

Title of Dissertation

Assessing the role of FinTech in financial inclusion in emerging markets: A Focus on India

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submitted for the degree of: **MSc in Accounting and Finance Management** is the result of my work and that where reference is made to the work of others, due acknowledgement is given.



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Date:

Dedication

This dissertation is dedicated to all those who supported and inspired me along this journey, especially my parents and my brother for their unconditional love, encouragement, and belief in my potential. Your endless support has been my foundation.

To my friends, who provided me with laughter, comfort, and perspective during the most challenging moments.

To my mentors and professors, whose wisdom and guidance shaped this work and my growth as a scholar.

And finally, to all those who pursue knowledge and truth, this is for you.

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Abstract

This paper aims to understand how FinTech contributes to the upliftment of financial inclusion in India with special emphasis on the level of acceptance by various population subgroups. There are several areas of research, including low levels of digital skills, both with computers and the internet, as well as uncertainty surrounding the adoption of digital transactions in Rural and other deprived regions. Technology services included in this study are mobile payment and digital lending, which the research uses to determine the role of these services in increasing or reducing gaps in the availability of banking, credit, and insurance services. By way of a qualitative assessment, this study captures the impact of socio-economic and cultural factors in the adoption of FinTech. This also assesses the efficiency of governmental strategies and the quality of related legislation, providing suggestions for relevant parties in enhancing FinTech adoption. Hence, the findings complement extant knowledge on financial inclusion and offer insights for improving uptake from an organizational perspective that may help policymakers and FinTech players accelerate usage, hence development in the emergent economy of India.

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1 Chapter 1: Introduction

1.1 Research Background

Financial technology (FinTech) has revolutionised the economic environment in emerging markets and is rapidly developing. This transformation is evident in India more than in any other country due to technology, favourable policies, and a growing need for financial services. In the past, financial inclusion in India had its own set of problems such as the sheer number of people who were excluded from the banking system, lack of access to the formal banking channels, and barriers arising out of socioeconomic factors. However, these gaps have been filled in the recent past by incorporating FinTech solutions that provide efficient means of delivering financial services to the targeted groups (Ediagbonya and Tioluwani, 2023).

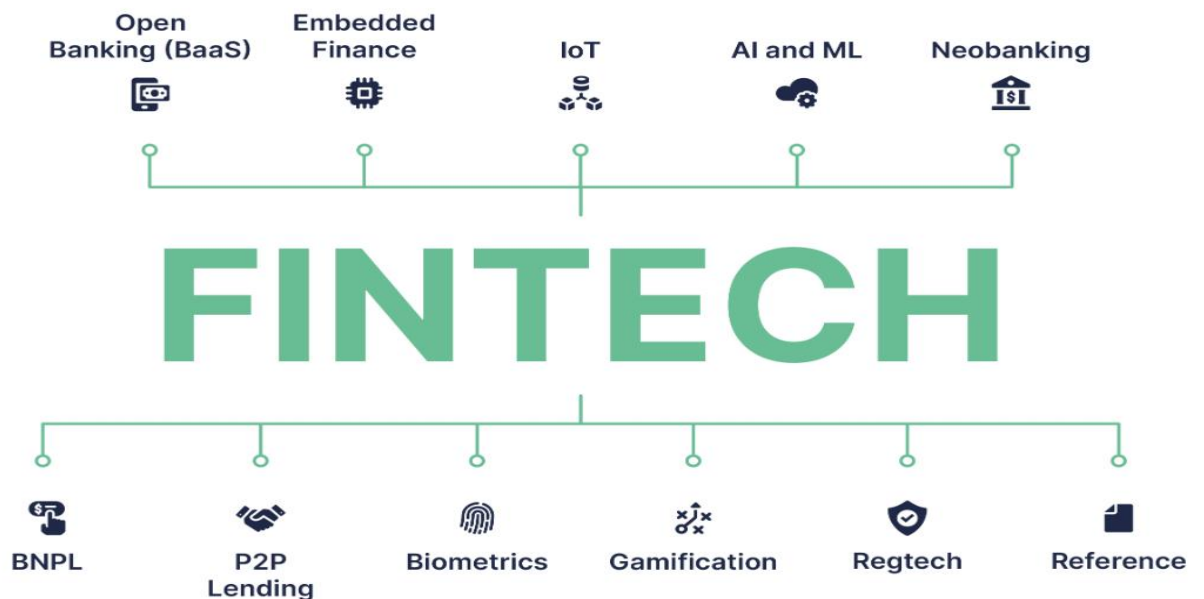


Figure 1: Trends in FinTech

(Source: Website-files, 2023)

The FinTech sector in India has evolved greatly, with many new-generation firms and traditional banks coming up with digital solutions for various services including mobile commerce, digital credit, insurance, and investments. Schemes like Unified Payments Interface (UPI), Aadhaar-enabled payment systems and mobile banking applications

have brought drastic changes in the way transactions are being carried out, making them more effective, efficient, and transparent. Over the years, many government policies and schemes have been instrumental in the development of FinTech in India (Goswami et al., 2022). Initiatives such as Digital India, Jan Dhan Yojana, Cashless India, etc have provided the right ecosystem for FinTech solutions. These programmers' goal is to deepen the usage of digital financial services and ensure that all communities have access to core financial services.

The majority of the Indian population is still unbanked and underserved. Barriers like digital literacy, internet connectivity, and standardization remain as obstacles to achieving the benefits of FinTech in increasing financial access. It is for this reason that the following barriers to financial inclusion through the use of FinTech must be studied and ways of addressing them found. The purpose of this study is to investigate the possibility of using FinTech to improve the financial access in India and how challenges that have been observed can be overcome, and the possibilities offered by the digital financial technologies were maximized (Raj & Upadhyay, 2020). It aims to promote the activities being taken towards the directions that would make the financial services to be as diverse, fair as well as accessible across the population.

1.2 Rationale

The relevance of this research is derived from the existing need for financial inclusion in India where a section of the population still lacks adequate access to formal financial services. Even with the current developments through normal banking channel and government efforts, there exists a gap which can be exploited by the FinTech. FinTech can be seen from the lens that helps in overall financial inclusion because it provides cheap, efficient, and easily available financial services (Kandpal and Mehrotra, 2019). As the FinTech sector in India is constantly developing and there is a governmental push towards a digital economy. There is limited comprehensive information on how the use of FinTech impacts FI and its effectiveness in solving issues faced by the unserved customers. The study aims to examine the position of FinTech in this perspective to identify recommendations that will assist policymakers, financial organizations, and tech creators to improve the delivery of financial services to the financially excluded populace. From the literature perspective, this study offers

qualitative support and theoretical insights into financial inclusion and FinTech to the body of knowledge (Asif et al., 2023).

1.3 Aim & Objectives

Aim

This research aims at assessing the impact of FinTech in the financial inclusion context; the degree of the adoption of FinTech in India; benefit and challenges of using FinTech; and best practices towards enhancing the extent of the diffusion of FinTech to reach out to the unserved population.

Objectives

1. To assess the extent of FinTech utilization by various demographic groups in India as of the current period.
2. To investigate the effect that the services offered by FinTech have on the points of financial inclusion like banking, credit, and insurance.
3. To identify the key challenges and barriers to FinTech adoption faced by underserved and rural populations.
4. To evaluate the regulatory and policy environment influencing the growth and effectiveness of FinTech solutions in India.
5. To propose actionable recommendations for leveraging FinTech to enhance financial inclusion, based on empirical findings and stakeholder insights.

1.4 Research Questions

1. What is the current level of FinTech adoption among different demographic segments in India?
2. How do FinTech services impact financial inclusion metrics such as access to banking, credit, and insurance in India?

3. What are the key challenges and barriers to FinTech adoption faced by underserved and rural populations in India?
4. How do regulatory and policy environments influence the growth and effectiveness of FinTech solutions in India?
5. What strategies can be implemented to leverage FinTech for enhancing financial inclusion in India, based on empirical findings and stakeholder insights?

1.5 Methodological Overview

The present research work uses a qualitative research method to investigate the impact of FinTech solutions in increasing the financial access in India. The qualitative design is selected to get rich contextual information about the views and roles of different stakeholders in the FinTech environment. To increase the credibility of the research, there will be a combination of various data collection techniques. First of all, semi-structured interviews will be carried out with the most important 10 stakeholders such as executives of FinTech companies, policymakers, financial analysts, and other representatives from the financial sector (Flick, 2017). These interviews will help explain in detail the positive and negative aspects of using FinTech and its influence on the financial inclusion of people. This approach of the interview is quite flexible since while exploring particular problems, one can be sure that all the topics are covered.

Focus group discussions will be conducted with end-users of FinTech services in order to complement interviews. These focus groups will capture the views of people that either use or are impacted by the FinTech solutions. This method will assist in determining the group perceptions and testimonies about the openness, navigability, and effect of FinTech services on their financial access. Secondary research data will be collected from the existing reports, policies, and literature review on FinTech and financial inclusion in India (Alamri, 2019). This secondary data will give a background information to the study and complement the primary data that will be obtained through interviews and focus groups. To analyze the collected data, thematic analysis

will be used. In this technique, the data is labelled in order to find out important patterns and themes. These themes will then be analysed to make conclusions and recommendations regarding the place of FinTech in members' financial inclusion. The thematic analysis will help the researcher to categorize the qualitative data in a proper way so that the results are credible and significant. This methodological approach will be used in order to gain an extensive and detailed view on the research questions (Adeoye-Olatunde and Olenik, 2021).

1.6 Problem Statement

Despite the development in the technology and the government's initiative for the financial inclusion, a major population in India is still unbanked. The existing banking channels are not well developed in the rural and other un-served regions where millions of people are locked out of the formal economy. FinTech has risen as a possible solution, providing efficient and affordable financial services (Yang, 2019). But the given revolution's role in enhancing the level of financial inclusion is not well-researched, especially in terms of solving the problems of disadvantaged groups. Challenges like digital literacy, availability and accessibility of the internet, and regulatory issues also make it challenging to implement FinTech solutions. To this end, this research seeks to fill the existing literature gap by establishing how FinTech can positively contribute to financial inclusion in India. Given the nature of the study, the outcomes, and limitations of using FinTech along with the strategies of stakeholders and end-users for achieving the goal of financial inclusion and enhancing economic growth are intended to be revealed (Yang, 2019).

1.7 Synopsis of the Chapter

Introduction: This chapter lays the foundation of the study by defining the research topic with a brief background on financial inclusion in India through FinTech. It explains the background to the study, the purpose, objectives, and research questions.

Literature Review: The literature review engages in a critical analysis of works done on FinTech and financial inclusion. It reveals the areas of uncertainty in the existing literature, theory, and controversies in the subject area.

Conceptual Framework: This section discusses the conceptual framework with reference to the overall research; it identifies the concepts and variables of the study. This paper demonstrates how these variables are related and how they will be used to meet the research objectives.

Research Methodology: This chapter describes the overall research method, how data was collected and the analysis that was done on the data collected. It gives a clear account of the qualitative paradigm with regards to such tools as the semi structured interviews, focus groups and documents analysis.

Presentation and Analysis of Findings: This chapter aims at reporting the results of the research and analysis of the collected data using thematic analysis. The findings are therefore categorized in themes, which are a way of presenting the patterns and observations made by the researcher.

Conclusions and Recommendations: The last chapter is a conclusive analysis of the findings of the research in relation to the theory, practice, and policy implications. It provides the guidelines for utilizing FinTech for improving the financial accessibility and points out the potential topics for the further investigations.

2 Chapter 2: Literature Review

2.1 Introduction

The objective of this literature review is to critically appraise the literature on the subject of how FinTech has contributed to financial inclusion especially in India. This chapter presents a literature review of theoretical frameworks, the development of FinTech, its effects on financial access, and prospects and threats. Thus, this review forms the basis for the subsequent chapters and defines the directions of the further work on the construction of the conceptual framework and the choice of the research methodology, outlining the existing gaps in the literature. Such structure of the review guarantees that all the themes and issues of concern are addressed systematically.

2.2 Theoretical Frameworks on Financial Inclusion

Financial inclusion therefore can be defined as the provision of the right financial services products that are suitable for the need of individuals, firms and the society in general through the use of innovative technologies in a sustainable manner. There are several theories that help in conceptualizing financial inclusion and their effectiveness, especially in the emerging economies such as India (Ozili, 2020). This section integrates these theories into a cohesive conceptual framework to understand their collective impact on financial inclusion in India.

The Supply-Led Theory: This theory assumes that, the more financial services that are provided to the populace the more people are able to access financial services. Thus, through the enhancement of banking structures and financial products, more people can obtain the necessary services. In the Indian context, this theory is apparent in Government's schemes such as the Pradhan Mantri Jan DhanYojana (PMJDY) which focuses on the provision of banking facilities to the citizens (Kling et al., 2022).

The Demand-Led Theory: Standing opposite to the supply-led theory, demand-led approach emphasizes on the necessity of creating demand for financial services among the target population. This will involve building on the awareness and credibility of the poor in the financial sector and the creation of products for the disadvantaged. In India, efforts to increase the financial literacy level and to create products for rural and

low-income population are also an example of this theory (PK Senyo and Ellis L. C. Osabutey, 2020).

The Institutional Theory: Institutional theory has its theoretical base on the institutional concept of banks and other regulatory bodies, the institutions of the community, local financial systems. Hence, both the types of institutions are vital for the development of India. Although the formal institutions are successfully entering the society through digital banking and mobile financial services, the informal institutions can help in the sectors that are difficult to reach by the formal institutions (Schuetz and Venkatesh, 2020).

The Financial Innovation Theory: This theory argues that technology can be applied, the same as FinTech and it can broaden market reach and access to services while slicing costs in half. Mobile banking, peer-to-Peer lending, and digital wallet are among the innovations in the FinTech industry, which supports this theory (Kling et al., 2022). In India, single payment interface – UPI and elevated trends of online payment systems have contributed to enhanced financial inclusion.

The Social Network Theory: The theory of social networks is a relatively young branch of science, which is devoted to the interaction of social networks in the use of cash and other financial assets. In India for example, it is the social relations including family and community relation over determine one's credit status and financial information (Ozili, 2020). These networks are used by microfinance institutions in providing credit to groups on a basis of mutual guarantee.

Integrating Theories into a Cohesive Framework

These theories must therefore be incorporated into a framework on financial inclusion in a dynamic and pluralistic market such as India. The Supply-Led and Demand-Led theories complement each other since they both consider the availability of the financial services as well as the demand for the services. According to the Institutional Theory, boundary-crossing concerns the official and unofficial financial institutions to evoke a response from various target audiences. The Financial Innovation Theory mentions the importance of technology in lowering cost and increasing availability and

the Social Network Theory sees relations and friendships as crucial to financial conduct. Combined application of these theories provides a broader understanding of the complex issues of financial inclusion in India. For instance, supply-side interventions may work better in the developed countries where the infrastructure is already built, on the other hand, demand-led approaches and reliance on the social networks may be appropriate for the developing countries, where financial literacy and the role of the formal institutions are less developed (Schuetz and Venkatesh, 2020).

2.3 Evolution of FinTech

Financial Technology, commonly known as FinTech, has been under development and has transformed the delivery and access to financial services. The evolution process begun at early 1950s through Credit card which was used instead of cash in payment and other technology in the financial sector. The three innovations that took place in the 1960s and early 1970s included the use of ATMs, electronic stock trading, and the NASDAQ which is the world’s first electronic stock exchange (Kumar and Kaur, 2023). The introduction of the internet in the 1980s and 1990s also brought more changes in the financial industry as the public could now conduct banking and electronic transactions online. PayPal was the perfect example of this period where people were provided with secure online payment solutions.

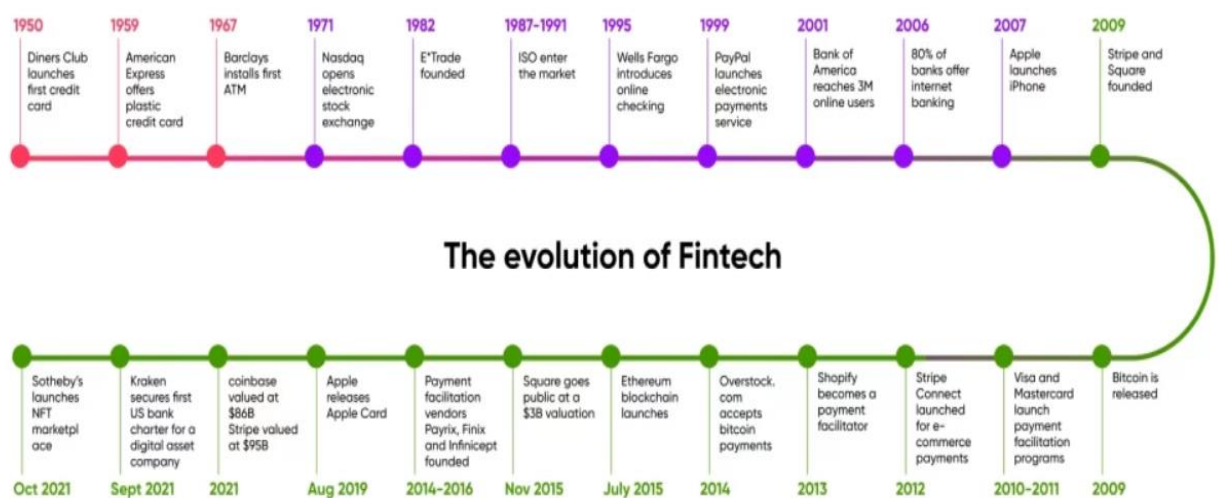


Figure 2: Evolution of FinTech

(Source: Ideausher, 2024)

During the early 2000s, there emerged new startups in the financial technology sector that aimed to change the traditional banking sector by offering convenient and cheaper services. The growth has been facilitated by the financial crisis that occurred in the year 2008 as it led to development of distrust in the traditional banking systems. Some of the most important ones include Bitcoin, which was released in 2009 and kick started the market of crypto currencies and blockchain solutions, as well as the introduction of mobile payment solutions such as Google Wallet and Apple Pay, based on the payments made with the help of smartphones (Kumar, 2021). The recent years, specifically the mid-2010s, marked the introduction of robo-advisors and RegTech, which improved the effectiveness and availability of financial services.

The FinTech sector of India has also grown progressively over the years due to government encouragement, technological developments, and rising mobile usage. Some of the major highlights are Aadhaar, the world's largest biometric identification project initiated in 2009 that helped in the identification of the users for financial services. Some of the notable mobile wallet providers include Paytm which was launched in 2010, and provided an easy to use transaction platform (Rajeswari and Vijai, 2021). The cash crunch following the demonetization drive implemented in November 2016 also accelerated the adoption of FinTech as people looked for non-cash tools, while the launch of the UPI provided for real-time and device-based money transfers. The next evolution of lending through digital platforms showed that FinTech was capable of delivering fast and convenient loans for people and SMEs (Kumar and Kaur, 2023).

2.4 FinTech and Financial Inclusion

FinTech has become an effective instrument to solve the problem of financial exclusion on the background of the insufficient development of banking infrastructure in certain areas. This paper shows that through the use of technology, FinTech firms can extend access to efficient, cheap, and convenient financial solutions to the disadvantaged groups, thus increasing financial inclusion. Digital payments are one of the most common ways through which FinTech ensures that people embrace financial solutions

(Hollanders, 2020). Technological innovations such as the mobile money transfer and mobile money payment systems like the M-Pesa in Kenya have revolutionized financial access where people are able to transfer money, pay bills and even save money through their mobile phones. Mobile money transferred by Safaricom's M-Pesa, which was developed by Vodafone in 2007, is now an essential part of Kenya's economy and has 40 million subscribers. It has spread to other African countries and other parts of the world proving that mobile money is a tool that can revolutionize financial services (Hollanders, 2020).

In India for instance, the UPI launched by the NPCI in 2016 has greatly boosted financial inclusion. UPI allows the transfer of money from one bank account to another through one or more mobile instruments. It has provided easy payment solutions to millions of Indians, including those in rural areas and small towns where there are few banks. Therefore, the monthly transaction valuation of UPI was over 4 billion in December 2021, which demonstrates its popularity and significance. Another area where FinTech is used in the provision of financial services is digital lending platforms (Beck, 2020). Tala and Branch from Africa, and Faircent and Capital Float from India are some of the players that use non-traditional credit scores to extend credit to people and small businesses that have no conventional credit record.

These platforms use data from the usage of mobile phones, social media activity, and transaction records to evaluate the credit worthiness hence providing credit to the undeserved markets. This does not only expand the access to finance but also facilitates the establishment of credit records for future credit reference. In South East Asia, there is Grab financial and Gojek which have incorporated financial services in their mobility and delivery hailing apps giving clients an opportunity to make payments, save, insure and access credit (Arner et al., 2020). For instance, Grab Financial impacts millions of users by providing microloans, insurance services, and investment solutions. Blockchain technology and crypto currencies also have a great role in the provision of financial services. Crypto currencies are a secondary method for storing and exchanging value in areas where there is a volatile local currency, or insufficient banking system. For instance, the rising hyperinflation rate in Venezuela has forced people to use bitcoin and other such coins to store wealth and for

transactions. These cases reveal the variety of opportunities FinTech has to enhance the population's financial literacy and address their needs through effective solutions (Liu et al., 2021).

2.5 Adoption of FinTech in India

FinTech has been adopted in India at a record pace over the past decade because of technological innovations, government support and shift of consumer preferences. The current level of FinTech development in India includes the following trends: the high popularity of digital payments, the emergence of new possibilities for obtaining digital credits, and the constant expansion of digital insurance and investment services (Aggarwal et al., 2023).

Current State of FinTech Adoption

FinTech in India has been expanding rapidly and is one of the largest FinTech markets globally, with many startups and many traditional financial institutions providing a diverse range of digital financial products and services. Presently, India has many mobile payment applications like Paytm, PhonePe, and Google Pay that handle billions of transactions every month. The emergence of real-time payment system especially the National Payments Interface (UPI) launched in 2016 by the National Payment Corporation of India has provided a solution to this problem, where users are able to transfer funds between their accounts using a mobile application (Sharma and Munjal, 2024). By 2021, the UPI had touched more than 200 member banks and was processing over 4 billion transactions per month. There are also online lending firms such as Faircent, Capital Float, and KreditBee that have also found a good market as they offer loans facilities that can be accessed conveniently and easily by individuals and business entities. These platforms employ different credit scoring methodologies to evaluate the creditworthiness of the clients, thus providing credit to segments that are usually skipped by traditional banking systems due to lack of credit scores (Singh, 2020).

Demographic Factors Influencing FinTech Adoption

There are various demographic factors that affect the adoption of FinTech in India. Among such factors, the most important one is age. The millennial and Gen Z are the most active in using FinTech services because of their affinity to technology and online engagements. Thus, these age groups are more familiar with the use of smartphones and mobile applications for financial operations, which contributes to the development of digital payment systems. Income level is another population characteristic that can influence the perception of the product (Paddalwar, 2021). It is as expected that FinTech services are used more by higher income earners having better access to Smartphones, internet, and financial competence.

The physical location is an important aspect in determining the extent of FinTech usage. It was also found that the larger cities and developed regions where there is proper internet connection, the FinTech usage is more as compared to the rural areas. However, activities such as United Payment Interface (UPI) and mobile wallets have emerged to make this possible, making financial inclusion possible in far-reached areas. Financial literacy and level of education greatly influence the usage of FinTech products (Kanimozhi and Dayana Rose, 2022). Another demographic factor that affects FinTech is gender with the results indicating that male users adopt FinTech more than females. Among the reasons for such a gap is cultural beliefs, restricted use of technology by the community, and lower levels of financial literacy among females. As a result, it is necessary to launch specific campaigns to increase women's financial literacy and grant them equal opportunities to use digital financial tools. FinTech adoption in India has a social factor that is brought about by the following demographics (Kanimozhi and Dayana Rose, 2022).

2.6 Impact of FinTech on Financial Inclusion Metrics

FinTech has thus made a substantial contribution to key measures of financial access to banking, credit, insurance, and other financial services especially in emerging economies such as India. This can be seen through the enhancement in the adoption of digital financial products that have enhanced the delivery of financial services in terms of access, cost, and speed.

Access to Banking: Technology especially financial technology has simplified access to banking services by offering online banking and mobile money. These innovations have eliminated the need for people to travel to banking halls or open physical accounts in brick-and-mortar physical bank branches, especially in remote and rural areas but rather do it through their mobile phones (Demir et al., 2022). An example is the Unified Payments Interface (UPI) in India which allows for the immediate and efficient realignment of funds between bank accounts.

Access to Credit: Fintech firms in digital lending have made credit more accessible by applying technology in the lending process to ensure efficiency. These platforms employ the new generation credit scoring systems, where creditworthiness is determined by phone usage, activities on social networks, and transaction records. It has facilitated loaning for those who have no records of credit history or those with limited credit history, such as the low-income earners and small business people (Mariz, 2020).

Access to Insurance: The Insurtech companies that have emerged in the market have caused insurance products to be affordable. Websites such as Policy Bazaar help the buyers to access, compare and buy insurance products conveniently. These platforms usually offer products that suit the needs of the uninsured or underinsured low-income earner and those in the rural areas hence increasing insurance density and financial risk management (Demir et al., 2022).

Other Financial Services: FinTech has also opened the market to other financial services including investments and savings products. Social networks offer cheap securities and saving schemes that are within the reach of many people. The use of robo-advisors and the micro-investment platform offers an opportunity to those with small capital to invest, thus increasing the number of people who can afford to invest and become wealthy (Mariz, 2020).

Empirical Evidence: Research conducted on the impact of FinTech has evidenced that it increases the proportion of the financially included population. The RBI study revealed that with the adoption of digital payment methods such as UPI, the frequency of transactions and the difference between the sexes regarding financial inclusion

improved (Demir et al., 2022). The World Bank's other study also stressed that mobile banking services like M-Pesa in Kenya helped 2 percent of Kenyan households to come out of extreme poverty by extending banking facilities.

2.7 Challenges and Barriers to FinTech Adoption

Even though the FinTech industry in India is growing at a fast pace and can transform the financial scene of the country that aims to provide financial inclusion, certain barriers slow down the adoption of FinTech. The first and foremost is the digital literacy of the community as well as the individuals that are involved. A substantial number of citizens of the Republic of India, especially the ones residing in rural and distant regions, are not capable of utilizing digital financial services efficiently enough (Bazarbash, 2019). This digital divide reduces the opportunities of these people to leverage on the FinTech solutions, thus, the continued social exclusion.

Legal restraints also prove to be a major impediment to the use of FinTech. The FinTech sector mainly functions in an environment that is characterized by high levels of dynamism in regulatory frameworks, and this causes volatility to impact FinTech firms. Ensuring that operations meet the legal standards can be expensive and time-consuming, especially for new and or small firms. Also, the regulations are not well defined and are not consistent across the Indian states, which creates a problem in the implementation of FinTech services across the country (Soriano, 2017). Some of the factors that make it difficult for the adoption of FinTech includes; A common factor with many potential users is trust; especially when it comes to performing transactions through the digital platform, several of them are afraid of being defrauded, or their accounts being hacked.

Cultural and socio-economic factors also contribute to the challenge faced in the adoption of FinTech. The culture of cash transactions runs in Indian society very deep and people are not very receptive to change over to the card or mobile money transactions. Also, it was observed that gender gaps in financial systems are still prevalent since women and girls have less access to digital financial tools than men. To overcome these barriers, it is necessary to carry out the work on their dismantling and apply certain mechanisms and solutions (Ranade, 2017). Although FinTech is a

promising tool for increasing financial inclusion in India, such issues as digital literacy, internet connection, regulation, trust and security, and cultural factors should be addressed.

2.8 Regulatory and Policy Environment

The legal structure for FinTech in India is central to the development of the sector and the contribution that it holds for the promotion of financial inclusion. The Reserve Bank of India (RBI) is the primary regulator of the digital payment systems, Peer-to-Peer lending platforms and other related digital banking services. Legal requirements include RBI's regulation that facilitates legal framework including the Payment and Settlement Systems Act, 2007 that offers a legal framework to digital payment operators (Rupeika-Apoga and Thalassinou, 2020). Further, the regulatory sandboxes have been initiated by RBI to enable the FinTech firms to experiment with new products in a more controlled environment before the introduction of the products to the public domain, this promotes innovation but at the same time minimises the risks that might be associated with the implementation of the new product. Insurtech firms are governed by the Insurance Regulatory and Development Authority of India (IRDAI) which checks on the Insurtech firms to ensure that they offer customers' insurance products that are standard and safe (Rupeika-Apoga and Thalassinou, 2020).

Government policies and other schemes and initiatives have played an important role in fostering FinTech and financial inclusion. The Digital India campaign was launched in 2015 and focuses on India becoming a digitally empowered society. It has given the foundational environment, the broadband base, and the push to digital literacy without which FinTech cannot thrive (Xu et al., 2021). The Pradhan Mantri Jan Dhan Yojana (PMJDY) a financial inclusion scheme has paved the way for the opening of millions of bank accounts to enable the take-off of digital financial inclusion. The launch of UPI by NPCI has been quite revolutionary since its introduction in the fiscal year 2016-17. UPI has defined innovation in the field of digital payments as the service allows users to transfer funds from one bank account to another using a mobile phone. The government's efforts to make India a cashless society coupled with demonetization in 2016 has stepped up the pace for the implementation of digital payment solutions (Xu et al., 2021).

The Ministry of Electronics and Information Technology (MeitY) has also come up with various launches to help the FinTech sector. These include creation of the IndiaStack, open interfaces to encourage developers to come up with digital financial solutions. The Aadhaar program by giving a unique digital identity to over a billion Indians has helped in the KYC activities and thus has helped the FinTech firms in onboarding customers (Setiawan and Maulisa, 2020). However, there are difficulties as well: It can be rather ambiguous in some aspects, especially in the areas where there is uncertainty in defining the legal status of the new industry, such as blockchain and cryptocurrencies. The process of providing consumers with protection while at the same time encouraging innovation remains challenging for the regulators. India has been rather favourable in terms of the regulatory and policy landscape regarding FinTech, which led to major progress in the sphere of financial inclusion (Setiawan and Maulisa, 2020).

2.9 Opportunities and Future Directions

The FinTech industry in India has the potential for future growth in increasing the possibilities of financial inclusion due to several tendencies and opportunities. The first potential area for development is the growth of digital payment systems. As more people own a smartphone with access to the Internet, mobile payment platforms can bring financial services to financially excluded citizens (Hollanders, 2020). Algorithms, also, can supplement credit scoring to grant the digital lending platforms a window to offer credit to those with a low credit rating or no credit score at all.

Blockchain technology is another promising opportunity that can be used in solving various issues. This is because it can enable competent, genuine, and unerasable transactions that can revolutionize several financial sectors including cross-border payments and identity services. For example, the application of blockchain technology can help KYC procedures become more efficient and useful for FinTech companies, as well as improve the client's right to exercise control over their data (Aggarwal et al., 2023). It means that Insurtech may give ways by which insurance could be subscribed as well as delivered to more people at a lesser cost. Applying web applications, insurance services can be offered to segments with unsatisfied demands and certain dangers to insurance carriers.

Other emerging trends in the FinTech sector also include the emergence of Neobanks which are banks that do not have brick-and-mortar facilities. These institutions can provide a range of banking services through the apps removing the need for a physical banking hall thus making it cheaper to open an account. The FinTech firms and the incumbent financial institutions can also partner to create new financial solutions and to reach more users (Demir et al., 2022). These forms of collaborations can take advantage of the technology strength of the FinTech firms and the customer base and regulation strength of the traditional banking institutions.

2.10 Gaps in the Existing Literature

There are several notable gaps and limitations in the existing literature regarding FinTech and financial inclusion:

Firstly, though, there is a large number of articles about the effects of FinTech on financial inclusion, there are relatively few studies on the emerging markets such as the Indian market. A common feature of many prior studies is that comparisons are made between countries without full regard to the socio-economic or regulatory environment of each country. This oversight hinders the transfer of global trends to the Indian setting and underlines the need for more context-based research (Ozili, 2020).

Furthermore, much of the existing literature mostly focuses on the increase in the level of financial literacy, for instance, the number of newly opened accounts, and the levels of digital transactions among other aspects. Such studies tend to overlook the essential quantitative measures, including user satisfaction, the openness of FinTech services, and other socio-cultural elements. These types of studies are largely limited to counting numerical values and thus do not explore key issues and tendencies that can be crucial when it comes to developing appropriate FinTech interventions for various groups of users (Sharma and Munjal, 2024).

Furthermore, many studies use cross-sectional data, which give a specific moment in time, but do not address the changes that might occur later. This limitation poses a special problem because it disregards the longitudinal character of FinTech adoption and its perturbation of financial inclusion. Large-scale, longitudinal research designs

are required to examine the development of FinTech initiatives over time and the long-term impact on promoting financial inclusion (Beck, 2020).

The factors leading to these gaps are complex. One major reason is that the technology of innovation in FinTech evolves so fast that it may lead to a situation where comprehensive academic studies are conducted and published later. This leads to a time gap between the emergence of new FinTech innovations and the production of sound research on them (Ozili, 2020). In addition, since FinTech involves technology, finance, economy, and sociology at large, it is challenging to undertake comprehensive analyses that encompass all aspects.

2.11 Summary

This literature review has also looked at the theoretical perspective and evolution of FinTech; its role in enhancing financial access and the major issues and trends in India. It discussed on the regulatory framework, and trends, and noted that there was a literature gap in the area. These insights brought out the importance of FinTech for the goal of financial inclusion and the call for context-specific research in the Indian context. The next chapter will present a conceptual framework for the study, which will define the variables that are relevant to the assessment of the impact of FinTech on FI in India and the nature of the relationships between the variables.

2.12 Conceptual Framework

The purpose of this section is to establish a conceptual framework that underpins the study of FinTech's role in promoting financial inclusion in India. This framework integrates various theoretical perspectives to provide a comprehensive understanding of the factors influencing FinTech adoption and its impact on financial inclusion. By laying a theoretical foundation, this section sets the stage for examining the complex interplay between technological innovation, institutional factors, and socio-cultural dynamics that shape financial inclusion in emerging markets like India.

2.13 Theoretical Underpinnings

The supply-led theory posits that increasing the availability of financial services leads to greater financial inclusion. In India, government initiatives such as the Pradhan

Mantri Jan Dhan Yojana (PMJDY) and the Unified Payments Interface (UPI) reflect this approach by providing widespread access to banking and payment services. These initiatives aim to integrate underserved populations into the formal financial system by enhancing the availability of financial services.

Demand-led theory emphasizes the need to create demand for financial services among underserved populations. This theory highlights the importance of financial literacy and product relevance in driving adoption. In India, efforts to increase awareness and trust in digital financial services among rural and low-income populations are crucial for overcoming barriers to FinTech adoption.

Institutional Theory examines the role of formal and informal institutions in financial inclusion. In India's diverse socio-economic landscape, both types of institutions play a critical role. Formal institutions, such as banks and regulatory bodies, facilitate the provision of financial services, while informal networks, including community-based financial systems, help bridge gaps where formal institutions may not reach.

Financial Innovation Theory explores how technological innovations, such as mobile banking, peer-to-peer lending, and digital wallets, reduce transaction costs and broaden access to financial services. In India, FinTech innovations have been pivotal in reaching underserved populations by offering affordable and accessible financial solutions.

Social Network Theory underscores the influence of social networks on financial behaviours. In India, social networks often dictate financial decisions, particularly in rural areas where trust in traditional financial institutions may be low. Understanding these networks is essential for developing FinTech solutions that resonate with the local context.

2.14 Integration of Theories into the Conceptual Framework

Availability of FinTech Services (Supply-Led Theory): The widespread availability of FinTech services, such as mobile payments, digital lending, and Insurtech, is hypothesized to increase financial inclusion by providing accessible, affordable, and efficient financial products to underserved populations.

Demand Creation and Trust (Demand-Led Theory): The successful adoption of FinTech services depends on creating demand among potential users, which requires building financial literacy and trust. This relationship emphasizes the need for education and awareness campaigns to enhance the perceived value and safety of digital financial services.

Role of Institutions (Institutional Theory): Formal institutions, such as banks and regulatory bodies, and informal institutions, such as community networks, are critical in shaping the adoption and effectiveness of FinTech solutions. The framework suggests that collaboration between FinTech firms and these institutions can facilitate the integration of digital services into existing financial ecosystems.

Technological Innovation (Financial Innovation Theory): Technological advancements in FinTech are expected to lower barriers to financial access, making it easier for underserved populations to engage with financial services. The framework posits that innovations like mobile banking and blockchain can revolutionize financial inclusion by reducing costs and increasing transparency.

Social Networks and Community Influence (Social Network Theory): The adoption of FinTech services is also influenced by social networks and community leaders. The framework suggests that leveraging these networks can enhance trust in digital financial services and facilitate their widespread adoption.

2.15 Conceptual Framework Diagram



2.16 Application to the Research

The conceptual framework guides the research design, methodology, and analysis by providing a structured approach to examining FinTech's impact on financial inclusion. It informs the selection of research methods, the formulation of research questions, and the analysis of data, ensuring that the study remains focused on understanding the multifaceted role of FinTech in financial inclusion.

2.17 Conclusion

The conceptual framework serves as a guiding structure for this research, linking theoretical perspectives with empirical inquiry. By integrating multiple theories, the framework provides a comprehensive lens through which the role of FinTech in financial inclusion can be understood and analysed. It lays the foundation for the subsequent analysis of how FinTech can overcome existing barriers and enhance financial access in emerging markets like India.

3 Chapter 3: Methodology

3.1 Introduction

This chapter provides a methodological framework for evaluating FinTech performance in enhancing financial inclusion in India. This section overviews the research philosophy, research approach, research purpose, research strategy and method, data collection and analysis methods, measures of research quality, and factors related to ethics. The rationale of the approach is to maintain exposure and reproducibility which would provide a sound structure for responding to the questions raised in Chapter 1. Semi-structured interviews and focus group discussions, alongside the analysis of secondary data, will help to avoid existing lacunas in the understanding of FinTech in the context of financial inclusion, suggestion on how to overcome them, and provide recommendations.

3.2 Research Philosophy

Interpretivism is the research philosophy adopted in undertaking this research. Interpretivism is chosen because it involves the analysis of the meanings people give to events and their interactions with them, which is crucial in studying the ways and implications of FinTech adoption and exclusion for financial inclusion. This philosophy is in complete opposition to positivism, which goes in search of facts and generalizations about such facts, as the focus is on the socially constructed nature of reality. Interpretivism enables an understanding of how various stakeholders, including executives of FinTech firms, policymakers, financial analysts, and consumers, conceive and engage with FinTech solutions in the context of this study (Nickerson, 2022). Using an interpretivist research method, the study will explore the complex relationship and individual experiences particularly with the use of FinTech to support financial inclusion. This approach is well suitable in a country like India which is highly diverse and socio-economically stratified where various cultural, economic, social factors make or mar financial behaviours and access. Interpretivism, including focus group discussion and semi-structured interviews, allows for an in-depth, qualitative examination of these perceptions, thereby providing beneficial insights into obstacles,

challenges, and possibilities that can lead to positive changes in FinTech within financial inclusion (Alharahsheh and Pius, 2020).

3.3 Research Approach

This research falls under the methodological qualitative category, as highlighted in the methodological background section. This approach is selected as it is most applicable for obtaining in-depth details on the outlook of different stakeholders as well as their positions in the FinTech sector. Qualitative research on the other hand is diametrically opposed to quantitative and inferential and relies on the use of non-numerical data for the analysis of phenomena (Cantelmi et al., 2021). Such a method is suitable for this research study as it aims to understand the nuanced, contextual factors that may shape FinTech use and its implications for financial inclusion in India. Due to the research's qualitative approach, the study intends to discover the various experiences and coloured perceptions of the respondents consisting of executives in FinTech firms, policymakers, financial analysts, and consumers. Semi-structured interviews and focus group discussions will help the researcher capture vast and context-provided data to identify motives, barriers and gains concerning FinTech solutions. Such appreciation is essential in generating an effective appreciation of how FinTech can bring about a positive change in expanding the 'cracks of finance' and the role of financial inclusion in places like India and other countries that have diverse and socio-economically differentiated communities (Pearse, 2021).

3.4 Research Purpose

The research aims at assessing the potential of FinTech solutions in enhancing access to financial services in India as well as highlighting the issues and limitations of FinTech solutions usage. With such objectives in mind, the study aims to offer practical solutions on how FinTech might be utilized to improve the levels of financial access for all consumers, irrespective of their demographic characteristics. This research aims to give a clear idea about the concerns of FinTech's, the advantages of FinTech's and their disadvantages, and factors that enable contribute to the supposition of the meritorious impacts of FinTech's towards their ability of financial inclusion (Raj and Upadhyay, 2020). The outcomes of this study are significant for policymakers, financial

institutions, related organisations, and technologists. It serves the purpose of ensuring that these stakeholders are aware of the right way in which innovation needs to be incorporated in FinTech solutions. Besides the strategic actions required for the current challenges, this research assesses the implications of the implementation of FinTech in the operation and market from the perspective of the major stakeholders in financial services in addition to the views of the end consumers. It bears the potential to aid in the development of research-based discourses concerning the current state of financial access in India as well as the development of meaningful policies and contexts for containing new structures of financial services for marginalised stakeholders (Asif et al., 2023).

3.5 Research Strategy and Design

The research strategy in this case employs a case study technique with an area of interest being India. This type of design is chosen, as it provides an opportunity for a more detailed exploration of FinTech use and its impacts in a specified, non-trivial context. Since case studies allow researchers to explore live processes and phenomena, they are most appropriate for analysing contemporary occurrences, including the importance of FinTech in the financialization of disadvantaged groups. Data collection in the study is a combination of different techniques that should help in capturing all the important aspects of the study problem (Hennink et al., 2022). Key informant interviews with senior managers of firms in the FinTech space, government authorities, and financial experts give better understanding of strategic, tactical and policy issues related to FinTech incorporation. Group discussions with end-users of FinTech services provide primary data from people who are directly concerned and engaged with these technologies; it unveils working pros and cons. Secondary data in the form of reports, policies and literature related to FinTech and financial inclusion in India along with the primary data is collected and analysed. Employing this triangulated method affords greater validity and reliability of the results, leading to a deeper understanding of how FinTech can facilitate financial inclusion across various demographic areas in India. The case study design therefore gives a strong background to answer the research questions and enable the achievement of the research objectives (Eleanor, 2020).

3.6 Data Collection Technique

The data collection methods adopted in this study are all meant to ensure that multiple and overall information on the impact of FinTech on financial inclusion in India is collected. Three primary methods will be used:

Semi-Structured Interviews: These will be given to 10 participants comprising of the FinTech firm managers, policymakers, financial analysts, and any other participant in the financial sector. The participants will be purposefully chosen according to criteria like the occupational position in the FinTech industry, years of work, and, most importantly, the direct implication in the FinTech projects of financial inclusion. The criteria used ensure that the participants have adequate knowledge of the matters in question for them to provide relevant information. The participants expected to participate in the study will be contacted by email, which will explain the research rationale, the possible benefits for the interviewees, and the themes to be discussed. Conducting the interviews semi-structured means that the interviewer will be able to probe further into particular areas based on the respondent's use of language (Adeoye-Olatunde, 2021). This approach provides for a richer and more contextual analysis of the strategic, technical, and policy dimensions of FinTech and its consequences for financial inclusion.

Focus Group Discussions: These will be end-users of FinTech services with opinions of accessibility, ease of use and the financial implications of FinTech solutions. Data will be collected through convenience sampling where the participant will be drawn from both the urban centre and the rural settings. The focus group discussions will be arranged on the onsite recruitment of participants from community centres, economic service suppliers, and social media platforms. A focus group will comprise 6 to 8 participants purposively sampled according to their engagement in FinTech services and their age, gender, and geographical location. The applied focus groups will help identify personal and group experiences, working concerns, and real-life issues of users in availing FinTech services (Gundumogula, 2020).

Secondary Data Analysis: This method involves a review of secondary literature data including reports, policies and articles on FinTech and financial inclusion. The

secondary data will complement the primary data collected through interviews and focus groups as it gives contextual information and reinforces the findings. Secondary data collection is crucial in the research process since it provides a broader view of the research issue and helps to answer the research questions on the same (Goldsmith, 2021). Secondary data analysis is expected to complement the primary data analysis results, thereby presenting a comprehensive insight into the research topic.

Data Triangulation

While conducting the research, to reduce bias and enhance the credibility of the study's findings, data triangulation will be employed. This process will involve making some comparisons between the data that would have been obtained from the semi-structured interviews, focus group discussions, and the secondary sources of data. Triangulation helps compare similarities and differences as it strengthens the understanding of how FinTech impacts financial inclusion (Adeoye-Olatunde and Olenik, 2021).

Recruitment Strategy: In the case of semi-structured interviews, purposive sampling will be utilized to obtain the participants with prior knowledge regarding FinTech and financial inclusion. When conducting the focus group discussions, the convenience sampling method will be used by recruiting a diverse focus group meeting certain criteria including age, gender and geographic location to ensure maximum variation and rich data is obtained (Goldsmith, 2021).

Triangulation Process: Cross-referencing will involve linking specific themes that would emerge from the semi-structured interviews with information drawn from focus group discussions and other secondary sources. For instance, if interviews state that lack of digital literacy hinders FinTech, this will be compared with the focus group data and works from other authorities or academics on digital literacy in rural India. This approach also has the advantage of enhancing the credibility and reliability of the findings since the results are replicated from different sources. Primary direct quotes from the interviews that describe dissatisfaction with some of the FinTech services would be compared to secondary more general sources like policy papers or statistical reports to get a bigger picture of the challenge (Goldsmith, 2021).

3.7 Data Analysis Technique

Semi-structured interviews, focus group discussions and secondary sources will be used to gather qualitative data and thematic analysis will be used to analyse the collected data. This technique is selected because of its capability to analyse qualitative data, as it structures the code in a logical manner in order to interpret data. The process starts with familiarization, or, in other words, a reiterative process by which the researcher acquaints the data in the form of written transcripts or notes (Husband, 2020). The next step in the process involves coding where researchers review data and assign numbers or tags to segments that bear a relationship to the research questions. These codes can thus be described as important patterns; concepts or themes present in the data.

Coding makes it easier to sort the collected data into segments that can be processed further. Once coding is done, the researcher will categorize the codes into themes based on their similarities. These themes are informative as they summarize and describe the data to answer the research questions. Thematic analysis helps in pattern recognition and finding work that is due to the participants' orientation and interactions. The last step is the final interpretation of the themes with the aim of getting insights and coming up with recommendations (Thelwall and Nevill, 2021). The synthesis will entail identifying the effects that FinTech had on the level of financial intermediation, the potential pitfalls, and approaches that can be employed to harness the potential of this innovative technology. This methodical approach also helps to avoid biases when providing an overview of the completed study and its findings.

Participant Recruitment

Semi-structured interview participants will be purposively selected, and the sample will comprise FinTech firm managers, policymakers, financial analysts, and other essential stakeholders in the financial industry reached through professional connections and email invitations. For focus group discussions, using convenience sampling will incorporate all the demographic groups, including the urban and rural users of FinTech services, which will be recruited from places of community centres,

financial services, and other online platforms (Husband, 2020). These strategies avail a wide scope to understand the implications of FinTech on financial inclusion.

Data Triangulation

This will ensure the verification of information gathered from the semi-structured interviews, focus group discussion, and secondary research by the technique of data triangulation. This method will compare and contrast given aspects to come up with a coherent approach to evaluating the impact of FinTech on financial inclusion. For example, focus group user satisfaction data will be contrasted with policy reports and interviews with related stakeholders (Thelwall and Nevill, 2021). Thematic analysis will synthesise these different sources, providing broad and accurate inferences.

3.8 Research Quality

Some of the strategies that will be put in place to avoid bias in the study are: This study will use data triangulation, involving the use of interview data, focus group data and review of secondary data to ensure the reliability of the findings and the overall understanding of the research issues. Member checking aims at participants validating the analysis of the collected data and thereby increasing the credibility of the results (Lemon and Hayes, 2020). In-depth descriptions will describe the context of the study and participants as well as how the results may generalize to other contexts. Documentation evidence recognizes the audit trail documentation of all research activities and methodological decisions about data collection, reduction, and analysis. This visibility will enhance the credibility, dependability, and transferability of the study and offer a useful set of data for other related settings. Besides this, there will be reflexivity, with the researcher constantly writing down possible own bias and interference in the process (Bans-Akutey and Tiimub, 2021).

3.9 Research Ethics

Several ethical considerations are relevant to this study to enhance the research process's credibility. All participants will be asked to sign the consent form to participate in the study willingly after explaining the purpose of the study, procedures involved and possible risks. Privacy will be upheld, and participants' information and any features that identify them will be kept off (Anna-Maija Pietilä et al., 2019). To

ensure the privacy of participants, their identity will not be revealed in the analysis of findings through the use of aliases and code numbers. Informed consent will be obtained to the fact that the participants will be free to withdraw from the study at any time without any consequences. These ethical practices will protect the rights of participants and also ensure that the study has a high level of credibility and ethical standards. In addition, to minimize possible sources of bias, the researcher will conduct ethical reflexivity prior to and during the research process whereby any emerging ethical issue or bias implication will be scrutinized and dealt with effectively (Taquette, 2022).

3.10 Research Limitations

Despite the research design adopted in this study and the data collection methods that have been used, some issues need to be highlighted. First, the use of qualitative data such as semi-structured interviews and focus group discussions may be subjective since the participants give their opinions and experiences that may not be factual. Furthermore, the purposive and convenience sampling approaches, which were used to capture certain groups, might have low external credibility or transferability of study results to other settings. The presented sample may not be fully representative of the Indian FinTech sector due to the limited number of one-to-one interviews conducted. In addition, the use of secondary data together with background information can cause a mismatch in the analysis of the actual data eventually collected. However, the thematic analysis method that is relevant to qualitative research may also be limited by the interpretation made by the researcher which compromises the objectivity of the outcomes. Such limitations imply that results should be generalized with some degree of caution and indicate the necessity of utilizing mixed method research in subsequent studies.

3.11 Chapter Summary

The following research methods highlighted in this chapter include: research philosophy, approach, purpose, strategy and design, data collection and analysis tools, quality assurance measures, and the question of ethics. Each of these components contributes to the proper organization of the study and its readability, while also

guaranteeing its reliability and compliance with ethical standards, on which understanding the role of FinTech in financial inclusion in India is based. This is the case because the methodological stringency used guarantees the reliability and validity of the results obtained. The conclusion of the next chapter will be a synthesis of the research findings by organizing them into themes based on thematic analysis.

Presentation and Discussion of the Findings

4 Chapter 4: Presentation and Analysis of Findings

4.1 Introduction to the Chapter

This chapter gives the result of the research carried out to understand the impact of FinTech in promoting financial inclusion in India. This chapter aims at presenting analysis of the qualitative data collected from semi structured interviews as well as focus group discussions, with specific reference to thematic analysis. The first section of the chapter is the demographic analysis of the participants of the study, the second section is the analysis of stakeholder insights. It discusses the concerns, advantages, and possibilities of FinTech implementation to connect the discussed findings to the study questions and goals presented in the preceding chapters.

4.2 Data Presentation

4.2.1 Theme 1: FinTech Adoption and demographic differences

The analysis of FinTech use in India shows that there are considerable differences in the level of its usage across the segments of the population, especially those living in urban and rural areas. Age, income and regional characteristics are the important aspects of this theme, which illustrates the significant impact that they have on the usage of FinTech services. Again, the usage of FinTech in urban settings is relatively higher because the young generations such as Millennials and Gen Zs are more inclined towards technology and are more open to using digital platforms (Paddalwar, 2021). It is from such populations that people own smartphones, access high internet speeds, and are conversant with the use of mobile apps in making different financial transactions, including payments, banking, and investing. The young, urban customer is more inclined towards a cashless economy of digital wallets and financial apps such as Mobikwik and PayTM, etc.

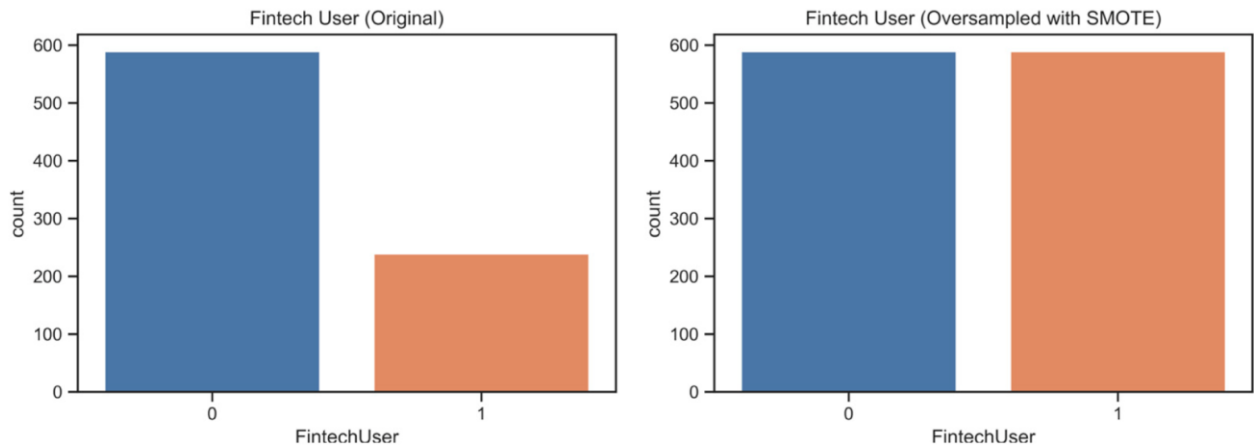


Figure 3: Adoption Factors of FinTech

(Source: Mahmud et al., 2022)

On the other hand, the use of FinTech is considerably low in the rural regions. The main reasons that can be attributed to this gap include; limited internet connection, low levels of digital literacy, and a culture of cash transactions. The interviews show that rural people especially older people and those with low income are reluctant to use FinTech services because of security concerns, perceived difficulty in using the services and lack of trust in online financial services. Also, the affordability of smartphones and data subscriptions is still out of reach for many in these regions, which poses another challenge. Another factor that has influence the use of FinTech applications is the income level. FinTech services are more accessible to the well-off since they can afford the tools used in accessing the services such as smartphones and stable internet connections (Kanimozhi and Dayana Rose, 2022). However, lower-income earners especially those in rural areas are inclined to spend their money on essential commodities which makes FinTech services to be out of their reach. The problem is worse given the disparities in geographical location. Urban regions have improved infrastructure, higher governmental and private investment in digital services, and more awareness of FinTech advances. However, rural territories face several infrastructural drawbacks, including weak internet connection and fewer contact points for FinTech services like agents or banking correspondents.

4.2.2 Theme 2: Challenges to the Access of FinTech for Low-Income Groups

There is great potential for FinTech to enhance financial inclusion in India but its usage of it has some limitations and hurdles, especially in the less banked and rural sectors. These challenges, such as low digital literacy, poor and unreliable internet connection, lack of trust in online transactions, and long-standing traditional cultural perception of cash as the preferred mode of payment present significant barriers to the extension of FinTech services to these groups. Lack of digital skills is one of the most significant challenges to FinTech. A significant number of people in rural areas are not even conversant with the basic skills in using technologies for FinTech solutions (Bazarbash, 2019). This lack of confidence in technology is not only limited to the use of mobile applications but also in applying and using the technology in general because of the fear of making mistakes or being victims of scams. The interviews reveal that such lack of literacy is especially true for the older generations and women, who exercised less influence on the advancement of digital technologies.

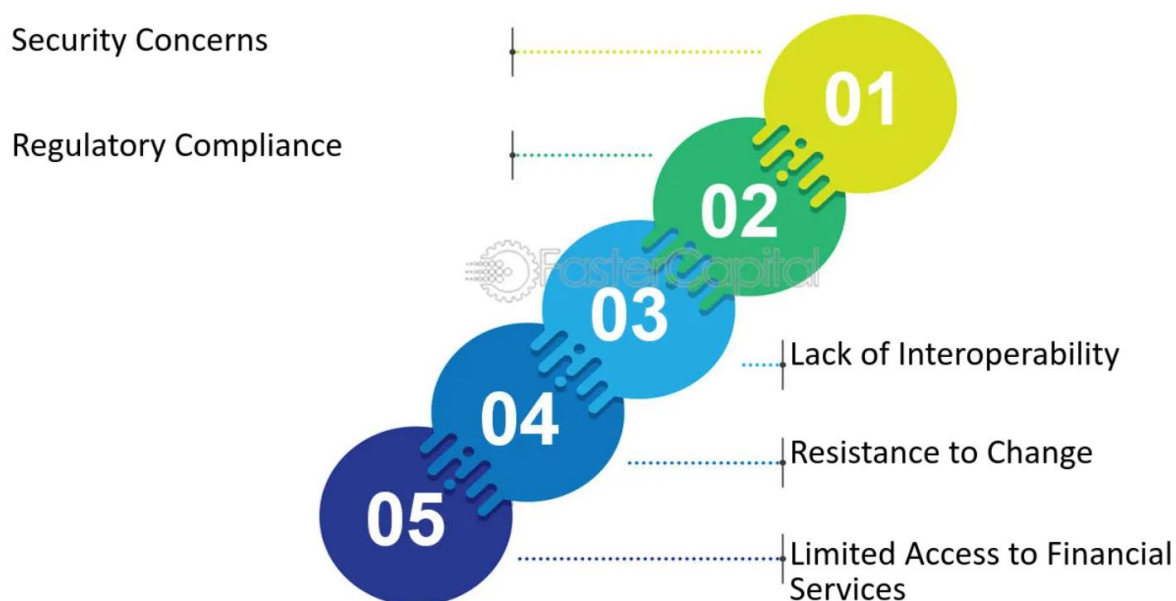


Figure 4: Challenges to the Access of FinTech for Low-Income Groups

Another important factor is internet availability and connection. Still, there is a lack of consistent and cheap internet connection in many rural areas of the country. Where internet services are available, they are often of a low quality, characterized by slow connection and regular disruptions, and this makes it hard for users to access FinTech

services frequently. This lack of connectivity not only hinders the utilization of digital financial services but also prevents potential users from trying to utilize these technologies in the first place. Another problem is the trust in digital transactions. Most of the rural people doubt the security of online financial services since they are prone to fraud, breaches of privacy, and loss of money. This is reinforced by an inadequate knowledge of how such systems operate which makes people reluctant to move from the conventional cash-based transactions (Soriano, 2017). Consumption trends are still inclined towards barter trade and cash across many emerging markets. While cash is considered real and safe digital money is considered fake and unsafe. It is more so in the rural areas of the country, where the population is comparatively less literate in the use of cards and still prefers to transact in cash.

4.2.3 Theme 3: Impact of FinTech on Financial Inclusion Metrics

Analysing the impact of FinTech on the key indicators of financial inclusion in India reveals that it has made further advancements in the availability of banking, credit, and insurance services. This theme is focused on how mobile payments and digital lending are altering the financial services industry and filling the gaps in financial inclusion for the excluded groups. The most significant development in this regard has been mobile payments where innovations such as UPI have brought significant changes in the manner in which transactions are handled. UPI has made money transactions easier and more efficient where people can transfer money instantly across bank accounts and also has made it easier for people in rural areas (Hollanders, 2020). This has extended the reach of financial institutions and made it possible for more people to engage in the financial sector even without a bank account. The widespread adoption of mobile payment solutions has significantly increased the volume of digital transactions, reflecting a shift from cash-based to digital economies even in rural areas.

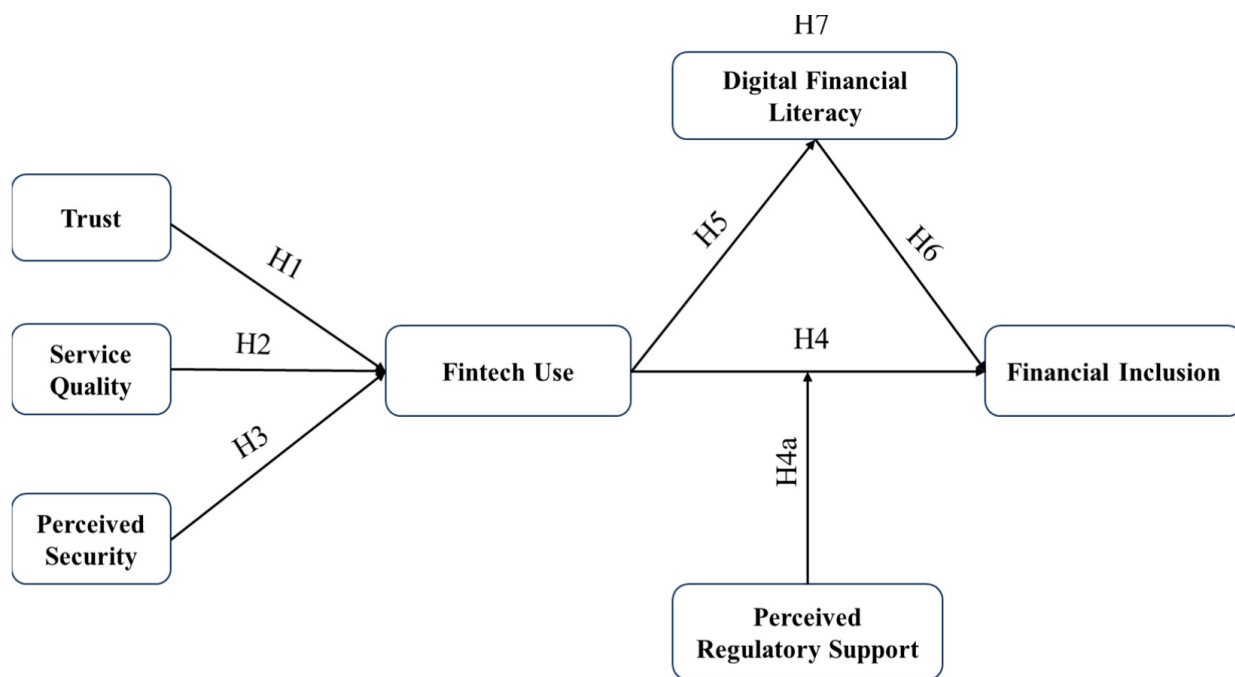


Figure 5: Impact of FinTech on Financial Inclusion Metrics

(Source: Mdpi.com, 2024)

Digital lending platforms have also played a crucial role in enhancing financial inclusion. These platforms leverage alternative data sources, such as mobile phone usage and social media activity, to assess the creditworthiness of individuals who lack traditional credit histories. This innovative approach has made it possible for people in underserved communities to access credit, which was previously out of reach due to the lack of formal banking infrastructure or conventional credit scores. Small businesses and individuals in rural areas can now obtain loans more easily, enabling them to invest in opportunities that can improve their economic standing. In addition to banking and credit, FinTech has also made strides in the insurance sector. InsurTech platforms offer tailored insurance products that are accessible to low-income individuals and those in remote locations (Beck, 2020). These platforms provide affordable, user-friendly insurance options, increasing insurance penetration among populations that were previously uninsured or underinsured.

4.2.4 Theme 4: Government Policies and Regulatory Frameworks

Due to the involvement of government and policies in the framing of regulatory structures, FinTech solutions have gained significant adoption in India. This theme

assesses the effects of these initiatives on the FinTech sector, the progress made, and the areas that require enhancement, including the rural population and other underserved demographics. The Indian government has brought out some landmark measures that have greatly contributed towards the growth of FinTech. Initiatives such as Digital India, initiated in 2015, have provided a framework for a digitally integrated society by creating digital infrastructure, facilitating internet connection, and enhancing public awareness (Rupeika-Apoga and Thalassinou, 2020). These have been central in building the environment that supports the FinTech and mainly in urban areas where the technology is well developed.

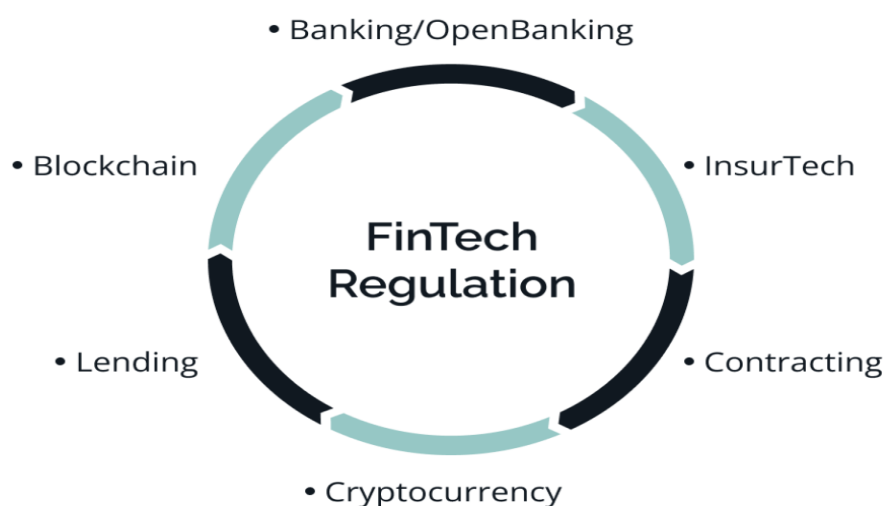


Figure 6: Government Policies and Regulatory Frameworks

(Source: Grinberg, 2024)

Another notable development is the Unified Payments Interface (UPI), which is also an innovation of NPCI – National Payments Corporation of India. UPI has enabled millions of transactions, and hence payment digitization is now possible and easy for a large population of people. This has been particularly successful in the urban areas where the use of UPI is high mainly due to its contribution to the emergence of the cashless society. As for the outcomes of such initiatives, they have been more effective for the urban markets than the rural and underdeveloped ones. However, there are challenges that still persist including; limited access to the internet, low literacy levels, and cultural lag that hampers the use of FinTech in these regions despite the efforts by

the government. The laws, policies, and programs that exist are generally favourable to innovation but do not have the level of adaptability necessary to meet the needs of rural communities. For instance, measures such as KYC (Know Your Customer) are essential for security but may be a bottleneck to the population in rural areas who cannot easily obtain formal identification (Xu et al., 2021). Sometimes, the regulatory flow does not catch up with the fast-evolving environment that is characteristic of the FinTech industry. Because of this, there are issues arising from regulatory uncertainties that affect the FinTech companies especially the start-ups. Further, there is also a call for sector-specific policies that will directly focus on several challenges that hinder the implementation of FinTech solutions in the rural regions including sensitisation and development of communication networks.

4.2.5 Theme 5: Cultural and Social Factors Influencing FinTech Adoption

This is a crucial concern since cultural and social aspects bear a lot of influence on the utilisation of FinTech in India due to the heritage and customary practices of the country. As for this theme, it is concerned with the moderating role of cultural factors, particularly the cultural endowment of preferring cash transactions in many cultures. Cash culture is very much prevalent in most of the regions of India and it is considered to be a safe, accepted and physical mode of transactions. This is particularly true with people in rural regions, and older people who are particularly wary of digital transactions (Kumar, 2021). The physical form of cash offers a feeling of control as well as the ability to use money instantly that digital money cannot offer and as such, FinTech solutions are hard to penetrate in these regions. This is complemented by social beliefs and practices in which the use of cash is considered the norm in doing business whether it is in buying a cup of coffee, a loaf of bread, or investing in an informal business among others.

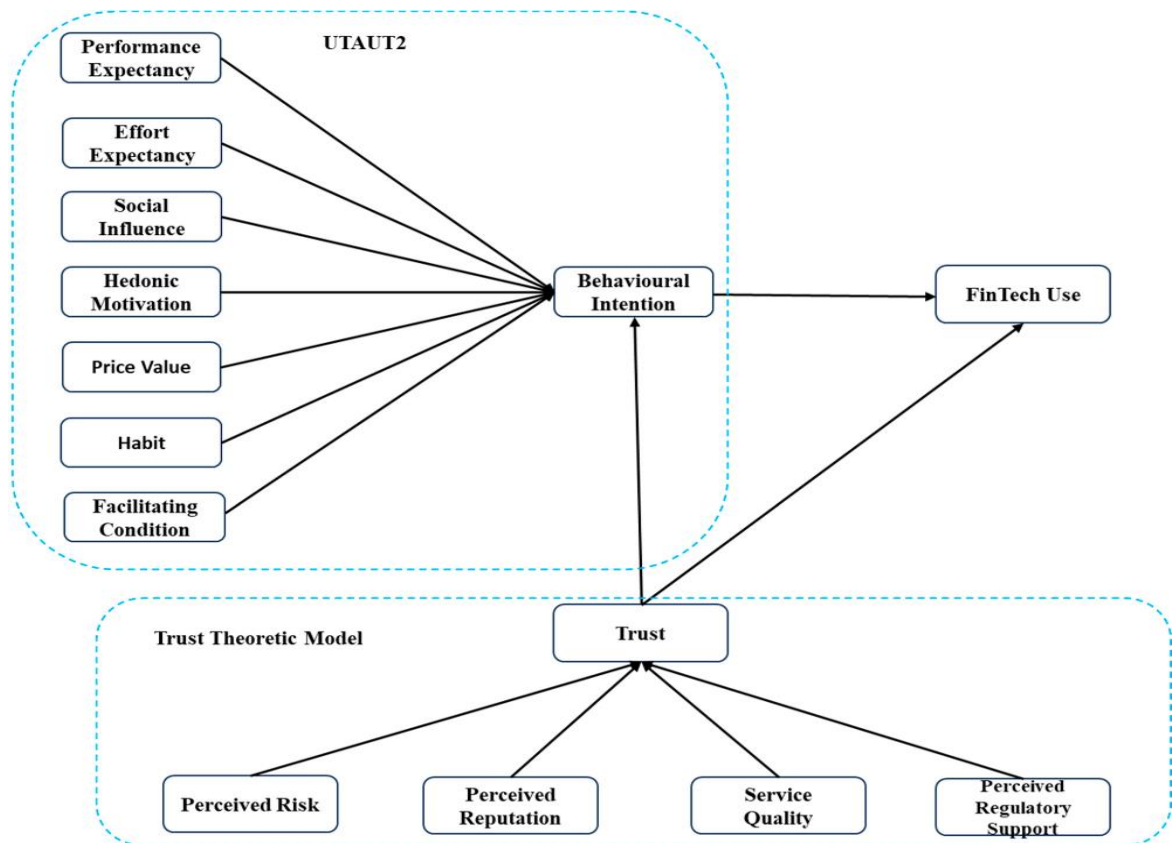


Figure 7: Cultural and Social Factors Influencing FinTech Adoption

(Source: Mdpi.com, 2024)

Trust is also another cultural factor that affects FinTech adoption. Such sentiments are common, especially among the less connected populace especially those in the rural areas and other hard-to-reach areas as they feel that their money is not secure with digital financial platforms and they are prone to fraudsters. This is even accompanied by a poor comprehension of how digital financial systems function and therefore there is a resistance to move from cash to digital payments. The belief that digital transactions are complicated and dangerous enhances the preference for cash, which is a hurdle to FinTech. At the same time, cultural factors can also play a role of enablers provided the conditions are favourable. For instance, the youth in urban areas are more inclined towards the changes in financial technologies because they are more in touch with new interfaces and are not as closely associated with physical money (Kumar and Kaur, 2023). Word of Mouth and influence from the community also helps in the diffusion of FinTech services. Influential people in a society or local leaders are likely to influence other people to embrace the technology by using digital

financial solutions. These cultural barriers have however been spotted by the government and the growing FinTech firms through campaigns of financial literacy. Awareness and education efforts that focus on the positive aspects of digital transactions are slowly eroding the prejudices and gradually more people are turning to FinTech as an option to cash.

4.2.6 Theme 6: Strategies for Enhancing FinTech Adoption

In order to eliminate the problems and obstacles associated with FinTech implementation, especially in the areas where it is not well-adopted, several approaches and guidelines may be used. This theme discusses these strategies, in terms of what is done to meet the challenges experienced by rural and low-income customers as well as the new trends within the FinTech sector to improve financial inclusion in India. As for the critical strategies, it is worth mentioning the enhancement of the population's digital literacy and financial literacy. In many communities, potential users are not aware of the existence of digital tools and financial concepts, which diminishes their interaction with FinTech services (Aggarwal et al., 2023). Community-based education interventions make use of community centres, schools, and local organizations to provide the requisite knowledge and skills to enable the effective use of digital financial services. Such initiatives should be adapted to the target populations and their literacy levels, and delivered in local languages, supported by examples familiar to the populations.



Figure 8: Strategies for Enhancing FinTech Adoption

(Source: Fastercapital.co, 2024)

Another is strengthening the physical foundations of the digital society, especially the internet and affordable smartphones. Even if the FinTech services are designed in the friendliest manner to the user, if the user lacks a stable internet connection or the necessary devices, then he or she is out of luck. PPP may involve the extension of broadband connectivity to rural and other unserved markets, lowering the cost of broadband Internet, and affordable smartphones through subsidies or microfinancing. Establishing trust in digital financial services is also important. It is therefore imperative that FinTech companies address issues of transparency, stringent security and more importantly interface designs that inspire confidence away from these sentiments (Hollanders, 2020). Ensuring that the customer support promptly responds to customers in their vernacular also helps create confidence to the users who may be first time to use digital financial services. Also, engaging the support of local opinion leaders within the community makes the FinTech solutions acceptable within the community.

Some of the other trends that are evident within the FinTech sector are Neobanks and the utilization of blockchain and such trends present further possibilities of increasing financial inclusion. Solutions such as Neobanks which are banks that do not have a physical presence in the form of branches may be able to offer banking services to areas that are not served by physical branches. Blockchain can solve some of the trust problems which are related to the adoption of FinTech and can improve the security and traceability of transactions.

4.3 Analysis of Findings

From the research, the following are the implications of the study on the understanding of the place of FinTech in the promotion of financial inclusion in India especially among the less privileged persons. This analysis section provides a deeper understanding of the themes arising from the study such as demographic factors, barriers to adoption, effect on the financial inclusion indicators, policy, culture and social factors, strategies for increasing adoption and their overall impact on FinTech in India.

Demographic Disparities in FinTech Adoption

The study points out a high level of demographic segmentation in the use of FinTech services in India, where the urban areas are much more advanced as compared to the rural districts. People living in cities, especially young people and the ones with higher disposable income, have adopted FinTech solutions because they are more connected to the digital environment, more literate in that context, and more familiar with technology. At the same time, rural areas have significant threats that make it difficult for FinTech to gain widespread popularity. The youth, especially those living in urban centres, are more technically inclined, owning smartphones and have better access to the internet for use in mobile banking applications, digital wallets and other FinTech solutions. This group is also more willing to try out new forms of financial services as provided by FinTech because of the convenience that is associated with the services. It is also important to note that FinTech adoption will be more likely by the higher income individuals due to their ability to acquire the relevant technologies and services hence the increase in the gap between the urban and the rural areas.

Barriers to FinTech Adoption in Underserved Communities

The following are some of the main issues that hinder the use of FinTech in the underbanked populations especially those in the rural regions. The main factors are low levels of digital literacy, insufficient access to the Internet, lack of confidence in digital payments, and cultural attitudes to the use of cash. This is an important factor because the majority of the people living in rural areas have poor digital skills to enable them to manage digital financial services. Lack of awareness about these services also hinders the extent to which they can access FinTech services and a general avoidance of digital tools. Ironically, older generations and women are less tech-savvy limiting their participation in the digital financial system even more. Another significant issue is internet access.” A large population of the population in India resides in rural areas where there is weak internet connection, low speeds, and interrupted connections which hinders the ability of the users to continue to access FinTech services. In those places where internet services are attainable, the costs of data plans are relatively expensive for low-income earners hence they cannot access internet-based financial

solutions. Confidence in the electronic transactions is still an issue. The study shows that rural people still doubt such services to be secure and safe from fraud and hackers' attacks. This lack of trust is further worsened by poor knowledge of how the digital financial systems work hence a shift towards cash.

Impact of FinTech on Financial Inclusion Metrics

Overall, the study reveals that FinTech spearheading innovation in financial services has made considerable progress in enhancing financial accessibility in India, especially in the sphere of banking, credit, and insurance. Mobile payments and digital lending services have made it possible to open the financial markets for people who have been excluded from traditional lending services. Mobile payments through the Unified Payments Interface (UPI) have transformed the way transactions are carried out in India.

UPI has made money transfers easy and quick and has made the process of doing financial transactions quicker and easier including in areas where there are no banks. This has helped to bring more people into the fold of the formal financial system as they can transact in financial markets without having a formal bank account. Mobile payment solutions have also played a role in the shift from the use of physical cash to digital cash in most markets, especially the urban markets. Social and digital lending platforms have also supported efforts aimed at increasing access to financial services. These platforms use non-traditional credit data which include the use of mobile phones and social media to estimate the credit worthiness of individuals who cannot avail credit history. Insurtech platforms have also demonstrated improvements in the extension of insurance to vulnerable populations and regions.

Role of Government Policies and Regulatory Frameworks

Several government policies and regulations have played a key role in the emergence and use of FinTech solutions in India. Digital India and UPI have been launched to empower the nation digitally and to enhance digital facilities and literacy. The Digital India initiative that was started in 2015 has helped in the growth of FinTech by providing a favourable ground for digital transactions. The emphasis on enhancing

internet connectivity and increasing the use of the internet has been instrumental in the delivery of FinTech services, especially in the developed regions. UPI, which has been launched by NPCI, is another historical step that has created a huge change in the digital payment system. Real-time payment through UPI has made millions of transactions possible, and digital payments have become convenient for a majority of people. This success, however, has been more so in the urban areas, where the physical structures for the digital networks have been established.

Cultural and Social Factors Influencing FinTech Adoption

Peculiarities of the cultural and social context of the country also influence FinTech development in India to a great extent. The preferential use of cash over other means of payment, especially in rural areas, is a major factor that has inhibited the growth of the digital financial services sector. Across numerous states in India, the use of cash has become firmly embedded and is viewed as a tangible, reliable, and widely accepted means of transacting. This penchant for cash is particularly felt in the rural regions and with the pre-independent generations, which remain sceptical about digital transactions. The tangible characteristic of cash gives an element of control that digital money cannot offer and thus difficult for FinTech solutions to become acceptable in these societies. Perhaps the last but not least significant cultural factor that affect the adoption of FinTech is trust. Some people especially those in the rural areas and other areas that are not been reached by the internet are reluctant to use the digital financial platform due to issues of fraud, data privacy and the inability to secure their money. This distrust is supplemented by a poor understanding of how these systems function, thus people are very reluctant to change from cash to digital payments.

Strategies for Enhancing FinTech Adoption

The following are the main strategies and best practices that can be implemented to address the challenges and barriers when it comes to FinTech adoption, especially for the less privileged individuals: That is why it is so important to increase digital literacy and financial literacy, which can be defined as the ability to make the right decisions with the help of the Internet. Awareness-raising measures that include the usage of

community centres, schools, and other local initiatives can help teach people about digital money and enable them to use financial technologies without reluctance. Another factor that should be improved is the infrastructure; this includes internet connection and the availability of cheaper smartphones. Partnership with private sector entities could be used to extend fibre-optic connections in the rural areas to boost broadband penetration, lower the barriers of availability of the internet, and perhaps, avail cheap smartphones, through subsidies or micro-financing means. Another of these is the establishment of trust in digital financial services. Some consumers still have unproven perceptions about FinTech companies thus the need for FinTech companies to emphasize their openness; security and good interfaces that can minimize instances of fraud and unauthorized access to consumers' personal information. Supporting customers in their local dialect can also add to the propagation of the service among users who may have limited exposure to digital financial services.

4.4 Summary of the Chapter

This chapter examined the research on FinTech usage in India, including the differences between gender, age, and region, the challenges faced by disadvantaged groups, and the changes in financial accessibility measures. It underlined how users residing in urban areas and having a higher income are ahead in the process due to better access to technology on the other hand there are barriers like low digital literacy and limited internet access especially in rural areas. The Digital India program and Unified Payments Interface or UPI have gone a long way in the evolution of FinTech, but the countryside is still left behind. Cultural preference towards cash and some trust challenges also prevent the uptake of the innovation. Some of the strategies include increasing the adoption of technology, the improvement of structures, and the innovative models such as Neobanks and blockchain.

5 Chapter 5: Conclusion

5.1 Introduction

This chapter gives a broad conclusion to the research with a restatement of the findings, the purpose of the study, objectives, and research questions. It presents the theoretical and managerial contributions of the research and shows how the findings advance knowledge in the FinTech context. The chapter also includes the limitations of the study and how they may have affected the findings. At last, it provides recommendations for further study based on the findings of this work to present a balanced conclusion for the research process.

5.2 Revisiting Aim/Objectives/Questions

The objective of this study was to investigate the application of FinTech in improving access to financial services in the context of India by surveying the level of FinTech usage, the advantages and disadvantages of FinTech usage, and the measures to encourage FinTech usage among different population groups.

Objective 1: Assessing the Extent of FinTech Utilization by Various Demographic Groups in India

This objective was achieved through the examination of demographic differences in FinTech usage. In the studies, it was noted that there was a stark contrast in the level of usage between the urban and the rural dwellers since the former has better access to technological networks and literacy. On the other hand, the number of sales through e-commerce platforms remains relatively low in rural areas because of weak connectivity, comparatively low literacy regarding the digital world and the general tendency to avoid using cashless means of payment. Such discrepancies explain why there is a push for FinTech solutions for people of all ages and from all backgrounds in order to reduce the digital deficit.

Objective 2: Investigating the Impact of FinTech Services on Financial Inclusion Metrics

The research effectively addressed this objective by detailing the effects of mobile payments, digital lending, and Insurtech on various financial inclusion indicators. The research also revealed that FinTech has enhanced banking, credit, and insurance services in the financial market and for unbanked individuals. The use of digital platforms such as UPI and lending solutions has ensured that more people and small traders can access financial services. These outcomes are in line with theories on the use of technology in increasing access to financial services in developing countries.

Objective 3: Identifying Key Challenges and Barriers to FinTech Adoption

This objective was achieved by defining key impediments to the growth of FinTech adoption such as lack of digital literacy, inadequate internet connectivity, lack of trust in digital transactions, and the culture of non-use of other forms of payment than cash. Such barriers are more pronounced among the rural and other hard-to-reach populations, who are still stuck in traditional ways of financial management and are sceptical of online services. From the discussion of these challenges, it was possible to gain some understanding of the nature of the common hurdles that require to be overcome to improve FinTech solutions in the respective fields.

Objective 4: Evaluating the Regulatory and Policy Environment

Based on the research, this work examined the impact of government policies and regulations on FinTech development in India. Such policies as Digital India and UPI have played a big role in the growth of FinTech, particularly in urban space. However, the study called for further relaxation and decentralisation of the current regulations to suit the peculiar needs of the rural people. The evaluation emphasized the need to harmonise rules of law with the requirements of the target vulnerable groups to enhance financial access.

Objective 5: Proposing Actionable Recommendations for Enhancing FinTech Adoption

Last but not least, the research gave practical solutions to tackle the aforementioned challenges such as Digital Literacy, Internet Infrastructure, and New Age Solutions such as Neobanks and Blockchain. These strategies were explained in detail to provide some

real solutions to the policymakers, FinTech firms, and other relevant players on how to improve on the use of FinTech and improve on financial inclusion across the country.

Revisiting Research Questions

Each research question was effectively answered through the study's findings:

- **What is the current level of FinTech adoption among different demographic segments in India?** The study revealed significant disparities, with urban populations leading in adoption.
- **How do FinTech services impact financial inclusion metrics in India?** FinTech has significantly enhanced access to banking, credit, and insurance, particularly in urban areas.
- **What are the key challenges to FinTech adoption in underserved populations?** Barriers include low digital literacy, poor internet access, and cultural resistance.
- **How do regulatory and policy frameworks influence FinTech adoption?** While supportive, current frameworks need to be more flexible and tailored to rural needs.
- **What strategies can enhance FinTech adoption in India?** Strategies include improving digital literacy, and infrastructure, and leveraging emerging technologies.

5.3 Theoretical Implications

This research indeed adds a wealth of knowledge to the literature on FinTech and financial inclusion especially in emerging economies such as India. The study re-emphasizes the fact that FinTech can be useful in fostering social inclusion by extending banking, credit and insurance services to many people who have not been served before. The results are in line with the theories that explain how technology can help to overcome barriers in the provision of financial services especially in the regions where conventional banking services are scarce. This paper's main research findings include a detailed analysis of the demographic factors of FinTech use. Unlike

previous studies that have focused on the gap between the digital haves and have-nots where the latter are mostly the rural dwellers, this study brings out a clear understanding of how income, education, and culture affect the use of FinTech. This underscores the need to take into account these factors while designing and deploying FinTech solutions, which the paper proposes that 'one-size-fits-all' approach may not be adequate to address the challenges of financial inclusion.

The study also proposes a conceptual framework of cultural and social factors that are relevant in the context of the adoption of FinTech solutions. Although earlier studies have incorporated cultural preferences into financial behaviour, this study underscores the prominence of these factors in enhancing or restraining the use of FinTech. In this way, it expands the prior theories that are mainly technology and economics-based but address the issue of financial inclusion. The research implications deny the idea that the advancement in technology is enough to spur the financial sector to include the financially excluded. The study establishes that while FinTech has opened up financial services to the previously excluded, challenges like low literacy in technology and digital platforms and scepticism towards online transactions still exist among such groups. This means that the existing theories should accord more importance to the socio-cultural and infrastructural environment of FinTech as opposed to presuming that the availability of technology will lead to increased use. This research is significant to the theory of FinTech and financial inclusion because it brings new data and analysis on demographic, cultural, and socio-economic factors. It implies that FinTech is not just a technological phenomenon but also implies that there needs to be specific interventions to reach out to those segments of the population in emerging economies.

5.4 Managerial Implications

The study provides useful information to policymakers, FinTech firms and other players in financial innovation through technology. The study also gives policymakers a clear picture of the need to develop policies that will enhance access to credit facilities by rural and other scarcely populated areas. It is suggested that the authorities develop less rigid and more place-specific rules for the development of digital solutions and

make it easier for the rural population to meet the KYC regulation, for instance, in areas with limited document access.

From the research, there are implications for FinTech firms, especially in the area of digital literacy and trust. The firms should ensure that they spend on community education programs so that the prospective users are well equipped with the knowledge on how to operate the online financial platforms. Local opinion leaders and community leaders can also be engaged in partnership with institutions in order to gain the trust of various communities and promote the use of digital financial services. The last recommendation for FinTech firms is to avoid focusing solely on the high-tech solutions and create applications that are simple to use with lower digital literacy or internet connection.

Civil society organizations such as NGOs and schools and educational institutions can compliment the efforts of FinTech firms and governments through collaborations in ensuring that the community is well sensitized on use of technology and connectivity is encouraged to areas that have little or no access to internet. Concrete measures are to begin public awareness campaigns on how to use the internet, to extend the internet connection in rural areas using private-public partnerships, and to develop easy, culturally sensitive, and innovative financial technologies. When these efforts are synchronized, it becomes possible to improve the uptake of FinTech in the concerned developing economies, including India where such solutions are relevant.

5.5 Research Limitations

Sample Size: The sample size used in most cases was small in the quantitative section of the research and included interviews and focus groups. Despite these insights, the researcher concedes that the sample size is relatively small and therefore may not effectively capture the experiences of all Indian users. This limitation limits the transferability of results to the population level. Future research could involve use of broader, more diverse samples that would include a wider cross-section of the population from across India.

Geographical Focus: The study was focused on several regions of India, both the states as well as the cities and rural areas in some of them. There is a possibility that these

geographical constraints affected the study's conclusions since India has a complex infrastructure, culture, and economy across the states. Subsequent research should endeavour to incorporate a wider geographical sample that will help to generalize on the findings across the nation.

Methodological Constraints: The most common type of research carried out was based on interviews accompanied by thematic analysis as the latter gives a great deal of information at the same time it is not free from biases. Also, self-administered questionnaires might give rise to various biases that include minimal or exaggerated FinTech usage or the difficulties experienced. Despite these limitations, future studies could use both quantitative and qualitative approaches, and longitudinal data to avoid such biases.

Focus on Specific FinTech Services: The study was on a selection of FinTech services, including mobile payment and digital lending, which may leave out other subsectors of FinTech that are still evolving and growing like cryptocurrency and advisory. This narrow framing of the study restrains its outputs and their relevance to the complex FinTech context. Subsequent studies should consider a broader category of FinTech services to include a range of technological solutions meeting people's needs.

Cross-Sectional Nature: The investigation was a cross-sectional one, which prevented the possibility of investigating changes in FinTech usage and the corresponding difficulties over time. Further research is suggested to enrol more participants longitudinally to assess the changes of FinTech use over another period in terms of the effects of these technologies on financial inclusion in the longer term and other trends for policy and practice.

5.6 Recommendations

For Policymakers

Improve Digital Literacy through National Campaigns: The government should promote a broad digital literacy plan for appropriation towards rural and low-income citizens. Some of these mechanisms could be establishing of offices in various communities with facilities availed that contain Fintech services and trainers who can

teach citizens how to engage the services. Also, digital education included in the school curriculum can guarantee future generations have good skills in digital financial services.

Incentivize Broadband and Smartphone Accessibility: Create policies that would encourage the telecom companies to deploy broadband connection and increase the availability of affordable smartphones. This could be through establishing of public private partnerships (PPP), subsidies for affordable housing, or tax incentives for organizations that embrace rural Internet connectivity.

For FinTech Companies:

Develop User-Friendly Interfaces: Mobile workers and low digital literacy customers should also have natural and straightforward interfaces with which to interact with FinTech companies. Use of local languages and culturally sensitive images/icons may ensure that these platforms are easily understandable by all people.

Build Trust through Transparent Communication: To address this challenge, it is necessary for FinTech firms to adopt the following communication strategies. This could range from writing simple security descriptions and offering customer support services in local languages and simply educating the community on the safety of online transactions.

For Financial Institutions:

Leverage FinTech Partnerships: Large financial organizations should collaborate with FinTech startups to penetrate uncharted markets. Through the use of FinTech solutions, banks can expand their portfolio and offer very efficient services such as micro-lending or digital savings.

Offer Tailored Financial Products: Make financial solutions that are targeted at the rural population, for instance, affordable credit for entrepreneurship, or insurance considering the irregular income patterns. The choice of these products should be tailored to the cultural and financial characteristics of the chosen communities.

5.7 Future Research

Longitudinal Studies on FinTech Adoption: Future research might be directed towards following up the change in FinTech adoption over time to assess the dynamic aspect. This approach would help to identify how barriers and facilitators of FinTech use evolve, and thus get a better understanding of the permanent effects of FinTech on financial inclusion.

Expanding Geographical Scope: With regard to the geographical restriction, the future researches are recommended to incorporate more areas of India, especially the rural and tribal districts. This would enable the assessment of the level of heterogeneity in FinTech uptake across regions and the potential difficulties that may be encountered at some of the locations in the country.

Exploring Lesser-Known FinTech Services: The research can continue in the development of novel and relatively unknown areas of FinTech, for instance, cryptocurrency, robo-advice, or Insurtech. These areas are still emerging and might have the potential to contribute greatly to the concept of financial inclusion but unfortunately are rather under-explored in the context of emerging markets such as India.

Quantitative Analysis of FinTech Impact: To complement the qualitative findings of this study, future research could employ quantitative methods, such as surveys or econometric modelling, to measure the impact of FinTech on financial inclusion metrics more precisely. This would enhance the generalizability of the findings and provide robust statistical evidence to support policy and business decisions.

Investigating Cultural Adaptation Strategies: Since cultural factors are playing a crucial role in the use of FinTech, future research could focus on the methods of how to introduce FinTech services to different cultures. Studies could be dedicated to examine examples of effective cultural adoption of FinTech services, which can be used as best practices for the elimination of cultural challenges in other contexts.

5.8 Personal Reflection

The study's major conclusions about how FinTech might improve financial inclusion in India are outlined in the last chapter. It highlights the differences in literacy, connectivity, and cultural preferences that fuel the digital gap between urban and rural communities, demonstrating the inadequacy of technology on its own in the absence of educational and infrastructure support. The chapter emphasises the necessity of adaptable regulations made for rural areas and the significance of taking sociocultural aspects into account while promoting FinTech adoption. The main goals of the useful suggestions are enhancing digital literacy, fostering trust, and streamlining user interfaces. Lastly, it urges more research, especially on newly developed FinTech services and more extensive geographic investigations.

5.9 Chapter Summary

This chapter summarised the research by restating the study's purpose, objectives, and research questions, as well as the theoretical and managerial contributions of the study and the limitations of the study. It suggested future research directions, stressing that more inclusive and large-scale investigations should be conducted to increase knowledge about the relationship between FinTech and financial inclusion. The research is beneficial for the theory and practice, providing recommendations on the improvement of FinTech acceptance in emergent markets. Finally, it is evident from this study that FinTech is instrumental in enhancing financial inclusion in India, where remaining challenges must be solved to enable everyone to access financial services.

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Appendices

Appendix A – Interview Questions

1. How would you describe the current state of FinTech adoption in India, particularly in relation to different demographic segments such as rural and urban populations?
2. What do you perceive as the most significant challenges and barriers to the adoption of FinTech solutions among underserved and rural populations in India?
3. In your experience, how do FinTech services like mobile payments and digital lending impact access to financial services such as banking, credit, and insurance for the unbanked population?
4. How have government policies and regulatory frameworks influenced the development and adoption of FinTech solutions in India, and where do you see potential areas for improvement?
5. What role do digital literacy and internet accessibility play in the effectiveness of FinTech in promoting financial inclusion in India?
6. How might cultural factors, such as the preference for cash transactions, influence the adoption of FinTech services in India?
7. What are the potential benefits that FinTech solutions may provide to financially excluded populations in India, and how might these benefits differ across various demographic groups?
8. Can you discuss any specific FinTech innovations or services that have significantly influenced financial inclusion in India, and what factors contributed to their impact?
9. What strategies or best practices could be effective in overcoming the challenges and barriers to FinTech adoption among underserved communities in India?
10. What opportunities do you foresee for the FinTech industry in India to further enhance financial inclusion, and what emerging trends do you anticipate in this sector?

Appendix B– INFORMED CONSENT FORM

I. Research Study Title: Assessing the role of FinTech in financial inclusion in emerging markets: A Focus on India.

University: Griffith College Graduate Business School.

Principal Investigator: Dr Garrett Ryan.

Researcher Name: Jittimol Joseph

Email: jittimol01@gmail.com

II. Clarification of the purpose of the research

The aim of this research is to assess the impact of FinTech on financial inclusion in emerging markets, with a specific focus on India. By gathering insights through participant involvement and reviewing the latest research into FinTech adoption, this study will contribute to the academic understanding of how FinTech can enhance financial inclusion among underserved populations in India.

III. Confirmation of particular requirements as highlighted in the Plain Language Statement

This project involves taking part in semi-structured interviews. The interviews will be recorded and seek to gather information on your experience with FinTech and its impact on financial inclusion in India. Questions are directed towards your thoughts on the adoption, benefits, challenges, and regulatory environment of FinTech. I estimate the interviews will take no longer than 60 minutes to complete.

Participant – please complete the following (Circle Yes or No for each question)

Have you read or had read to you the Plain Language Statement Yes/No

Do you understand the information provided? Yes/No

Have you had an opportunity to ask questions and discuss this study? Yes/No

Have you received satisfactory answers to all your questions? Yes/No

Are you aware that interviews will be audiotaped? Yes/No

IV. Confirmation that involvement in the Research Study is voluntary

Involvement in this Research Study is voluntary. Participants who decide to take part may withdraw from the Research Study at any point. There will be no penalty for withdrawing before all stages of the Research Study are complete.

V. Advice as to arrangements to be made to protect confidentiality of data including that confidentiality of information provided is subject to legal limitations

Every effort is made to ensure the confidentiality of the participant. Participant names will not be recorded as all participants will be assigned a code. Recorded interview data will be downloaded to a password-controlled computer, and typed transcripts are held within password-controlled documents. Participant biographical details and mention of other persons will be omitted in the final report. Confidentiality of information provided is subject to legal limitations.

VI. Participant Signature:

I have read and understood the information in this form. My questions and concerns have been answered by the researcher, and I have a copy of this consent form. Therefore, I consent to take part in this research project.

Participants Signature: _____

Name in Block Capitals: _____

Witness: _____

Date: _____

Appendix C- Plain Language Statement

Introduction to the Research Study

Research Study Title: Assessing the role of FinTech in financial inclusion in emerging markets: A Focus on India.

University: Griffith College, Graduate Business School.

Principal Investigator: Dr Garrett Ryan.

Researcher Name: Jittimol Joseph

Email: jittimol01@gmail.com

II. Details of what involvement in the Research Study will require

This project involves taking part in semi-structured interviews. The interviews will be recorded and seek to gather information on your experience with FinTech and its impact on financial inclusion in India. Questions are directed towards your thoughts on the adoption, benefits, challenges, and regulatory environment of FinTech. I estimate the interviews will take no longer than 60 minutes to complete.

III. Potential risks to participants from involvement in the Research Study (if greater than that encountered in everyday life)

I do not anticipate any risk to participants as a result of participation in this Research Study.

IV. Benefits (direct or indirect) to participants from involvement in the Research Study

The objective of this Research Study is to gain new knowledge that will enable a better understanding of how FinTech impacts financial inclusion in India. This study may therefore be of benefit to you by providing you with the opportunity to contribute to the body of knowledge on financial inclusion and FinTech, so that you and society may benefit.

V. Advice as to arrangements to be made to protect the confidentiality of data, including that confidentiality of information provided is subject to legal limitations

Every effort is made to ensure the confidentiality of the participant. Participant names will not be recorded as all participants will be assigned a code. Recorded interview data will be downloaded to a password-controlled computer, and typed transcripts are held within password-controlled documents. Participant biographical details and mention of other persons will be omitted in the final report. Confidentiality of information provided is subject to legal limitations.

VI. Advice as to whether or not data is to be destroyed after a minimum period

Audio tapes and survey data will be destroyed on the successful completion of this master's degree in full compliance with GDPR regulations.

VII. Statement that involvement in the Research Study is voluntary

Involvement in this Research Study is voluntary. Participants who decide to take part may withdraw from the Research Study at any point. There will be no penalty for withdrawing before all stages of the Research Study are complete.