# Minor Project Report

# On

# A Study on Consumer Perception towards FinTech and Its Adoption

*Submitted in partial fulfillment of the requirements*

*for the award of the degree of*

**Bachelor of Business Administration (BBA)**

to

**Guru Gobind Singh Indraprastha University, Delhi**


Guide: **Ms. Swati Mathur**
**(Assistant Professor)**

Submitted by: **Harsh Goyal**
Enrolment No: **00814201721**




**Jagannath International Management School**


**Batch (2021-2024)**

# CONTENT

# Jagannath International Management School

## Vasant Kunj, New Delhi-110070

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## CERTIFICATE

This is to certify that **Minor Project – II** entitled **A Study on Consumer Perception towards FinTech and Its adoption** is a quality work done by **Harsh Goyal (Enrolment No. 00814201721)** completed under my supervision and guidance in partial fulfillment of the requirement for the award of degree of **Bachelor of Business Administration (BBA)** as a part of the curriculum bearing Course Code **BBA-218** in **Guru Gobind Singh Indraprastha University, New Delhi-110078**.

Countersigned by:

Head - Department of Management

Place: New Delhi

Date:

**Ms. Swati Mathur**

(**Project Guide)**

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# CHAPTER 1

# Introduction

Financial Technology, or FinTech, is a term that describes a set of new technologies that aim to improve and automate the delivery and use of financial services. FinTech is intended to assist corporations, business owners, and consumers in more efficiently managing their financial operations and procedures. It is made up of specialized software and algorithms that are run on computers and mobile devices.

Initially, the term "FinTech" referred to the technology used in established financial institutions' backend systems, such as banks. However, in recent years, there has been a shift towards consumer-oriented services, driven by changing consumer demands and the increasing availability of digital platforms. This shift has led to the emergence of innovative FinTech products and services that benefit both consumers and businesses. For instance, mobile payments have made it easier and more convenient for consumers to conduct financial transactions using their smartphones, while peer-to-peer lending platforms have enabled borrowers to access credit without going through traditional financial intermediaries.

The FinTech industry has disrupted traditional banking systems in recent years by introducing innovative financial products and services that benefit both consumers and businesses. FinTech solutions include a wide range of technologies, such as mobile payments, peer-to-peer lending, cryptocurrency, and digital wallets. These technologies seek to improve the efficiency and convenience of financial services while lowering business costs.

The rise of FinTech has transformed the way financial transactions are conducted, allowing consumers to conduct financial transactions from the comfort of their own homes and reducing the need for physical bank branches. It has also increased financial inclusion by providing individuals with access to financial services through mobile money services and mobile banking.

## 1.1 Overview of the FinTech Industry

To comprehend the present state of FinTech, it is essential to understand its history and evolution:

**FinTech 1.0 (1866-1967)**

The history of FinTech can be traced back to the 19th century and even earlier. In 1860, the Pentelegraph was invented to authenticate bank signatures. However, it is widely accepted that the first significant FinTech development occurred in 1866 with the establishment of transatlantic cables, which marked the beginning of creating network infrastructure and linkages worldwide. In 1918, the Federal Reserve Bank set up the Electronic Fund Transfer through Telegraph and Morse code, which represented the first step towards digitalizing money. This is the first era in which we can talk about financial globalization.

In general, Fintech historians overlook one key and life-changing event of Fintech 1.0: the Diner's Card in 1950. This was the first significant attempt to make cashless payments possible, and while the beginning was minimal and confined to restaurant payments, it cleared the path for future development. This was followed by Amex's launch of the Credit Card in 1958. With the debut of screen-based stock data by Quotron in 1960, the financial market took a great leap forward, marking one of the most significant successful implementations of early fintech ideas.

**FinTech 2.0 (1967-2008)**

Fintech 2.0 is thought to have started with the launch of ATMs by Barclay's in 1967. Just the year before in 1966, Telex had replaced Telegraph for transferring information across the world; thus, heralding an era of connected financial transactions & communication.

The establishment of NASDAQ as the first electronic stock market in 1971 was the catalyst for significant fintech growth. It drastically altered the bidding procedure and updated the IPO process. This is widely regarded as one of the most significant Fintech developments of all time. This was followed by the launch of SWIFT, another

breakthrough service standard, in 1973. The 80s saw the development of electronic trades and online banking systems.

The development of complicated computing systems aided in the introduction of newer and more dynamic processes and products. One key innovation was the growth of E-commerce in the mid-1990s, which increased the reliance on digital finance significantly. PayPal, the pioneer of cashless payments in the years since was founded in 1998.

**FinTech 3.0 (2008-2014)**

With the 2008 financial crisis, established banks faced stiffer regulatory requirements, resulting in a market opening for smaller competitors due to public distrust of large financial institutions. The industry's focus changed to cost-cutting via technology, paving the door for new technologies such as P2P, Wallets, and Bitcoins, which provide ease to the common customer. These advancements paved the way for the modern-day FinTech business to arise. The emergence of Bitcoin as the first cryptocurrency in 2009 and P2P payment systems in 2011 were two important milestones that boosted the industry's growth. Today's market is experiencing great growth and innovation in areas such as Digital Lending, InsurTech, Wallets, and many more.

**FinTech 3.5 (2014-2017)**

It represents a dramatic transformation in the global financial environment, with an emphasis on the spread of digital banking and the global acceptance of innovative fintech technology. The modern period understands the significance of consumer behavior and internet access, particularly in developing countries. New fintech solutions were quickly adopted in nations such as China and India, which lacked Western-style physical banking infrastructure. This has resulted in an influx of new firms, who are taking advantage of last-mover advantages to disrupt the established banking business.

**FinTech 4.0 (2017-Today)**

It is characterized by the incorporation of emerging technologies such as artificial intelligence (AI), machine learning (ML), blockchain, and big data into financial services. Fintech 4.0 is also distinguished by the rise of new business models and collaborations between traditional financial institutions and fintech firms. The focus of Fintech 4.0 is on enhancing the efficiency and efficacy of financial services and providing individualized services to customers through data-driven insights.

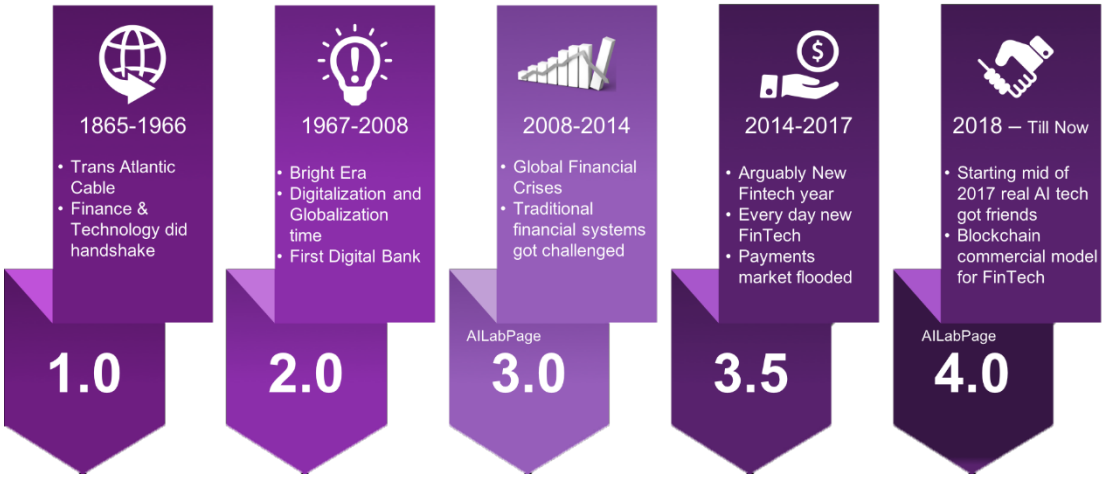


*Figure 1.1*

**The Future**

The FinTech industry has experienced significant growth in recent years, with the global FinTech market valued at USD 5 trillion in 2019 and expected to grow at a compound annual growth rate (CAGR) of 23.58% between 2020 and 2025. The number of FinTech startups in the Americas alone increased from 5,868 in 2018 to 10,755 in 2021, while global FinTech funding reached a record $132 billion in the same year, accounting for 21% of all venture capital dollars (Global Fintech Market Report, 2020).

The growth of the FinTech market can be attributed to several key factors, including high investment in technology-based solutions by banks and firms, infrastructure-based technology and APIs reshaping the future of the financial services industry, and FinTech companies delivering low-cost personalized products. These technological developments have raised customer expectations, boosting global market growth.

The Global FinTech Market can be segmented based on technology, service, application, and regional analysis. Based on technology, the market can be divided into API, AI, blockchain, distributed computing, and others. AI led the market in 2019 with a 38.25% share, and the trend is expected to continue through 2025. AI interfaces and chatbots have redefined customer service, and its expanding business will allow the AI-focused FinTech market to grow at an impressive rate.

Major players operating in the Global FinTech Market include PayPal Holdings, Inc., Ant Group, Robinhood Markets, Inc., Afterpay Limited, Google Pay (Alphabet Inc.), Paytm (One97 Communications Ltd.), Adyen, Qudian Inc., Nexi SpA, Klarna Bank AB, Social Finance, Inc., and Avant, LLC.

The COVID-19 pandemic has had a significant impact on the FinTech industry. The pandemic has accelerated the shift towards digital financial services, as people have been forced to avoid physical contact and conduct transactions online. This has led to a surge in demand for FinTech services such as digital payments, online lending, and mobile banking. (Deloitte, 2020)

The increasing adoption of digital payments, investments in technology-based solutions, and favorable government regulations are expected to benefit the global FinTech market in the coming years. The growing use of e-commerce platforms and smartphones across economies has paved the way for more FinTech transactions. Mobile wallets, digitized money, and paperless loans are transforming the financial services landscape.

However, the fast-paced growth of the FinTech industry has made financial regulators around the world uneasy about understanding these new technologies and how they fit into the existing regulatory framework. Despite this, regulators are aware of the need for innovation and try to support and promote FinTech activities by creating regulatory virtual spaces.

## 1.2 Profile of FinTech Industry

The Fintech industry is a rapidly growing sector that includes a wide range of financial technologies and services. The industry uses technology to provide innovative solutions to traditional financial services like payments, lending, investing, and insurance. The objective of this Fintech industry profile is to elaborate on the elements of the industry, including its history and present situation.

## Components of the FinTech Industry

The FinTech industry encompasses a multitude of financial services, including but not limited to:

### I. PayTech (Payments)

The concept of PayTech, situated at the intersection of payment and technology, is fundamental to the ongoing transformation of the financial landscape. PayTech, as the name implies, is any payment that involves technology. It is a subset of the financial technology (i.e., fintech) industry that focuses on transactions and payments rather than finance as a whole.

With mobile and digital payments, there is an infinite opportunity to rethink the customer experience through innovation and technology. Cross-border payments have become even more important as a result of globalization. And, by providing convenient payment options, we are fundamentally altering the way people interact with money. The traditional payments ecosystem has been rapidly and dramatically disrupted. FinTech's have recognized an opportunity to expand into payments by leveraging their technological capabilities and customer centricity.

PayTechs have expanded in the market, recognizing that fast, frictionless, and embedded payments provide a distinct competitive advantage. PayTechs are offering integrated solutions for both consumers and merchants to meet this demand as the digital economy grows and customer appetite for seamless payments grows. (Gancz et al., 2022)

**Different Types of PayTechs**

**a. Digital Wallets**

A digital wallet (also known as an electronic wallet) is a financial transaction application that can be accessed via any connected device. Your payment information and passwords are securely stored in the cloud. Digital wallets can be accessed from a computer, whereas mobile wallets, a subset, are primarily used on mobile devices.

Digital wallets allow you to pay with your device while shopping, eliminating the need to carry your cards. You enter and save your credit card, debit card, or bank account information so that you can pay for purchases with your device.

Digital wallets are applications that use mobile devices' capabilities to improve access to financial products and services. By securely and compactly storing all of a consumer's payment information, digital wallets essentially eliminate the need to carry a physical wallet.

Digital wallets use the wireless capabilities of a mobile device, such as Bluetooth, Wi-Fi, and magnetic signals, to securely transmit payment data from your device to a point of sale designed to read the data and connect via these signals. (Kagan, 2023)

**b. Contactless Payments**

As the name implies, a contactless payment does not require any physical contact between the buyer's smartphone or credit card and the POS. You may have also come across the acronym NFC, which stands for "near field communication." It is the technology that enables contactless payments via radio frequency identification (called RFID). NFC transactions occur over a specific radio frequency, which allows the card or smartphone to communicate with the payment reader when they are in proximity. (Square, 2023)

**c. Buy now, Pay Later**

Buy now, pay later (BNPL) is a type of short-term financing in which consumers can make purchases and pay for them over time, usually with no interest.

The terms and conditions of buy now, pay later (BNPL) programs vary, but in general, they offer short-term loans with fixed payments and no interest. You can make the purchase using a BNPL app, or you may have BNPL options through your credit card.

With BNPL, you can buy now or pay later at checkout when you make a purchase at a participating retailer. If you are approved, you make a small down payment, such as 25% of the total purchase price. The remaining balance is then paid off in a series of interest-free installments, usually over a few months. (Lake, 2023)

**d. Unified Payment Interface**

A smartphone application that allows users to transfer money between bank accounts is known as a Unified Payment Interface (UPI). The National Payments Corporation of India created this single-window mobile payment system (NPCI). It eliminates the need for customers to enter bank account information or other sensitive information each time they initiate a transaction.

The Unified Payment Interface is a payment system that operates in real time. It is intended to allow peer-to-peer inter-bank transfers via a single two-click factor authentication process. The Reserve Bank of India (RBI), India's central bank, regulates the interface. It operates by transferring funds between two bank accounts via a mobile platform. (Ganti, 2021)

Top 10 PayTech Companies in the World

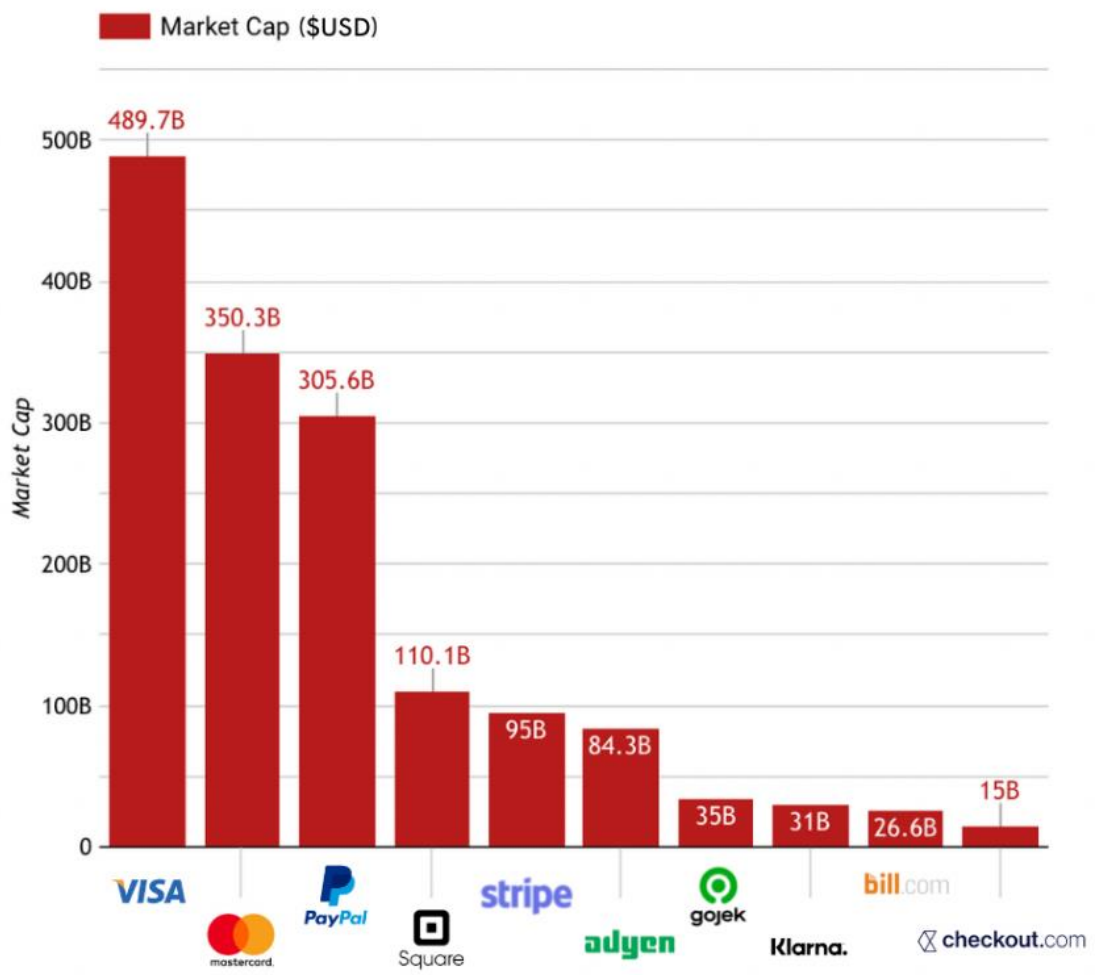


*Figure 1.2 (Source: CFTE Fintech Unicorns)*

| S. Number | Company | Country | Valuation (in $ Billions) |
|---|---|---|---|
| 1 | Visa | US | 489.7 |
| 2 | Mastercard | US | 350.3 |
| 3 | PayPal | US | 305.6 |
| 4 | Square | US | 110.1 |
| 5 | Stripe | US | 95 |
| 6 | Adyen | Netherlands | 84.3 |
| 7 | Gojek | Indonesia | 35 |
| 8 | Klarna | Sweden | 31 |
| 9 | Bill.com | US | 26.68 |
| 10 | Checkout.com | UK | 15 |

*Table 1.1 (Source: CFTE Fintech Unicorns)*

## II. Digital Banking

Digital banking is the digitization of all levels of banking, from the front end to the back end. This means that digital banks rely on artificial intelligence to automate back-end operations such as administrative tasks and data processing, relieving employees of the burden of completing day-to-day tasks.

While the term "digital banking" can be used in a variety of contexts, it essentially refers to the combination of online and mobile banking services.

Online banking entails using your computer to access banking features and services via your bank's website. You can check your balance or pay your electricity bill by logging into your account. Many banks' online banking portals allow you to access additional banking features, such as applying for a loan or credit card. Online banking allows you to sit down at your computer and handle many of your financial needs without ever leaving your house.

Mobile banking entails using an app to gain access to many of the same banking features through mobile devices such as smartphones or tablets. These apps are proprietary, provided by the bank with which you have an account, and typically use the same login information as your online banking portal. Mobile banking apps, which are designed for people on the go, typically include the most used banking features, such as mobile check deposit, funds transfers, and bill payment. Banks may also use their mobile apps to send banking alerts to customers, such as fraud detection and low balance notifications. (Napoletano & Foreman, 2021)

Here's a conceptual equation that sums up digital banking:

**Online Banking + Mobile Banking = Digital Banking**

**Different Types of Digital Banks**

**a. Neo Banks**

A neo bank is a digital bank with no physical locations. Neo banking operates fully online, rather than in a physical facility. Neo-banking refers to a broad range of financial service providers who primarily target tech-savvy clientele. A neo bank is a fintech company that offers digital and mobile-first services such as payments, debit cards, money transfers, lending, and other products.

Neo banks bridge the gap between traditional banks' services and the changing expectations of new-age consumers. They accomplish this by giving personalized experiences, data-driven insights, and value-added services.

Some examples of Neo Banks are, Chime, Revolut, N26, Monzo, Starling Bank.

**b. Challenger Banks**

Challenger banks are tiny modern retail banks that compete with larger, more established institutions by delivering new financial technologies and being more customer-focused.

They intend to "challenge" the old banks in this manner. Challenger banks. Before improvements in the British regulatory landscape, there was little competition in the market. There were only four major players: Barclays, HSBC, Lloyds Banking Group, and NatWest Group.

Some significant challenger banks in the UK include Starling Bank, Monzo, Revolut, and Metro Bank; the latter was one of the first challenger banks created in 2010 and earned the first banking license awarded by the UK government in 100 years. (Harrison, 2021)

**c. Nonbank Financial Institutions**

Nonbank financial firms (NBFCs), sometimes known as nonbank financial institutions (NBFIs), are financial institutions that provide a range of banking services but lack a banking license. Typically, these organizations are not authorized to take traditional

demand deposits—readily available funds, such as those in checking or savings accounts—from the public.

Examples of nonbank financial institutions include insurance firms, venture capitalists, currency exchanges, and pawn shops.

## III. InsurTech (Insurance)

Insurtech is the application of technological advancements to improve the efficiency of the current insurance model. Insurtech is premised on the belief that the insurance industry is ripe for innovation and disruption. Insurtech is pursuing opportunities that giant insurance companies have less motivation to pursue, such as providing ultra-customized policies, and social insurance, and harnessing new streams of data from Internet-enabled devices to dynamically price premiums based on observed behavior.

InsurTechs have evolved in the insurance industry in recent years. Investments have increased by leaps and bounds—from $140 million per year in 2011, to $270 million in 2013, and $2.7 billion in 2015. 2 During the same time, the most successful InsurTech ventures progressed from seed and venture capital rounds to advanced fundraising rounds. From $5 million in 2011 to $22 million in 2015, the average investment per InsurTech has more than a fivefold increase. According to a review of the Panorama Insurtech database of the companies' geography of incorporation, even though the US was the pioneering market for InsurTech, just 46 percent of the companies are currently headquartered in the region, with the remaining 40 percent based in EMEA.

Most InsurTech companies are headquartered in the United States, the United Kingdom, and Germany, in that order. Although Asia-Pacific accounts for only 14% of all InsurTechs, it is likely to be the fastest-growing market in the next years. (Catlin et al., n.d.)

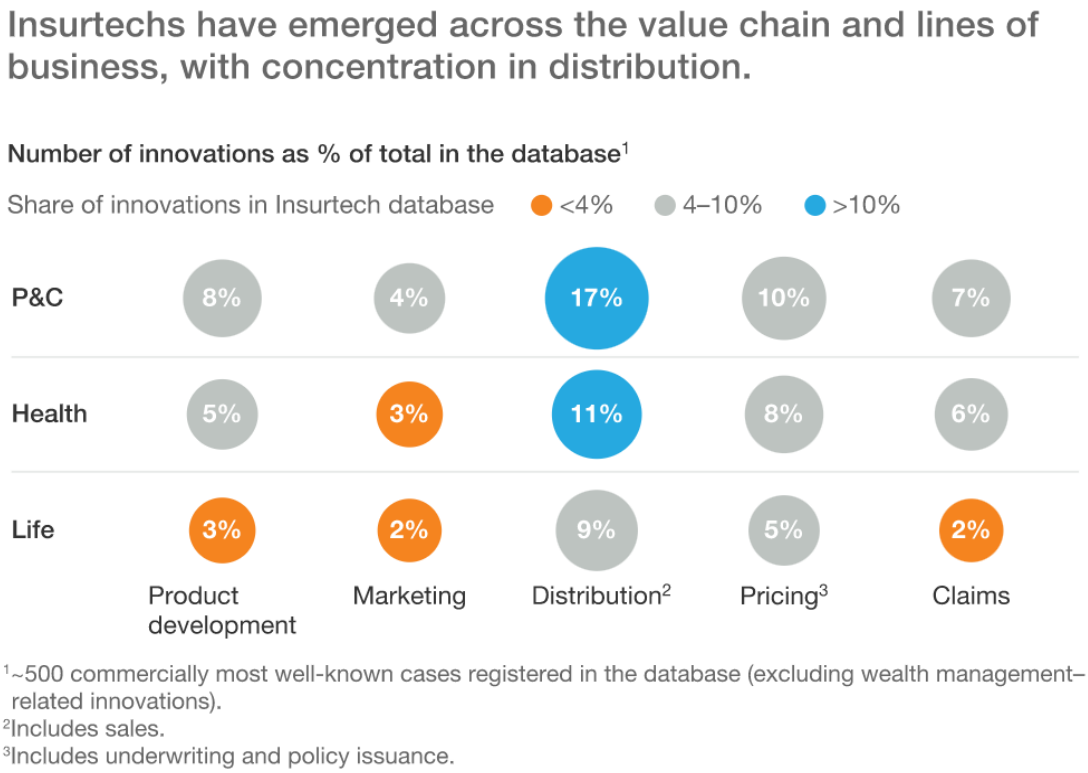


*Figure 1.3 (Source: McKinsey Panorama Insurtech Database)*

**Different Types of InsurTech**

**a. Artificial intelligence (AI)**

AI (Artificial Intelligence) plays a crucial role in the Insurtech (Insurance Technology) industry. It is used to assess risk by analyzing various data factors such as age, gender, occupation, lifestyle, health, and other variables. This helps insurance companies make informed decisions about coverage and pricing. AI is also used in fraud detection systems to identify and prevent fraudulent claims by analyzing patterns and identifying anomalies in data. The claims processing is streamlined by AI algorithms as it can automate routine tasks and process claims more quickly and accurately. It can analyze claims data and provide recommendations for settlement amounts based on policy terms, historical data, and other relevant factors. Overall, AI in Insurtech has improved the efficiency of the industry, making it more accurate, cost-effective, and customer-friendly.

### b. Machine Learning (ML)

Machine learning is used in risk assessment, fraud detection, claims processing, and customer service. It helps to develop more accurate underwriting models, detect fraudulent claims quickly, automate routine tasks, optimize claims handling processes, and provide personalized experiences to customers. Machine learning has revolutionized the Insurtech industry by improving accuracy, efficiency, and customer experience.

### c. Internet of Things (IoT)

IoT is used to collect data from sensors and devices to assess risk, prevent losses, and improve customer experience. IoT devices can track everything from driving behavior to health and home security, providing insurers with valuable data to make informed decisions about policy pricing and coverage. It can also help to prevent losses by identifying potential risks and hazards in real-time. For example, IoT sensors can detect water leaks, fire, and theft, allowing insurers to respond quickly and prevent further damage. Additionally, IoT can be used to improve customer experience by offering personalized policies and services that are tailored to individual needs and preferences. Overall, IoT is an important tool for insurers to improve accuracy, efficiency, and customer experience.

## IV. WealthTech

WealthTech refers to the use of innovative technologies such as artificial intelligence and Big Data to provide an alternative to traditional wealth management firms, intending to make wealth management and investment services more efficient and automated. WealthTech has grown in popularity in recent years as wealth management has adapted to major changes such as increased regulatory responsibilities and compliance requirements, shifting customer tastes and expectations, and increased competition from tech-savvy start-ups that are both threatening and transforming the investment-management business model. (Windmill Editorial Team, 2022)

**Different Types of WealthTech**

**a. Robo-Advisors**

Robo-advisory platforms offer investment and financial planning services generated by algorithms. New clients will fill out a questionnaire that examines their risk profile, ESG (environmental, social, and governance) perspectives, time horizon, financial goals, and other critical variables that will form the basis of their investment. The platform will then typically invest in passive investment funds.

Robo advisers can scale their services, allowing them to offer lower fees. Customers can also construct accounts with a smaller investment pool and use the service whenever they choose. On the negative side, they have fewer investing possibilities.

Robo advisers make up the price difference by processing a higher volume of transactions because of their greater client base.

**b. Micro Investing**

Micro-investing enables people to save, deposit, and invest far smaller amounts of money than was previously possible. You can either automate the process by allowing the platform to manage your portfolio based on your particular preferences, or you can choose your equities.

**c. Digital Brokers**

A digital broker is a type of brokerage firm that offers online trading platforms and digital tools to investors for the purchase and sale of assets such as stocks, bonds, and exchange-traded funds (ETFs). Customers do not need to visit physical offices or engage with brokers through traditional means because digital brokers work exclusively through online platforms. Instead, investors can use their computer or mobile device to access trading platforms, where they can monitor their accounts, execute transactions, and receive real-time market data and insights. Compared to traditional brokers, digital brokers often charge cheaper fees and provide more clear pricing structures. Companies may also provide extra features, like automated investing and portfolio management tools, to assist investors in making sound investment decisions.

### d. Investment Tools & Portfolio Management:

The use of technology to aid investors in making investment decisions and managing their investment portfolios is referred to as investment tools and portfolio management. These tools may include software and digital platforms that give real-time market data and insights, investment research tools, and portfolio management features.

Investment tools can assist investors in identifying prospective investment opportunities, analyzing market trends, and developing investment strategies based on risk tolerance and financial objectives. Certain financial tools, such as robo-advisors, may also make automated investment suggestions. These tools utilize algorithms and data analysis to design and maintain investment portfolios on behalf of investors.

Portfolio management tools allow investors to keep track of their investment portfolios and make changes as needed. These tools can assist investors in tracking the performance of their portfolios, identifying areas for improvement, and rebalancing their investments to correspond with their investment goals and risk tolerance.

## V. Lending

Fintech lending is the application of financial technology, such as APIs, to assist lenders in making faster, more informed loan choices. This can involve employing alternative data sources to assess loan risk and linking digital platforms to speed up data sharing.

Fintech lending enables previously neglected P2P and corporate borrowers by providing an alternative source of funding, hence improving financial health and freedom. Lenders have access to more data, allowing them to give financing to a broader range of borrowers in a more secure manner.

Furthermore, fintech lending decreases the time and physical constraints associated with traditional lending. A borrower in a rural area can apply for and receive funding from a fintech lender in minutes without ever visiting a traditional bank.

## VI. Blockchain and Cryptocurrencies

One of today's top tech trends is blockchain, which is a sort of distributed database or ledger in which the capacity to update a blockchain is spread among the nodes, or participants, of a public or private computer network. This is referred to as distributed ledger technology (DLT). To update blockchains, nodes are compensated with digital tokens or currency. Blockchain enables permanent, irreversible, and transparent data and transaction recording. As a result, it is feasible to exchange anything of value, whether it is a physical commodity or something less tangible.

A blockchain database must first be cryptographically secure. That is, to access or add data to the database, two cryptographic keys are required: a public key, which is the database address, and a private key, which is a personal key that must be authenticated by the network.

Cryptocurrency is a digital payment system that does not rely on banks for transaction verification. It's a peer-to-peer payment system that allows anyone, anywhere to send and receive money. Cryptocurrency payments exist solely as digital entries to an online database describing specific transactions, rather than as physical money carried around and exchanged in the real world. Transactions involving cryptocurrency funds are recorded in a public ledger. Digital wallets are where cryptocurrency is kept.

The term "cryptocurrency" refers to the use of encryption to verify transactions. This means that advanced coding is required to store and transmit cryptocurrency data between wallets and public ledgers. Encryption's goal is to provide security and safety.

Bitcoin, the first cryptocurrency, was built on Blockchain, which was founded in 2009 and is still the most well-known today.

**Market Share of Each Component:**

The contribution of each sector within the FinTech industry varies by region and country, as the industry is still evolving and growing rapidly. However, according to a report by KPMG, as of 2020, the following sectors were among the largest contributors to the FinTech industry:

**PayTech**: The payments and remittances sector are one of the largest and most established within the FinTech industry, accounting for approximately 40% of global FinTech investment in 2020. This sector includes companies that offer digital payment solutions, mobile wallets, cross-border remittance services, and peer-to-peer payment platforms.

**Digital Banking:** Digital banking is another significant sector within the FinTech industry, accounting for approximately 25% of global FinTech investment in 2020. This sector includes companies that offer digital banking services, such as mobile banking, online banking, and digital-only banks.

**InsurTech**: The InsurTech sector is a rapidly growing sector within the FinTech industry, accounting for approximately 10% of global FinTech investment in 2020. This sector includes companies that offer innovative insurance solutions, such as usage-based insurance, on-demand insurance, and peer-to-peer insurance.

**WealthTech:** WealthTech is a sector within the FinTech industry that focuses on providing digital wealth management solutions, including robo-advisory platforms, automated investment management, and online trading platforms. WealthTech accounted for approximately 7% of global FinTech investment in 2020.

**Lending:** The lending sector within the FinTech industry includes companies that offer digital lending solutions, such as peer-to-peer lending platforms, alternative credit

scoring, and online lending marketplaces. Lending accounted for approximately 6% of global FinTech investment in 2020.

**Blockchain and Cryptocurrencies:** The blockchain and cryptocurrencies sector is a rapidly growing sector within the FinTech industry, accounting for approximately 3% of global FinTech investment in 2020. This sector includes companies that offer blockchain-based solutions, such as smart contracts, cryptocurrency exchanges, and digital asset custody solutions.

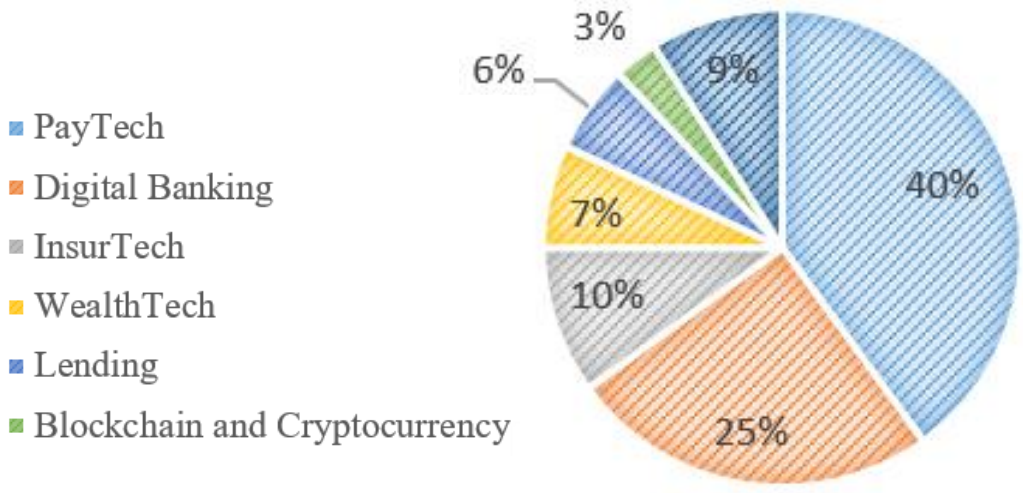


*Figure 1.4 (Source: KPMG)*

## 1.3 Problems of FinTech Industry

The companies that have not yet adopted Fintech services for their business cite a few basic reasons for their reluctance. Some are unsure how to implement Fintech into their operations and lack the essential understanding. Others do not have access to startup service providers who can aid them in this area. Businesses that are currently implementing Fintech solutions, on the other hand, are delighted with the results. Yet, there are a few issues that prohibit other businesses from adopting Fintech technologies. These are the issues:

### I. Data Privacy

The nature of the FinTech industry necessitates the storage of massive amounts of highly sensitive user data, such as credit card numbers, income and investment information, and social security numbers. This information is constantly at-risk during transit, especially with the increased use of phone and online banking services. As a result, there is always the risk to FinTech firms' application security and data privacy. Because this information is so sensitive, it must be kept secure.

Technological advancements have enabled remote access to critical IT infrastructure, making sophisticated data breaches against financial data sources easier. There are also concerns about the lack of physical checkpoints on critical infrastructure and endpoint devices that carry company data. These factors compound the risk posed to FinTech firms and emphasize the importance of information security.

### II. Regulatory and Compliance Laws

Commencing a FinTech organization is a challenging task due to the prevalence of fraud alerts and data thefts. As a result of these factors, obtaining approval for a FinTech venture has become increasingly difficult. Compliance regulations serve as a stringent regulatory framework to prevent fraud, making it difficult for FinTech companies not only to comply but also to enter the Indian market. These regulations also pose significant challenges for new FinTech startups, which must meet a slew of requirements before they can begin operations. As a result, establishing a FinTech

company is a complex process that necessitates adherence to stringent regulatory frameworks.

## III. Business Models

FinTech companies are facing significant challenges during economic downturns and must take drastic measures to maintain their financial stability. One of the most common strategies is to resort to cost-cutting measures, such as reducing employee numbers and cutting wages, which can negatively impact the quality of services provided.

In the event of recovery, significant changes must be made to revenue streams and other business dependencies, which can result in a complete overhaul of existing business models. Furthermore, contactless payment solution providers must repurpose their resources to handle the higher transaction volumes required in the current climate, which can be a difficult and costly process.

The current economic climate presents significant challenges for FinTech companies, who must reevaluate their income and expense strategies and adapt or expand their resources to remain financially stable. This may involve difficult decisions such as reducing employee numbers and cutting wages, as well as significant changes to business models and revenue streams.

## IV. Blockchain Integration

Blockchain technology integration into FinTech applications is a growing trend, though some companies do not see it as a viable solution, while others see it as a solution for better data exchange. Implementing a blockchain can increase the trustworthiness of the FinTech industry because it allows for the analysis and tracking of all phases of a transaction, preventing changes and allowing for constant monitoring.

However, many financial institutions find it difficult to integrate blockchain technology. While fintech startups are more likely to use this technology to disrupt the FinTech sector, traditional banks, and governments are wary of new technologies and may require more convincing.

Despite the potential benefits of blockchain technology in improving financial transaction security and transparency, banks and other financial institutions have been slow to adopt it. To ensure the wider adoption of blockchain technology in the FinTech industry, fintech companies must consider the concerns of traditional financial institutions and governments.

## V. Personalized Services

The banking industry's reliance on personalized services is becoming outdated in today's context. Personalization now only refers to engaging with customers on their preferred channels and offering tailored solutions to meet their specific needs. However, this approach can be limiting, and it may not always meet the evolving needs of customers.

Despite this, more and more customers are turning to Fintech as their financial wellness coach. This can be overwhelming due to the vast range of options available, and effective personalization may not always narrow down their options to the ones they are seeking. Instead, customers may be left feeling confused and unsupported, which could ultimately damage their relationship with the company.

## 1.4 Competition of FinTech Industry

The FinTech industry is a rapidly growing and evolving sector, and there are a variety of different players competing for market share and dominance in various sub-sectors. Here are some of the main types of competitors in the FinTech industry:

### I. Traditional Banks

For a long time, the traditional banking sector has been the dominant force in the financial services industry. The rise of FinTech, on the other hand, has upended the established order by providing customers with more innovative and convenient digital products and services. Despite this, traditional banks are formidable competitors in the FinTech space due to many advantages.

For starters, traditional banks have built trust and brand recognition among their customers. Many customers still prefer to handle their finances in person, giving traditional banks an advantage over digital-only startups. Banks have well-established reputations and regulatory compliance frameworks, which can help them gain the trust of new digital financial services customers.

Second, traditional banks have large customer bases and vast amounts of data at their disposal. This information can be used to provide highly personalized financial products and services, giving them an advantage over FinTech startups. Traditional banks can also invest in sophisticated analytics and machine learning tools to better understand their customers' needs and preferences.

Finally, traditional banks have established distribution channels as well as a large network of branches and ATMs, giving them an advantage over FinTech startups when it comes to reaching customers in remote or rural areas. Banks can also provide customers with the option of accessing financial services in-person, online, or via mobile apps.

While FinTech startups disrupted the traditional banking model, traditional banks responded by investing in digital technologies and offering new products and services. Traditional bank competition with FinTech startups is likely to continue to evolve and shape the future of the financial services industry.

## II. Tech Companies

Tech giants, such as Google, Amazon, and Apple, are increasingly encroaching on the FinTech industry by offering their financial products and services. While FinTech startups have disrupted the traditional banking model, tech giants have several advantages that could make them strong competitors in the FinTech space.

For starters, tech giants have massive customer bases and well-established distribution channels. Amazon, for example, has a large network of customers who use its platform to buy goods and services. Amazon can quickly gain a foothold in the financial services industry by offering financial products such as loans or insurance to its existing customer base.

Second, tech giants have massive amounts of data and sophisticated analytics tools. This enables them to provide highly personalized financial products and services to their customers. They can use data analytics to identify customer needs and preferences and tailor their products and services accordingly. This can give them an advantage over FinTech startups that may not have access to the same amount of data or analytics tools.

Finally, tech giants have a strong reputation for disrupting traditional industries through innovation. They have the funds and the skill to invest heavily in emerging technologies, such as blockchain and artificial intelligence, which could change the financial services industry. Their reputation and brand recognition could also help them quickly gain customer trust and loyalty.

Tech giants are strong competitors in the FinTech industry due to their established customer bases, data analytics capabilities, and reputation for innovation. While they may not have the same level of regulatory compliance and financial expertise as traditional banks, their vast resources, and technological prowess could enable them to quickly gain market share. The competition between tech giants and FinTech startups is likely to intensify in the coming years, which could result in further disruption and innovation in the financial services industry.

Due to their established customer bases, data analytics capabilities, and reputation for innovation, tech behemoths are formidable competitors in the FinTech industry. While they may lack traditional banks' regulatory compliance and financial expertise, their vast resources and technological prowess may allow them to quickly gain market share.

The competition between tech behemoths and FinTech startups is expected to heat up in the coming years, potentially leading to even more disruption and innovation in the financial services industry.

## III. Payment Processors

Payment processors compete directly with FinTech by offering digital payment solutions to individuals and businesses. While FinTech startups have disrupted traditional banking models, payment processors offer distinct advantages that could position them as strong FinTech competitors.

Firstly, payment services have an established presence in the digital payment market, with a global customer base of millions. They provide a wide range of payment solutions, such as e-wallets, payment gateways, and point-of-sale systems, to a wide range of businesses and industries. This gives them an advantage over FinTech startups with a lower level of market penetration.

Second, payment processors are extremely adaptable and customizable. They provide a variety of payment options, including recurring payments, invoicing, and installment plans, all of which can be customized to meet the needs of individual businesses. This can put them ahead of fintech companies, which may have more rigid payment structures.

Finally, payment processors prioritize security and fraud prevention. To protect customer data and prevent fraudulent transactions, they employ sophisticated encryption and security measures. This can put them ahead of FinTech startups that do not have the same level of security in place.

Payment processors, in conclusion, are strong competitors in the FinTech industry due to their established presence in the online payment market, flexibility, and emphasis on security. While payment processors may not provide a comprehensive range of financial products and services, their distinct advantages may allow them to capture a significant portion of the digital payment market. The competition between payment processors and FinTech startups is anticipated to intensify in the coming years, resulting in even more innovation and disruption in the financial services industry.

## 1.5 SWOT Analysis of FinTech Industry

### I. STRENGTHS

#### a. Technology

Technology is one of the FinTech industry's primary strengths, allowing companies to provide innovative financial services that traditional banks cannot. FinTech firms use cutting-edge technology such as blockchain, artificial intelligence (AI), and machine learning to create more efficient and user-friendly financial products and services.

Increased efficiency and cost savings have resulted from the use of technology in the FinTech industry. FinTech companies can provide financial services at a lower cost than traditional banks by utilizing automated processes and machine learning algorithms. As a result, they are able to target underserved markets and provide financial products and services to a broader range of customers.

Technology is a critical component of the FinTech industry, allowing companies to provide previously unimaginable financial services. Its continued development and integration into the industry will almost certainly result in additional growth and expansion, making it a promising field for investment and research.

#### b. Data Analysis

Data analysis is a significant FinTech industry strength, allowing companies to make informed decisions and improve their products and services. Data is used by FinTech companies to gain insights into customer behavior, market trends, and industry developments. To extract insights from large amounts of data, they employ a variety of data analysis techniques such as data mining, predictive analytics, and machine learning.

Data analysis is especially important when creating new financial products and services. FinTech companies can identify areas where traditional financial services fall short and develop innovative solutions to fill these gaps by analyzing customer data. A FinTech company, for example, can create a budgeting tool that helps customers track and manage their expenses more effectively by analyzing spending patterns.

Data analysis is also used for risk management and fraud detection. Predictive analytics can help FinTech companies detect anomalies and identify potentially fraudulent transactions, lowering the risk of financial loss for themselves and their customers. They can also use data analysis to assess creditworthiness and manage credit risk, allowing them to serve a broader range of customers with loans and other financial services.

**c. Automation**

Automation is a key strength of the FinTech industry, allowing businesses to streamline processes, cut costs, and provide more efficient and dependable financial services. To automate various processes, FinTech firms use automation technologies such as robotic process automation (RPA), artificial intelligence (AI), and machine learning.

Increased efficiency is one of the primary advantages of automation. FinTech companies can reduce the time required to complete processes such as loan approvals, account opening, and payment processing by automating these processes, allowing them to provide faster and more responsive financial services to their customers. This increased efficiency also enables FinTech firms to scale their operations more quickly and easily, increasing their customer base and revenue.

Furthermore, automation allows FinTech companies to cut costs by eliminating the need for human labor. FinTech companies can free up their employees' time to focus on more strategic and value-added tasks by automating routine and repetitive tasks. This can lead to significant cost savings for the company while also increasing employee job satisfaction.

**d. Cost Saving**

The ability to provide financial services at a lower cost than traditional banks is a significant advantage of the FinTech industry. FinTech firms use technology and innovative business models to reduce overhead costs, increase efficiency, and provide customers with more affordable financial services.

Automation is one way for FinTech companies to save money. FinTech companies can reduce the need for human labor by automating processes such as loan approvals and account management, resulting in lower staffing costs. Automation also reduces the risk of errors and enables businesses to provide customers with faster and more reliable services.

Furthermore, FinTech firms can use data analytics to cut costs. FinTech companies can improve their products and services while lowering operational costs by analyzing customer data.

FinTech firms can benefit from economies of scale to reduce costs. FinTech companies can spread their fixed costs across a larger customer base as they grow and expand their customer base, resulting in lower costs per customer. This enables FinTech firms to provide more affordable financial services to a broader range of customers.

## II. WEAKNESSES

### a. Regulations

Regulation is an important factor in the FinTech industry because it influences the development and growth of financial technology firms, as well as their ability to provide innovative and disruptive financial services.

Regulations create entry barriers for new and innovative financial technology firms. Compliance with complex regulations can be expensive and time-consuming, making it difficult for new businesses to compete with established industry players. This can lead to less innovation and less competition, which can lead to higher consumer costs and less access to financial services.

Regulations can differ greatly between regions and countries, posing difficulties for businesses operating in multiple jurisdictions. Compliance with various regulations can be difficult and costly, and businesses may need to tailor their products and services to different regulatory requirements in different regions.

Furthermore, the rate of regulatory change can be difficult for FinTech firms. Because of the industry's rapid pace of innovation, regulations may fall behind new technologies

and business models, creating uncertainty and potentially impeding the industry's growth and development.

**b. Customer Acquisition**

Customer acquisition is a major weakness in the FinTech industry, as businesses face significant challenges in attracting and retaining customers in a highly competitive and rapidly evolving market.

The primary challenges facing FinTech companies is building trust with customers. Many customers are wary of entrusting their financial information to a new and unfamiliar company, especially in the aftermath of high-profile data breaches and other security incidents.

FinTech companies face significant competition from established financial institutions. These institutions frequently have well-established brands and customer bases, making it difficult for FinTech companies to lure customers away from them. Moreover, many established financial institutions have begun to invest heavily in their own FinTech capabilities, increasing industry competition.

Furthermore, for FinTech companies, the high cost of customer acquisition can be a significant challenge. The need to invest in marketing, technology, and customer service can result in significant costs, especially early in a company's development. These costs can make it difficult for new and emerging FinTech firms to compete with established industry players.

**c. Cybersecurity**

Cybercriminals who seek to exploit vulnerabilities in FinTech technology and systems pose constant threats to the industry. A cyberattack on a FinTech company can have serious consequences, including financial loss, reputational damage, and legal liability. The complexity of FinTech companies' technology and systems is one of their primary challenges. FinTech firms frequently rely on complex software and hardware systems, which may contain vulnerabilities that are difficult to detect and address. Because these

systems are constantly evolving, vulnerabilities can be introduced as new features and functions are added.

Another challenge that FinTech companies face is the high value of their assets. FinTech firms frequently store large amounts of sensitive financial data, such as personal identification numbers, credit card numbers, and banking information. As a result, they are a prime target for cybercriminals, who may try to steal this information and use it for identity theft, fraud, or other illegal activities.

Furthermore, FinTech companies may be vulnerable to supply chain attacks. These attacks involve a third-party vendor or supplier who provides a critical component of the company's technology or systems being targeted. If the supplier is compromised, it can provide a backdoor into the systems of the FinTech company, allowing the attacker to access sensitive data.

## III. OPPORTUNITIES

### a. Globalization

Globalization presents significant opportunities for the FinTech industry, as it allows companies to expand their operations and reach new markets around the world. The advancement of digital technologies and the widespread use of mobile devices have enabled FinTech companies to provide their services to a global audience, and many companies are now looking to capitalize on this opportunity.

For the FinTech industry, globalization means the opportunity to reach new customers in emerging markets. Many developing countries lack a well-developed banking infrastructure, making access to financial services difficult for individuals and businesses. FinTech firms can provide innovative and affordable solutions to fill this gap, providing financial services to people who would otherwise be excluded from the traditional banking system.

Furthermore, the expansion of international trade and investment has opened up new opportunities for FinTech firms to provide cross-border payment and transaction services. As businesses increasingly transact across borders, there is a growing demand for financial services that can expedite these transactions. FinTech firms can provide

solutions that are both faster and less expensive than traditional banking services, which can provide a significant competitive advantage.

**b. Collaboration**

The FinTech industry has the potential to collaborate with other organizations in order to develop new products and services, improve technology and systems, and gain access to new markets and customers. Collaboration can be a powerful tool for companies looking to stay competitive and drive growth in the FinTech industry, which is characterized by rapid innovation and disruption.

FinTech companies can benefit from complementary skills and expertise. FinTech firms frequently have extensive knowledge of specific financial services, such as payments, lending, or investment management. They can create more comprehensive and innovative solutions that meet the changing needs of customers by collaborating with other companies or organizations that have complementary skills.

Furthermore, collaboration can assist FinTech companies in entering new markets and customer segments. They can tap into existing customer bases and leverage existing distribution channels by partnering with established companies in various industries, such as retail or telecommunications. This is especially useful for businesses looking to expand into new geographic regions or serve new customer segments.

**c. Financial inclusion**

Financial inclusion refers to the availability and accessibility of financial services to all individuals and businesses, regardless of their income level or geographic location.

The FinTech industry has already achieved significant success in encouraging financial inclusion, with many companies providing innovative and cost-effective methods that are able to bridge the gap between the unbanked and the traditional banking system. These solutions can range from mobile banking apps that allow people to manage their finances from their smartphones to digital wallets that make payments secure and convenient.

By providing individuals and businesses with the resources and tools they need to save, invest, and grow their wealth, financial inclusion can assist in promoting the development and expansion of the economy. FinTech companies can help to create a more inclusive and equitable financial system by promoting financial inclusion, which can have a positive impact on society as a whole.

Furthermore, financial inclusion can assist in fostering financial literacy and education, which can help people make better financial decisions and improve their overall financial well-being. This is especially important in developing countries where financial literacy is low and people are more vulnerable to fraud or exploitation.

## IV. THREATS

### a. Economic Uncertainty

Economic uncertainty is a significant threat to the FinTech industry because it influences consumer behavior, investor sentiment, and market conditions. Political instability, trade tensions, natural disasters, and pandemics, among other things, can all contribute to economic uncertainty. These factors can have a significant impact on financial markets and the broader economy, affecting the performance of FinTech firms.

Changes in consumer behavior can be influenced by economic uncertainty in the FinTech industry. Consumers may be more cautious in their spending and more likely to save their money rather than invest in new financial products or services during times of economic uncertainty. This can cause a slowdown in demand for FinTech products and services, which can have a negative impact on FinTech companies' revenues and profitability.

### b. **Funding**

The FinTech industry faces many challenges in attracting the capital required to support its growth and development. While the FinTech industry has seen significant investment in recent years, there are also significant risks associated with this funding, and companies must navigate a complex landscape of investors, regulations, and market conditions.

Numerous FinTech firms are operating in the market, all competing for investment from the same pool of investors. This can make it difficult for businesses to differentiate themselves and secure the funding they require to support their growth and development.

In the competitive nature of the FinTech industry, companies frequently require substantial amounts of capital to support their technology and infrastructure. To attract customers, FinTech companies must invest in the development and maintenance of complex software and hardware systems, as well as marketing and advertising. Significant amounts of capital may be required, which may be difficult to obtain from investors seeking a return on their investment.

Furthermore, the regulatory environment for the FinTech industry is complex and ever-changing. Businesses have to comply with a variety of regulations that vary by jurisdiction, and failure to do so can result in significant fines and legal liability. This can be a significant barrier to entry for new FinTech firms that lack the resources or expertise to navigate these regulatory challenges.

# CHAPTER 2

## 2.1 Introduction

Consumer perception of FinTech refers to individuals' attitudes and feelings towards the services and products offered by financial technology companies. The emergence and rapid growth of FinTech have revolutionized the financial landscape, transforming the way customers interact with financial institutions and manage their finances. Various factors, including consumer trust, safety, convenience, risk perception, and intention to adopt, play a significant role in shaping consumers' perceptions of FinTech. Research suggests that consumers generally hold a positive view of FinTech due to its provision of accessibility, efficiency, and ease of use. By empowering individuals with greater financial autonomy, personalized services, and enhanced user experiences, FinTech is seen as a catalyst for positive change. However, concerns surrounding data security, privacy, potential fraud, and technical glitches can impact consumer perceptions. Understanding and analyzing consumer perceptions is crucial for financial institutions, policymakers, and researchers to effectively adapt to evolving consumer needs and expectations, foster trust in these technological advancements, and facilitate the continued growth and development of FinTech.

## 2.2 Literature Review

**Belanche et al. (2019):** Robo-advisors, a term used to describe digital platforms that provide investment advisory services through the use of interactive and intelligent user assistance components, are gaining popularity among customers due to their user-friendly interface and automated processes. These platforms typically begin by assessing a customer's profile via an initial questionnaire that covers goals, risk tolerance, and return expectations. Using this information, robo-advisors use AI technology to make specific investment recommendations or portfolio rebalancing suggestions, eliminating the need for human financial advisors. When compared to traditional human advisors, robo-advisors provide several benefits, including improved access to financial services, lower management fees, and a broader range of investment options based on systematic and quantitative analyses. These advantages have resulted in a significant increase in the number of assets managed by robo-advisors, which has already surpassed $880,000 million and is expected to grow by 31.45% annually between 2019 and 2022. (Statista, 2019). The rise of robo-advisors is unsurprising,

given that banks and financial institutions are constantly looking for ways to gain a competitive advantage and expand their business to a broader public. Despite the growing interest in this phenomenon, the literature on the introduction of robo-advisors is currently limited and has primarily focused on legal complexities (Ji, 2017) and risk-management aspects (Glaser et al., 2019). Recent studies on robo-advisors from a customer perspective have described some of the issues associated with customer adoption of this service.

**Jiwasiddi et al. (2019)** studied that several factors have been identified as significant in shaping user attitudes toward Fintech, including self-efficacy, innovativeness, social influence, and perceived danger. Online trust has emerged as a critical construct in the context of e-commerce, influencing stakeholder reliance on a specific firm's business activities via electronic media such as websites and applications. User attitudes toward Fintech are influenced by trust in technology as well as other factors such as safety, security, convenience, and overall user evaluation. The perceived usefulness and ease of use determine a person's positive or negative feelings or evaluation of new technologies. A higher positive attitude towards using new technology is positively correlated with behavioral intention. Ajzen, Agarwal, and Prasad define attitude as a person's affective reaction to the use of new technology. According to Kotler, customer satisfaction is viewed as a mental state resulting from performance perceptions and expectations (2000).

**Tun-Pin et al. (2019):** Intention towards adoption refers to an individual's willingness to use or engage with a certain technology, based on their motivational behaviour ("What is adoption intention", 2017). This study investigates FinTech adoption rates using six independent variables from Wen's (2016) model, specifically analysing consumers' attitudes towards FinTech and their willingness to embrace modern technology in everyday transactions. Consumers' intentions to adopt FinTech may be influenced by a variety of factors, but this study focuses on perceived ease of use, perceived usefulness, personal innovativeness, perceived enjoyment, social influence, and security concerns. According to Abraho, Moriguchi, and Andrade (2016),

behaviour intention is used to investigate consumers' intentions to adopt new technology.

**Tang et al. (2020):** FinTech is not limited to traditional financial services; it also includes business operations, facilities, and product lines as an alternative to traditional financial institutions. FinTech is a creative and disruptive product and service offered by modern nonfinancial establishments (Lee & Teo, 2015; Sweeney, 2017 that use evolving information innovations such as big data, cloud computing, and mobile technologies to improve service quality and management efficiency while also expanding the financial services sector (Hu et al., 2019). This technology enabler provides customers with a variety of mobile environment services, such as online payment, fund transfer, loan application, insurance policy purchase, asset and organizational management, stock investment, mobile payment, InsureTech, P2P lending, crowdfunding, and cryptocurrency (Ryu, 2018). While FinTech provides enormous benefits to consumers, such as transparency, reduced expenses, elimination of intermediaries, and improved access to financial information (Zavolokina et al., 2016), FinTech institutions face potential uncertainties or harm to consumers (Chan, 2015). Consumer perceptions of the risks associated with FinTech use are critical to understanding. The consumer's intent to use FinTech is viewed as untrustworthy and uncertain, and a negative attitude may result from a strongly held negative belief (Ajzen & Fishbein, 1977). Consumers may be hesitant to use FinTech due to the significant risks associated with its use, which may harm them and discourage them from using it.

**Abu Daqar et al. (2021):** Millennials and Gen Z are the primary generations interested in Fintech services. As many Fintech users and adopters, millennials have a significant influence on banks and Fintech players' strategies in the market. Compared to older generations, millennials and Gen Z are more aware of financial technology due to their higher level of technology use in their daily lives. Moreover, Gen Z is leading the adoption of Fintech services globally and is responsible for a significant amount of direct spending. They are the first adopters of mobile-based services for traditional financial institutions, and their financial awareness is higher than that of millennials.

Therefore, banks and financial companies must pay attention to the needs and expectations of Gen Z and offer them attractive financial services to acquire this segment. Failure to meet their needs may significantly impact a company's performance. These findings are supported by various studies, including Priem, Li, and Carr (2012); Priem and Swink (2012); Carlin, Olafsson, and Pagel (2017); Sachdev (2019); Cornell University (2018); and Vahrenkamp (2017).

**Huong et al. (2021):** The COVID-19 pandemic has had a significant impact on the global shift toward a cashless society. Financial technology (FinTech) transactions have grown in popularity, particularly during the pandemic, as consumers seek to reduce their reliance on cash for financial activities and transactions. As a result, they are actively looking for contactless payment options that allow them to conduct transactions electronically without any physical interaction. This presents an opportunity for banks and FinTech companies to work together to ease the transition to cashless payments. To achieve this goal, banks must adopt cutting-edge FinTech technologies to digitize their financial services, allowing for a mutually beneficial relationship with FinTech companies to meet the most popular market demand for contactless payments. COVID-19 has provided an opportunity for banks and FinTech firms to engage in mergers and acquisitions (M&A) activities to address market gaps aligned with consumers' needs and expectations (William Fry, 2020). The COVID-19 pandemic has resulted in a significant decrease in cash transactions in China, which is expected to last until 2023. Due to safety concerns, the World Health Organization is urging people to use contactless payment methods instead of cash, and this call to action has resulted in a global shift towards digital payments. By leveraging cutting-edge technologies to digitize financial services, financial technology companies and banks have an opportunity to collaborate and facilitate the transition to cashless payments (GlobalData, 2020, April 6). Furthermore, COVID-19 has provided an opportunity for banks and fintech firms to engage in mergers and acquisitions in order to address market gaps and align with consumers' needs and expectations. The shift to cashless transactions is a significant indicator of cash's future, with a gradual decline in both the volume and value of cash as consumers increasingly prefer digital payment options over

traditional methods. Another major driver of this shift to digital payments is online shopping.

**Rabaa'I (2021):** According to the literature on the evolution of FinTech, the phenomenon's roots can be traced back to the early 1990s with the spread of the internet. However, there are differing views on the precise timeline for financial industry digitalization. Arner et al. (2016) claimed that by the late 1980s, financial services had largely become a digital industry, whereas Alt et al. (2018) claimed that digital financial technologies were first introduced in 1973. FinTech's primary goal is to attract customers by offering financial products and services that are more convenient, user-friendly, efficient, customized, transparent, and automated than those currently offered by incumbent financial services providers (Dorfleitner et al., 2017). This has the potential to reshape the financial industry by lowering costs, improving financial service quality, and establishing a more diverse and stable financial landscape (Lee and Shin, 2018). Furthermore, the FinTech revolution is drastically altering financial services operations by increasing efficiency, customer focus, and transparency (Gomber et al., 2018). FinTech products and services are frequently regarded as disruptors or innovators due to their potential to upend existing industry structures and boundaries (Gerlach and Lutz, 2019). FinTech innovations, it is argued, could improve the efficiency of financial incumbents; however, new FinTech products and services will increase competition for incumbent banks. As a result, financial incumbents have been compelled to expand their capabilities, expertise, and technological investments (EY, 2019).

**Abdul-Rahim et al. (2022):** Financial technology (FinTech) is a buzzword in the banking and finance industry. FinTech is defined as a financial service that combines finance and technology and is provided via advanced information and communication technology. FinTech has made an appearance in the financial sector through services such as ATMs, credit cards, internet/online banking, mobile banking, and e-wallets. FinTech services have recently expanded to include financing via peer-to-peer (P2P) lending and crowdfunding, budgeting, financial planning, and investments. These services are supported by a mix of old and new technologies such as blockchain,

artificial intelligence (AI), machine learning, and big data, which allow for the development of more complex and profound technologically-driven financial products and services. Digitizing processes through FinTech has the potential to address a variety of sustainability issues; however, the critical challenge is developing an effective FinTech adoption model to create FinTech natives by transitioning from traditional financial services to reap the benefits of FinTech services.

**Hassan et al. (2022)** studied that financial technologies are regarded as remarkable advancements in modern science, attracting customers with user-friendly, transparent, efficient, and automated products and services. Asset management, financing, payments, and other business models are examples of fintech products and services. Mobile fintech services are the most popular and well-known among them, as they enable users to conduct financial transactions using smartphones or tablets. Fintech adoption has reached 64% globally, with 96% of consumers aware of fintech services. Furthermore, according to the EY Fintech Adoption Index, 75% of consumers use fintech services for money transfers and payments, indicating widespread consumer adoption. Several studies have been conducted to investigate the adoption of fintech services. Hasan et al. investigated the determinants of fintech adoption in the Netherlands and discovered that trust, perceived ease of use, safety, and perceived usefulness were significant factors in mobile fintech adoption.

# CHAPTER 3

# Research Methodology

## 3.1 Title

A Study on Consumer Perception towards FinTech and Its Adoption

## 3.2 Title Justification

The emergence of financial technology (FinTech) has significantly altered how individuals conduct business and manage their financial affairs. Through the utilization of technology, FinTech firms can offer financial services to consumers with greater efficiency and efficacy than traditional financial institutions. This transformation of the financial industry has been characterized by innovative solutions that have fundamentally altered how individuals interact with financial products and services.

As the prevalence of FinTech continues to increase, it becomes increasingly critical to gain insight into consumer perceptions of these new financial products and services.

## 3.3 Objectives of Study

- To understand difference in the consumer perception towards Fintech and its adoption with respect to age
- To understand difference in the consumer perception towards Fintech and its adoption with respect to gender
- To understand difference in the consumer perception towards Fintech and its adoption with respect to income

## 3.4 Type of Research

Quantitative research is used in the study on consumer perception towards FinTech and its adoption. This type of research is concerned with collecting and analyzing numerical data and using statistical methods to conclude a population based on a sample. Quantitative research is useful in studying consumer perceptions and intentions towards

FinTech, as it allows for a systematic and structured approach to data collection and analysis.

## 3.5 Data Collection

This study's data was gathered through primary sources, specifically through the use of an online survey questionnaire. To ensure the questionnaire's validity and reliability, a thorough literature review was conducted to identify previously used scales and items in related research studies.

The final version of the questionnaire included 20 Likert scale statements divided into five categories: trust, safety, convenience, risk, and intention to adopt FinTech. Using a five-point Likert scale ranging from "strongly disagree" to "strongly agree," respondents were asked to rate their level of agreement or disagreement with statements related to these categories. The online survey was distributed to a random sample of consumers via various means, and respondents were given clear information about the study's purpose. The questionnaire data were entered into a database and analyzed using statistical software. The data collection process was conducted with careful attention to ensure the authenticity of the data.

## 3.6 Limitation of Study

1. **Limited Sample Size:** Limited sample size is one of the common limitations that a researcher may face while collecting data from a primary source using a questionnaire. Due to the small sample size, the researcher may not be able to include a representative sample of the population in this case. Because a small sample size may not accurately reflect the attitudes, behaviors, and perceptions of the entire population, the conclusion may be biased or incomplete.

2. **Sampling Bias**: Another limitation that a researcher may face when collecting data from a primary source using a questionnaire is sampling bias. This happens when the sample is not representative of the population under study, resulting in a biased or incorrect conclusion.

3. **Low Response Rates**: It refer to the situation when a lower number of individuals respond to the survey or questionnaire than the number of individuals invited to participate. It is a significant limitation of primary data collection using a questionnaire. Low response rates can cause problems in the generalizability of the findings because the sample may not be representative of the population of interest.

4. **Financial Constraints**: Limited financial resources can result in a smaller sample size or lower response rates, which can limit the representativeness of the data collected. It can also lead to a fewer comprehensive data collection process, such as less frequent follow-ups with non-respondents or a smaller sample size that cannot capture a diverse range of perspectives or experiences.

5. **Time Constraints**: Limited time can lead to rushed and incomplete data collection processes, which can result in incomplete or inaccurate data.

# CHAPTER 4

# Data Analysis

## 4.1 Demographics of Respondents

| Variables | Category | Frequency | Percentage |
|---|---|---|---|
| **Gender** | Male | 43 | 51% |
| | Female | 42 | 49% |
| **Age** | 18 - 24 | 60 | 71% |
| | 25 - 34 | 14 | 16% |
| | 35 - 44 | 0 | 0% |
| | 45 - 54 | 8 | 9% |
| | 55 - 60 | 3 | 4% |
| **Education** | High School | 2 | 2% |
| | Undergraduate | 52 | 62% |
| | Post-Graduate | 22 | 26% |
| | Other | 8 | 10% |
| **Monthly Income** | 0 – 25,000 | 60 | 71% |
| | 25,001 – 50,000 | 11 | 13% |
| | 50,001 or Above | 14 | 16% |

*Table 4.1 (Demographic Profile of Respondents)*

## 4.2 Regression Analysis

Regression is a statistical technique that can be used to understand the relationship between two or more variables. In the context of consumer perception towards FinTech and its adoption, regression can be used to identify the factors that influence consumer perception of FinTech.

| R | R Square | Adjusted R Square | Standard Error |
|---|---|---|---|
| 0.74075718 | 0.548721199 | 0.5324589 | 2.941922458 |

*Table 4.2 (Regression Table)*

Regression is a statistical technique that can be used to understand the relationship between two or more variables. In the context of consumer perception towards FinTech and its adoption, regression can be used to identify the factors that influence consumer perception of FinTech.

The table presents the value of $R^2 = 0.548721199$, value of adjusted $R^2 = 0.5324589$. It showed the true value of the relationship. This reflects that 54.8% of the variation in

the dependent variable is explained by the selected predictive variables 45.2 % remains unexplained.

| | *df* | *SS* | *MS* | *F* | *P* |
|---|---|---|---|---|---|
| Regression | 4 | 1168.132826 | 292.033207 | 33.74192019 | 2.08627E-18 |
| Residual | 111 | 960.6947601 | 8.65490775 | | |
| Total | 115 | 2128.827586 | | | |

*Table 4.3 (Regression ANOVA Table)*

$H_{01}$: There is no significant variance explained by the model in the dependent variable.
$H_{A1}$: There is significant variance explained by the model in the dependent variable.

The multiple regression's F-test has the null hypothesis that the model explains zero variance in the dependent variable. F ratio is significant, {F = 33.74192019, P = 0.00} which is < 0.05. Thus, we accept the alternate hypothesis $H_{A1}$. It indicates the linear regression model is fit.

## 4.3 Hypotheses

### 4.3.1 To understand difference in the consumer perception towards Fintech and its adoption with respect to gender

$H_{01}$: There is no significant difference in the consumer perception towards Fintech and its adoption with respect to gender

$H_{A1}$: There is a significant difference in the consumer perception towards Fintech and its adoption with respect to gender

| | *Males* | *Females* |
|---|---|---|
| Mean | 17.8214286 | 17.5666667 |
| Variance | 19.3493506 | 18.0124294 |
| Observations | 56 | 60 |
| Hypothesized Mean Difference | 0 | |
| df | 113 | |
| t Stat | 0.317036 | |
| P(T<=t) one-tail | 0.37590064 | |
| t Critical one-tail | 1.65845022 | |
| P(T<=t) two-tail | 0.75180129 | |
| t Critical two-tail | 1.98118036 | |

*Table 4.4 (T Test)*

With a p-value of 0.751801286, which is larger than the conventional significance level of 0.05, we would typically fail to reject the null hypothesis. This means that there is insufficient evidence to conclude that there is a significant difference in consumer perception and adoption of Fintech between gender groups.

### 4.3.2 To understand difference in the consumer perception towards Fintech and its adoption with respect to age

$H_{02}$: There is no significant difference in the consumer perception towards Fintech and its adoption with respect to age

$H_{A2}$: There is a significant difference in the consumer perception towards Fintech and its adoption with respect to age

SUMMARY

| *Groups* | *Count* | *Sum* | *Average* | *Variance* |
|---|---|---|---|---|
| 18 - 30 | 86 | 1496 | 17.39534884 | 14.68891929 |
| 31 - 40 | 2 | 10 | 5 | 0 |
| 41 - 50 | 18 | 316 | 17.55555556 | 12.73202614 |
| 51 - 60 | 6 | 136 | 22.66666667 | 8.266666667 |
| Other | 4 | 94 | 23.5 | 3 |

ANOVA

| *Source of Variation* | *SS* | *df* | *MS* | *F* | *P-value* | *F crit* |
|---|---|---|---|---|---|---|
| Between Groups | 613.4916689 | 4 | 153.3729172 | 11.23473259 | 1.09E-07 | 2.453458065 |
| Within Groups | 1515.335917 | 111 | 13.65167493 | | | |
| | | | | | | |
| Total | 2128.827586 | 115 | | | | |

*Table 4.5 (ANOVA w.r.t Age)*

The obtained F is 11.23473259, and the associated p-value is 1.09E-07. Comparing this p-value to the chosen significance level, we see that the p-value is much smaller. Therefore, we reject the null hypothesis (H02) that there is no significant difference in the consumer perception towards Fintech and its adoption with respect to age.

Therefore, based on the ANOVA analysis, there is strong evidence to support the alternative hypothesis ($H_{A2}$) that there is a significant difference in the consumer perception towards Fintech and its adoption with respect to age.

### 4.3.3 To understand difference in the consumer perception towards Fintech and its adoption with respect to income

$H_{03}$: There is no significant difference in the consumer perception towards Fintech and its adoption with respect to income

$H_{A3}$: There is a significant difference in the consumer perception towards Fintech and its adoption with respect to income

SUMMARY

| *Groups* | *Count* | *Sum* | *Average* | *Variance* |
|---|---|---|---|---|
| 0 - 25,000 | 88 | 1552 | 17.63636364 | 16.18808777 |
| 25,001 - 50,000 | 8 | 158 | 19.75 | 14.5 |
| 50,001 or Above | 20 | 342 | 17.1 | 30.41052632 |

ANOVA

| *Source of Variation* | *SS* | *df* | *MS* | *F* | *P-value* | *F crit* |
|---|---|---|---|---|---|---|
| Between Groups | 41.16394984 | 2 | 20.58197492 | 1.114050715 | 0.33180437 | 3.076574309 |
| Within Groups | 2087.663636 | 113 | 18.47489944 | | | |
| | | | | | | |
| Total | 2128.827586 | 115 | | | | |

*Table 4.6 (ANOVA w.r.t Income)*

The obtained F is 1.114050715, and the associated p-value is 0.331804372. Comparing this p-value to the chosen significance level, we see that the p-value is greater than 0.05. Therefore, we fail to reject the null hypothesis ($H_{03}$) that there is no significant difference in the consumer perception towards Fintech and its adoption with respect to income.

Therefore, based on the ANOVA analysis, there is no strong evidence to support the alternative hypothesis ($H_{A3}$) that there is a significant difference in the consumer perception towards Fintech and its adoption with respect to income.

## 4.4 Reliability and Validity Test

Cronbach's Alpha: 0.844

The Inter-Item Reliability and Validity of the Likert Scale Statements were assessed by calculating Cronbach's Alpha, resulting in a value of 0.844. This value surpasses the criterion of 0.7, indicating a strong level of Reliability and Validity for the Likert Scale Statements.

# CHAPTER 5

# Findings and Observation

The objective of the study was to investigate consumer perceptions of FinTech and its adoption. Through comprehensive statistical analysis, notable findings emerged, shedding light on the interplay between various variables.

### 1. Regression Results

The model showed a good overall fit with an R-value of 0.74075718. The coefficient of determination ($R^2$) indicated that 54.8% of the variance in the dependent variable could be explained by the independent variables. The adjusted $R^2$, which takes into account the number of predictors in the model, was 0.5324589, suggesting a moderate level of explanation for the variance. The analysis of variance (ANOVA) table revealed a significant F-value of 33.74192019 ($p < 0.005$), indicating that the model's predictors collectively had a significant effect on the dependent variable.

### 2. Reliability and Validity

The assessment of the reliability and validity of the Likert scale items employed in the study was conducted utilizing Cronbach's alpha, resulting in a coefficient of 0.844. This substantial alpha value signifies strong internal consistency and reliability of the measurement instrument.

### 3. Hypotheses

Hypothesis 1: Gender

The study aimed to investigate the variation in consumer perception and adoption of Fintech based on gender. The analysis, with a p-value of 0.751801286, which exceeds the conventional significance level of 0.05, does not provide sufficient evidence to reject the null hypothesis. Therefore, there is no significant difference in consumer perception and adoption of Fintech between gender groups.

Hypothesis 2: Age

The objective was to explore the differences in consumer perception and adoption of Fintech according to age. The ANOVA analysis revealed a significant result with an obtained F value of 11.23473259 and a p-value of 1.09E-07, indicating strong evidence to reject the null hypothesis. Consequently, there is a substantial difference in consumer perception and adoption of Fintech across various age groups.

Hypothesis 3: Income

The hypothesis aimed to ascertain the variation in consumer perception and adoption of Fintech based on income. The ANOVA analysis yielded an obtained F value of 1.114050715, with an associated p-value of 0.331804372. The p-value surpasses the chosen significance level of 0.05, leading to the failure to reject the null hypothesis. Thus, there is no substantial evidence to support the existence of a significant difference in consumer perception and adoption of Fintech concerning income levels.

# CHAPTER 6

# Suggestions

The following suggestions aim to address the findings of this study, which explored the variation in consumer perception and adoption of FinTech

1. **Enhancing Education and Awareness of FinTech for Older Consumers:**

To bridge the knowledge gap and increase awareness among older consumers regarding FinTech, targeted efforts are required. Businesses and FinTech providers should prioritize extensive marketing, advertising, and public relations initiatives targeted exclusively towards older consumers. These activities should highlight the advantages and benefits of FinTech adoption while addressing any concerns or misconceptions that older consumers may have. Businesses may equip older consumers with a greater awareness of FinTech's potential by providing accurate and accessible information through multiple means such as online platforms, conventional media, and community engagement programs.

2. **Enhancing User-Friendliness and Accessibility of FinTech for Older Consumers:**

To ensure that FinTech products and services are inclusive and accessible to older consumers, user-friendliness and ease of access must be prioritised. To produce intuitive and user-friendly interfaces, businesses and FinTech providers should invest in user-centric design concepts. Considerations like as legible font sizes, straightforward navigation, and simple directions that cater to the cognitive and visual demands of older consumers are all part of this. Furthermore, providing different access channels for FinTech products and services, including as mobile apps, websites, and call centres, gives flexibility and accommodates varying levels of technology knowledge. Businesses may improve the accessibility and usability of their FinTech solutions for older consumers by continuously refining and upgrading the user experience based on feedback and usability testing.

### 3. Designing for Ease of Use

Businesses and financial providers should prioritize building their goods and services with elderly users in mind to improve usability. This includes utilizing plain and succinct language, avoiding technical jargon, and offering simplified directions. Adopting these steps will improve the user experience for older people, enabling greater accessibility and usage of FinTech solutions.

### 4. Target the Marketing and Advertising Efforts to Different Income Groups

To address potential disparities in consumer perception and adoption of FinTech based on income levels, implementing targeted marketing and advertising strategies tailored to distinct income groups is recommended. By recognizing and understanding the specific needs and preferences of each income segment, these strategies have the potential to enhance FinTech adoption among consumers with lower income levels, fostering inclusivity and expanding the accessibility of FinTech services. This approach enables financial technology providers to effectively engage with diverse consumer segments and promote the benefits and relevance of FinTech solutions within each income group.

### 5. Develop Different Products and Services for Different Income Groups

Adopting a strategic strategy of generating various products and services for different socioeconomic groups holds potential benefits in the event of detecting significant disparities in consumer demands and preferences relevant to FinTech. This strategy intends to successfully handle the particular needs of consumers in each income bracket, catering to varied groups and facilitating increased adoption of FinTech solutions. Financial technology providers can improve their ability to fulfil the expectations of a broader range of consumers and increase the overall acceptance of FinTech by matching product offerings with the specific needs of various income groups.

# Conclusion

This research aimed to investigate the variation in consumer perception and adoption of FinTech based on gender, age, and income. The findings indicate that while no significant difference was observed between gender groups, notable disparities emerged across different age groups. Specifically, older consumers exhibited a more negative perception of FinTech and demonstrated lower adoption rates compared to younger consumers. Moreover, no significant variation was found in consumer perception and adoption of FinTech with respect to income levels.

Based on these results, it is recommended that financial technology providers adopt targeted strategies to address the unique needs of older consumers. Enhancing education and awareness of FinTech through targeted marketing and educational campaigns can help bridge the knowledge gap and increase adoption among older individuals. Additionally, prioritizing user-friendliness and accessibility in the design of FinTech products and services will ensure ease of use for older consumers.

Furthermore, recognizing the differing preferences and requirements among income groups, developing tailored products and services can promote inclusivity and widen FinTech adoption. By catering to the specific needs of each income segment, financial technology providers can maximize the benefits and relevance of FinTech solutions for diverse consumer groups.

In conclusion, implementing these recommendations will contribute to the overall goal of increasing the adoption of FinTech among all consumers, irrespective of their gender, age, or income. By addressing the challenges identified in this study, financial technology providers can foster a more inclusive and accessible FinTech ecosystem that meets the diverse needs of consumers.

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# ANNEXURE

# Annexure I

## Figures



## Tables

# Annexure II

## Questionnaire on Consumer Perception of Fintech and its Adoption

I, a student of JIMS Vasant Kunj am conducting a study on the perception of consumers towards FinTech and its Adoption. I request you help me conduct my research by filling out the questionnaire below. I assure you that the data collected will be used only for academic purposes.

### Section A

**Name:** _____

### Gender:

o Male

o Female

### Age:

o 18 – 30

o 31 – 40

o 41 – 50

o 51 – 60

o Other

### Educational Qualification:

o High School

o Undergraduate

o Post-Graduate

o Other

## Monthly Income

o 0 – 25,000

o 25,001 – 50,000

o 50,001 or Above

## Section B

Kindly rate all the statements on the scale of 1 – 5

1 - Strongly Disagree | 2 – Disagree | 3 – Neutral | 4 - Agree | 5 - Strongly Agree

| Particulars | SD | D | N | A | SA |
|---|---|---|---|---|---|
| **Trust** | | | | | |
| I trust FinTech solutions with my personal and financial information. | | | | | |
| I believe that FinTech companies are transparent with their fees and charges. | | | | | |
| I believe that FinTech companies are reliable in providing financial services. | | | | | |
| **Safety** | | | | | |
| I feel secure using FinTech solutions for financial transactions. | | | | | |
| I believe that FinTech companies have effective security measures to protect my personal and financial information. | | | | | |
| I am confident that FinTech solutions are safe to use for financial transactions. | | | | | |
| **Convenience** | | | | | |
| FinTech solutions make it easier for me to manage my finances. | | | | | |
| I prefer using FinTech solutions over traditional financial institutions because they are more convenient. | | | | | |
| FinTech solutions are accessible from anywhere and at any time, making financial transactions more convenient. | | | | | |
| FinTech solutions provide me with faster access to my financial information. | | | | | |
| **Risk** | | | | | |
| I am concerned about the potential risks associated with using FinTech solutions. | | | | | |
| I worry that my personal and financial information may be compromised when using FinTech solutions. | | | | | |
| I am concerned about the reliability of FinTech solutions. | | | | | |
| I worry about the lack of regulation of FinTech companies. | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| I am worried about the potential for fraud when using FinTech solutions. | | | | | |
| **Intention to Adopt** | | | | | |
| I am likely to adopt FinTech solutions in the near future. | | | | | |
| I intend to increase my use of FinTech solutions in the future. | | | | | |
| I am open to trying new FinTech solutions. | | | | | |
| I am interested in learning more about FinTech solutions. | | | | | |
| I am willing to switch from traditional financial institutions to FinTech companies for my financial needs. | | | | | |