy brings about certain results, as shown in Figure 4.5.



Finding:
A lot of officials highlight that central banks help control fintech collaboration and maintain the stability of the system.

4.5 Qualitative Insights from Open-Ended Responses

Theme 1: Expectations from Customers Are Changing

Respondents pointed out that expecting fast solutions, using mobile options and getting personalized attention from AI matter to lenders.
One person in the group said:
New fintech ideas help more people participate in banking and need fewer branch visits.
Theme 2: Worry About Risk

- Some of the concerns involved keeping data safe, stopping fraud and not getting help from humans in purely digital banking.

4.6 Summary of Key Findings

This area collects the main study findings and organizes them by the key areas examined in the literature review, the survey questionnaire and secondary studies.
Main Point :

- Financial technology (Fintech) is often seen as a force that challenges the traditional ways banks work.
- Customer Experience and Satisfaction : Giving customers mobile apps, instant support and personalized options has made them happier and more loyal.
- Innovation and Financial Stability : Balancing innovation and maintaining stability are seen as key roles for central banks and financial regulators.
- Respondents and literature often pointed out data privacy, cybercrime and unpredictable regulations as emerging risk topics.
- Mixed methods are frequently encouraged by both researchers and professionals, since this justice allows a better grasp of the many sides of fintech.

It is clear from these results that technological changes, customer involvement, rules from regulators and risk factors are all part of how innovation works in financial services. It is also clear from the findings that both flexible risk management and cooperation between leaders are key to addressing the effects of fast digital progress.

Chapter 5: Discussion and Implications

This chapter examines the results from primary and secondary data analysis in comparison to what has been found in the existing literature. This document also investigates how fintech affects decision-making by managers, technological aspects and policy measures, as well as its influence on financial risk management.

5.1 Discussion of Major Findings

1.1.1 Disruptive Innovation is a major source of change in the world.

The research shows that fintech has greatly changed how banks operate. Over two-thirds of the recent survey's participants agreed that fintech has affected how banking is done, as both Arner et al. (2015) and Gomber et al. (2017) had previously explained.
Interpretation:
Customers now want services that are fast, clear and suited to them which fintech platforms naturally offer. Leading banks are required to either link with fintech companies or set up their digital capabilities within their organizations.

1.1.2 How easy it is for customers to stay and access the service

Users have said that digital banking helps keep them as customers and is easy to use. The vast majority of participants assigned 4, 4 and 5 points to these factors, indicating they appreciated them a lot.

Interpretation:

It shows that designing with the customer in mind, making it easy to access services and being open at any time are no longer optional extras. They play a big role in building customer loyalty over a long time.

1.1.3 Emerging Risk Landscape

This section looks at the new risks that are rising in importance.

The research found additional types of risks, known as:

Cyber threats include…

- Problems related to protecting data privacy
- Confused and changing regulations

These findings support what BIS and IMF have pointed out which is that digital risk is not easy to manage. People responding to the survey were worried about these same risks which makes new risk models a top priority.

Interpretation:

Classic risk management methods which usually take a reactive, isolated approach, can't handle the speed and complexity of digital transactions and AI today.

1.1.4 What Part do Central Banks and Rules Play?

Experts see regulators, especially main banks such as the RBI, as key to making sure fintech innovations are introduced safely.

Interpretation:

Now, people are realizing that guidelines released by the RBI, for example, should be ready for change in this fast-evolving world and also reduce major banking risks.

5.2 Managerial Implications

With reference to Banks and Financial Institutions Choose a digital risk framework that unites financial risk, operational risk and cyber risk.

- Buy solutions called RegTech to assist with compliance and better monitor risks.
- Partner with companies in fintech to move innovation forward without losing control of governance.

Finance Companies

- Increase safeguards for data and ensure high ethical standards in AI governance.

As they become larger companies, they should be ready for more scrutiny from regulators.

5.3 Policy Implications

- It is important for regulators to give firms a safe place to test new products.
- Technical rules and laws in data privacy and digital lending depend on cross-border action.
- Real-time monitoring can only be possible if financial regulators use RegTech and SupTech

5.4 Academic Implications

The research adds value to the topic of innovation-risk convergence by contributing the following:

- Evidence from user experience in the use of fintech.
- A relationship between Disruptive Innovation Theory and Enterprise Risk Management (ERM).

It creates more opportunities to examine information more closely in these areas:

- Governance of risks in decentralized finance (DeFi)
- Risk assessments are performed in a faster and more accurate way using AI.
- Behaviors of customers in using neobanks.

Chapter 6: Conclusions and Recommendations

This chapter highlights the study's most important points, concludes with key findings and provides guidance to banks, fintech organizations and regulators. It also lists the challenges faced in the study and suggests ideas for further research in the quickly growing area.

6.1 Conclusions

The findings from the research show these conclusions about the impact of disruptive innovations on risk management in banking and financial institutions:

- Fintech is a genuine disruptive force.

Fintech goes beyond enhancing banks; it is bringing major changes to the financial sector. Changing the processes employees use and affecting how customers deal with their finances, fintech is radically changing banking. Because it is disruptive, fintech encourages long-established companies to innovate or they could become obsolete.

- The appearance of new types of risks

Even though fintech improves efficiency and convenience, it also makes new risks appear such as those in cybersecurity, data management, algorithmic biases and fraud on the internet. Therefore, risk management should be modernized, linking technology with people, to help the company keep up with changes, remain transparent and recover easily.

- Maintaining Regulatory Balance

This study highlights the main function of regulators to ensure there is a balance between driving innovation and guarding the financial system. Regulations have to be adaptable to encourage innovation, but should also be firm to prevent problems, risks and any harm to the system.

- The requirement for risk governance to be flexible and versatile

Following old-fashioned compliance rules in risk management is not enough anymore. They have to manage their operations with flexible structures that support real-time inspection, forecasting based on analysis and scenarios. Identifying risks early and always adapting are key to success in our fast-changing digital world.

In short, to do well in the age of disruption, financial institutions depend on creative solutions, close agreement with regulators and vigilant risk management. Managing this transformation will keep institutions safe from new worries and allow them to increase their reputation with stakeholders.

6.2 Recommendations

Based on the study, a set of recommendations is put forth for each of the stakeholders, namely traditional banks, startups in the financial technology sector and regulators.

1. Look into using Digital Risk Management systems.

It is important for banks to equip themselves with up-to-date technology which consists of AI for detecting threats, keeping an eye out for fraud and securing data. Such systems help by sending real-time alerts, monitoring for any suspicious actions and helping follow regulations which protects against cyber threats and inappropriate usage of data.

2. Encourage Collaboration with Fintech Startups Strategically.

Traditional institutions can collaborate with fintech startups rather than competing with them. Working together allows organizations to use one platform, exchange ideas, produce new products more efficiently and use each other's strengths—fintech's provide agility and technology and banks provide knowledge of regulations and the trust of their customers.

3. Increase Employee Training and Skills in Using Technology:

All financial institutions should regularly provide training to staff on the latest and emerging cyber dangers, RegTech and new digital products in finance. Gaining extra skills in these subjects helps staff handle risks and keep the organization resilient in today's digital world.

- When defined for Fintech Companies:

1. Take care to include Risk Management from the beginning of the project.

FT startups should place a strong emphasis on setting up risk controls from the beginning of their operations. Some of these things are setting up cybersecurity systems, using financial auditing methods and data protection steps to keep the business running and users trusting the software.

2. *Become a member of regulatory sandboxes programs.*

In sandboxes, fintech's get to trial their new ideas under controlled testing and with reduced regulatory caution. These platforms help companies innovate, at the same time ensuring they follow the rules to make it safer for their experiments and introduction of new tech.

- Policymakers and Regulators have a big role to play:

1. Set up laws that allow innovation and are also safe for consumers.

Both consumer rights and progress in innovation should be carefully handled by regulators. They should support new ways of thinking but also protect against some dangers, misuses and abuse.

2. *Introduce tools from RegTech and SupTech in your organization.*

Authorities are urged to adopt Regulatory Technology (RegTech) and Supervisory Technology (SupTech) to make it easier to monitor and enforce compliance. Because of them, authorities can quickly analyze information, spot fraud and keep an eye on all types of market participants.

6.3 Limitations of the Study

The study describes important aspects of how disruptive innovation affects financial institutions, but there are some restrictions.

1. ***Problems with how many observations are included in the study.***

The study relied on only a small number of people completing the survey. This means that the outcomes could not fully represent the whole banking and financial technology industry.

2. ***Demographic Skew:***

A large part of the respondents were young people who are technologically literate. There was a shortage of perspective from senior-level managers, regulatory specialists or older people among the respondents which might have changed the findings.

3. ***Being Restricted by Time and Limited Resources:***

With little time to conduct the research, the studies mostly depended on information found in industry reports, university papers and surveys done online. Because the interviews, studies and observation had to be done remotely, there was not enough detail gathered.

4 Suggestions for Future Research

To move the study forward, additional research efforts might look at these particular aspects:

1. *Long-term Looks at How Risks are Managed.*

Experts can start long-term studies that track how banks keep changing their risk approaches because of new fintech trends.

2. *Study of How Regulations Differ from Place to Place.*

Comparisons of how different nations handle fintech demonstrate worldwide trends, problems and the need for better policies.

3. *Looking at Examples of How Organizations Succeeded.*

Reviewing case studies of successful digital risk governance in banks and fintech firms helps other groups by providing valuable knowledge and 'real world' solutions.

6. References:

Altunbas, Y., Manganelli, S., & Marques-Ibanez, D. (2019). *Bank risk management and financial stability*. European CentralBankWorkingPaper Series. https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2298~f1fd99f56d.en.pdf

Arner, D. W., Barberis, J., & Buckley, R. P. (2016). *The evolution of fintech: A new post-crisis paradigm?* University of Hong Kong Faculty of Law Research Paper No. 2016/047. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2676553

Berger, S. C., & Gensler, S. (2017). Online banking and customer retention: A longitudinal analysis. *Journal ofBanking &Finance*, 83, 70–85. https://doi.org/10.1016/j.jbankfin.2017.06.012

Mishkin, F. S. (2020). *The economics of money, banking, and financial markets* (12th ed.). Pearson.

PwC. (2021). *Digital banking trends and innovations*. PwC Global Financial Services Report. https://www.pwc.com/gx/en/industries/financial-services/assets/global-fintech-report.pdf

Reserve Bank of India. (2022). *Digital lending guidelines: Implementation framework and supervision*. https://www.rbi.org.in

World Bank. (2023). *Financial inclusion and digital finance*. https://www.worldbank.org/en/topic/financialinclusion

Deloitte. (2023). *2023 Banking and Capital Markets Outlook: Reinventing the digital core*. https://www2.deloitte.com/global/en/pages/financial-services/articles/banking-industry- outlook.html

EY. (2022). *Global FinTech Adoption Index 2022*. https://www.ey.com/en_gl/financial- services/how-fintech-is-shaping-financial-services

. Frost, J. (2020). The economic forces driving fintech adoption across countries. *Bank for International Settlements Working Papers*, No. 838. https://www.bis.org/publ/work838.pdf

KPMG. (2023). *Pulse of Fintech – H1 2023*. https://home.kpmg/xx/en/home/insights/2023/07/pulse-of-fintech-h1-2023.ht