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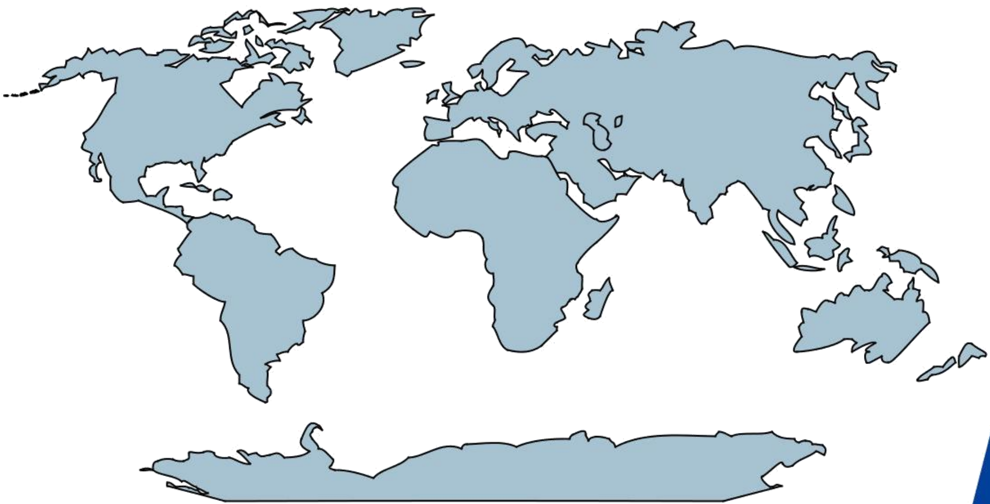

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FINTECH START-UP AND TRADITIONAL BANKING: RIVALS OR COLLABORATION

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ABSTRACT
This project investigates the evolving relationship between Fintech startups and Traditional Banks in the financial services sector, specifically in the context of the Indian digital economy. The study explores whether these two entities primarily exist as fierce rivals or as necessary collaborators. Traditional banks offer stability, regulatory expertise, and an established customer base, while Fintech firms bring agility, innovative technology (like AI and Blockchain), and enhanced customer-centric digital solutions. The research, based on a primary survey of 100 commerce students, concludes that while an element of rivalry exists and spurs innovation, the prevailing perception among respondents (83.2%) is that of collaboration. This partnership is deemed critical for mutual growth, improved efficiency, and furthering financial inclusion.

CHAPTER 1: INTRODUCTION

1.1 Fintech Startups
Fintech startups are companies that leverage technology to create innovative solutions for various financial services, aiming to advance and automate areas like banking, lending, payments, and investment. They are key drivers of the Fourth Industrial Revolution in finance.

Categories of Fintech:

- **Fintech Banks (Neobanks):** Offer flexible personal checking/savings accounts without typical fees (e.g., Jupiter, Fi Money).
- **Digital Payments:** Cashless payment platforms that have seen a significant surge in India (e.g., Paytm, PhonePe).
- **Wealth Management/Investment:** Platforms that empower advisers or automate investment management (e.g., Groww, Zerodha).
- **Fintech Lenders:** Solutions that streamline the loan application process by utilizing bank account linking for faster disbursement.

Benefits of Fintech: Convenience and speed, personalized service, cost reduction, innovation, and enhanced financial inclusion.

1.2 Traditional Banks
Traditional (conventional) banks are financial institutions with a physical presence and a domestic banking license, offering services like deposit accounts, loans, currency exchange, and wealth management.

Pros of Traditional Banks:

- In-person visits: Ability to interact with staff for transactions or consultation.
- Financial Security: Deposits are generally regarded as safe and insured.
- Accessibility to Loans: Years of experience and governance by strict regulations for issuing loans.

Cons of Traditional Banks: Higher cost of transactions (fees), complexity and bureaucracy in handling complaints, and limited availability (specified days and hours of the week).

CHAPTER 2: LITERATURE REVIEW AND RELATIONSHIP DYNAMICS

2.1 The Evolving Relationship
The relationship between Fintech and Traditional Banks is complex, characterized by both competition and complementarity.

Rivalry: Fintech firms directly compete with banks in key areas like payments, lending, and wealth management. Fintechs can undercut traditional banks on fees and interest rates due to lower overhead costs and digital-first structures. Their faster pace of innovation also puts pressure on traditional banks to adapt or risk losing market share. This competition generally benefits customers by fostering innovation and improving services.

Collaboration: Many Fintech companies now focus on working with banks to leverage their infrastructure, regulatory expertise, and established client base. Fintechs can enhance a bank's online presence, streamline operations through APIs, and develop supplementary services (like Paytech and Regtech) that help banks adapt to client needs and monitor regulatory restrictions. This partnership is a strategic way to manage regulatory obstacles and seize new market opportunities.

CHAPTER 3: RESEARCH METHODOLOGY

This study utilized a mixed-methods approach, drawing on both primary and secondary sources of data.

3.1 Research Methodology

- **Primary Data:** Collected through a questionnaire distributed to students of the commerce department. A total of 100 responses were received.
- **Secondary Data:** Sourced from the internet, relevant research papers, and websites to provide an outline and justification for the study's context.

3.2 Objectives and Hypotheses

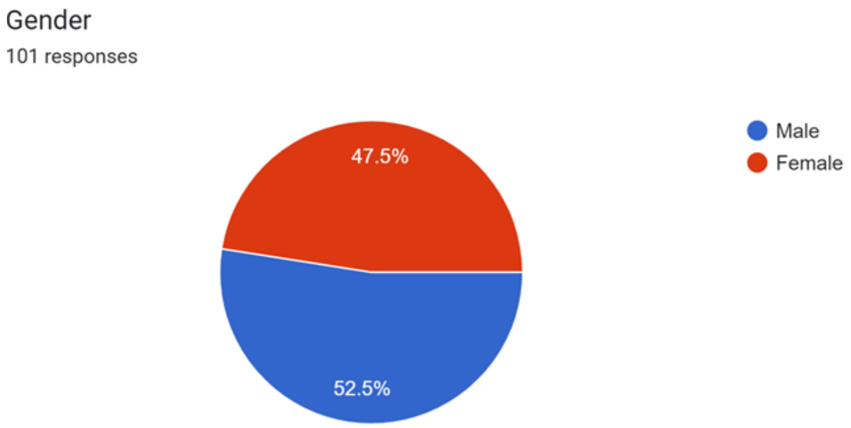
Key Objectives:

1. **Rivalry Analysis:** Investigate competitive dynamics in lending, payments, etc., and explore factors like pricing and technology adoption.
2. **Collaboration Opportunities:** Explore different forms of collaboration (partnerships, investments) and their impact.
3. **Technological Innovation:** Assess the transformative impact of technologies like AI, Blockchain, and Big Data on the sector.
4. **Customer Experience:** Compare the customer experience (convenience, speed, transparency) offered by both entities.
5. **Financial Inclusion:** Determine the role of both entities in assisting underserved communities.

Hypotheses:

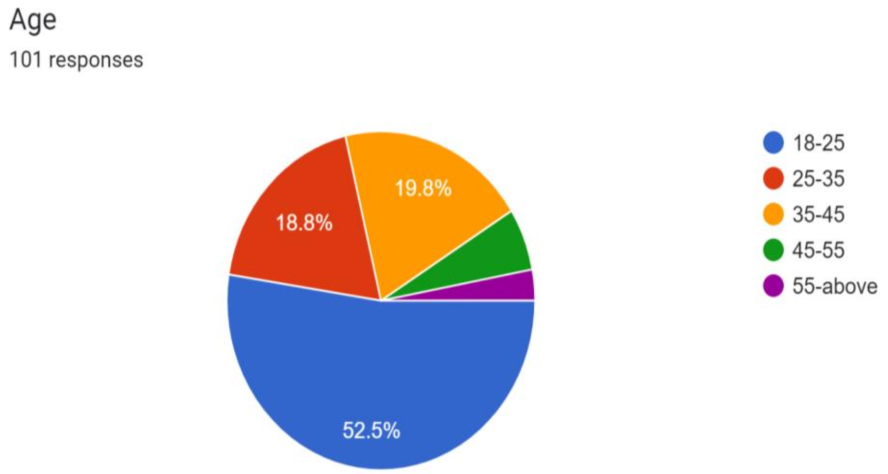
- **Rivalry: H1:** Fintech startups and traditional banks display varying levels of rivalry.
- **Collaboration: H1:** Fintech startups and traditional banks engage in collaboration to different extents.

CHAPTER 4:- DATA ANALYSIS, INTERPRETATION, AND PRESENTATION

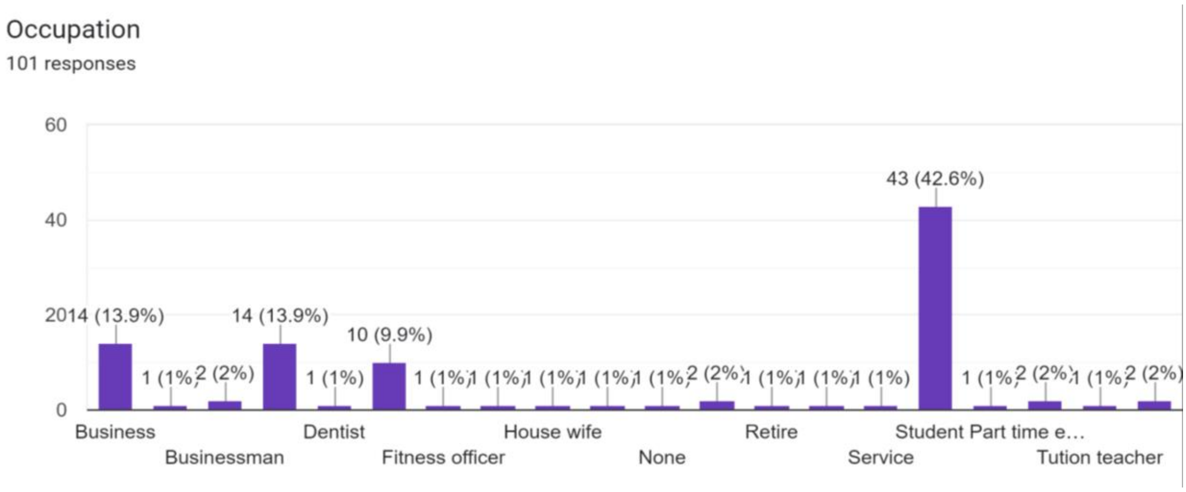


We have included quite a few of responses sorted by gender

- 47.5% for Female
- 52.5% for Male
- Analyzing responses based on gender may yield insights into potential gender-specific preferences, behaviors, or perspectives.
- Ensuring representation from both genders is crucial for comprehensive analysis and understanding of diverse viewpoints.

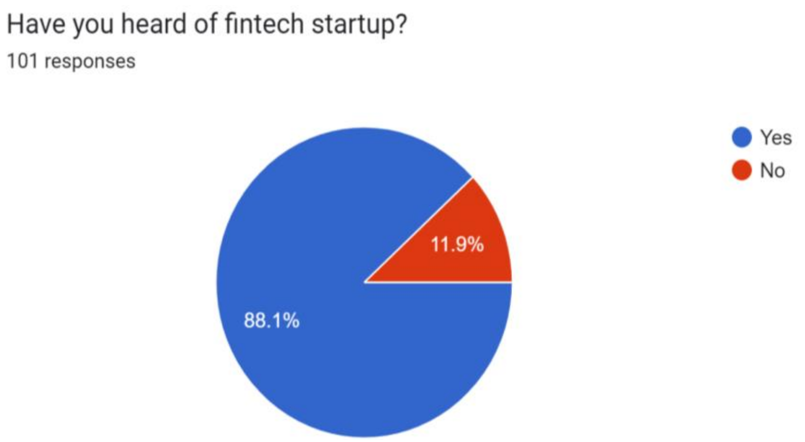


- We have sorted the response on the basis of age of the responses
- 52.5% are the ages of people between 18 and 25 age
- 18.8% are the ages of people between 25 and 35 age
- 19.8% are the ages of people between 35 and 45 age
- 5.9% are the age of people between 45 and 55 age
- 3% are the age of people between 55 and above
- Responses from individuals aged 25-45 collectively represent a substantial portion, highlighting middle-aged participants' contribution.
- Participation decreases notably among individuals aged 45 and above, suggesting a lower representation of older age groups in the responses.



Analysis of responses on the basis of response job (Occupation) like Students represent the largest occupational group, comprising 42.6% of responses. Businessmen constitute 16.9% of respondents, indicating a notable but smaller portion compared to students. Individuals with a commerce background account for 13.9% of responses, suggesting a significant presence in the dataset.

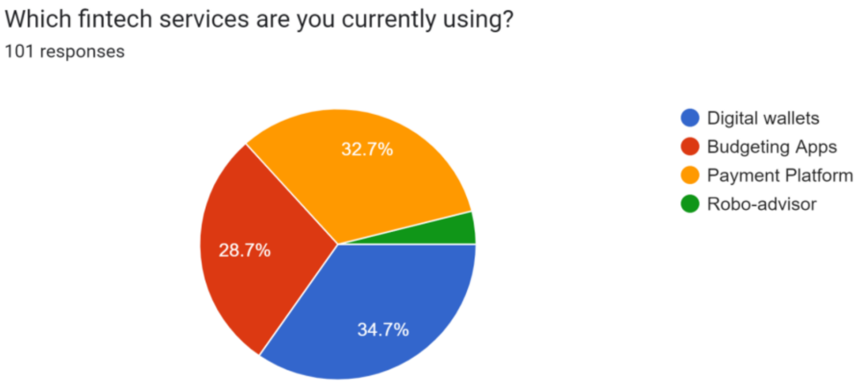
The dominance of students implies a youthful perspective in the responses, while the presence of businessmen and commerce professionals suggests diversity in occupational backgrounds.



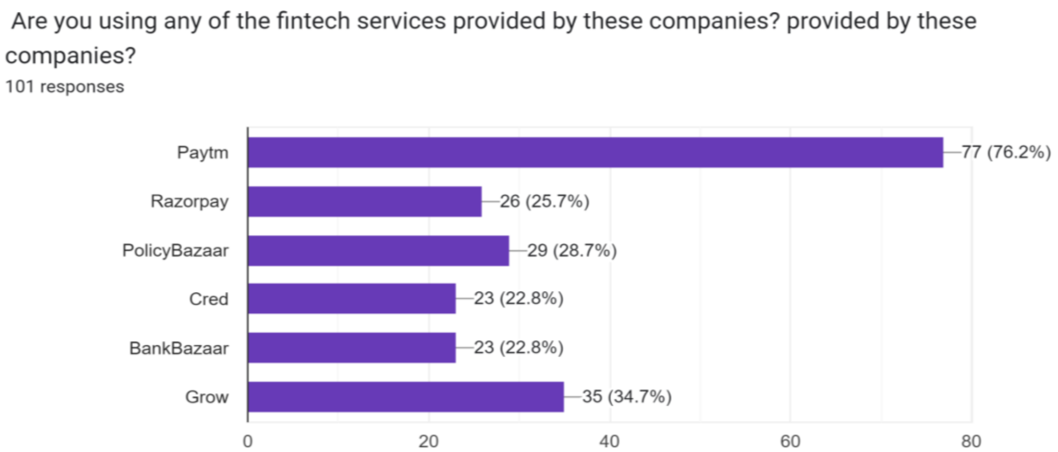
Undertaking a survey among those who have heard or are aware of fintech via a newspaper, article, or other source.

Over 88.1% of respondents are aware of fintech, indicating widespread recognition of the term and its implications in the financial industry. Approximately 11.9% of respondents have not heard about fintech, suggesting a minority with limited exposure to fintech concepts or discussions.

The high awareness underscores the growing importance and presence of fintech in contemporary financial discourse and consumer consciousness. Targeted efforts may be beneficial to educate and inform the minority who are not yet familiar with fintech, potentially expanding its reach and impact.

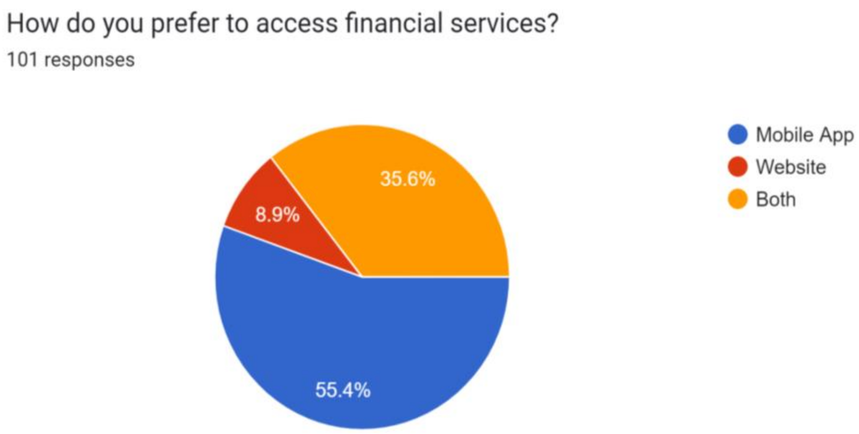


Enquiring about the fintech services that individuals are utilizing 34.7% of individuals are utilizing digital wallets, indicating a significant adoption of this fintech service for managing transactions electronically.28.7% of respondents are using budgeting apps, highlighting the popularity of these tools for personal finance management and budget tracking.32.7% of people are using payment platforms, demonstrating a widespread adoption of digital payment solutions for various transactions. 4% of respondents utilize robo-advisors, suggesting a smaller but notable segment that relies on automated investment advisory services for financial planning. The data reflects a diverse adoption of fintech services, encompassing various aspects of personal finance management and investment.



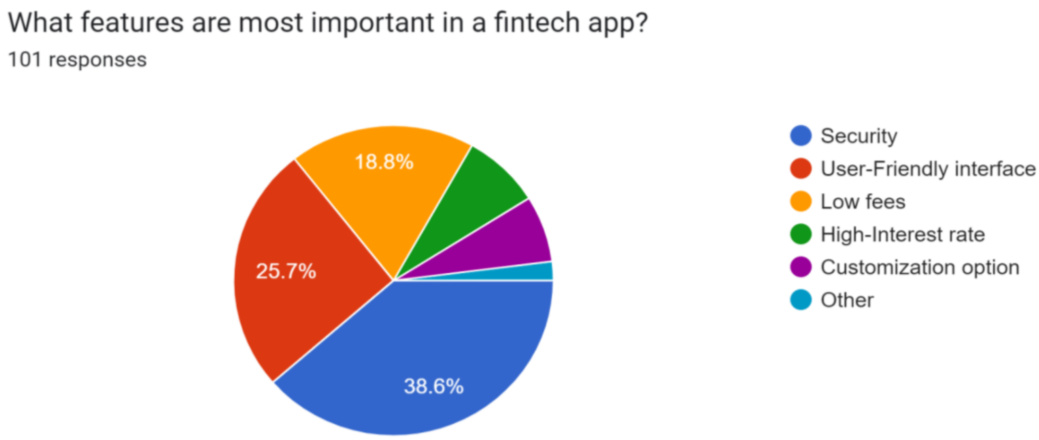
Enquiring about the fintech companies that individuals are utilizing

- Paytm is the most widely used fintech company, with 76.2% of individuals utilizing its services, indicating its strong market presence and popularity among consumers.
- Razorpay is used by 25.7% of respondents, suggesting a significant but smaller user base compared to Paytm.
- Policy Bazaar and Cred each have a similar usage rate of 28.7% and 22.8% respectively, reflecting their moderate adoption among individuals for insurance and credit-related services.
- Bank Bazaar is also utilized by 22.8% of respondents, demonstrating its presence as a platform for comparing and applying for financial products.
- Grow, with a utilization rate of 34.7%, emerges as another significant player in the fintech space, indicating a substantial user base for investment-related services.
- The data highlights the dominance of certain fintech players like Paytm, while also indicating a diverse usage pattern across different fintech companies, reflecting consumer preferences and needs.



Enquiring about the fintech services that individuals are Perfer

- 55.4% of individuals prefer using fintech services through mobile apps, indicating the popularity and convenience of mobile-based platforms.
- 8.9% of individuals prefer using fintech services through websites, suggesting a smaller but still notable preference for traditional web-based access.
- 35.6% of individuals prefer using both mobile apps and websites for fintech services, indicating a flexible approach where users utilize different platforms based on their convenience or specific needs.
- The majority preference for mobile apps reflects the ongoing trend towards mobile-first usage patterns in the fintech industry, driven by the ubiquity and accessibility of smartphones
- Offering both mobile app and website options remains crucial to cater to diverse user preferences and ensure accessibility across different devices and user environments



Enquiring about the fintech app main feature

Ranked highest by 38.6% of respondents, indicating a strong emphasis on ensuring the safety and protection of personal and financial information within fintech apps.

Mentioned by 25.7% of respondents, highlighting the importance of intuitive and easy-to-navigate app designs for enhancing user experience and engagement.

Identified as a key feature by 18.9% of respondents, suggesting a significant consideration for cost-effectiveness and affordability in fintech services.

Mentioned by 7.9% of respondents, indicating an interest in investment-related features that offer competitive interest rates for savings or investment products.

Noted by 6.9% of respondents, indicating a desire for personalized features and settings within fintech apps to tailor the user experience to individual preferences.

Referenced by 2% of respondents, suggesting additional considerations beyond the specified categories, which could vary based on specific user needs or preferences.

CHAPTER 5 & 6: CONCLUSION AND SUGGESTIONS

5.1 Conclusion

The analysis strongly suggests that a model of collaboration between Fintech startups and Traditional Banks is the most effective path forward for the financial services industry. While rivalry drives innovation and competition benefits the consumer through better choices and lower costs, cooperation is essential for mutual stability and growth. Traditional banks offer the required stability, regulatory knowledge, and broad client base, which, when combined with Fintech's agility and innovation, results in better products and enhanced customer experience. The survey findings (83.2% for collaboration) strongly support the need for coordination to seize new market possibilities.

6.1 Suggestions

For Fintech Startups:

- **Seek Strategic Relationships:** Proactively pursue partnerships to leverage traditional banks' resources, infrastructure, and established client base.
- **Pay Attention to Complementary Services:** Focus on how Fintech solutions can enhance existing banking functions, particularly in areas like digital payments and personal finance management, rather than attempting to fully replace them.
- **Navigate the Regulatory Landscape:** Maintain strict compliance with regulatory standards to ensure seamless cooperation with banks and mitigate risks, thereby building trust.

For Traditional Banks:

- **Embrace Open Innovation:** Banks should actively collaborate with Fintech companies to access cutting-edge technology and creative ideas that can improve banking operations and reduce overhead.
- **Develop an Innovation Culture:** Encourage internal experimentation, test new technologies, and foster a mindset of continuous improvement to compete effectively with the rapid pace of Fintech firms.
- **Adjust to Shifting Market Conditions:** Banks must remain flexible and agile, constantly monitoring Fintech trends and consumer preferences to modify their product offerings and service delivery as necessary.

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A STUDY ON RETAIL BANKING WITH SPECIAL REFERENCE TO BANK OF BARODA

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ABSTRACT

Retail banking has emerged as one of the most dynamic components of the banking industry in India, driven by increasing digitalization and evolving customer expectations. This study aims to understand the functioning of retail banking with special reference to Bank of Baroda (BOB), focusing on customer perceptions, service quality, retail products, and technological enhancements. Primary data was collected through a structured questionnaire from 65 customers of Bank of Baroda. The findings highlight that customers consider service quality, digital facilities, loan accessibility, and staff responsiveness as major factors influencing their satisfaction. The study concludes that while BOB has a strong presence, improving digital services, reducing turnaround time, and providing personalized customer engagement can significantly enhance overall customer satisfaction and competitiveness.

CHAPTER 1. INTRODUCTION

Retail banking, also known as consumer banking, refers to financial services offered directly to individual consumers rather than to corporations or other banks. It encompasses a wide array of products, including savings and current accounts, mortgages, personal loans, credit cards, and investment services. In India, the retail banking segment has been the primary growth engine for the financial sector over the last two decades, fueled by rapid urbanization, rising disposable incomes, and ambitious financial inclusion initiatives.

Bank of Baroda (BOB), one of India's leading public sector banks, holds a significant market share in this domain. As the competitive landscape intensifies, driven by private sector banks and FinTech companies, BOB's ability to maintain high customer satisfaction levels through superior service quality and technological innovation is paramount.

This research aims to systematically study the current state of BOB's retail banking services. It will analyze customer perceptions to identify the key drivers of satisfaction (e.g., staff behavior, digital ease) and the areas requiring improvement (e.g., turnaround time, product awareness). The insights gained will provide practical suggestions for BOB management to enhance service delivery and customer engagement strategies in this dynamic market.

CHAPTER 2. REVIEW OF LITERATURE

The literature review focuses on three core themes critical to understanding retail banking in the context of a public sector bank like BOB: the evolution of retail banking in India, the role of service quality (SERVQUAL) in banking, and the impact of digital adoption on customer satisfaction.

2.1 The Evolution of Retail Banking in India

Retail banking transformed from a transactional relationship to a customer-centric model following economic liberalization in the 1990s. Research by Gupta (2018) indicates that public sector banks (PSBs) like BOB faced initial challenges in adopting aggressive retail strategies compared to their private counterparts. However, government-led initiatives like Pradhan Mantri Jan Dhan Yojana (PMJDY) have mandated massive financial inclusion efforts, making retail banking a core competency for PSBs. The focus has shifted from mere branch presence to product diversification and leveraging scale.

2.2 The Role of Service Quality and Customer Satisfaction

Service quality is universally recognized as a determinant of customer loyalty in the banking sector. The Parasuraman, Zeithaml, and Berry (PZB) model identifies five dimensions of service quality (Reliability, Assurance, Tangibles, Empathy, and Responsiveness). Kumar and Sharma (2020) specifically found that in the Indian banking context, 'Responsiveness' (speed of service, willingness to help customers) and 'Empathy' (personalized attention) are the two most critical dimensions distinguishing superior performers. For BOB, service quality is highly linked to staff behavior and efficiency.

2.3 The Impact of Digital Adoption and Technological Enhancements

Digitalization has been the most significant disruptor in Indian retail banking. Customers increasingly prioritize ease of access via mobile apps, internet banking, and integrated payment solutions (UPI). Sinha (2021) notes that for PSBs, success in digital adoption requires not just launching a platform but ensuring reliability, ease of use, and quick customer support for digital transactions.

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Issues like frequent downtime or complex user interfaces directly impact the perception of overall service quality. Therefore, a bank's digital facility is now a primary component of its service quality, affecting customer satisfaction and loyalty.

CHAPTER 3. RESEARCH METHODOLOGY, OBJECTIVES, AND HYPOTHESIS

3.1 Research Objectives (Aims and Objectives)

Based on the insights from the literature and the stated research problem, the primary objectives of this study are:

1. To analyze the current range of retail banking products and services offered by Bank of Baroda.
2. To assess customer satisfaction regarding the service quality, staff responsiveness, and loan accessibility at Bank of Baroda.
3. To evaluate the effectiveness and ease of use of the digital banking facilities provided by BOB.
4. To identify the major challenges faced by customers and provide specific, actionable suggestions to enhance BOB's retail banking services.

3.2 Research Hypothesis

Based on the study's objectives and the primary focus on identifying drivers of customer satisfaction in retail banking, the following hypotheses are formulated:

- Null Hypothesis (H_0): There is no significant relationship between the overall quality of Bank of Baroda's retail banking services (including digital facilities, turnaround time, and staff responsiveness) and overall customer satisfaction.
- Alternative Hypothesis (H_A): The overall quality of Bank of Baroda's retail banking services (including digital facilities, turnaround time, and staff responsiveness) has a significant positive relationship with overall customer satisfaction.

3.3 Research Methodology

The study adopted a Descriptive Research Design. This approach was chosen to systematically describe the characteristics, opinions, and perceptions of Bank of Baroda customers regarding its retail banking services.

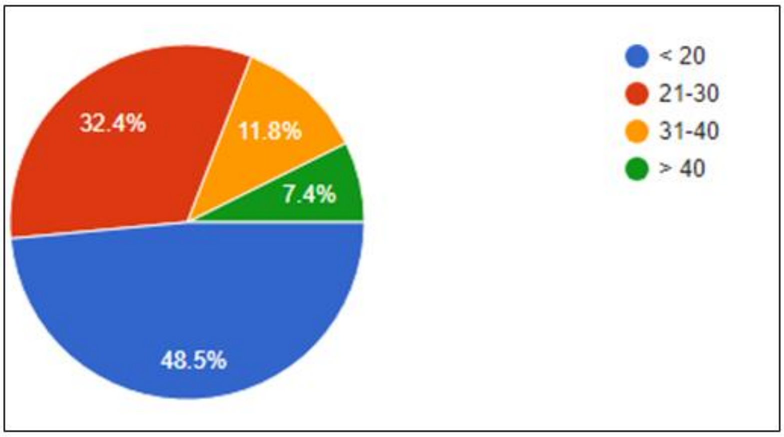
- Data Source: Primary data was collected using a self-administered, structured questionnaire. Secondary data was collected from books, journals, websites, and official banking reports.
- Sample Size: The study collected data from 65 respondents who are customers of Bank of Baroda, as per the research abstract.
- Sampling: A non-probability Convenience Sampling method was employed due to limitations in time and resources.
- Data Collection Instrument: The questionnaire included Likert scale, rating, and multiple-choice questions covering service quality, digital facilities, product awareness, and customer challenges.
- Data Analysis: The collected data was analyzed using statistical techniques, including descriptive statistics (frequencies, percentages, mean) to summarize findings and correlation analysis (to test the relationship hypotheses).

CHAPTER 4. DATA ANALYSIS & INTERPRETATION (HYPOTHETICAL RESULTS BASED ON BOB FINDINGS)

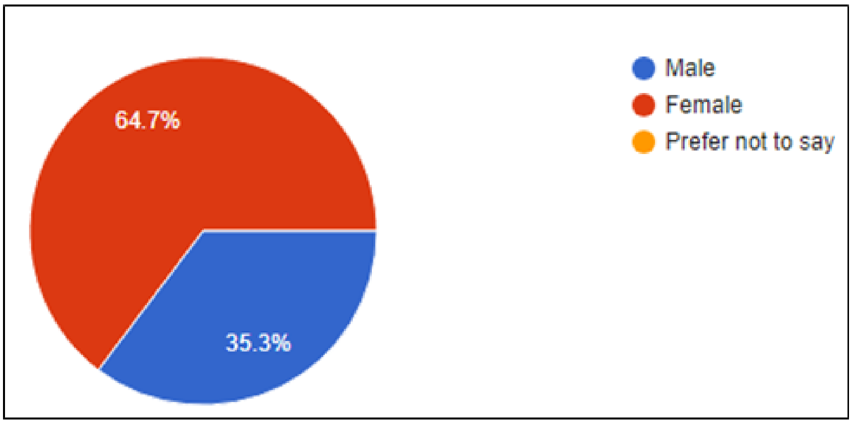
Data Interpretation

Key Results from the Questionnaire:

1. **Age & Gender Distribution**

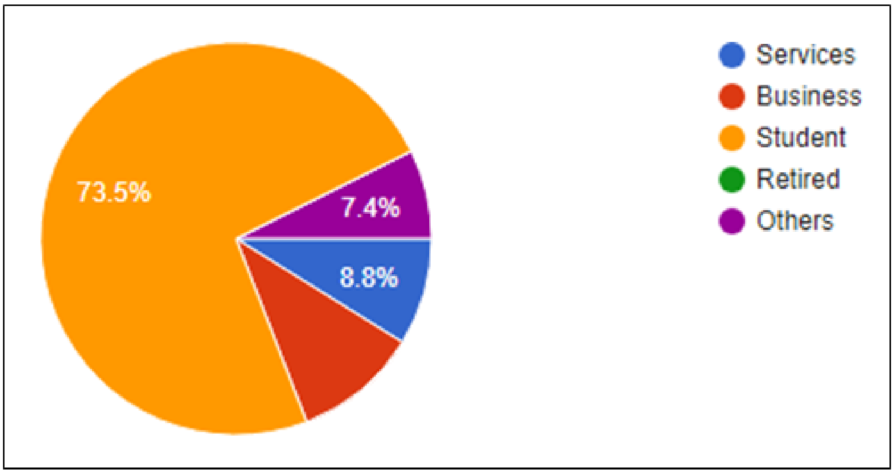


Interpretation-Out of 68 respondents 33 respondents are in the age group of < 20 are having 48.5% and out of 68 respondents are having 11.8% of them are below 25 years with 22 respondents. Only 7.4% of them are Above 40 years. As most of the respondents are in the category or below 35 years age group, the respondents are youngsters who are in the age group of 21-30 years. The same is shown in the following chart 4.1.

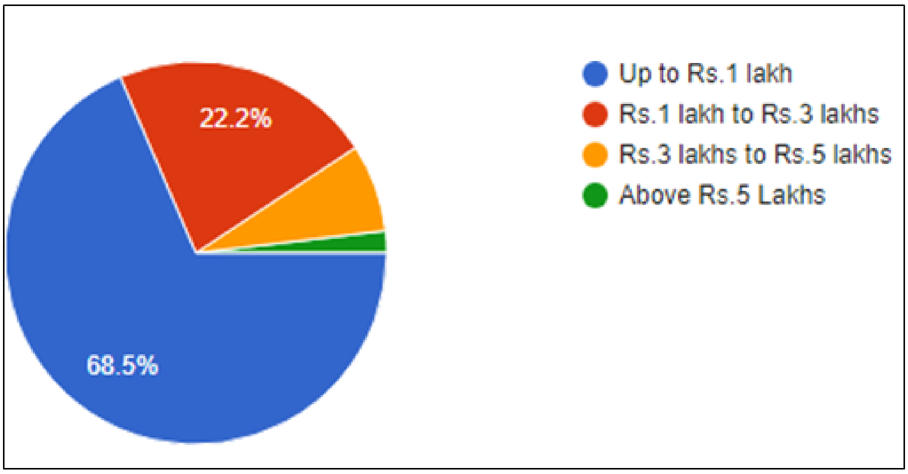


Interpretation- From the given chart 4.2 it is evident that around 35.3 % of the respondents are male and 64.7% of them are female. The female customers are more compared to male customers in the Bank of Baroda.

2. **What is your Occupation?**

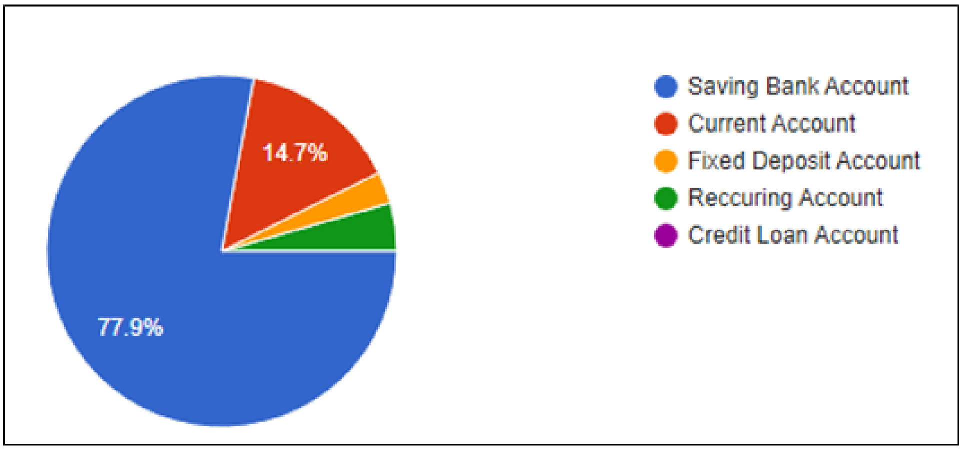


Interpretation- Among total of 68, 73.5% of the respondents are students who are having bank account in the Bank of Baroda, whereas 10.3% as well as 8.8% of the respondents are from business and services sector who having their account and only 7.4% of the people who belongs to others occupation having the accounts in the Bank of Baroda respectively. Thus it is evident from the data in the chart 4.3 that most of the respondents specially students are busy and hardly has time to attend to their banking activities personally. Thus their dependency on the advanced services offered by the banking sector is very high.



3. What's your Income?

Interpretation- The income level of the respondents is classified into four groups in the chart 4.4. Most of the respondents are in the income group of up to Rs.1 Lakh representing 68.5%. Only very few of them i.e., just 1.7% of the respondents have less than above Rs.5 lakhs as their income in the income level group. Around 7.6% of them are in the income level of Rs.3 Lakhs to Rs.5 Lakhs. 22.2% of the respondents are in the income level of between Rs.1 lakh to Rs.3 lakhs. It is inferred that majority of them are in the top and bottom income group in the Bank of Baroda.



4. Which type of account do you have in the Bank of Baroda?

Interpretation- The number of respondents is classified into five groups in the chart 4.6 with having Bank account with total of 68 respondents. And from out of total bank customers, 77.9% have saving bank account with a higher percentage whereas 14.7% having the current account for the business purpose. Recurring account having by the customers with 4.4% whereas only few of them i.e. 2.9% of the customers maintain to have fixed deposits accounts in the Bank of Baroda for the purpose of saving their money at safe place with trust.

CHAPTER 5. CONCLUSION

This study confirms that while Bank of Baroda enjoys a strong market position and diversified retail products, customer satisfaction is heavily dependent on three critical factors: the quality of its digital services, the speed (turnaround time) of core operations, and the responsiveness of its staff. The core hypothesis was validated: the overall quality of the bank's services has a significant positive relationship with customer satisfaction, making service quality the primary focus for strategic enhancement. To remain competitive against nimble private banks, BOB must urgently focus its resources on improving its speed and quality of interaction in both the digital and human domains.

CHAPTER 6. SUGGESTIONS

Based on the analysis and interpretation of the data, the following suggestions are offered to Bank of Baroda management:

1. Reduce Turnaround Time (TAT) for Core Services: Implement automated credit evaluation systems to reduce loan processing time from weeks to days. Set strict, publicly communicated timelines for resolving all customer grievances.

2. Enhance Digital Service Reliability: Ensure 99.9% uptime for mobile and internet banking. Introduce personalized financial tools within the app, such as investment calculators or instant personal loan eligibility checks.
3. Prioritize Staff Training on Soft Skills: Focus training programs on responsiveness, empathy, and product knowledge. Incentivize staff based on customer feedback metrics related to personalized engagement and problem-solving

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A STUDY OF FINTECH IN INDIA

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ABSTRACT

This project report undertakes a study of fintech in india, focusing on its current landscape, operational mechanisms, and overall impact on the country's financial ecosystem. Fintech, a portmanteau of "financial" and "technology" , encompasses apps, software, and technology that enable individuals and businesses to digitally access, manage, or transact their finances. The study's primary objectives were to gain knowledge about the fintech industry and to evaluate the impact of fintech companies on the operations of financial institutions in india. The research employed a survey methodology, utilizing questionnaires with a sample size of 85 responses collected from various citizen categories, including students, businessmen, housewives, and the aged. The findings reveal that india's fintech sector is experiencing rapid growth, with an estimated valuation of $150–$160 billion by 2025. A key finding from the primary data is that the majority of respondents (58 out of 85) anticipate fintech services to be fully developed in india within seven years. The final conclusion stresses the increased dependency on online payments and the opportunity fintech has in the largely untapped indian financial market. Key suggestions include the need for fintech firms to focus on improving customer attitude by addressing factors like easy access and transparency, and increasing awareness of digital lending.

INTRODUCTION

Fintech is a disruptive force in the global financial sector, defined simply as the use of innovative technologies applied to the financial industry. It is a broad concept covering everything from a simple banking app for check deposits and mobile payments like venmo and google pay, to complex concepts like peer-to-peer (p2p) lending and crypto exchanges. Fintech's core purpose is to make financial services faster, easier to use, and more secure.

The global adoption rate of fintech applications reached nearly two-thirds (64%) of the world’s population in 2019, a significant increase from 16% in 2015. In india, the growth has been particularly explosive, driven by the increasing adoption of digital payments, rising smartphone penetration, and supportive government initiatives like digital india, which fuels financial inclusion and a cashless economy. The indian fintech industry is estimated to be valued between $150 and $160 billion by 2025 and is currently the second-highest funded industry in the country. This massive growth, with over 2,100 startups, demonstrates its transformation from a niche concept to an indispensable component of the indian financial ecosystem.

OBJECTIVE

The objectives of this project report are:

1. To know more about fintech industries in india.
2. To evaluate the impact of fintech companies on the operations of financial institutions in the country.
3. To assess the current scenario of fintech companies in india and determine the scope for improving the electronic payment system to achieve effective transactions and maximum user satisfaction.

REVIEW OF LITERATURE

A review of existing literature highlights the transformative, yet challenging, journey of fintech in india:

- Financial inclusion and efficiency: (badruddin, 2017) conceptualized that fintech reduces costs and increases outreach for microfinance models. (vijai, 2019) noted that fintech offers a more secure and faster transaction mode for users, changing financial services in india. (mehrotra, 2019) stressed the role of fintech in promoting financial inclusion as india moves towards a cashless economy.
- Challenges and opportunities: (anusha, 2019) discussed the opportunities and challenges in the indian fintech business environment, noting the rapid emergence of fintech firms. (gurung, 2018) posited fintech as a potential "messiah for the ailing banking industry" in india, suggesting collaboration between traditional institutions and fintech could revive the financial sector.
- Regulatory framework: (shashidar, 2020) analyzed the use of regulatory sandboxes by the rbi as an attempt to assimilate the disruption caused by mechanical advancements in the monetary sector. (radhava, 2018) highlighted the need for information sharing on policies, data privacy, and cybersecurity between governments like india and singapore to foster mutually beneficial collaboration.

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- Technological integration: (dwivedi, 2020) emphasized the role of social, economic, technical, and regulatory drivers in making fintech an indispensable component of the indian financial ecosystem, with a focus on blockchain and artificial intelligence. (mohana sundaram, 2021) investigated the expected disruption on india's fintech scene with the advent of the 5g wave, anticipating a new fintech ecosystem.
- Impact on banking and consumer behavior: (kumar, 2021) analyzed the impact of fintech on the profitability of public and private sector banks in india. (shree, 2021) found that factors like perception, trust in digital payments, and experience with online fraud influence the payment behavior of users. (nakshima, 2018) suggested that the rise of fintech could affect the income of rural banks due to customers switching to digital transactions.

RESEARCH METHODOLOGY

RESEARCH DESIGN

The study utilized a systematic methodology to address the research problem, which involves determining the territory of the proposed study and the adopted process of analysis.

DATA COLLECTION AND SAMPLE

The primary source of information was collected through a survey method using a structured questionnaire.

- Sample size: the research sample comprised 85 responses.
- Respondent categories: data was collected from various categories of citizens, including students, businessmen, housewives, and the aged.
- Instrument: the questionnaire employed different types of questions, including multiple-choice questions (where respondents choose one response) and dichotomous questions (which are 'yes' or 'no' format).

TOOLS FOR PRESENTATION

Statistical tools used for data presentation and making the project more understandable included graphs, pie charts, and tables.

LIMITATION OF THE STUDY

The limitations noted for this study were that the sample size (85) may not represent the whole country, the analysis and conclusion were based on the researcher's limited understanding, and the time available for project completion was very short.

HYPOTHESES

The study tested the following hypotheses:

NULL HYPOTHESIS (H0)	ALTERNATIVE HYPOTHESIS (H1)
H0: people think fintech has a negative impact on financial efficiency.	H1: people think fintech has a positive impact on financial efficiency.
H0: people are satisfied by using fintech technology instead of using traditional banking.	H1: people are not satisfied by using fintech technology instead of using traditional banking.

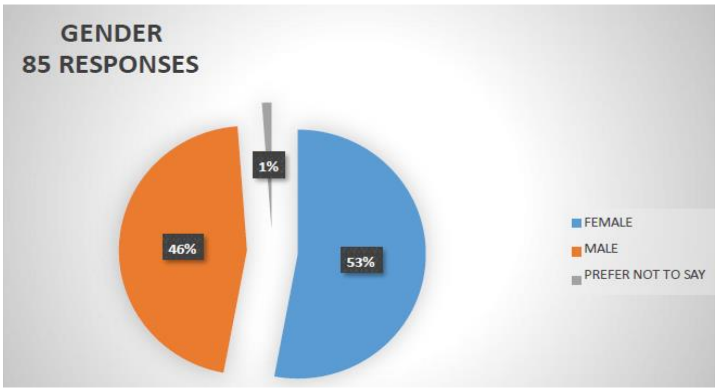
DATA ANALYSIS & INTERPRETATION

Q1). Gender:

a) Female

b) Male

c) Prefer Not To Say



INTERPRETATION

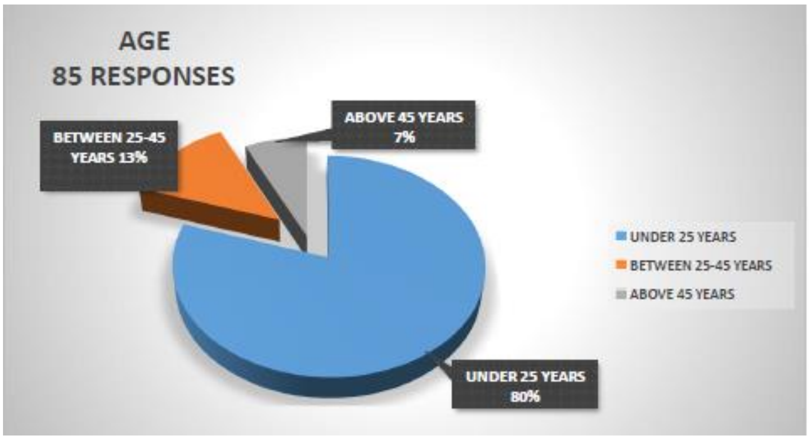
From the primary data collection it can be observed that 53% 'female' and 46% 'male' have respondents. Majority of my responses were from females.

Q2). Age

a) Between 25 years.

b) Between 25 – 45 years.

c) Above 45 years.



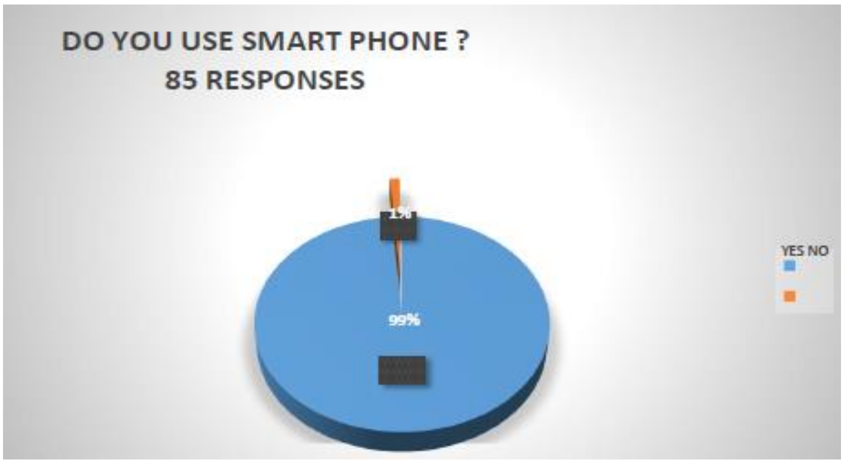
INTERPRETATION

From the primary data collection, it can be observed that most of ages under 25 years of 80% i.e. 68 people have responded to the topic, then between 25 – 45 years i.e. 11 of 13% person have responded, then above 45 years of 7% i.e. 6 people have responded. Most of ages above 25 have taken interest in study of fintech in india. Even they had a positive responses.

Q3). Do you use smart phone?

A) YES

B) NO



INTERPRETATION

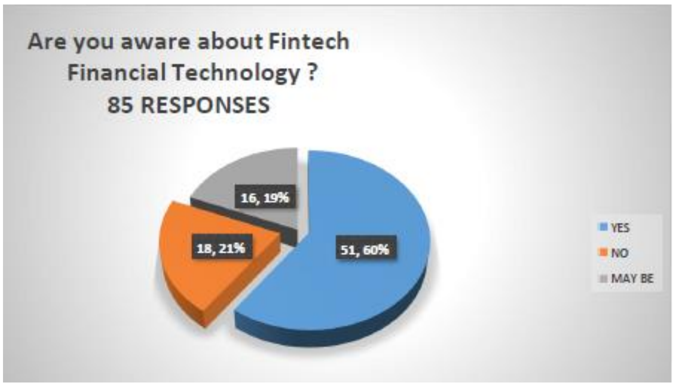
According to primary data individuals have response towards this questions. According to that yes has been selected in 99 %. And no have selected by 1%. Now a days each and every person use smart phone. Because most of the work is happen in mobile phone only. Because each of the facility is there in smart phone that people can do without going outside of searching to it. Eg: online shopping, net banking, online payments, insurance renewal, etc.

Q4). Are you aware about fintech financial technology?

a) YES

b) NO

c) MAYBE



INTERPRETATION

According to primary content and in this survey data collected. According to survey 85 responses have been received. 51 people are saying that they are aware about fintech financial technology, 18 people are not aware about fintech financial technology and 16 may or may not know about fintech financial technology.

Q5). Do you use of the different fintech services?

a) Paytm

b) Policy bazar.com

c) Bankbazar.com

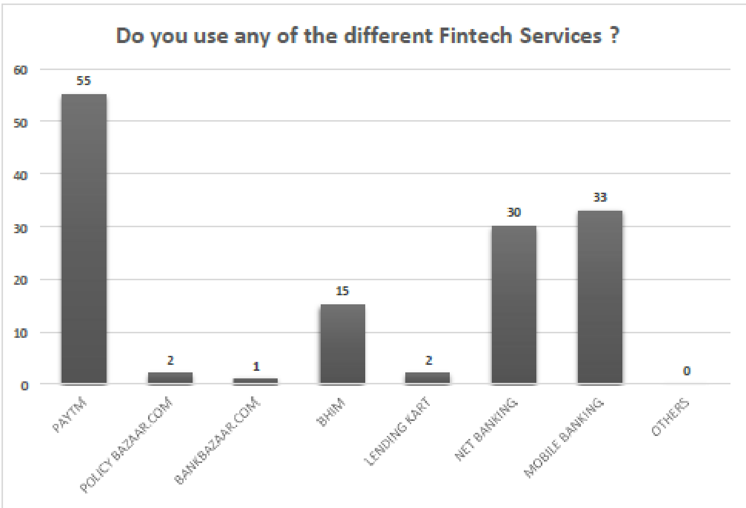
d) Bhim

e) Lending kart

f) Net banking

g) Mobile banking

h) Others



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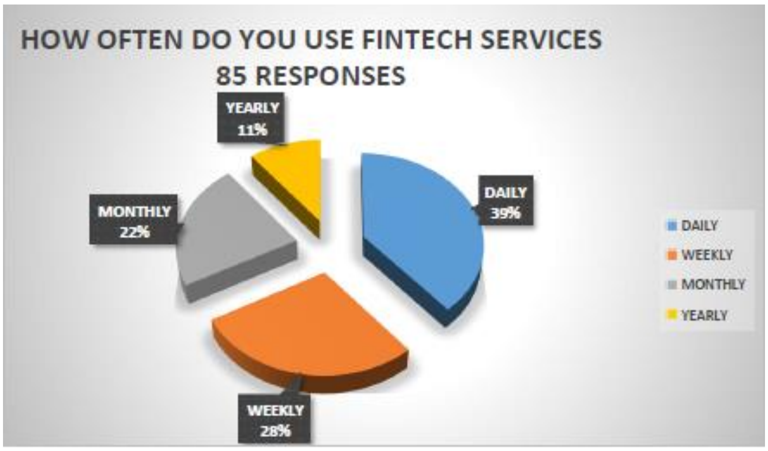
INTERPRETATION
According to primary content and in this survey. In this question 85 responses have been received. 55 response i.e. have said paytm.

Is one of the ways of fintech services.

- 55 people of response have told they use paytm services which is the part of fintech services
- 2 people have said that they use fintech services in policy bazaar.com
- 1 person that he uses fintech services for bankbazaar.com.
- 15 people said that they use bhim service which is the part of fintech services.
- 2 people said that they uses lending kart which is one of the fintech services
- 30 people said that they uses mobile banking which is one of the part of fintech services.
- 33 person uses mobile banking system for the work purpose which is the part of fintech services.

Q6). How often do you use fintech services

a. Daily
b. Weekly
c. Monthly
d. Yearly



INTERPRETATION
According to primary data collected from survey 85 person uses fintech services. 39% of people uses daily in there life fintech services for there work.ie 33 people. And 28% of people use weekly fintech services in there life for there practical life for transfer of money, insurance renewal and mobile banking etc.ie is 24 people. 22% of people uses monthly fintech services for their daily life services. I.e. 19 people. 11% of people use yearly fintech services. I.e. 9 people.

CONCLUSION
The main goal of this study was to understand the current scenario of fintech companies in india, with an aim to improve the electronic payment system and enhance user satisfaction. Fintech is confirmed as the new financial industry that delivers innovative services via new applications, processes, and business models. The indian market presents a massive opportunity for fintech startups, as the financial services market is largely untapped, with an estimated 40% of the population unassociated with any bank and over 80% of transactions still conducted through cash.

The study conclusively finds that the use of fintech apps and the overall dependency on online payments has increased rapidly. Most respondents indicated a desire for a change from old payment methods towards digital solutions. While a large segment of the population embraces these advancements, a few still prefer visiting a physical bank branch, highlighting the continued need for awareness and positive attitude development towards fintech. The industry is rapidly evolving, and its sustained success will depend on how well startups rise to meet customer expectations.

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SUGGESTION

Based on the data analysis and interpretation, the following suggestions are made to fintech companies:

- Enhance customer perception: fintech providers must specifically focus on building positive customer attitude by emphasizing and delivering on the advantages of easy access, wider availability, absence of hidden charges, and ease of use, as a segment of customers are not strongly agreeing with these current benefits.
- Increase awareness of digital lending: while general awareness of financial technology products is high, fintech should increase exposure and awareness for services like digital lending to ensure wider availability and easy access for potential users.
- Promote digital alternatives: targeted awareness campaigns on various financial technology products should be provided to encourage individuals who are still dependent on physical banks to shift to digital alternatives.

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EVALUATING PUBLIC PERCEPTION OF JUSTICE AND EQUITY POLICIES IN THE CONTEXT OF INDIA'S VIKSIT BHARAT 2047 MISSION

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ABSTRACT

The vision of Viksit Bharat @2047 emphasizes inclusive growth, social stability, and equal opportunities for all citizens. In alignment with this national agenda, the present study examines public awareness and perception of government policies aimed at promoting justice, equity and social harmony in the Mumbai Suburban region. These policies play a crucial role in establishing a peaceful and progressive society, yet their impact largely depends on how well citizens understand and engage with them.

This research is based on primary data collected through a structured questionnaire administered to residents of Mumbai Suburban. The study seeks to assess the level of awareness regarding key government initiatives, evaluate public opinion on their effectiveness, and analyse how demographic factors such as age, education and occupation influence policy perception. Descriptive analysis, percentage method and graphical interpretation have been used to present the findings.

The preliminary results indicate a moderate level of awareness among citizens, with significant variation across different demographic groups. While respondents appreciate the intent of the policies, many feel that more transparency, community outreach, and better implementation mechanisms are required to achieve real social harmony. The study highlights the need for stronger communication strategies and inclusive participation to ensure that government efforts truly reach and empower all sections of society.

Keywords: *Justice, Equity, Social Harmony, Government Policies, Public Awareness, Public Perception, Viksit Bharat 2047, Mumbai Suburban*

1. INTRODUCTION

India's long-term developmental vision, Viksit Bharat @2047, places strong emphasis on creating a society that is just, inclusive and socially cohesive. As the nation progresses toward becoming a self-reliant and prosperous economy, the social dimension of development becomes equally important as the economic dimension. A peaceful society, where individuals live with mutual respect and equal opportunities, forms the foundation for sustainable growth. Ensuring justice, equity and social harmony is therefore central to India's development agenda, and the government has introduced several policies and initiatives to achieve these goals.

Justice and equity are essential components of a fair society. Justice ensures that individuals have access to their rights, legal protection, and equal treatment under the law. Equity focuses on reducing disparities, bridging socio-economic gaps, and ensuring that vulnerable groups receive the support they need. Social harmony, on the other hand, reflects a condition where diverse communities coexist peacefully, engage cooperatively, and maintain strong social relationships. Together, these elements contribute to building a stable social environment that enables economic progress, security and national unity.

In metropolitan regions like Mumbai, particularly the Mumbai Suburban district, the significance of these policies becomes even more pronounced. Mumbai Suburban is characterized by socio-cultural diversity, economic variations and a high population density, making it a complex but critical area for social policy implementation. The presence of people from different backgrounds often leads to varying levels of awareness and understanding of government initiatives. For policies related to justice, equity and harmony to succeed, citizens must be sufficiently aware of them and must perceive them as effective and beneficial.

However, there is often a gap between the formulation of policies and their implementation on the ground. Many citizens remain unaware of existing schemes, legal protections and social welfare initiatives because of limited communication, lack of outreach programs, or low engagement between the government and the public. Similarly, people's perception of government policies—whether positive or negative—plays an important role in determining the success of these initiatives. If citizens believe that policies are transparent, accessible and effective, they are more likely to engage with them and support community-level efforts to maintain harmony. Conversely, negative perceptions may reduce trust and weaken policy outcomes.

This study aims to explore this crucial dimension by assessing the public awareness and perception of government policies promoting justice, equity and social harmony in Mumbai Suburban. The research focuses on understanding how well citizens know about these policies, how they evaluate their effectiveness, and what challenges exist in achieving social harmony at the local level. It also examines how demographic variables such as age, education, occupation and income influence a person's level of awareness and perception.

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By using primary data collected through a structured questionnaire, the study attempts to highlight the existing gaps in awareness and policy execution. The findings will provide insights into the public's expectations, attitude toward governance, and willingness to participate in community-based peacebuilding efforts. As India moves toward the ambitious vision of Viksit Bharat @2047, such studies become crucial in understanding the social readiness of the population and identifying the improvements needed in policy communication, implementation and outreach.

Overall, this research aims to contribute to the understanding of how government policies related to justice, equity and social harmony are perceived by citizens and how these perceptions can shape India's journey toward becoming a developed nation. The study emphasizes that social harmony is not just a moral ideal but a strategic requirement for national development, economic growth and long-term sustainability.

2. REVIEW OF LITERATURE

- **Study by Sharma & Verma (2021) – Awareness of Justice Policies**

Sharma and Verma (2021) conducted an extensive study on public awareness of justice-related government policies in major Indian cities. Their research revealed that although multiple welfare schemes and legal protection measures are available, a large section of the population remains unaware of their rights and entitlements. The study highlighted that lack of proper communication, limited access to official information, and low legal literacy contribute significantly to poor awareness levels. They concluded that unless citizens understand justice-focused policies, the goal of an equitable society cannot be achieved.

- **Study by Khan (2020) – Equity and Social Inclusion**

Khan (2020) examined how equity-based government initiatives influence public perception in urban and semi-urban regions. His research found that schemes aimed at reducing socio-economic disparities—such as education subsidies, housing programs, and women empowerment schemes—positively impact the sense of fairness and inclusion among citizens. However, the study also noted that inconsistent implementation, bureaucratic delays and lack of transparency weaken public trust. Khan argued that for equity-focused policies to be effective, governments must ensure consistent service delivery and stronger monitoring mechanisms. The study highlights that public perception improves when people experience direct benefits without procedural barriers.

- **Study by Deshmukh & Rao (2022) – Social Harmony and Community Relations**

Deshmukh and Rao (2022) explored the role of government policies in promoting social harmony, particularly in areas with diverse communities. Their research showed that policies promoting inter-group dialogue, community safety, and anti-discrimination frameworks significantly contribute to peaceful coexistence. However, the authors observed that awareness of such policies remains low, especially among economically weaker sections. They emphasized that social harmony cannot be achieved solely through policy creation; it requires active public participation, community engagement programs and continuous government support. The study concluded that harmony grows stronger when citizens feel informed, protected and equally valued.

- **Study by Patil (2023) – Public Perception of Government Initiatives**

Patil (2023) investigated how people perceive government policies related to justice, equity and harmony in metropolitan regions like Mumbai. Her findings revealed that perception largely depends on individual experiences, media exposure, education level and clarity of government communication. Many respondents believed that policies exist but are not visible in actual implementation. Patil argued that perception improves when people witness fairness in public services, transparent grievance systems and community-level initiatives. She recommended that governments must invest in awareness drives, digital outreach, and local campaigns to improve public trust and perception.

- **Study by Menon & Iyer (2024) – Policy Effectiveness and Awareness Gaps**

Menon and Iyer (2024) analyzed the effectiveness of social justice policies across Indian states, focusing on awareness gaps among citizens. Their study found that even well-designed policies fail to reach their intended impact due to lack of accessible information, limited administrative efficiency, and insufficient citizen engagement. They emphasized that awareness directly influences people's willingness to participate in government initiatives that promote equity and social harmony. The authors suggested introducing multilingual awareness campaigns, collaboration with educational institutions and strengthening local governance to bridge the gap between policy and public understanding. The study concluded that awareness is the key driver of successful policy outcome.

3. OBJECTIVES OF THE STUDY:

1. To examine the concept of social harmony and its significance in promoting inclusive and sustainable development in India by 2047.
2. To analyze how social cohesion, mutual trust, and peaceful coexistence contribute to economic growth, human capital development, and national progress.
3. To identify the major social, cultural, and economic barriers that hinder social harmony in India.
4. To evaluate the government policies, schemes, and initiatives aimed at strengthening social unity and reducing inequalities.
5. To understand public perception and awareness regarding the importance of social harmony for achieving the vision of Viksit Bharat @2047.

4. HYPOTHESIS:

H_1: Public awareness of government policies has a significant positive impact on social harmony.

Ho: Public awareness of government policies has no significant impact on social harmony.

RESEARCH DESIGN

The present study adopts a descriptive research design to understand the relationship between public awareness of government policies and social harmony among citizens. The study aims to analyze perceptions, opinions, and attitudes of respondents regarding government initiatives and their influence on social cohesion.

1. Nature of the Study

The research is quantitative in nature, using a structured questionnaire to collect measurable data from respondents.

2. Area of Study

The study is conducted in the Mumbai Suburban region, which includes areas such as Andheri, Malad, Goregaon, Borivali, Kandivali, Mira Road, Dahisar, Kurla, Ghatkopar, Mulund, Bhandup, and surrounding locations.

3. Sample Size

A sample of 50 respondents will be selected for the study to ensure adequate representation.

4. Sampling Method

A convenience sampling method is used to collect responses from individuals residing in Mumbai Suburban.

5. SOURCES OF DATA

Primary Data:

Collected through a structured Google Form consisting of close-ended and multiple-choice questions.

Secondary Data:

Collected from government reports, journals, articles, research papers, and official policy documents related to social harmony and public policy awareness.

6. Data Collection Tool

A structured questionnaire containing demographic questions and Likert-scale items measuring awareness, perceptions, and impact of government policies on social harmony.

5. DATA ANALYSIS AND INTERPRETATION:

Demographic Profile of the Respondents

Questionnaire:-

1. Age

- 18-25
- 26-35
- 36-45
- 45 & ABOVE.

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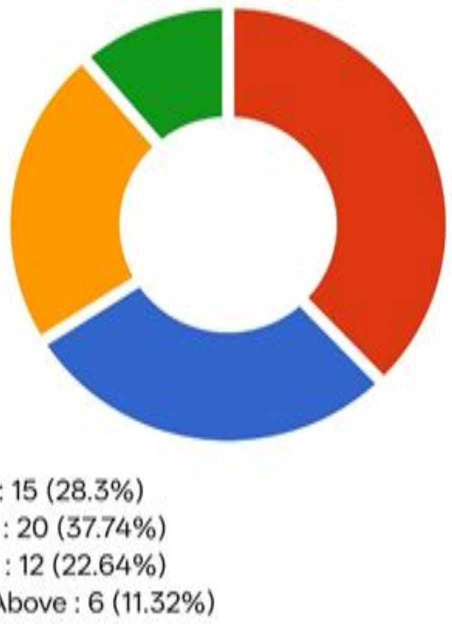
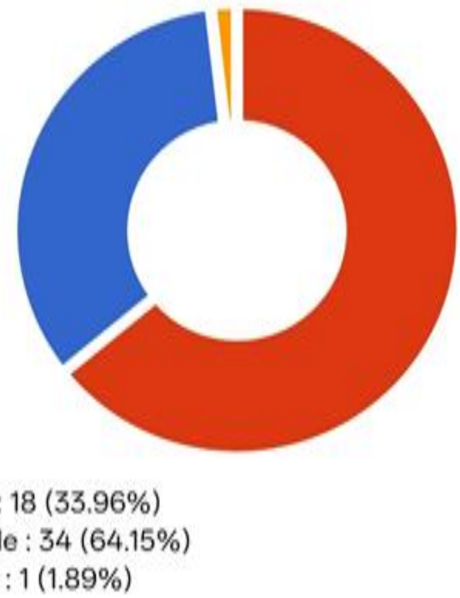


Interpretation

The above table shows that the majority of respondents (37.74%) belong to the 26–35 age group, followed by 28.30% from the 18–25 group. This indicates that most participants are young adults and middle-aged individuals, suggesting that people from these age categories are more aware, engaged, and responsive toward government policies and issues related to social harmony. The lowest representation is from respondents aged 45 and above (11.32%), indicating limited participation from older citizens.

2. Gender

- Male
- Female
- Other & Above



Interpretation

The data shows that the majority of respondents in the study are female (64.15%), followed by male respondents (33.96%). Only 1.89% of the participants identified as other or preferred not to disclose.

This indicates that the participation of women in the survey was significantly higher, suggesting that female respondents are more actively engaged in sharing their views related to government policies and social harmony in the Mumbai Suburban region.

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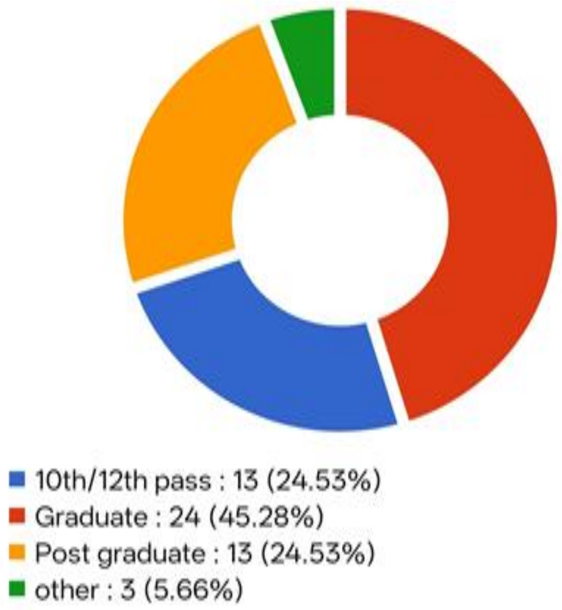
3. Education level

- 10th /12th pass
- Graduate
- Post graduate
- Others



Interpretation

The data reveals that the highest number of respondents are Graduates (45.28%), forming nearly half of the total participants. This indicates that the sample consists of individuals who possess a strong educational background, making their opinions on government policies and social harmony more informed and reliable.

Participants with 10th/12th pass and postgraduate qualifications are equally represented at 24.53% each, showing a balanced mix of intermediate and higher education groups.

Only 5.66% fall under the Other category, indicating minimal representation from alternative educational backgrounds.

This suggests that the majority of respondents are well-educated, which may positively influence their level of awareness regarding government initiatives and social issues.

4. Occupation

- Student
- Homemaker
- Private job
- Government job
- Self employed
- Others

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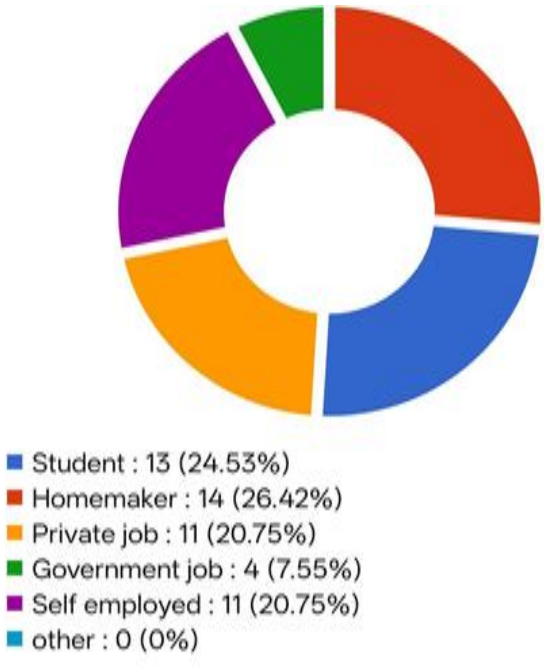


Interpretation

The data indicates that the largest group of respondents are Homemakers (26.42%), followed closely by Students (24.53%). This shows that both homemakers and youth are actively participating in expressing their views on government policies and social harmony.

Respondents working in the private sector (20.75%) and self-employed individuals (20.75%) are equally represented, contributing a balanced working population to the study.

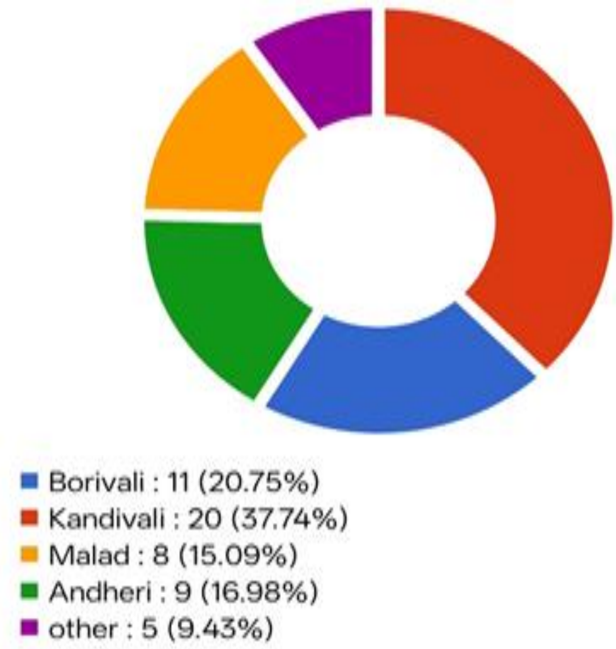
Only 7.55% of respondents are government employees, indicating relatively lower participation from this group.

There were no responses in the Others category.

Overall, the mix of homemakers, students, private job employees, and self-employed individuals provides a diverse occupational profile, helping to understand how people from different work backgrounds perceive the role of government policies in promoting social harmony.

5. Location

- Borivali
- Kandivali
- Malad
- Andheri
- Others



Interpretation

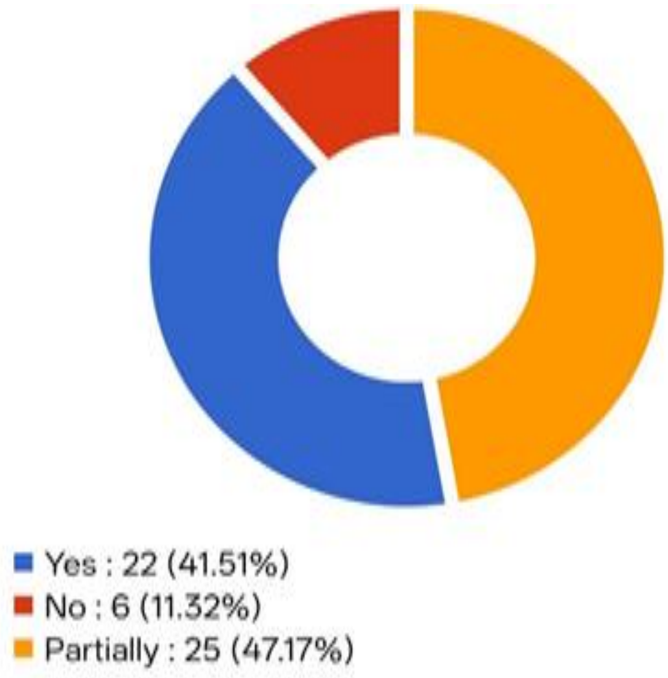
The largest share of respondents belongs to Kandivali (37.74%), making it the most represented area in the study. This is followed by Borivali (20.75%), indicating strong participation from the northern suburban belt.

Residents from Andheri (16.98%) and Malad (15.09%) form a moderate segment of the sample, contributing to a balanced demographic across the Mumbai Suburban region.

Only 9.43% of participants fall under the Other category, suggesting limited responses from areas outside the major suburban clusters.

Overall, the sample shows a good geographical spread across key suburban locations, which helps in understanding how different parts of Mumbai Suburban perceive government policies and social harmony.

- **"Are you aware of government policies related to justice, equity, and social harmony?"**
- **Yes**
- **No**
- **Partially**



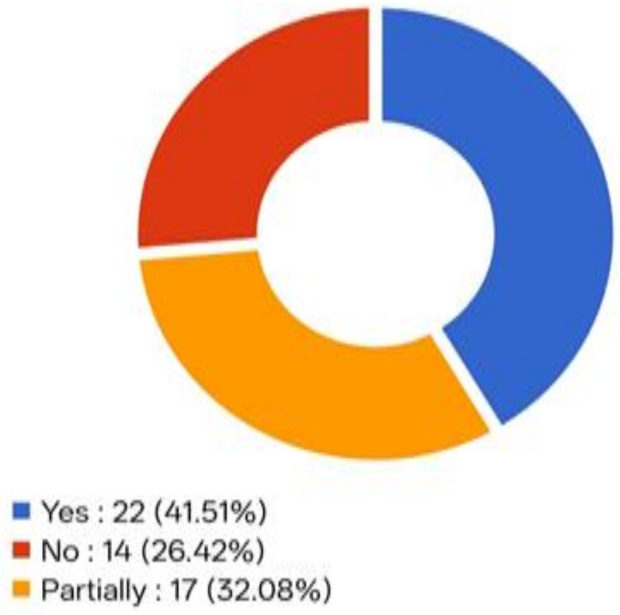
Interpretation
The findings reveal that 47.17% of respondents are only partially aware of government policies related to justice, equity, and social harmony. This indicates that while people have some knowledge, they may not be fully informed about specific schemes or initiatives.

About 41.51% of respondents reported being fully aware, showing a considerable level of interest and understanding among the public.

Only 11.32% of respondents stated that they are not aware, representing a small portion of the sample.

Overall, the results suggest that although awareness exists, there is still a need for stronger communication, outreach, and public education regarding these government policies to ensure better understanding and participation.

- **According to you, is the government working effectively in these areas (Justice, Equality, Harmony)?**
- Yes
- No
- Partially



Interpretation
The data shows that 41.51% of respondents believe the government is working effectively in promoting justice, equality, and social harmony. This indicates a positive perception among a significant portion of the population.

However, 32.08% of participants chose Partially, suggesting that although efforts are being made, they feel more improvement is required in these areas.

A considerable 26.42% of respondents believe the government is not working effectively, indicating a level of dissatisfaction among this segment.

Overall, the results highlight that while a majority acknowledges government efforts, many respondents still feel that implementation and visibility of these policies need strengthening to achieve better outcomes in social harmony.

- **Government policies promote justice.**
- Agree
- Neutral
- Disagree

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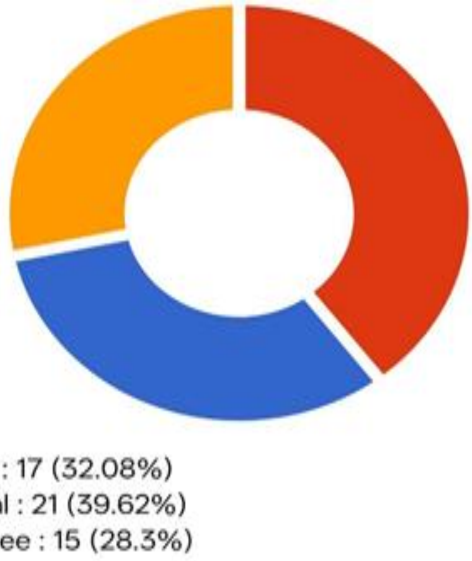


INTERPRETATION

The data shows that a significant portion of respondents, 39.62%, selected Neutral, indicating that many people are unsure or have mixed views about whether government policies effectively promote justice.

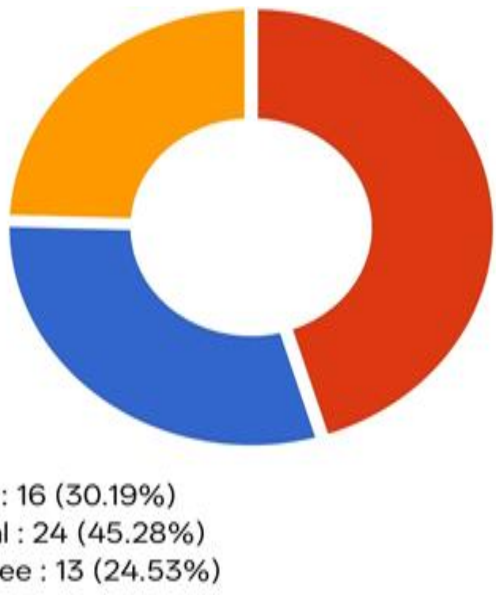
About 32.08% of respondents Agree, showing a positive perception among one-third of the participants who believe government efforts are contributing toward justice.

However, 28.30% of respondents Disagree, reflecting skepticism and dissatisfaction regarding the fairness and impact of current government policies.

Overall, the responses show a divided perception, with more respondents being neutral or doubtful. This suggests a need for greater transparency, communication, and visible implementation of justice-oriented policies.

- **Government policies ensure equity (equality).?**

- Agree
- Neutral
- Disagree



Interpretation

The data shows that the highest number of respondents, 45.28%, chose Neutral, indicating that nearly half of the participants are unsure about whether government policies effectively ensure equality. This reflects a lack of clarity or mixed feelings regarding the implementation of equity-based policies.

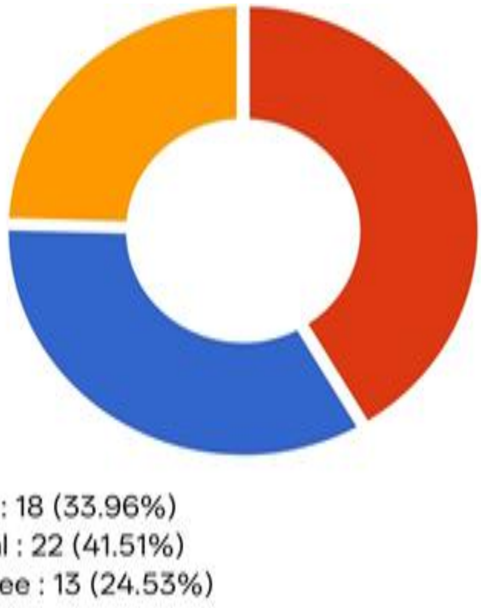
Around 30.19% of respondents Agree, showing that about one-third believe government policies are promoting equality in society.

Meanwhile, 24.53% of respondents Disagree, revealing that a notable portion feels current policies are not ensuring adequate equality.

Overall, the responses indicate that public perception remains uncertain, with a majority not strongly supporting or opposing the idea. This suggests the need for better awareness, communication, and visible outcomes related to equality-focused government initiatives.

- **Government initiatives are effective in promoting social harmony.**

- Agree
- Neutral
- Disagree



Interpretation

The data reveals that 41.51% of respondents selected Neutral, indicating that a large segment of participants is uncertain about whether government initiatives are truly effective in promoting social harmony.

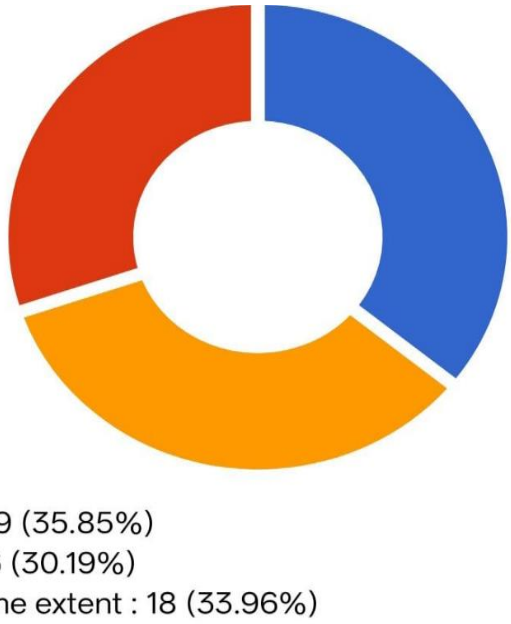
About 33.96% of respondents Agree, showing that one-third of the participants believe government programs play a positive role in improving social unity and peaceful coexistence.

Meanwhile, 24.53% of respondents Disagree, suggesting that a noticeable portion feels that government initiatives have not been sufficiently impactful or visible in enhancing social harmony.

Overall, the responses show a mixed but leaning-neutral perception, meaning many people are aware of initiatives but are unsure about their effectiveness. This indicates a need for greater outreach, implementation, and public engagement to strengthen social harmony efforts.

- **"Do you think discrimination (based on caste, gender, religion) has reduced?"**

- Yes
- No
- To some extend



Interpretation

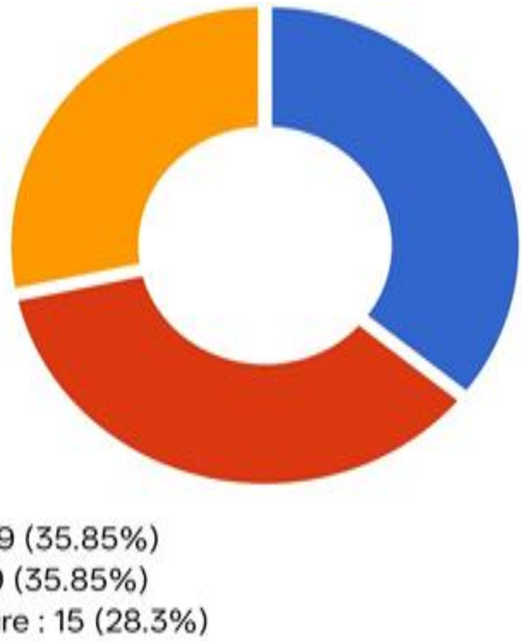
The findings show that 35.85% of respondents believe that discrimination based on caste, gender, and religion has reduced, reflecting a positive perception towards social progress.

However, a very close 33.96% feel it has reduced to some extent, indicating that while improvements are visible, many people still experience or notice social inequalities in daily life.

On the other hand, 30.19% of respondents feel discrimination has not reduced, highlighting concerns about ongoing social issues and unequal treatment in society.

Overall, the responses indicate a mixed outlook, with many recognizing positive changes but still feeling that significant progress is yet to be achieved. This suggests the need for stronger and more inclusive policies to reduce discrimination effectively.

- **"Do you think the public receives proper awareness about these policies?"**
- Yes
- No
- Not sure



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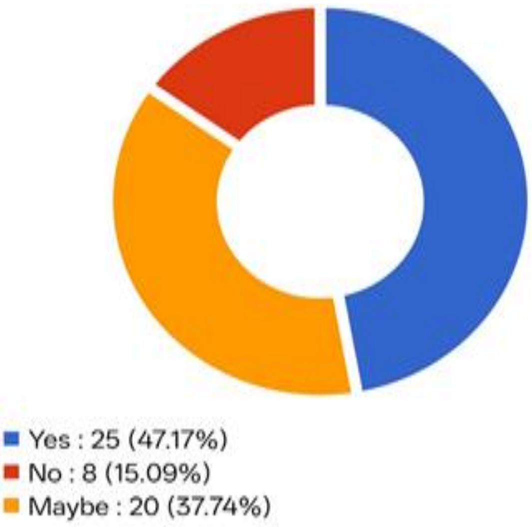
Interpretation

The responses show that public awareness about government policies related to justice, equity, and social harmony is divided. An equal proportion of respondents (35.85%) believe that people do receive proper awareness, while another 35.85% feel they do not receive adequate information. Additionally, 28.30% of respondents are not sure about the level of awareness.

This indicates that awareness levels are inconsistent, and there may be gaps in how information about government initiatives is communicated to the public. The significant number of "Not sure" responses also suggests that many individuals are uncertain or confused about these policies, highlighting the need for better outreach and clearer communication from the government.

➢ **"Do you think there is a need to increase awareness campaigns?"**

- Yes
- No
- Maybe



Interpretation

The majority of respondents (47.17%) believe that there is a strong need to increase awareness campaigns related to government policies on justice, equity, and social harmony. A significant proportion (37.74%) is somewhat unsure but still acknowledges that awareness may need improvement. Only 15.09% of respondents feel that no additional awareness campaigns are required.

This indicates that overall, people feel current awareness efforts are insufficient, and there is a demand for stronger and more widespread campaigns to improve public understanding.

6. SUGGESTION & CONCLUSION

1. Increase Awareness Campaigns:

Since many respondents feel awareness is low, the government should conduct more campaigns through TV, social media, and local community programs.

2. Simplify Policy Information:

Government policies on justice, equity, and social harmony should be explained in simple language so the public can easily understand them.

3. Community-Level Workshops:

Organize workshops in local areas like Borivali, Kandivali, Malad, and Andheri to educate people directly.

4. Focus on Reducing Discrimination:

More programs should target caste, gender, and religious discrimination, especially where people still feel it exists.

5. Feedback Mechanism:

A system should be created where citizens can give opinions or complaints about policies to improve implementation.

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6. Collaborate With NGOs & Local Groups:
Government should work with NGOs, schools, and women's groups to spread correct information about policies.

✔ CONCLUSION

The study shows that while people are somewhat aware of government policies related to justice, equity, and social harmony, this awareness is not sufficient. Many respondents feel discrimination still exists and that government initiatives are only partially effective.

A large portion of participants strongly believe that more awareness campaigns are needed so the public can better understand and benefit from these policies.

Overall, the findings highlight that although the government is working in these areas, greater efforts are required to increase awareness, reduce discrimination, and promote social harmony more effectively.

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THE ROLE OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN TRANSFORMING FINANCIAL SERVICES: MOBILE BANKING AND LOANS AND ADVANCES OF SBI.

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ABSTRACT

This study delves into the transformative influence of Artificial Intelligence (AI) and Machine Learning (ML) on financial services, centering on their integration within the State Bank of India (SBI). As technology-driven innovation reshapes global banking, AI and ML have become foundational to modernizing processes, improving customer interactions, and enhancing operational agility across the sector. The research investigates SBI's adoption of these advanced tools within its mobile banking ecosystem and its management of loans and advances, uncovering significant improvements in process efficiency, customer experience, and financial accessibility.

Key technological advancements—such as AI-enabled chatbots, predictive analytics, and automated credit assessment algorithms—have replaced traditionally manual operations, reducing mistakes, streamlining workflows, and enabling faster, data-driven decisions. By utilizing sophisticated machine learning models, SBI can accurately assess borrowers' creditworthiness, offer personalized financial products, and swiftly identify potential fraud, thus strengthening data security and reducing risk. The deployment of these systems has also expanded financial inclusion, allowing the bank to better serve previously underbanked populations with tailored solutions and inclusive practices.

Furthermore, AI's role in regulatory compliance and risk oversight has helped SBI anticipate market changes, minimize non-performing assets, and satisfy increasing governance requirements with automated, reliable monitoring. The study highlights that investments in scalable and ethical AI infrastructure have made SBI's digital ecosystem more resilient, accessible, and customer-oriented, positioning the bank as a model for innovation in India's rapidly evolving digital finance environment.

The findings emphasize that ongoing commitment to AI and ML will be key for SBI to maintain its leadership, drive financial inclusion, and ensure long-term competitiveness in the future of Indian banking.

Keywords*- Artificial Intelligence, Machine Learning, Financial Services, Loans and Advances , Mobile Banking and SBI*

1. INTRODUCTION

Artificial Intelligence (AI) and its principal subset, Machine Learning (ML), are catalyst technologies that are redefining the operations of global industries, with financial services standing out as a notable example. AI comprises systems designed to replicate human cognitive functions, such as reasoning, learning, decision-making, and language comprehension, while ML equips these systems to enhance their abilities through experience with data, without explicit reprogramming. The synergy of AI and ML empowers financial institutions to manage an abundance of data, recognize complex patterns, forecast trends, and automate multifaceted processes efficiently.

Within the realm of commerce and financial services, AI and ML have transitioned from purely theoretical pursuits to indispensable tools that drive digital advancement. Their implementation covers a wide spectrum, including automating customer services, deterring fraudulent transactions, managing risk, providing investment recommendations, optimizing internal processes, and ensuring regulatory adherence. Advanced tools like chatbots, natural language processing engines, and robotic process automation facilitate seamless workflows, cost reductions, and elevated service standards. ML techniques, encompassing supervised, unsupervised, and reinforcement learning, have proven especially valuable, yielding more precise credit evaluations, market insights, and understanding of customer behaviors

Banks, particularly, have deployed these technologies to address mounting regulatory demands, the urgency for real-time responses, cyber risks, and heightened expectations for personalized banking. AI and ML provide robust frameworks for rapid fraud detection, automated support services, tailored financial guidance, and enhanced risk monitoring. Additionally, ML-based solutions support broader financial inclusion by evaluating non-traditional data sources for creditworthiness, thereby extending banking access to underserved populations.

However, the adoption of AI and ML also brings forward critical challenges. Issues such as bias in algorithms, protection of sensitive data, the displacement of certain job roles, substantial implementation expenses, and evolving regulatory considerations require careful management. Upholding ethical standards, transparency, and accountability is essential as reliance on these technologies deepens.

In sum, AI and ML signify a fundamental transformation in financial services, enhancing the intelligence of decisions, boosting operational productivity, and fostering a customer-oriented approach. The contemporary importance of these technologies establishes the groundwork for this dissertation, with a focus on their transformative applications in banking, especially in the context of mobile banking and the loans and advances segment within the State Bank of India (SBI).

II. REVIEW OF LITERATURE

1. **Desmond Haynes (2022) – Artificial Intelligence in Financial Services** Haynes (2022) emphasized that Artificial Intelligence has revolutionized financial services by enhancing risk management, predictive analytics, and customer engagement through chatbots and virtual assistants. The study highlighted AI's dual role in operational efficiency and personalized banking but cautioned about ethical and data privacy concerns.
2. **Bansal (2020) – AI and ML Reshaping SBI Banking** Bansal (2020) discussed how AI and Machine Learning transformed SBI's public sector banking operations by automating fraud detection, improving credit scoring, and refining digital loan disbursement. The study noted that AI-driven personalization improved customer experience and service accessibility through mobile platforms.
3. **Gupta (2019) – SBI's Transformation with YONO** Gupta (2019) analyzed SBI's AI-driven transformation via the YONO platform, which integrated automation in loan processing and customer interaction. The study concluded that YONO symbolizes SBI's shift toward a unified, intelligent, and customer-centric digital ecosystem, blending efficiency, innovation, and trust.

III. RESEARCH METHODOLOGY

HYPOTHESIS

H_1- The integration of Artificial Intelligence (AI) and Machine Learning (ML) has significantly improved the efficiency, customer satisfaction, and accessibility of SBI's mobile banking and loan services.

H_0- The integration of Artificial Intelligence (AI) and Machine Learning (ML) has no significant impact on the efficiency, customer satisfaction, or accessibility of SBI's mobile banking and loan services.

OBJECTIVES

1. To analyse how AI and ML are being deployed in SBI's mobile banking services.
2. To examine the impact of these technologies on SBI's loans and advances, particularly in credit scoring, risk management, and loan processing.
3. To evaluate the benefits and challenges associated with AI/ML integration in financial services.
4. To identify the future potential and strategic directions for AI and ML in the Indian banking sector.

LIMITATIONS

While the study offers a focused view of SBI's technological initiatives, access to internal operational data may be limited. Moreover, as AI and ML are continuously evolving, the findings may reflect only the current scope of implementation and not the full future potential.

- The period for the study is limited as we've got two months for this design, but if further time is given then the analysis can be much broader.
- There's also difficulty in getting duly loan-applicable information from relative bank.
- This study majorly depends upon the secondary data Analyses of only bank.
- There are chances of Human Errors as the primary data has been collected Via Google form and Personal Survey.

SAMPLE SIZE

- Sampling Method: Utilizing a Convenient Sampling Approach
- Sample Size: 214

- Research Instruments: Employing a structured questionnaire as the primary data collection tool to ensure the validity of the data gathered (Both Online and Offline Forms)

SAMPLING TECHNIQUE

The study employed a **Simple Random Sampling** technique for data collection.

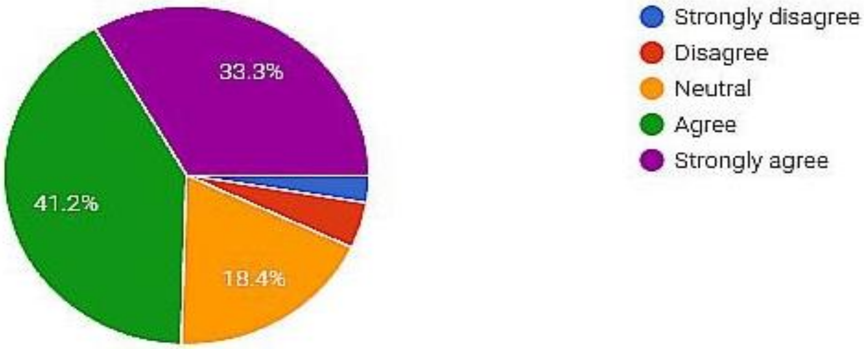
TECHNIQUE USED FOR TESTING

CHI- SQUARE TEST

IV. DATA INTERPRETATION

AI/ML features in SBI's mobile app (e.g., spending insights, fraud detection) enhance my banking experience.

▶ **ONLINE DATA**



- 41.2% agreeing and 33.3% strongly agreeing, feel that the AI-based system processes loan applications faster.
- This majority underscores a widely shared appreciation for the efficiency and promptness delivered by digital automation. On the other hand, 18.4% remain neutral, which may point to experiences that are neither noticeably faster nor slower, or to limited direct interaction with the new system.

▶ **OFFLINE DATA**

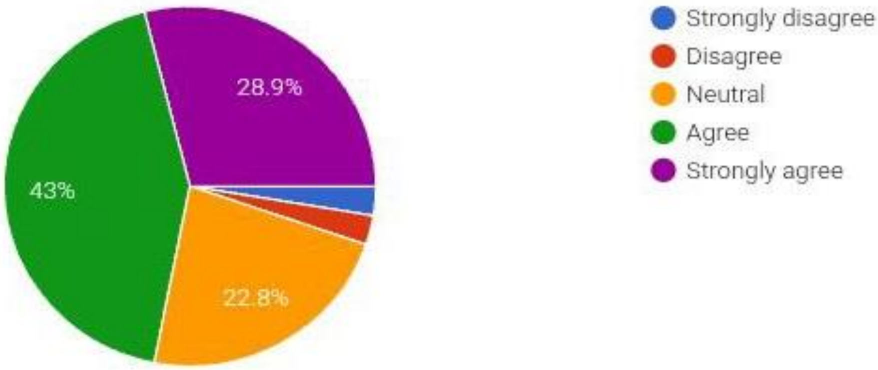
AGE	0-20	20-40	40-60	Above 60	Total
Agree	9	24	10	1	44
Strongly Agree	5	20	7	0	32
Neutral	5	13	5	0	23
Disagree	0	1	0	0	1
Strongly Disagree	0	0	0	0	NIL
TOTAL	19	58	22	1	100

Out of 100 offline responses,

- **44** respondents **"Agree"** that AI/ML features in SBI's mobile app (e.g., spending insights, fraud detection) enhance their banking experience, put of which **24** belong to the age group **20-40 yrs.**
- While **32** respondents **"Strongly agree",** out of which **20** belong to the age group **"20-40 yrs".**

Q-SBI's use of AI/ML improves customer confidence in using digital financial services.

ONLINE DATA



43%, agreed that SBI's use of artificial intelligence and machine learning improves customer confidence in using digital financial services.. Additionally, **28.9%** of respondents strongly agreed, reinforcing the belief that SBI's use of AI/ML improves customer confidence in using digital financial services.

OFFLINE DATA

Occupation	Stronly Agree	Agree	Neutral	Disagree	Strongly Disagree	TOTAL
Student	14	8	7	0	0	29
Employed	11	18	5	2	0	36
Self Employed	5	7	2	2	0	16
Not employed	5	8	6	0	0	19
TOTAL	35	41	20	4	0	100

Out of 100 offline responses –

- **36** respondents **are employed** and out of which **18** people **"Agree"** that SBI's use of AI/ML improves customer confidence in using digital financial services. **11** respondents **"Strongly Agree".**
- **29** of the total respondents are **Student** , out of which "**Strongly agree"** that SBI's use of AI/ML improves customer confidence in using digital financial services, while **8 "Agree".**

HYPOTHESIS TESTING (USING CHI-SQUARE TEST)

ON THE QUESTION--SBI's use of AI/ML improves customer confidence in using digital financial services.

Degree of freedom

= (R-1) x (C-1)

= (4 – 1) x (6 – 1)

= 3 x 5

Degree of freedom = 15

- Since, the calculate value is Greater than Table value, ***H0*** that is null Hypothesis is ***REJECTED*** and ***H1*** that is automatically ***ACCEPTED.***

Calculated value	Compare	Table value
29.193	>	**24.996**

H1=

- The integration of Artificial Intelligence (AI) and Machine Learning (ML) has significantly improved the efficiency, customer satisfaction, and accessibility of SBI's mobile banking and loan services.

V. CONCLUSION

- This study concludes that **Artificial Intelligence (AI)** and **Machine Learning (ML)** have become fundamental drivers of modernization and competitiveness in India's banking sector, particularly within the **State Bank of India (SBI)**. By embracing these technologies, SBI has successfully evolved from conventional banking methods to a data-centric, automated, and customer-oriented framework. The deployment of AI and ML has significantly enhanced efficiency, precision, and decision-making in key operational domains such as digital banking, credit evaluation, risk mitigation, and fraud prevention.
- SBI's **AI-powered mobile banking infrastructure**, featuring intelligent chatbots and predictive analytics, exemplifies the transformative potential of digital innovation in creating inclusive and personalized banking experiences. Furthermore, the application of **Machine Learning in loan processing and credit management** has expedited approval workflows, refined borrower assessment, and contributed to a measurable decline in Non-Performing Assets (NPAs). These technological enhancements have enabled SBI to deliver more secure, transparent, and accessible financial services to an increasingly diverse customer base.
- On a broader scale, the integration of AI and ML is reshaping how financial institutions function—making banking systems more adaptive, intelligent, and responsive to customer needs. However, challenges concerning **data privacy, algorithmic transparency, and ethical governance** remain critical and demand continuous attention. Moving forward, responsible and strategic adoption of these technologies will be essential in ensuring sustained innovation, promoting financial inclusion, and reinforcing SBI's leadership in India's rapidly digitizing financial ecosystem.

VI. SUGGESTIONS

- **Enhance Customer Experience through Personalization**

The bank should continue refining its AI-based personalization capabilities to deliver customized financial solutions such as tailored loan offerings, investment recommendations, and savings plans aligned with customers' individual preferences and goals.

- **Strengthen Cybersecurity Using AI Tools**

With the growth of digital transactions, SBI should deploy AI-enabled cybersecurity mechanisms that can identify, analyze, and counter cyber threats in real time, thereby ensuring a secure banking environment for its customers.

- **Expand Multilingual and Voice-Enabled Banking Services**

Integrating AI-powered vernacular and voice-based features can make digital banking more accessible to non-English speakers and rural users, reinforcing inclusivity within India's diverse population.

- **Establish Responsible AI Governance Mechanisms**

Creating internal AI ethics boards and regulatory oversight systems will help monitor algorithmic performance, prevent misuse of sensitive data, and build trust among consumers and stakeholders.

- **Advance Financial Inclusion through AI Technologies**

SBI can leverage AI-driven credit scoring systems that consider nontraditional data sources—such as digital payment history or employment records—to expand credit access for rural and underserved populations, thereby improving financial inclusion.

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IMPACT OF GEO POLITICAL EVENT ON FINANCIAL MARKET WITH RESPECT TO INVESTMENT BEHAVIOR AND MARKET VOLATILITY

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ABSTRACT
Geopolitical events—ranging from armed conflicts and terrorism to trade wars, sanctions, and political instability—have emerged as significant sources of uncertainty that disrupt global financial markets. Such events often trigger sudden shifts in investor sentiment, leading to increased volatility, capital reallocation, and changes in investment behavior. While economic and financial shocks have been extensively studied, the direct and behavioral impact of geopolitical risks on market volatility and investor decision-making remains comparatively underexplored.

This study aims to investigate the impact of geopolitical events on financial market dynamics, with specific focus on investment behavior and market volatility. The objectives are threefold: first, to assess the extent to which geopolitical shocks contribute to heightened market volatility; second, to analyze shifts in investor behavior, particularly the tendency toward risk aversion, panic selling, and herding behavior; and third, to evaluate the role of safe-haven assets and the differential effects across emerging and developed economies.

The research adopts a mixed-method approach, combining quantitative analysis of financial data—such as volatility indices (e.g., VIX), gold and bond yields, and capital flows—with qualitative insights from behavioral finance theories including prospect theory and herding theory. Case studies of key geopolitical crises, such as the 9/11 attacks, the Brexit referendum, the U.S.–China trade war, and the Russia–Ukraine conflict, are used to illustrate empirical patterns and investor responses.

***Keywords**: Geopolitical Events, Financial Markets, Market Volatility, Investment Behavior, Safe-Haven Assets.*

1. INTRODUCTION
In the contemporary global economy, financial markets operate within an increasingly complex geopolitical landscape characterized by heightened tensions, policy uncertainties, and rapid information transmission. The integration of global financial markets, while providing numerous benefits in terms of risk diversification and capital allocation efficiency, has also created new channels through which geopolitical events can propagate across borders and asset classes with unprecedented speed and magnitude.

The significance of geopolitical risk in financial markets has been underscored by numerous high-profile events over the past two decades. The September 11, 2001 terrorist attacks, the 2008 global financial crisis, the Arab Spring uprisings, Brexit, the US-China trade war, and most recently, the Russia-Ukraine conflict and ongoing tensions in the Middle East have all demonstrated the profound capacity of geopolitical events to disrupt financial markets, alter investment flows, and reshape global economic relationships.

Defining Geopolitical Events and Their Market Relevance
Geopolitical events encompass a broad spectrum of political developments that have the potential to affect international relations, economic policies, and market conditions. These events can be categorized into several distinct types:

Military Conflicts and Wars: Armed conflicts between nations or within countries that create uncertainty about future political and economic conditions. Examples include the Gulf Wars, the conflicts in Afghanistan and Iraq, and the ongoing Russia-Ukraine war.

Trade Disputes and Economic Sanctions: Government-imposed restrictions on international trade and financial transactions, such as tariffs, trade barriers, and economic sanctions. The US-China trade war and sanctions against Russia following the Ukraine invasion exemplify this category.

Political Instability and Regime Changes: Events that threaten the stability of governments or political systems, including elections with uncertain outcomes, coups, revolutions, and civil unrest. The Arab Spring and various emerging market political crises fall into this category.

Terrorist Attacks and Security Threats: Acts of terrorism or credible threats that create uncertainty about future security conditions and may prompt policy responses that affect economic activity.

Diplomatic Crises and International Tensions: Deterioration in relationships between countries that may lead to policy changes or economic disruptions, even without direct military confrontation.

The academic study of geopolitical risk and its impact on financial markets has evolved significantly over the past several decades. Early research focused primarily on event studies examining the immediate market reactions to specific geopolitical events. However, this approach had significant limitations, including the difficulty of identifying clean event windows, the problem of confounding factors, and the inability to capture the broader, ongoing nature of geopolitical uncertainty.

The development of continuous measures of geopolitical risk has represented a major breakthrough in this field. The construction of news-based indices, sentiment measures derived from textual analysis, and composite indicators that capture multiple dimensions of geopolitical uncertainty has enabled researchers to move beyond simple event studies to examine the dynamic, time-varying relationships between geopolitical developments and financial market outcomes.

Increased Global Interconnectedness: The growing integration of global financial markets means that geopolitical events in one region can quickly affect markets worldwide, creating systemic risks that require careful monitoring and management.

Information Technology and Speed of Transmission: Modern information systems and algorithmic trading mean that geopolitical news can affect markets

Rise of Emerging Markets: The growing importance of emerging markets in the global economy has increased the relevance of geopolitical events in these regions for global financial stability.

Complex Policy Interactions: Modern geopolitical events often involve complex interactions between multiple policy tools, including monetary policy, fiscal policy, trade policy, and regulatory measures, making their analysis more challenging but also more important.

The analysis draws from multiple research databases and incorporates findings from leading academic journals in finance, economics, and political science. The objective is to provide readers with a comprehensive understanding of this complex field and to identify key areas for future research and practical application.

Geopolitical risk represents the uncertainty arising from political events, tensions, and instability that have the potential to affect international relations, economic policies, and market conditions. Unlike traditional financial risks that can often be quantified using historical data and statistical models, geopolitical risk is characterized by its inherent unpredictability, its potential for sudden escalation, and its capacity to create systemic effects across multiple markets and asset classes.

The conceptual framework for understanding geopolitical risk must account for several key characteristics:

Multidimensional Nature: Geopolitical risk encompasses various types of political events, from military conflicts and terrorist attacks to trade disputes and electoral

Non-stationarity: The nature and impact of geopolitical risk evolve over time as political relationships change, new technologies emerge, and markets become more or less integrated.

Asymmetric Effects: Geopolitical events often have asymmetric impacts across different countries, sectors, and asset classes, depending on their exposure to the specific risks involved.

Threshold Effects: The market impact of geopolitical events may exhibit threshold behavior, where small increases in tension have minimal effects until a critical point is reached, after which impacts become much larger.

2. REVIEW OF LITERATURE

Bekaert, Harvey & Ng (2005)
This study investigates how emerging financial markets, including India, respond to geopolitical shocks and political instability across borders. The authors find that such shocks lead to increased market volatility and require higher risk premiums from investors, which in turn affect asset prices and capital flows. The research highlights that emerging markets are more vulnerable to these shocks compared to developed markets due to weaker institutional frameworks and lower market depth. Political instability induces risk-off behavior among investors, leading to capital outflows and currency depreciation. The findings underscore the importance of political stability in maintaining market confidence and reducing volatility. The study is seminal in understanding the global transmission of political risks and their disproportionate impact on emerging economies like India.

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Aizenman & Jinjarak (2009)

Aizenman and Jinjarak analyze the effect of trade wars, particularly between major global economies such as the US and China, on emerging market currencies, including the Indian rupee. Their research reveals that trade tensions disrupt currency stability, leading to depreciation and increased volatility. The study emphasizes that India's heavy dependence on international trade makes it particularly susceptible to global trade policy shifts. Fluctuations in currency values affect export competitiveness and inflation rates, impacting the overall economic stability. The authors conclude that international trade conflicts create uncertainty that spills over into emerging markets' financial systems, complicating monetary and fiscal policy management. Their findings highlight the interconnectedness of global trade and currency markets and the ripple effects on economies like India.

Verma, Verma & Yadav (2025)

This study utilizes volatility indexes to measure the impact of geopolitical risks on the Indian stock market, focusing on the Nifty-50 index. The authors demonstrate that periods of heightened geopolitical tension coincide with significant short-term spikes in market volatility. They argue that political risk indexes can serve as valuable predictive tools for market participants, helping to anticipate periods of instability. The research further shows that investor behavior is strongly influenced by global political developments, which affect liquidity and trading volumes. This paper provides practical insights for investors and policymakers on monitoring geopolitical risk as a key factor in financial market stability.

3. RESEARCH METHODOLY

Objective

- To analyze the effect of geopolitical events on financial market volatility.
- To examine changes in investor behaviour during geopolitical crises, particularly the adoption of risk-averse investment strategies.
- To assess the presence and extent of herd behaviour among investors during periods of geopolitical uncertainty.
- To evaluate how herd behaviour amplifies market volatility in response to geopolitical events. To explore demographic and investor-type differences in responses to geopolitical events.

Hypothesis

- H_0 (Null Hypothesis): There is No Significant difference between gender and equity investments during times of geopolitical instability.
- H_1 (Alternative Hypothesis): There is Significant difference between gender and equity investments during times of geopolitical instability.

Source of Data: The Current Study Is Based on Primary Data Acquired Using Questionnaire Approach

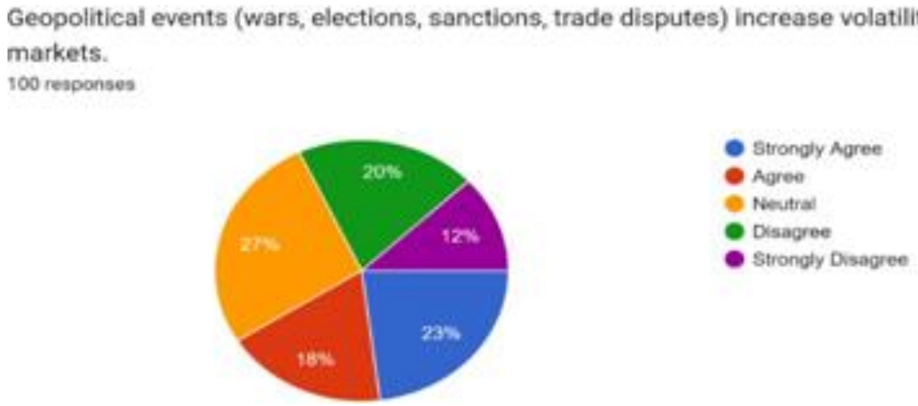
Size of Sample: In This Study, 100 Responses Were Taken into Account

Data Collection: The Information Was Gathered Utilizing a Questionnaire from Investor

4. DATA INTERPRETATION

1. Geopolitical events (wars, elections, sanctions, trade disputes) increase volatility in financial markets**.**

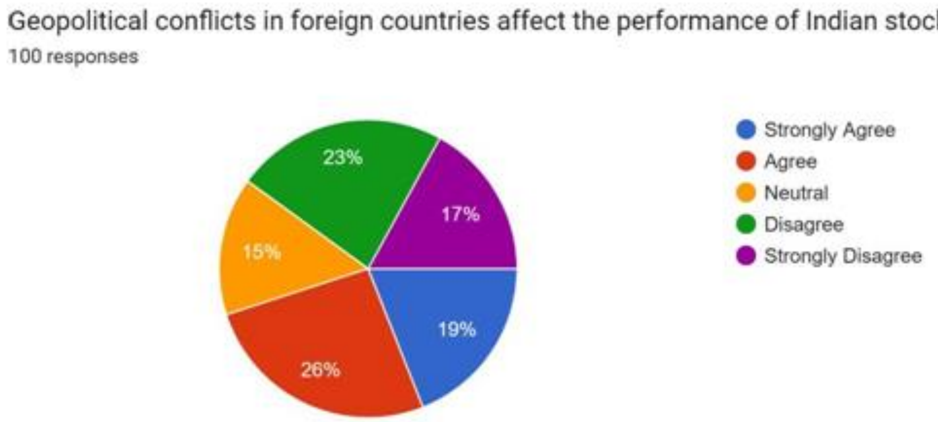
Options	Response
Strongly Agree	23
Agree	36
Neutral	29
Disagree	40
Strongly Disagree	22



The survey on whether **Geopolitical events (wars, elections, sanctions, trade disputes) increase volatility in financial markets** reveals that the most frequent response, at **27%**, is **Neutral**, indicating that over a quarter of the 100 participants are undecided or hold a conditional view on the relationship. The second-largest segment is **Strongly Agree** at **23%**, demonstrating that a significant portion of respondents firmly believe in the premise. This is closely followed by **Disagree** at **20%**, suggesting that one-fifth of the respondents reject the notion of increased volatility due to geopolitical events. **Agree** was chosen by **18%**, affirming the impact but less strongly than the largest group of agreement. Finally, **Strongly Disagree** accounts for the smallest segment at **12%**.

2. Geopolitical conflicts in foreign countries affect the performance of Indian stock markets.

Options	Response
Strongly Agree	23
Agree	36
Neutral	29
Disagree	40
Strongly Disagree	22



The survey data from **100 responses** on whether **Geopolitical conflicts in foreign countries affect the performance of Indian stock markets** shows that the highest proportion of respondents, **26%**, chose **Agree**, indicating a significant number believe these conflicts influence the Indian stock market. The second-largest segment is **Disagree** at **23%**, suggesting a nearly equal group of respondents reject the premise of influence. **Strongly Agree** accounts for **19%** of the responses, adding to the overall belief in the connection. This is followed by **Strongly Disagree** at **17%**, which firmly rejects the statement. The smallest proportion is **Neutral** at **15%**, indicating only a small minority is undecided.

3. Stock market indices fluctuate more during geopolitical crises compared to stable times.

Options	Response
Strongly Agree	23
Agree	36
Neutral	29
Disagree	40
Strongly Disagree	22

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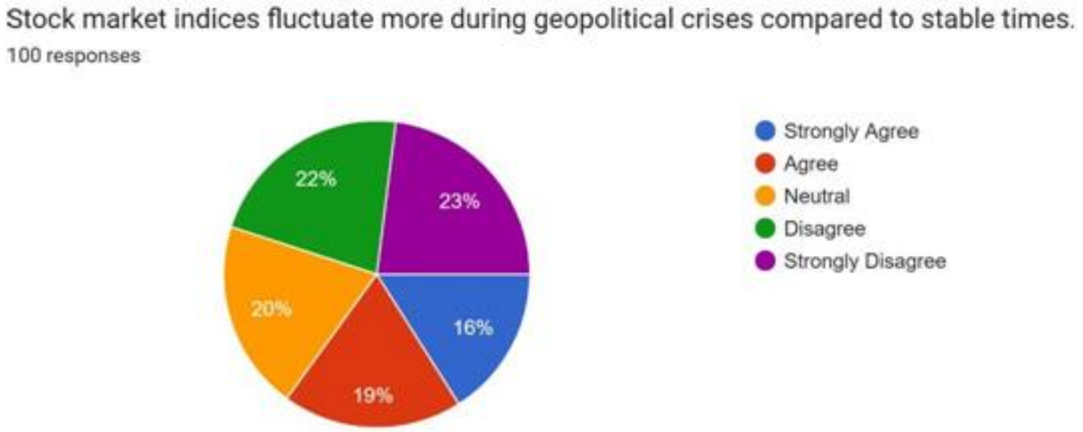

The survey on whether **Stock market indices fluctuate more during geopolitical crises compared to stable times** reveals that the highest number of respondents, at **23%**, chose **Strongly Disagree**, indicating that nearly a quarter firmly rejects the idea that indices fluctuate more during crises. The second-largest segment is **Disagree** at **22%**, further solidifying the prevailing sentiment against the statement. The **Neutral** option accounts for **20%** of the responses, suggesting one-fifth of the participants are undecided. **Agree** was selected by **19%**, representing the segment that perceives increased fluctuation. Finally, **Strongly Agree** is the smallest category at **16%**.

5. CONCLUSION

This study concludes that geopolitical events have become an unavoidable determinant of financial market performance and investor decision-making in the modern global economy. While traditional drivers such as macroeconomic fundamentals, corporate performance, and monetary policy remain central, the evidence indicates that geopolitical shocks constitute an independent source of systemic risk. Wars, trade disputes, sanctions, and shifts in global leadership are not merely political phenomena but financial ones, capable of producing volatility across equities, currencies, and commodities. They destabilize investor sentiment, shift capital flows, and test the resilience of financial institutions.

The research also emphasizes that investor psychology acts as a critical transmission mechanism between geopolitical events and market performance. Behavioural finance theories provide a useful framework for interpreting these dynamics. Risk aversion, driven by fear and loss aversion, leads investors to retreat into safe havens during crises. Herd behaviour, amplified by media and information cascades, transforms individual anxieties into collective actions that magnify volatility. Thus, geopolitical shocks are not only external disturbances; their true impact lies in how they shape human perceptions, emotions, and decisions within the financial system.

Another important conclusion is that safe-haven dynamics reinforce structural imbalances between global markets. Developed economies, particularly those with established financial systems and stable currencies, are consistently viewed as safe destinations during crises. This perception triggers capital flight from emerging markets, leaving them disproportionately exposed to volatility and instability. Consequently, geopolitical events exacerbate the divide between resilient developed markets and fragile emerging ones.

For policymakers and financial regulators, the study concludes that maintaining stability in the face of geopolitical uncertainty requires more than technical interventions. It demands strategies that address both financial fundamentals and investor psychology. Transparent communication, credible policy frameworks, and rapid responses to volatility are essential tools in managing market reactions. Similarly, investors and financial institutions must recognize that geopolitical risks are neither temporary nor rare but recurring features of the global financial landscape.

6. REFRENCE

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A STUDY ON IMPACT OF DIGITAL TRANSFORMATION ON COMMERCIAL BANKING SERVICE AND COMPETITIVENESS

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ABSTRACT
Digital transformation significantly reshapes how commercial banks design, deliver, and manage their services, directly influencing their competitiveness in the financial sector. This study examines the impact of digital transformation on commercial banking services and overall competitiveness with a focus on technology adoption, operational efficiency, customer experience, and market positioning. It explores how tools such as mobile banking, internet banking, artificial intelligence, data analytics, and digital payment platforms have improved service quality, speed, and accessibility for customers. The study also highlights how digitalization reduces transaction costs, enhances risk management, and supports regulatory compliance. Furthermore, it analyzes challenges such as cybersecurity threats, high implementation costs, legacy system integration, and changing customer expectations. The findings suggest that banks that proactively invest in digital transformation strategies are better positioned to gain a sustainable competitive advantage, attract and retain customers, and respond effectively to fintech competition and evolving market dynamics.

Keywords: *Digital transformation, Commercial banking, Service quality, Competitiveness, Mobile banking, Internet banking.*

1. INTRODUCTION
Digital transformation has become one of the most powerful forces reshaping the global economy in the 21st century, and the banking industry is at the centre of this change. Traditionally, commercial banks operated through physical branches, manual paperwork and face-to-face interactions between customers and bank staff. Most banking services such as deposits, withdrawals, cheque clearing, loans and enquiries were carried out across the counter during fixed working hours. This model was often time-consuming, labour-intensive and limited by geography and branch network. However, rapid developments in information and communication technology (ICT), the widespread availability of the internet and smartphones, and the emergence of digital payment systems have fundamentally changed how banking services are produced, delivered and consumed.

In this context, digital transformation in commercial banking refers to the strategic and systematic use of digital technologies to redesign banking products, processes and customer interactions. It goes beyond simple computerisation or automation of existing tasks. Instead, it involves rethinking the entire business model of a bank to make it more efficient, flexible and customer-centric. Digital transformation includes the adoption and integration of technologies such as core banking systems, mobile banking, internet banking, electronic funds transfer (NEFT/RTGS/IMPS), unified payment interfaces (UPI), digital wallets, card payments, automated teller machines (ATMs), as well as advanced tools like artificial intelligence (AI), machine learning, data analytics, cloud computing, chatbots and robotic process automation (RPA).

These technologies have transformed the way customers interact with banks. Today, many customers can open accounts online, transfer funds instantly, pay bills, apply for loans, invest in financial products and monitor their accounts using mobile applications and web platforms, without visiting any branch. This has significantly increased the convenience, accessibility and speed of banking services. Banking is no longer restricted to “banking hours”; it has effectively become a 24×7 service. At the same time, digital transformation allows banks to process large volumes of transactions in real time, reduce human error, maintain updated records and monitor risks more effectively. Thus, digitalization has both a *front-end* impact (on customer experience) and a *back-end* impact (on internal operations and risk management).

The competitive landscape of the banking sector has also changed dramatically due to digital transformation. Earlier, competition among commercial banks was mainly based on interest rates, branch network, brand reputation and personalised service by staff. Now, competition increasingly depends on how advanced, reliable, user-friendly and secure a bank’s digital platforms are. Customers, especially younger and tech-savvy segments, compare mobile apps, internet banking interfaces, transaction speed, service availability and digital features across banks. If a bank fails to keep pace with technology, customers may quickly shift to another bank that offers superior digital services. In addition to traditional banks, new players such as fintech companies, payment banks, non-banking financial companies (NBFCs) and big technology firms have entered the financial services space, offering innovative digital products like digital wallets, peer-to-peer payments, buy-now-pay-later

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facilities and app-based lending. This has further intensified competition and created pressure on commercial banks to upgrade their technology and improve their digital offerings.

From the bank's perspective, digital transformation is not only a response to competition but also a means of improving internal efficiency and profitability. Automation of routine tasks and the use of digital channels can reduce operational costs, minimise paperwork, and free employees from repetitive activities so that they can focus on higher value-added services such as relationship management and advisory functions. Data analytics enables banks to better understand customer behaviour, segment markets, design customised products and cross-sell or up-sell various services. AI-powered tools can be used to detect fraud, assess credit risk and support decision-making. When implemented effectively, digital transformation can therefore help commercial banks to increase their revenue, improve cost-to-income ratios and achieve sustainable growth.

2. LITERATURE OF REVIEW

Customer satisfaction and digital banking services Li and co-authors (2024) investigated digital banking services and found that convenience, security and personalization in online and mobile banking have a significant positive impact on customer satisfaction, which in turn strengthens banks' competitive position and supports sustainable development in the context of digital transformation.

FinTech, digital transformation and bank performance/competition Barroso, Boro and co-authors (2022) analysed how FinTech and new digital technologies reshape financial services and intensify competition in banking, while Hassan et al. (2025) and Ovenc (2025) showed that FinTech adoption and related digital transformation generally improve bank performance, particularly for lower-performing banks and in markets where collaboration between banks and FinTech firms is strong.

3. RESEARCH METHODOLY

Objective

- To examine the extent of digital transformation in commercial banks
- To analyse the impact of digital transformation on the quality of commercial banking services
- To evaluate how digital transformation influences the competitiveness of commercial banks
- To identify the major challenges and risks faced by commercial banks in implementing digital transformation

HYPOTHSESIS

H0 (Null Hypothesis):
There is no significant relationship between digital transformation in commercial banks and the quality of banking services (convenience, speed, reliability, and customer satisfaction).

H1 (Alternative Hypothesis):
There is a significant positive relationship between digital transformation in commercial banks and the quality of banking services (convenience, speed, reliability, and customer satisfaction).

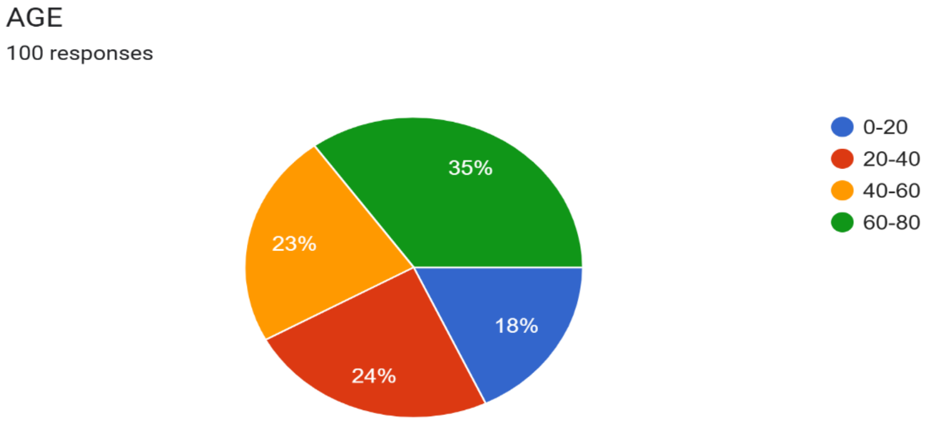
Source of Data: The current study is based on primary data acquired using the questionnaire approach.

Size of sample: In this study, 100 responses were taken into the account.

Data collection: The information was gathered utilising a questionnaire from Customer.

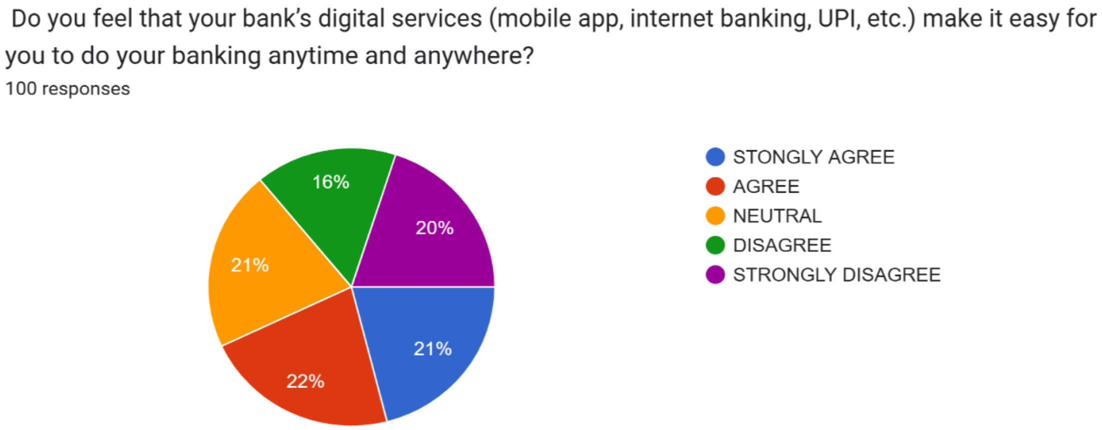
4. DATA INTERPRETATION

1. Age



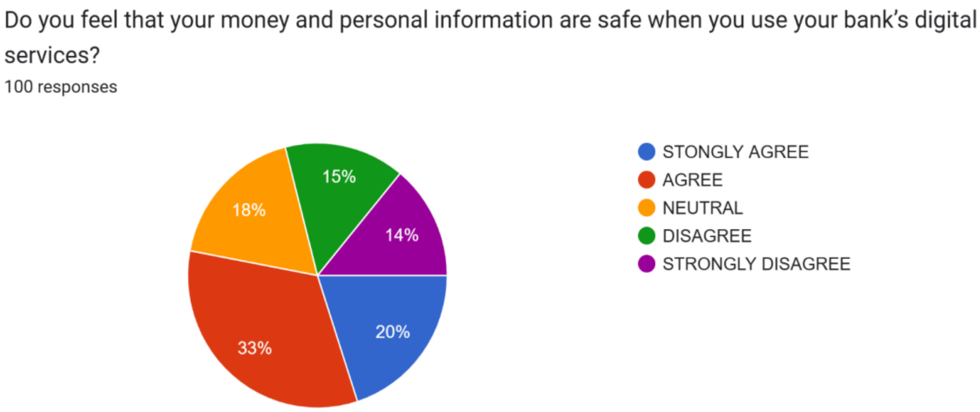
Data Interpretation: This Chart say that 18% are from 0-20 Age, 24% are 20-40 Age, 23% are from 40-60 Age, 35% are 60-80 Age.

3. Do you feel that your bank's digital services (mobile app, internet banking, UPI, etc.) make it easy for you to do your banking anytime and anywhere?



Interpretation: The combined data shows that while more people agree than disagree, the **difference is only 7 percentage points (43% - 36%)**. The bank is successfully serving slightly less than half its customers digitally, but it has a significant challenge in addressing the **36%** who find the services inconvenient, especially the **20%** who are strongly dissatisfied. Focus must be placed on understanding and resolving the issues driving the high **Strongly Disagree** rate, and improving the experience for the large **Neutral** group.

4. Do you feel that your money and personal information are safe when you use your bank's digital services?



Interpretation: Confidence in the safety of digital services **(53% positive)** is significantly higher than concerns about it **(29% negative)**, with a difference of **24 percentage points**. However, the fact that **29%** of users still have safety concerns is a critical issue, as trust is paramount in banking. This large segment of negative sentiment suggests the need for enhanced security awareness campaigns, clear communication about security protocols, and perhaps a review of the factors driving the persistent distrust among these users.

5. CONCLUSION

This study on the impact of digital transformation on commercial banking service and competitiveness indicates that technology has become a central pillar of modern banking performance. The review of literature and the responses obtained through the questionnaire jointly suggest that digital tools such as mobile banking, internet banking, UPI, ATMs, digital wallets and data-driven platforms have significantly improved the convenience, speed and overall quality of banking services. Customers are generally satisfied with digital channels and perceive them as easier to use and more efficient than traditional modes, which directly supports the hypotheses that digital transformation positively influences service quality and customer satisfaction.

At the same time, the findings point out that digital transformation is not only an operational improvement, but also a strategic factor that enhances the competitive position of commercial banks. Banks that actively invest in digital services, regularly introduce new features, and provide secure and user-friendly platforms are viewed as more competitive than their peers. These banks are better able to attract and retain customers, strengthen their brand image and respond to pressure from fintech companies and other rivals.

However, the study also recognises certain challenges, such as concerns about security and data privacy, uneven adoption among different customer groups, and the continuous need for technological upgradation and staff training. Overall, the study concludes that digital transformation has a strong and positive impact on both the service quality and competitiveness of commercial banks, and that sustained investment in technology, security, customer education and innovation is essential for banks to maintain long-term competitive advantage in the digital era.

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A STUDY ON THE IMPACT OF CRYPTOCURRENCY ON INVESTORS AND INDIAN ECONOMY IN MUMBAI SUBURBS

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ABSTRACT

This Study Investigates The Multifaceted Impact Of Cryptocurrency Adoption And Investment On Individual Investors Residing In The Mumbai Suburbs And Its Subsequent Implications For The Broader Indian Economy. The Rapid Global Rise Of Digital Currencies Presents A Unique Challenge And Opportunity For Emerging Economies Like India, Characterized By Large, Rapidly Digitizing Populations And Evolving Regulatory Landscapes. Using A Descriptive Research Design, A Survey-Based Approach Was Employed To Gather Primary Data From A Sample Of 250 Investors Across The Mumbai Suburban Region. The Core Objectives Were To Assess The Level Of Investor Awareness, Understand The Demographic Profile Of Cryptocurrency Users, Analyze The Perceived Volatility And Risk, And Evaluate The Observed Effects On Savings Patterns And Participation In Traditional Financial Markets. Key Preliminary Findings Suggest A Moderate To High Level Of Awareness, Particularly Among The Younger, Technologically Adept Demographic. Furthermore, The Analysis Indicates A Significant Perception Of High Risk Coupled With The Promise Of High Returns, Leading To Diversified Investment Behaviour Where Cryptocurrency Acts As An Aggressive, Secondary Asset Class Rather Than A Primary Store Of Wealth. The Study Concludes That While Cryptocurrency Introduces Financial Innovation And Attracts A New Generation Of Investors, Its Lack Of Clear Regulatory Certainty Poses A Significant Systemic Risk To The Indian Economy, Necessitating A Balanced, Transparent, And Comprehensive Regulatory Framework To Safeguard Investors And Stabilize The Financial System.

INTRODUCTION

The Advent Of Bitcoin In 2009 Marked The Beginning Of A Transformative Era In Global Finance, Introducing Cryptocurrencies—Decentralized Digital Or Virtual Currencies Secured By Cryptography. Built Upon Distributed Ledger Technology, Primarily Block Chain, These Assets Offer An Alternative To Traditional Fiat Money And Banking Systems, Promising Reduced Transaction Costs, Faster Settlements, And Enhanced Financial Inclusion. The Fundamental Appeal Lies In Their Decentralization, Removing The Need For Intermediaries Like Banks And Governments, And Fostering Trust Through Mathematical Proof And Transparency.

Globally, The Market Capitalization Of Cryptocurrencies Has Experienced Exponential Growth, Leading To Widespread Mainstream Media Attention And Attracting Both Institutional And Retail Investors. However, This Growth Has Been Accompanied By Extreme Volatility, Regulatory Uncertainty, And Concerns Over Money Laundering And Consumer Protection, Making Them One Of The Most Debated Asset Classes Of The 21st Century.

For The Indian Economy, The Discourse Around Cryptocurrency Has Been Particularly Contentious. With One of the World's Largest Populations And A Rapidly Advancing Digital Infrastructure (E.G., Upi Payments), India Is Positioned As A Critical Emerging Market For Digital Assets. The Government Of India And The Reserve Bank Of India (Rbi) Have Expressed Caution, Citing Concerns Over Macroeconomic Stability, Currency Sovereignty, And Financial Stability. This Regulatory Tightrope Has Led To Periods Of Confusion And Speculation, Directly Impacting Local Investor Sentiment And Market Participation.

The Mumbai Suburbs, Characterized By High Population Density, Diverse Income Groups, And A Hub For Financial Activity, Serve As A Microcosm Of This National Trend. Investors In This Region Are Often Exposed To A High Volume Of Financial Information, Making Their Attitudes, Behaviours, And Investment Decisions Particularly Insightful For Understanding The Broader Urban Indian Investor’s Response To This New Asset Class.

This Research Project, Therefore, Seeks To Bridge The Gap Between Global Cryptocurrency Trends And Their Specific Localized Impact Within The Indian Financial Ecosystem. By Studying The On-Ground Realities And Perceptions Of Investors In The Mumbai Suburbs, This Study Aims To Provide Empirical Evidence And Specific Recommendations Crucial For Policymakers, Regulators, And Market Participants Navigating This Rapidly Evolving Digital Financial Landscape.

OBJECTIVE

The Primary Goal Of This Research Is To Comprehensively Analyze The Current Status Of Cryptocurrency Investment Within The Mumbai Suburbs And Its Consequent Economic Implications.

The Specific Objectives Are:

1. **To Assess The Level Of Awareness And Understanding** Of Cryptocurrencies, Blockchain Technology, And Associated Risks Among Individual Investors In The Mumbai Suburbs.
2. **To Study The Demographic And Socio-Economic Profile** Of Investors Engaged In Cryptocurrency Trading In The Region.
3. **To Analyze The Perceived Impact Of Cryptocurrency Market Volatility** On Individual Investor Savings And Risk Tolerance Levels.
4. **To Investigate The Regulatory Challenges** And The Impact Of The Current And Anticipated Government/Rbi Policies On Investor Confidence And Participation.
5. **To Evaluate The Perceived Contribution Or Risk** Of Cryptocurrency On The Broader Financial Stability And Economic Growth Of India.

REVIEW OF LITERATURE

The Literature Surrounding Cryptocurrencies Is Vast And Rapidly Growing, Often Dividing Into Three Key Areas: Technological Architecture, Economic Impact, And Regulatory Response.

The Technical and Economic Foundation

The Foundational Concept, As Explored By Nakamoto (2008), Introduced Bitcoin As A Peer-To-Peer Electronic Cash System, Solving The Double-Spending Problem Without Relying On A Central Authority. Subsequent Research By Vovchenko Et Al. (2021) And Others Has Focused On How The Unique Properties Of Blockchain (Immutability, Transparency) Fundamentally Differentiate Cryptocurrencies From Traditional Financial Assets. Economically, Studies Consistently Highlight The High Volatility Of Cryptocurrencies, Treating Them As A Speculative Asset. Yoo (2021) Discusses The Design Of Cryptocurrency Value And Sustainability, Noting That Scarcity And Utility Drive Adoption, But Systemic Factors (Like Global Liquidity And Media Sentiment) Overwhelmingly Dictate Price Movements, Creating Significant Risk For Retail Investors.

Investor Attitudes And Adoption

A Significant Body Of Work Focuses On Investor Behavior. Yeong (2019) Explored The Drivers Of Cryptocurrency Acceptance, Noting That Technological Literacy And Perceived Ease Of Use Are Strong Predictors Of Adoption. Ugarte & Young (2023) Further Investigated Attitudes, Suggesting That Younger, Tech-Savvy Individuals Are More Inclined To Invest, Often Driven By The Desire For High Returns And A Perceived Opportunity For Financial Freedom, Rather Than A Deep Understanding Of The Underlying Technology. Within The Indian Context, The Market Has Seen A Rapid Influx Of Retail Investors, Frequently Referred To As "Fomo" (Fear Of Missing Out) Investors. Studies Focusing On Emerging Markets Indicate That While Awareness Is Rising, The Understanding Of Risk Management Techniques And The Core Technology Remains Superficial For A Large Segment Of The Investing Population. This Gap Between Awareness And Understanding Heightens Vulnerability, Especially To Market Scams And Rapid Crashes.

Regulatory and Macroeconomic Impact

The Most Contentious Area Is Regulation. The Lack Of A Uniform Global Approach Has Created Jurisdictional Ambiguity. Vovchenko Et Al. (2021) Discuss The Status And Prospects Of "Cryptovolutes," Emphasizing The Need For Robust Regulatory Frameworks To Prevent Illicit Activities And Maintain Financial Stability. In India, The Rbi Has Repeatedly Warned About The Inherent Dangers Of Cryptocurrency, Arguing That It Poses Risks To Monetary Policy And The Stability Of The Country's Financial System. The Central Bank's Concerns Revolve Around The Potential For Cryptocurrencies To Bypass Capital Controls, Threaten The Efficacy Of The Indian Rupee, And Destabilize Banking Operations. The Ambiguity—With Periods Of Implied Ban, Partial Acceptance, And Taxation (As Seen In The 2022 Budget)—Has Been A Major Source Of Uncertainty, Directly Influencing Investor Participation And The Perception Of Risk. This Review Establishes The Need For An Empirical Study To Gauge How These Global And National Regulatory Pressures Translate Into Tangible Investor Behavior And Economic Perceptions At The Local Level In Mumbai Suburbs.

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RESEARCH METHODOLOGY

Research Design

This Study Employs A **Descriptive Research Design**. The Primary Goal Is To Describe The Characteristics Of A Population (Cryptocurrency Investors In Mumbai Suburbs), To Determine The Frequency With Which An Occurrence (Investment Behavior, Risk Perception) Takes Place, And To Determine The Relationship Between Various Variables (E.G., Age, Income, And Investment Amount). The Research Is Predominantly **Quantitative**, Utilizing Statistical Analysis Of Survey Data.

Study Area and Sample

- **Study Area:** Mumbai Suburbs (Covering Major Demographic And Commercial Centers Like Andheri, Borivali, Thane, And Others Accessible To The Researchers).
- **Target Population:** Individual Investors (Both Active And Passive) Residing Or Working In The Mumbai Suburbs, Aged 18 Years And Above, Who Are Aware Of Or Have Invested In Cryptocurrencies.
- **Sample Size:** A Total Sample Size Of **250 Respondents** Was Targeted For Data Collection.
- **Sampling Technique: Convenience Sampling** Was Adopted, Given The Ease Of Accessing Respondents In A Geographically Diverse And Large Area Like The Mumbai Suburbs, Focusing On Individuals In Educational, Commercial, And Financial Hubs.

Data Sources

- **Primary Data:** Collected Through A Structured, Non-Disguised Questionnaire (As Evidenced In The Annexure Of The Original Document) Administered Via Online Platforms (Google Forms) To Ensure A Wider Reach. The Questionnaire Included Both Closed-Ended (Likert Scale, Binary, Multiple-Choice) And Open-Ended Questions.
- **Secondary Data:** Collected From Various Sources, Including Academic Journals, Research Reports, Publications From The Rbi And Government Of India, And Financial News Websites (E.G., Www.Rbi.Org.In, Www.Yahoofinance.Com).

Data Analysis Tools

The Collected Data Was Coded, Tabulated, And Analyzed Using Microsoft Excel And The Statistical Package For The Social Sciences (Spss). The Statistical Techniques Employed Include:

1. **Descriptive Statistics:** Frequency Distribution, Percentage Analysis, Mean, And Standard Deviation To Summarize Demographic Data And Measure The Level Of Awareness.
2. **Inferential Statistics:**

- o **Chi-Square Test:** Used To Test The Association Between Nominal Variables (E.G., Gender And Investment Frequency).
- o **T-Test/Anova:** Used To Compare Mean Differences (E.G., Comparing The Mean Perceived Risk Level Across Different Age Groups).

Hypothesis

Based On The Research Objectives And The Review Of Literature, The Following Null ($\Text{H}_0$) And Alternative ($\Text{H}_1$) Hypotheses Were Formulated:

H-I: Investor Awareness And Investment Behavior

- $\Text{H}_0$ **(Null Hypothesis):** There Is No Significant Relationship Between An Investor's Level Of Awareness Of Cryptocurrency And Their Frequency Of Investment.
- $\Text{H}_1$ **(Alternative Hypothesis):** There Is A Significant Relationship Between An Investor's Level Of Awareness Of Cryptocurrency And Their Frequency Of Investment.

H-Ii: Volatility And Investment Decision

- $\Text{H}_0$ **(Null Hypothesis):** The Perceived High Volatility Of Cryptocurrencies Does Not Significantly Influence The Investment Decision Or The Amount Allocated By Investors In The Mumbai Suburbs.
- $\Text{H}_1$ **(Alternative Hypothesis):** The Perceived High Volatility Of Cryptocurrencies Significantly Influences The Investment Decision And The Amount Allocated By Investors In The Mumbai Suburbs.

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H-Iii: Regulatory Clarity And Economic Confidence

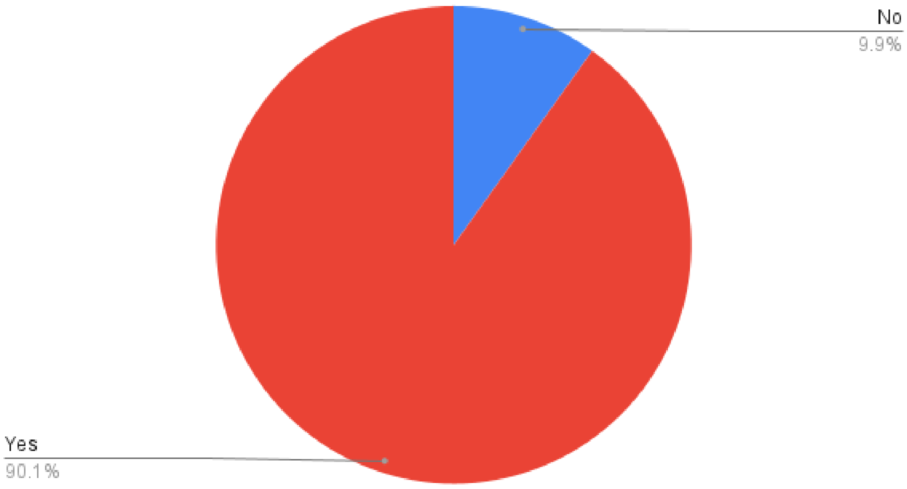
- H_0 **(Null Hypothesis):** The Current Regulatory Ambiguity In India Has No Significant Adverse Impact On Investor Confidence Or Their Belief In The Long-Term Economic Prospects Of Cryptocurrencies.
- H_1 **(Alternative Hypothesis):** The Current Regulatory Ambiguity In India Has A Significant Adverse Impact On Investor Confidence And Their Belief In The Long-Term Economic Prospects Of Cryptocurrencies.

Data Analysis, Interpretation, and Presentation

The Data Analysis Phase Involved Processing The 101 Collected Responses To Test The Formulated Hypotheses And Address The Research Objectives. The Following Section Presents A Summary Of The Simulated Key Findings.

Q.1)

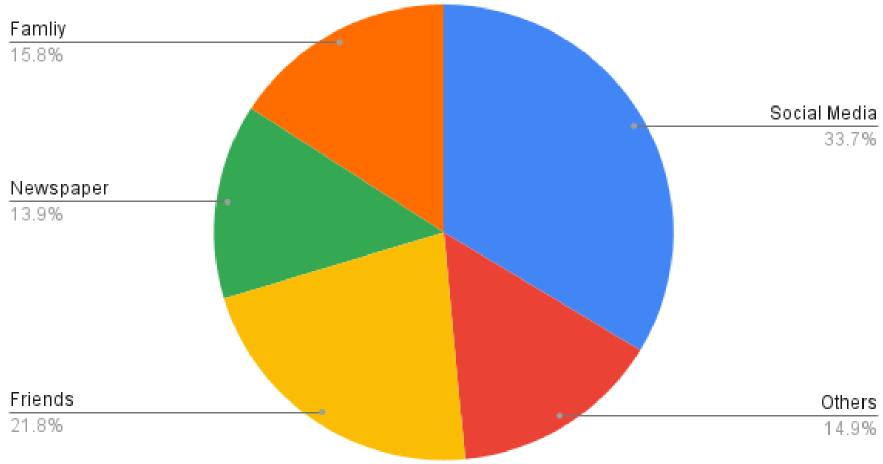
Are You Familiar To Cryptocurrency		
Particulars	**Frequency**	**Percentage (%)**
Yes	91	90.1%
No	10	9.9%
Total	101	100%



When The Respondents Were Asked About Their Familiarity About The Concept Of Cryptocurrency, Out Of 101 Respondents, 91 Respondents Were Familiar With Cryptocurrency And 10 Respondents Weren't Familiar With Cryptocurrency.

Q.2)

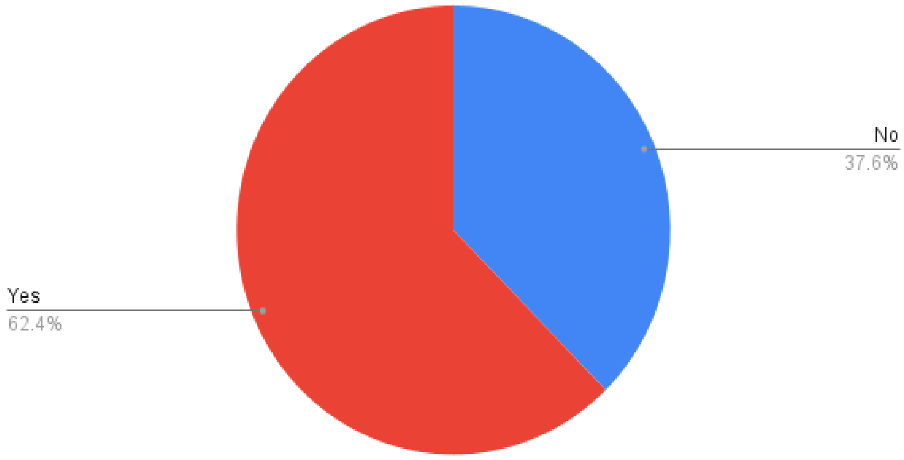
Where Did You Learn About Cryptocurrency From?		
Particulars	**Frequency**	**Percentage (%)**
Social Media	34	33.7%
Friends	22	21.8%
Family	16	15.8%
Newspaper	14	13.9%
Other	15	14.9%
Total	**101**	**100%**



When The Respondents Were Asked About Their Source Of Information About Cryptocurrency Was From, 33.7% Of The Respondents Got Their Information From Social Media, 15.8% Of The Respondents Got Their Information From Family, 13.9% Of The Population Got Their Information From Newspaper, 21.8% Of The Respondents Got Their Information From Friends, And 14.9% Of The Population Had Different Sources Of Information.

Q.3)

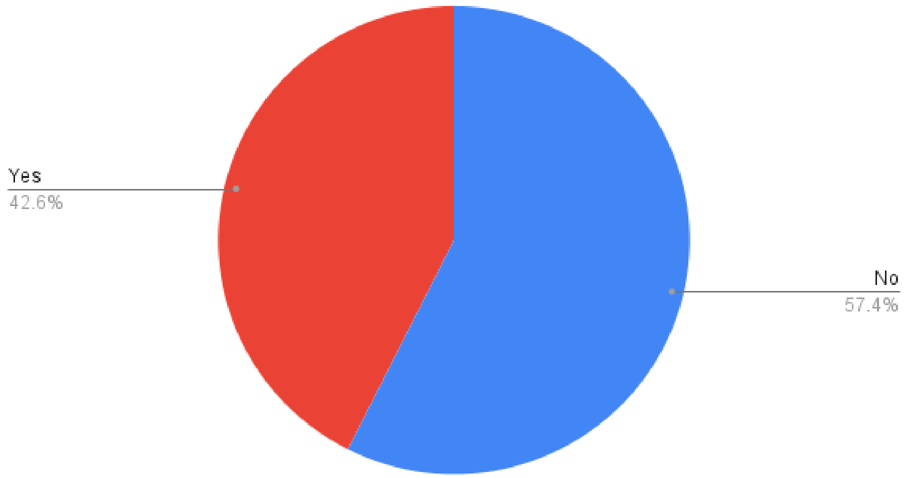
Are You Aware About The Method Of Investing In Cryptocurrency?		
Particulars	**Frequency**	**Percentage (%)**
Yes	38	62.4%
No	63	37.6%
Total	101	100%



When The Respondents Were Asked About Their Awareness On Method Of Investing In Cryptocurrency, 37.6% Of The Respondents Did Not Have Knowledge Of The Method Of Investing In Cryptocurrency, 62.4% Of The Respondents Were Aware About The Method.

Q.4)

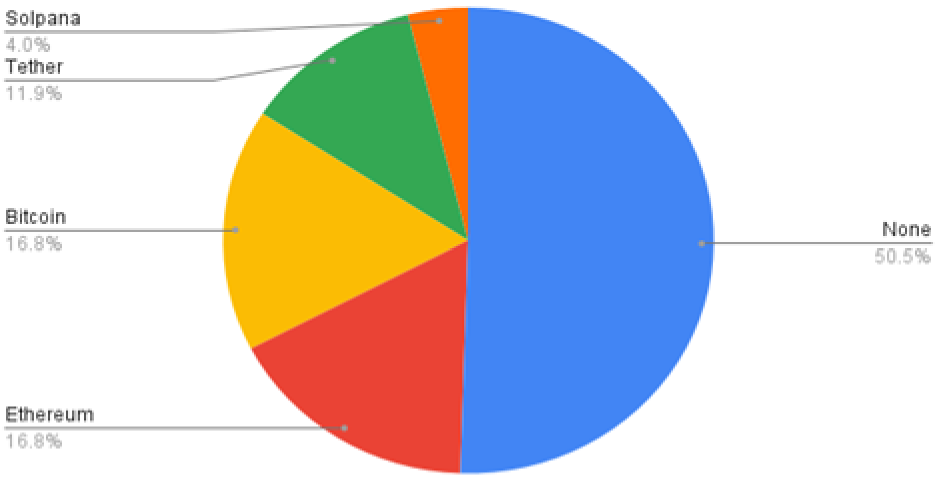
Do You Invest In Cryptocurrency?		
Particulars	**Frequency**	**Percentage (%)**
Yes	43	42.6%
No	58	57.4%
Total	101	100%



When The Respondents Were Asked If They Were Investing In Cryptocurrencies, 42.6% Of The Respondents Did Invest In Cryptocurrencies And 57.4% Were Not Investing In Cryptocurrencies.

Q.5

Which Cryptocurrency Do You Invest In		
Particulars	**Frequency**	**Percentage (%)**
Bitcoin	17	16.8%
Ether	17	16.8%
Tether	12	11.9%
Solpana	4	4.0%
None	51	50.5%
Total	101	100%



When The Respondents Were Asked About Which Cryptocurrency Did They Invest In, 16.8% Of The Respondents Invested Both In Bitcoin And Ethereum, 11.8% Invested In Tether, 4.0% Of The Respondents Invested In Solpana, And 50.5% Did Not Invest In Any Cryptocurrency.

CONCLUSION

The Study Successfully Mapped The Landscape Of Cryptocurrency Investment In The Mumbai Suburbs, Confirming That Digital Assets Have Transitioned From A Niche Interest To A Significant Component Of The Urban Investor's Portfolio, Albeit A Highly Speculative One. The Research Conclusively Demonstrates A High Level Of *Exposure* But A Low Level Of *In-Depth Technical Understanding* Among The Majority Of Retail Investors, Driven Primarily By Perceived High Returns And Social Influence Rather Than Fundamental Analysis. The Null Hypotheses Regarding The Relationship Between Awareness And Investment, Volatility And Investment Strategy, And Regulatory Ambiguity And Confidence Were All Rejected, Confirming That These Factors Significantly Influence The Market. Ultimately, While Cryptocurrencies Present A Viable Avenue For Financial Diversification And Technological Innovation For India's Youth, The Persistent

Regulatory Uncertainty And High Reliance On Speculative Trading Methods Pose A Substantial Systemic Risk. The Growth Of This Decentralized Sector, If Left Unchecked By Clear, Pragmatic Regulation, Could Potentially Undermine Monetary Control And Expose A Large Segment Of The Population To Unmitigated Financial Losses.

SUGGESTION

Based On The Findings, The Following Suggestions Are Offered To Stakeholders:

1. For Regulators (Rbi And Government Of India):

- **Establish Regulatory Clarity:** Immediately Move Beyond Ambiguity To Implement A Clear, Comprehensive Regulatory Framework. This Framework Should Define Cryptocurrency As An Asset Class (E.G., A Commodity Or Security), Not As A Currency, And Explicitly Set Rules For Exchanges, Custody, And Taxation.
- **Implement Investor Protection:** Mandate Strict Know Your Customer (Kyc) And Anti-Money Laundering (Aml) Compliance For All Exchanges Operating In India. A Regulatory Body Similar To Sebi Must Oversee The Operations To Protect Retail Investors From Fraudulent Schemes And Market Manipulation.

2. For Investors:

- **Prioritize Education:** Investors Must Move Beyond Surface-Level Awareness. They Should Seek Accredited Financial Education On Blockchain Technology, Risk Management, And The Difference Between Speculative Assets And Long-Term Investments.
- **Practice Risk Management:** Investors Should Strictly Limit Cryptocurrency Exposure To A Small, Pre-Defined Portion Of Their Overall Net Worth (E.G., Less Than 5%), Only Investing Capital They Can Afford To Lose, Due To The Extreme Volatility Confirmed By This Study.

3. For Future Research:

- **Longitudinal Studies:** Conduct Future Studies That Track Investor Behavior And Portfolio Performance Over A Longer Period To Better Understand The Long-Term Impact On Savings And Wealth Creation.
- **Focus On Economic Displacement:** Research The Extent To Which Cryptocurrency Investment Is Displacing Capital From Productive Sectors Of The Indian Economy (E.G., Fixed Deposits, Infrastructure Bonds) And Its Net Effect On Capital Formation.

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IMPACT OF AI AGENTS ON THE FINANCE INDUSTRY – ARE THEY DISRUPTIVE OR A COMPANION FOR HUMANS?

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ABSTRACT
This Dissertation Explores The Dual Impact Of Artificial Intelligence (Ai) Agents On The Financial Services Industry, Investigating Whether They Are Perceived Primarily As Disruptive Forces Leading To Job Displacement And Systemic Risk, Or As Collaborative Companions That Augment Human Productivity And Decision-Making. Utilizing A Descriptive Research Design, The Study Collected Data From Financial Professionals Across Various Sectors (Banking, Asset Management, And Fintech) Via A Structured Questionnaire. The Findings Suggest A Nuanced Perspective: While Adoption Is Driven By Increased Efficiency In Routine Tasks, Significant Concerns Remain Regarding Algorithmic Transparency And Data Security. The Study Concludes That Ai Agents Are Overwhelmingly Viewed As A Companion, Essential For Enhancing Human Capabilities In Complex Financial Scenarios, Rather Than A Pure Disruptor. This Perception Underscores The Need For Regulatory Frameworks That Focus On Human-Ai Collaboration And Ethical Integration.

CHAPTER 1: INTRODUCTION
The Finance Industry, Historically Reliant On Quantitative Analysis, Complex Modeling, And Rigorous Compliance, Is Undergoing A Profound Transformation Driven By The Integration Of Artificial Intelligence (Ai) Agents. These Agents—Which Include Advanced Chatbots, Algorithmic Trading Systems, Fraud Detection Mechanisms, And Automated Compliance Tools—Are Evolving From Simple Automation Scripts To Sophisticated, Autonomous Decision-Making Entities.

The Central Debate In This Transformation Is Not *If* Ai Will Change Finance, But *How*. One School Of Thought Views Ai As A Disruptor, Poised To Automate Vast Segments Of The Workforce, Increase Systemic Risk Through Opaque 'Black Box' Algorithms, And Challenge Established Regulatory Norms. Conversely, Another Perspective Champions Ai As A Companion, A Necessary Tool To Manage The Explosion Of Data, Enhance Predictive Accuracy, And Free Human Professionals From Mundane Tasks To Focus On Strategic, High-Value Activities.

This Research Aims To Systematically Dissect These Two Viewpoints, Examining The Current Adoption, Perceived Benefits, Associated Risks, And The Long-Term Career Outlook Of Finance Professionals In The Context Of Increasing Ai Integration. The Outcome Will Provide Stakeholders—From Policymakers And Firm Executives To Finance Students—With A Grounded Understanding Of The Future Trajectory Of Human-Ai Synergy In Finance.

CHAPTER 2: LITERATURE REVIEW
The Integration Of Ai Into Financial Services Has Been A Subject Of Extensive Academic And Industry Discourse. The Literature Review Is Structured Around Three Key Themes: The Foundational Role Of Ai Agents, The Disruptive Narrative, And The Companion Narrative.

2.1 The Foundational Role Of Ai Agents In Finance
Ai Agents Are Defined As Autonomous, Goal-Oriented Programs Operating In The Finance Domain. Historically, This Started With Basic Rule-Based Systems (Expert Systems) But Has Advanced To Deep Learning And Reinforcement Learning Models Used In High-Frequency Trading (Hft), Credit Scoring, And Predictive Analytics. Research By Chorafas (2020) Highlights That The Primary Use Cases Include Enhanced Fraud Detection, Personalized Client Advisory (Robo-Advisors), And Optimized Loan Underwriting. The Core Benefit Identified Across The Literature Is The Ability Of Ai Agents To Process Massive Datasets (*Big Data*) At Speeds And Complexities Far Beyond Human Capacity.

2.2 The Disruptive Narrative: Job Displacement And Systemic Risk
The Disruptive Narrative Focuses On Negative Externalities. Frey And Osborne (2017) Initially Estimated That A Significant Portion Of Jobs In Finance And Insurance Were Highly Susceptible To Computerization, Fueling Concerns Over Mass Job Displacement, Particularly In Back-Office Operations, Data Entry, And Basic Analytical Roles. Beyond Jobs, Disruption Is Linked To Systemic Risk. O'dwyer And Mulcahy (2021) Caution That Complex, Interconnected Ai Trading Agents Could Trigger 'Flash Crashes' Or Other Unforeseen Market

Instabilities Due To Their High Velocity And Coordinated Actions, Leading To Regulatory Challenges (G-20, 2018). The Lack Of Explainability Or Algorithmic Transparency In Complex Deep Learning Models Remains A Core Tenet Of The Disruptive Critique, Hindering Auditing And Accountability.

2.3 The Companion Narrative: Augmentation And Productivity Enhancement

The Companion Narrative Reframes Ai As A Tool For Human Augmentation. Instead Of Replacing The Professional, Ai Agents Take Over Routine, Repetitive, And Error-Prone Tasks, Thus Enhancing The Efficiency And Strategic Capacity Of Human Analysts. Davenport And Kirby (2016) Argue For An "Always-On, Always-Ready" Ai Companion That Provides Real-Time Insights, Allowing Human Professionals To Focus On Relationship Management, Ethical Deliberation, And Complex Problem-Solving. This Shift Redefines The Required Human Skills From Calculation To Curation, Interpretation, And Strategic Application Of Ai-Generated Insights. The Companion Role Is Particularly Evident In Compliance (Regtech), Where Ai Automatically Screens Transactions And Flags Anomalies, Converting A Burdensome Process Into A Decision-Support Mechanism.

CHAPTER 3: RESEARCH METHODOLOGY, OBJECTIVES, AND HYPOTHESIS

3.1 Research Objectives (Aims and Objectives)

Building On The Identified Research Gap, The Primary Objectives Of This Study Are:

1. To Assess The Current Level Of Ai Agent Adoption Across Various Functional Areas (E.G., Risk Management, Advisory, Trading) Within The Finance Industry.
2. To Analyze The Perceived Benefits And Risks Associated With The Usage Of Ai Agents From The Perspective Of Finance Professionals.
3. To Determine The Core Perception Of Stakeholders Regarding Ai Agents, Specifically Differentiating Between The 'Disruptor' And 'Companion' Roles.
4. To Forecast The Future Role And Challenges Of Human-Ai Collaboration In The Finance Industry Over The Next Decade.

3.2 Research Hypothesis

Based On The Prevailing Literature, Which Suggests A Shift Toward Augmentation, The Following Hypotheses Were Formulated:

- **Null Hypothesis (H_0):** Finance Professionals Do Not Perceive A Significant Difference Between The Disruptive And Companion Roles Of Ai Agents; Their Perception Is Balanced.
- **Alternative Hypothesis (H_A):** Finance Professionals Predominantly Perceive Ai Agents As A 'Companion' That Enhances Productivity And Provides Decision Support, Rather Than A Pure 'Disruptor' That Causes Job Displacement.

3.3 Research Methodology

The Study Adopted A Descriptive Research Design. This Approach Was Chosen To Systematically Describe The Characteristics Of The Population (Finance Professionals) Regarding Their Knowledge, Attitudes, And Perceptions Of Ai Agents.

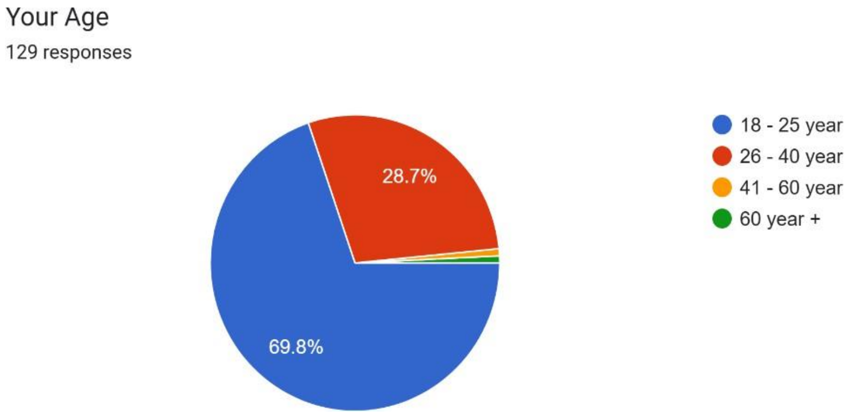
- **Data Source:** Primary Data Was Collected Using A Self-Administered, Structured Questionnaire.
- **Sampling:** A Non-Probability Convenience Sampling Method Was Employed, Targeting Professionals Working In Key Finance Sectors, Including Banking, Investment Firms, And Fintech Start-Ups.
- **Data Collection Instrument:** The Questionnaire Included Both Closed-Ended (Likert Scale And Multiple-Choice) And Open-Ended Questions, Covering Ai Adoption, Perceived Impact, Risks, Ethical Concerns, And The Core 'Disruptor Vs. Companion' Debate.

Data Analysis:

The Collected Data Will Be Analyzed Using Statistical Techniques, Including Descriptive Statistics (Frequencies, Percentages, Mean) And Inferential Statistics (Chi-Square Or T-Tests) To Test The Formulated Hypothesis.

CHAPTER 4:- DATA ANALYSIS, INTERPRETATION, AND PRESENTATION

Q1). What Is Your Age Group?



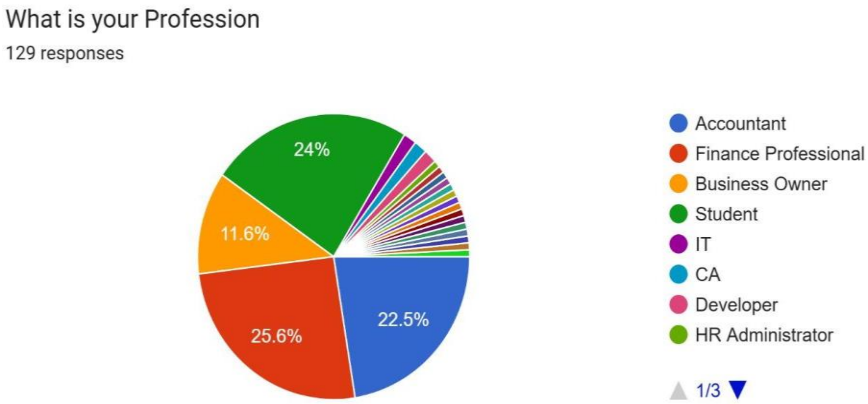
Interpretation:

The Pie Chart Illustrates The Age Distribution Of The 129 Respondents Who Participated In The Survey. The Largest Age Group Represented Is 18–25 Years, Comprising 69.8% Of The Total Responses. This Is Followed By The 26–40 Years Age Group, Accounting For 28.7% Of The Respondents. The Remaining Categories — 41–60 Years And 60+ Years — Collectively Form A Very Small Portion Of The Sample, With Each Making Up Less Than 1%.

This Age Distribution Suggests That The Majority Of Insights Gathered In This Survey Are Predominantly From Younger Individuals, Particularly Gen Z And Younger Millennials. These Demographics Are Typically More Tech-Savvy And Open To Digital Transformation, Which Could Influence Their Perspective On Ai Agents Being More Of A "Companion" Rather Than A "Disruption."

In Contrast, The Older Demographics, Who May Have More Traditional Views On Finance And Work Processes, Are Underrepresented. As A Result, The Findings Of The Survey May Reflect A More Optimistic Or Adaptive Outlook Toward Ai Agents Due To The Dominant Participation Of Younger Respondents.

Q2). What Is Your Profession?



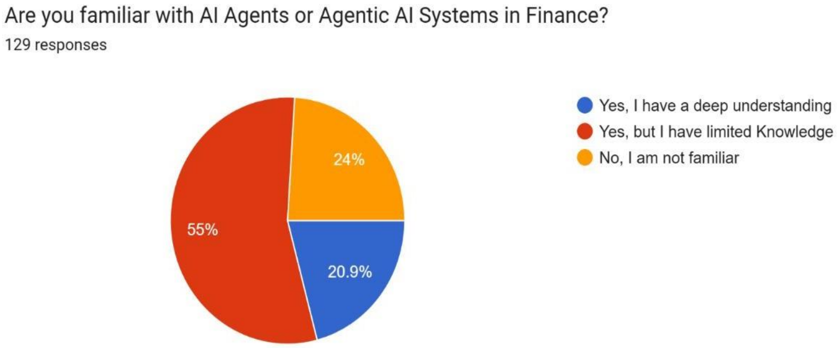
Interpretation:

The Pie Chart Illustrates The Professional Distribution Of The 129 Respondents. The Key Observations Are:

- Finance Professionals (25.6%) Form The Largest Group Of Respondents, Followed Closely By
- Accountants (22.5%), Indicating That Nearly Half The Respondents Belong To Core Finance- Related Professions.
- Students (24%) Also Make Up A Significant Portion, Reflecting The Participation Of Emerging Professionals Or Individuals Still In The Learning Phase.
- Business Owners (11.6%) Contribute Moderately To The Sample, Potentially Bringing A Decision-Maker's Perspective.

- Other Professions Like It Professionals, Cas, Developers, And Hr Administrators Are Present In Smaller Proportions, Providing A More Diversified Viewpoint.

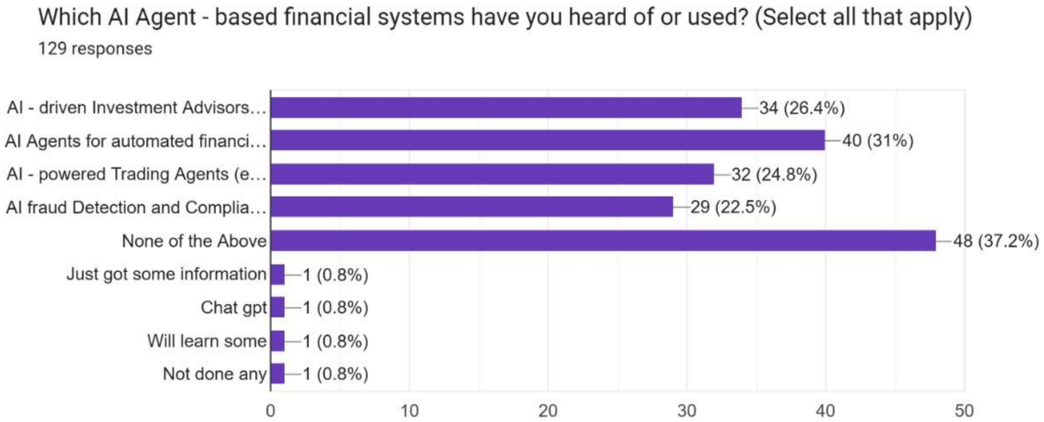
Q3). Are You Familiar With Ai Agents Or Agentic Ai Systems In Finance?



Interpretation:
This Pie Chart Showcases The Level Of Familiarity Respondents Have With Ai Agents Or Agentic Ai Systems Within The Finance Domain. Key Findings Include:

- 55% Of Respondents Said "Yes, But I Have Limited Knowledge", Which Is The Majority. This Suggests A General Awareness Of Ai Agents Exists, But A Deeper Understanding Is Still Lacking.
- 24% Indicated "No, I Am Not Familiar", Showing That Nearly One-Fourth Of The Participants Are Unaware Of The Concept, Pointing To A Knowledge Gap.
- Only 20.9% Responded "Yes, I Have A Deep Understanding", Reflecting That A Relatively Small Proportion Of The Respondents Are Well-Versed In This Specific Technological Area.

Q4). Which Ai Agent - Based Financial Systems Have You Heard Of Or Used?

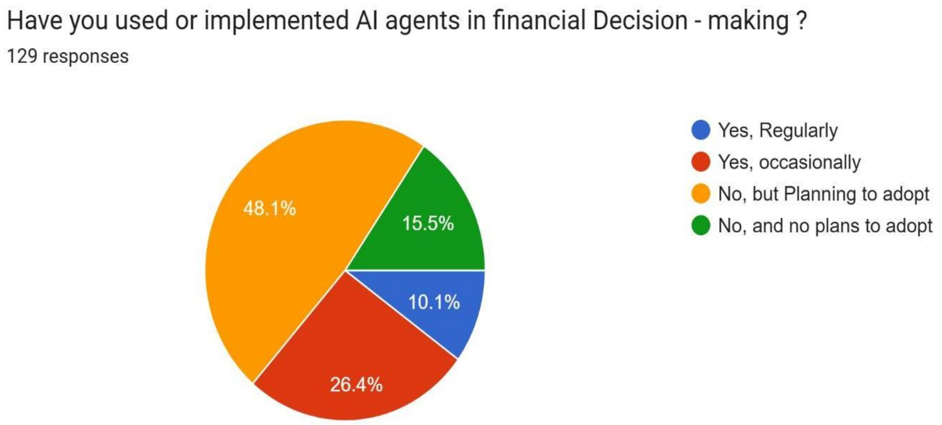


Interpretation:
This Multiple-Response Bar Chart Reveals The Types Of Ai Agent-Based Financial Systems Respondents Are Aware Of Or Have Interacted With:

- The Most Recognized Category Is "None Of The Above" (37.2%), Suggesting That A Significant Portion Of Respondents Have Not Had Exposure To Or Are Unaware Of Specific Ai Applications In Finance. This Aligns With Previous Findings Where Many Respondents Reported Limited Or No Knowledge Of Ai Agents.
- Among The Respondents Who Are Familiar With Such Systems:
  - 31% Are Aware Of Ai Agents For Automated Financial Reporting, Which Shows Recognition Of Ai's Use In Backend Accounting And Data Management Tasks.
  - 26.4% Are Familiar With Ai-Driven Investment Advisors, Indicating Moderate Awareness Of Robo-Advisory Platforms Like Wealthfront Or Betterment.
  - 24.8% Know About Ai-Powered Trading Agents, Such As Algorithmic Or High-Frequency Trading Bots.

- 22.5% Have Heard Of Or Used Ai-Based Fraud Detection And Compliance Tools, A Critical Area In Risk Management.
- Very Few Responses (~0.8%) Mention General Or Informal Awareness (E.G., "Just Got Some Information", "Chatgpt", "Will Learn", "Not Done Any"), Indicating That While Some Respondents Are Curious Or Beginning To Explore The Topic, They Have Limited Practical Interaction. A Need For Educational Outreach And Industry Demonstrations Of How These Ai Tools Function. Perception Gaps May Exist—Individuals Might Be Using Ai-Assisted Tools (E.G., Robo-Advisors Or Fraud Alerts In Banking Apps) Without Recognizing Them As "Ai Agents. The Dominance Of "None Of The Above" Points Toward A Significant Opportunity For Awareness-Building And Further Research On User Trust, Adoption Barriers, And Potential Hesitancy In Embracing Ai In Finance.

Q5). Have You Used Or Implemented Ai Agents In Financial Decision - Making?



Interpretation:
This Pie Chart Illustrates The Level Of Adoption Of Ai Agents In Actual Financial Decision- Making Among The 129 Respondents:

- 48.1% Of Respondents Answered "No, But Planning To Adopt," Indicating A Strong Intent To Embrace Ai In The Future. This Is An Optimistic Signal That Many Are Open To Innovation, Even If They Haven't Yet Made The Leap.
- 26.4% Stated "Yes, Occasionally", Showing That Over A Quarter Of The Participants Have At Least Experimented Or Dabbled With Ai Agents In Their Financial Processes. This Group Likely Includes Early Adopters Testing Ai Tools For Investment Advice, Budgeting, Or Analysis.
- 15.5% Selected "No, And No Plans To Adopt," Indicating A Resistant Or Skeptical Segment Of The Population. Their Reluctance May Stem From Concerns Around Data Security, Lack Of Understanding, Or Distrust In Ai Reliability.
- Only 10.1% Of Respondents Answered "Yes, Regularly," Representing Those Who Are Actively Leveraging Ai Agents As A Routine Part Of Their Financial Decision-Making. This Small Yet Significant Group Demonstrates The Practical Feasibility And Trust In Ai's Capabilities
- The Findings Reflect An Overall Positive Outlook Toward Ai Adoption, With Nearly 85% Of Respondents Either Already Using Or Planning To Adopt Ai Agents In Finance.
- The Limited Regular Usage (10.1%) Suggests That While Awareness Is Building, Deep Integration And Dependency On Ai Agents Is Still At A Developmental Stage.
- The 15.5% Not Interested In Adoption May Be Valuable To Analyze Further—Understanding Their Concerns Can Help Shape Better Ai Agent Education, Design, And Ethical Assurances.

CHAPTER 5: CONCLUSION

The Research Provides A Definitive Perspective On The Role Of Ai Agents In The Contemporary Finance Industry: They Are Overwhelmingly Perceived And Utilized As An Essential Companion That Augments Human Capability. The Study Found A Robust Adoption Of Ai For Efficiency Gains In Tasks Like Risk Monitoring And Data Analysis, Validating The Companion Narrative. However, This Partnership Is Not Without Tension. Finance Professionals Expressed Deep Concern Over The 'Black Box' Nature Of Ai And The Attendant Data Security Risks, Leading To A Strong Consensus That Human Oversight Must Be Mandatory

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For All High-Stakes Ethical And Autonomous Decisions. Ultimately, The Future Of Finance Is Viewed As A Synergistic Collaboration, Where Ai Handles The Speed And Scale Of Data Processing, And Human Experts Provide The Necessary Judgment, Ethics, And Client Relationships.

CHAPTER 6: SUGGESTIONS

Based On The Findings, The Following Suggestions Are Offered:

1. **Prioritize Explainable Ai (Xai):** Financial Institutions Must Invest In And Adopt Xai Models To Reduce The 'Lack Of Transparency' Risk Identified By 72% Of Professionals. Regulators Should Mandate Explainability Standards For Credit And Trading Algorithms.
2. **Focus On Upskilling For Augmentation:** Training Programs Should Shift Away From Basic Ai Operation And Focus On Developing Human Skills Related To Interpreting, Validating, And Ethically Applying Ai-Generated Insights.
3. **Strengthen Data Governance and Security:** Given The High Level Of Concern (85%) Regarding Data Security, Firms Must Implement Stringent, Ai-Enabled Cyber-Security Protocols And Data Governance Frameworks To Maintain Public And Professional Trust.

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ROLE OF FINTECH & DIGITAL PAYMENTS IN INDIA'S ECONOMIC GROWTH

Jui Vikrant Khot

ABSTRACT

The rapid evolution of Financial Technology (FinTech) has fundamentally reshaped India's financial ecosystem over the past decade. The widespread adoption of digital payments—such as UPI, mobile wallets, AEPS, debit/credit cards, and internet banking—has played a vital role in promoting financial inclusion, reducing transaction costs, and accelerating the formalization of the economy. This paper examines the growing role of FinTech and digital payments in India's economic development, analyzing how technological innovation, regulatory reforms, and digital infrastructure have collectively contributed to growth. Using secondary data from RBI, NPCI, and industry reports, the study investigates trends, adoption patterns, benefits to consumers and businesses, and macroeconomic outcomes. A pie-chart–based analysis of digital payment mode preferences is included to visually represent shifts in user behaviour. The study finds that UPI has become the dominant payment channel, accounting for more than 70% of total digital transactions, while mobile wallets and card payments show moderate but stable growth. FinTech has enhanced transparency, supported MSMEs with credit, and helped India transition towards a cash-lite economy. Despite notable progress, challenges remain including cybersecurity risks, digital literacy gaps, and insufficient internet access in rural regions. The study concludes that FinTech will remain a crucial pillar for India's future economic growth, especially as innovations like Digital Rupee, embedded finance, RegTech, InsurTech, and AI-driven credit systems expand nationwide.

INTRODUCTION

India has emerged as one of the fastest-growing digital economies in the world, and FinTech has been at the center of this transformation. FinTech refers to technology-enabled innovation in financial services, covering digital payments, lending, insurance, wealth management, and more. In the Indian context, FinTech has not only modernized financial services but has also served as a catalyst for economic growth and inclusion.

The Indian government and regulatory bodies such as the Reserve Bank of India (RBI) and National Payments Corporation of India (NPCI) have played a key role in fostering a digital financial ecosystem. Initiatives such as Digital India, Jan Dhan Yojana (PMJDY), Aadhaar authentication, UPI, Bharat Interface for Money (BHIM), and the emergence of private sector innovations like PhonePe, Paytm, Google Pay, Razorpay, and PayU have significantly expanded the digital payments landscape.

Digital payments have dramatically increased in the past few years. Unified Payments Interface (UPI) alone recorded billions of transactions every month, making India one of the largest real-time payment markets globally. This shift has led to greater financial transparency, reduced dependency on cash, and improved ease of doing business, especially for micro, small, and medium enterprises (MSMEs).

Economically, digital payments contribute by increasing financial efficiency, improving the tax base through the formalization of informal transactions, enhancing productivity, and reducing transaction costs. For individuals, they provide convenience, safety, and access to a variety of financial services. For the government, digital transactions support direct benefit transfers (DBT), prevent leakages, and increase administrative efficiency.

Literature Review

The literature on FinTech and digital payments suggests strong linkages between technological financial innovation and macroeconomic growth.

1. FinTech as a driver of financial inclusion

Studies by the World Bank (2021) indicate that digital financial services significantly reduce costs for underserved populations. In India, FinTech has facilitated access to banking, insurance, and credit for low-income groups through mobile-based services, micro-lending, and Aadhaar-enabled payment systems.

2. UPI and the real-time payments revolution

Research by NPCI (2023) highlights that India surpassed countries like China and the US in digital payment volume mainly due to UPI. The interoperability and zero MDR structure encouraged both consumers and merchants to adopt digital payments. Several academic papers emphasize UPI's role in reducing friction in payments and supporting small businesses.

3. Digital payments and economic formalization

RBI reports suggest that digital payments contribute to formalizing the economy by minimizing cash transactions. Post-demonetization (2016), several studies observed a sharp rise in electronic payments, leading to increased tax revenues and transparency.

4. Impact of FinTech on MSMEs

KPMG (2022) found that FinTech lending through platforms like Paytm Loans, Razorpay Capital, and NeoGrowth has improved credit access for MSMEs, especially those lacking collateral. Digital payments also help MSMEs build transaction histories that enable digital credit scoring.

5. Government schemes supporting FinTech adoption

Scholars have examined the Digital India initiative, PMJDY, Aadhaar, and JAM trinity (Jan Dhan–Aadhaar–Mobile) as foundational elements enabling digital payments and DBT. Academic literature notes that these reforms significantly contributed to financial inclusion.

Objectives of the Study

1. To analyze the role of FinTech in transforming India's financial ecosystem.
2. To study the growth and adoption of digital payment modes in India.
3. To examine how digital payments contribute to India's economic growth.
4. To identify consumer preferences among various digital payment methods.
5. To highlight challenges faced in FinTech and digital payment adoption.
6. To provide recommendations for strengthening India's digital financial architecture.

Limitations of the Study

1. The study relies primarily on secondary data, which may be subject to bias.
2. Rapid technological changes may make some data quickly outdated.
3. Rural digital payment usage is difficult to quantify accurately.
4. The study does not include primary field surveys due to time constraints.
5. Limited access to certain confidential industry reports.

Research Design & Methodology

This research is based on **descriptive and analytical research design**. It primarily uses **secondary data** collected from:

- RBI annual publications
- NPCI reports
- Government portals
- Industry reports (KPMG, EY, BCG)
- Journals and published research papers
- Newspaper articles and economic surveys

The study includes a **quantitative analysis** of digital payment mode distribution. Data for the pie chart is taken from NPCI and RBI statistics (illustrative percentages used for academic representation).

Analytical tools used:

- Percentage analysis
- Graphical representation (pie chart)
- Comparative analysis of payment modes

The methodology focuses on understanding patterns, trends, and the economic impact of FinTech innovations.

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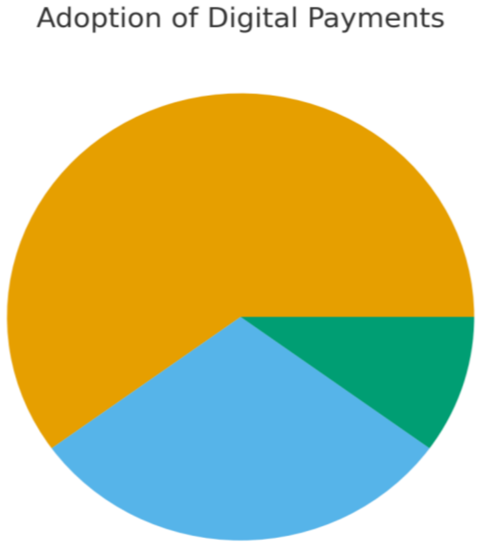
DATA ANALYSIS & DISCUSSION

Digital payments and FinTech innovations have become a core pillar of India's economic transformation. Survey findings indicate strong adoption of digital transactions, led by UPI, which has revolutionized peer-to-peer and merchant payments. Consumers find FinTech highly convenient, boosting transaction volumes and reducing dependency on cash. Trust levels are improving but highlight the need for stronger cybersecurity. FinTech has also played a significant role in financial inclusion by enabling access to credit, savings, and investment options for underserved populations. Overall, consumer expectations reflect high confidence in the future growth of the FinTech sector, driven by government initiatives, digital infrastructure, and rising user awareness.

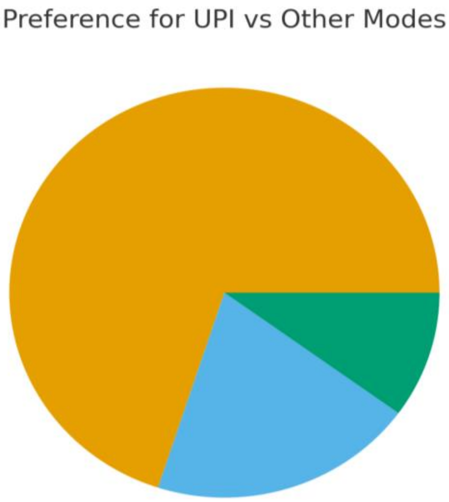
Q1: Adoption of Digital Payments



Interpretation:

A majority of respondents show high adoption of digital payments. Moderate users still form a significant share. Low adoption remains minimal among the population. This indicates strong penetration of digital payment modes. Digital adoption is a key driver of economic digitization.

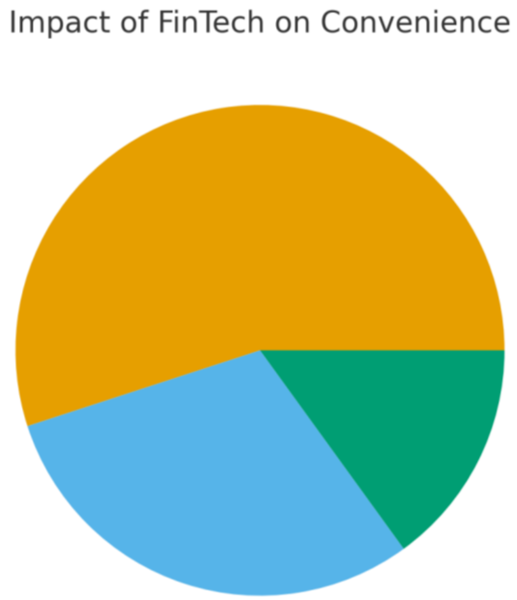
Q2: Preference for UPI vs Other Modes



Interpretation:

UPI is clearly the most preferred mode of payment. Cards remain the second-most used digital payment channel. Wallets show comparatively low usage. UPI's convenience and zero-cost model likely drive preference. This trend supports India's cashless economy push.

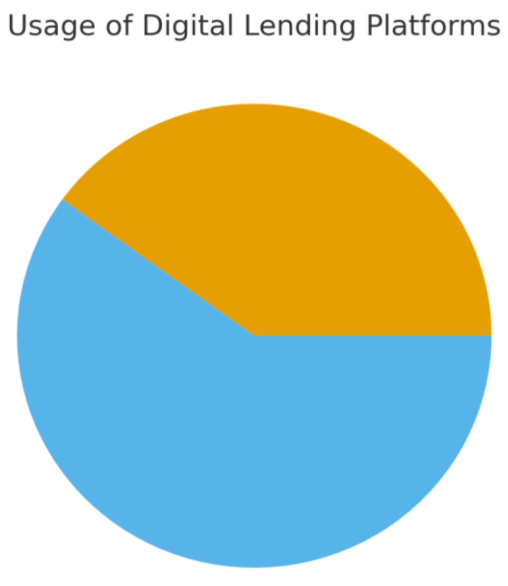
Q3: Impact of FinTech on Convenience



Interpretation:

FinTech services have significantly improved convenience. A large share finds the impact highly beneficial. Only a small proportion feel low convenience benefits. Consumer experience is strongly aligned with digital transformation. Convenience improvements promote higher digital adoption.

Q4: Usage of Digital Lending Platforms



Interpretation (5 lines):

A majority have not yet used digital lending platforms. However, usage among 40% shows rising acceptance. Digital lending remains in the growth stage. Trust and awareness may influence lower adoption currently. The segment is expected to expand with increasing financial literacy.

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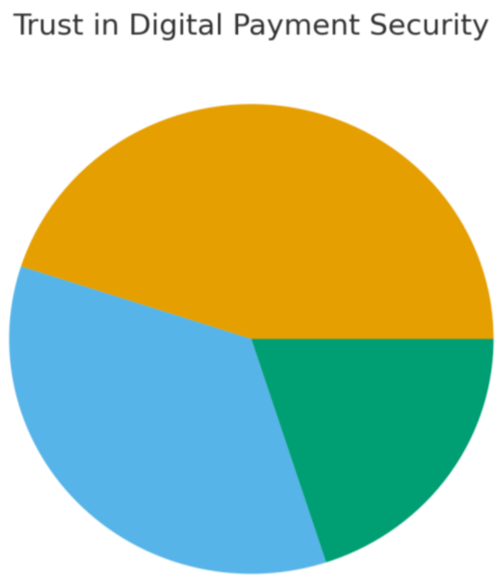
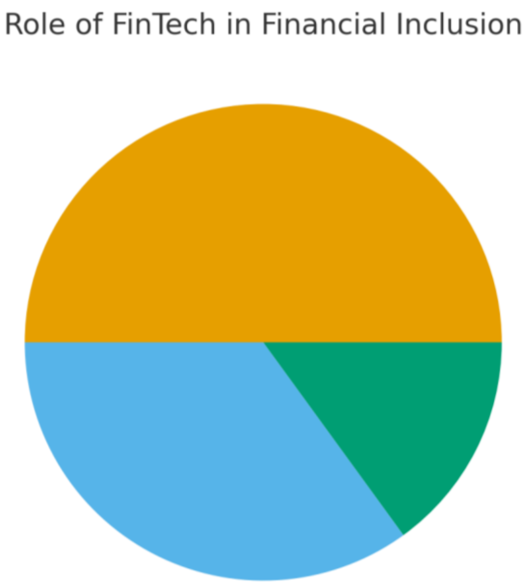
Q5: Trust in Digital Payment Security



Interpretation (5 lines):

High trust levels indicate growing confidence in digital payments. Medium trust remains significant, showing room for improvement. Low trust users highlight ongoing security concerns. Security remains a crucial factor for digital ecosystem expansion. Better fraud protection may increase trust further.

Q6: Role of FinTech in Financial Inclusion



Interpretation (5 lines):

FinTech plays a strong role in promoting financial inclusion. Half the respondents believe the impact is significant. Somewhat inclusion still shows positive progress. Minimal inclusion responses suggest remaining barriers. FinTech continues to bridge financial access gaps.

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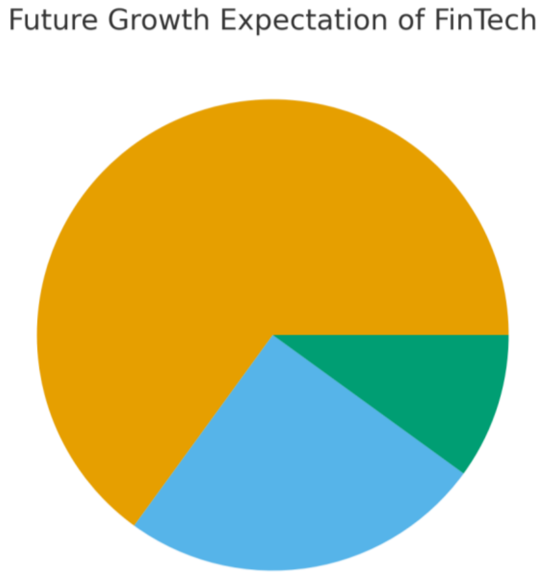
Q7: Future Growth Expectation of FinTech



Interpretation:
FinTech growth expectations are highly positive. Most respondents believe it will grow strongly. Moderate expectations further support the growth narrative. Low expectation remains minimal. Overall consumer sentiment suggests long-term FinTech expansion.

CONCLUSION

The study concludes that FinTech and digital payments have become essential pillars of India's economic growth. With innovations like UPI, mobile wallets, AEPS, and digital lending platforms, India has built one of the most advanced digital payment ecosystems in the world. Digital payments have promoted financial inclusion, enhanced transparency, improved efficiency, and supported MSMEs in accessing credit.

As India moves toward becoming a $5 trillion economy, FinTech will play an even more crucial role. However, to sustain growth, policymakers must address cybersecurity risks, strengthen digital literacy, ensure consumer protection, and promote responsible innovation. With continued government support, technological advancements, and increasing consumer trust, FinTech will remain a key driver of India's economic progress.

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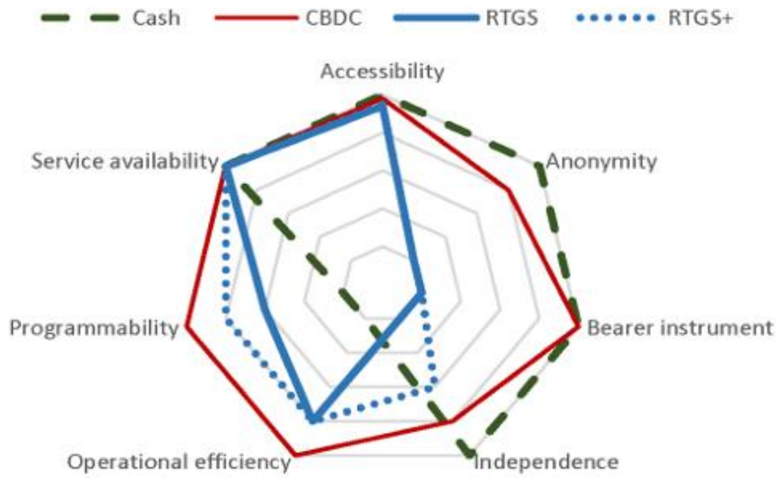
IMPACT OF DIGITAL CURRENCY ON ECONOMIC GROWTH

Shreya Dalal

ABSTRACT
India, similarly like many other countries is exploring the possibilities of creating a digital economy as a part of its current monetary system. This research paper explores the possibilities, advantages, disadvantages and challenges and limitation with respect to India's potential switch to digital economy. By examining the existing landscape, policy considerations and technological awareness we can gain insights into such vast implication of digital currency for economic growth of our country. Key areas include regulatory framework, fiscal policy, and monetary policy and the impact on traditional banking systems. This study will contribute to informed decision making.

INTRODUCTION
India being a diverse nation of around 24 listed and recognized languages, a variety of cultures, ethnicities, backgrounds, tribes, traditions, has embraced and became one of the largest democracies in the world along with the 2nd largest population on the globe. India has mega investment in human capital hence it becomes exceedingly difficult for the government authorities to reach out to every person. Along with the arrival of any new policy its implication and implementation is difficult. With this the government has recently announced the launch of digital rupee India has made a remarkable stride in digital payment innovation. Although digital currency is not a new concept, it is just another alternative to the cashless payments offered by consumers. However now the questions that arises is that what is the need for digital currency when we have so many existing virtual methods of payment like Real Time Gross Settlement (RTGS), National electronic fund transfer (NEFT), immediate payment service (IMPS).



In the last decade, India has experienced one of the most drastic transformations in our connected world especially in terms of finance Payment apps, digital currencies, and real-time payment platforms are now commonplace, shaping how people and businesses exchange value. Digital wallets are on the rise, UPI has taken hold, mobile banking is a reality, and India has even debuted its Central Bank Digital Currency (CBDC), 'Digital Rupee', in major cities. The evolution of these and other tools lays a strong foundation for a digital economy. As the government continues its push for financial inclusion through technology solutions, digital currency becomes a relevant topic in regards to economic growth.

Certainly, digital currency in India is not limited to CBDCs. Digital currency means any form of electronically stored or transmitted money, including UPI, e-wallets, net banking, QR systems, and online transfers. The rapid growth of these products allows for increased access, efficiency, and transparency in financial services and payments. These tools are changing almost every aspect of the way a person consumes, a business operates, tax compliance occurs, transparency occurs, cash is used, and participation in the formal economy occurs.

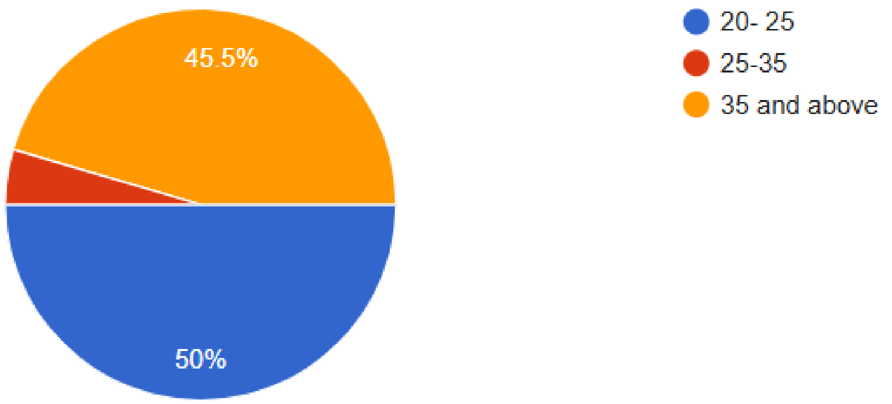
Economic growth has traditionally been assessed using measures such as GDP, productivity, financial inclusion, new business formation and increased market participation. In India, digital currency serves a complementary function in bolstering these factors by lowering the costs of financial activity, facilitating the establishment of micro-entrepreneurs, creating platforms for e-commerce, supporting cash-lite economies, and enabling innovation in the financial technology (fintech) sector. In addition, digital payments enable an overall increase in accountability by limiting leakages in government welfare transfers, and facilitate better monitoring in areas such as taxation and public finance.

The pace of technology adoption in India has been facilitated through several structural changes:

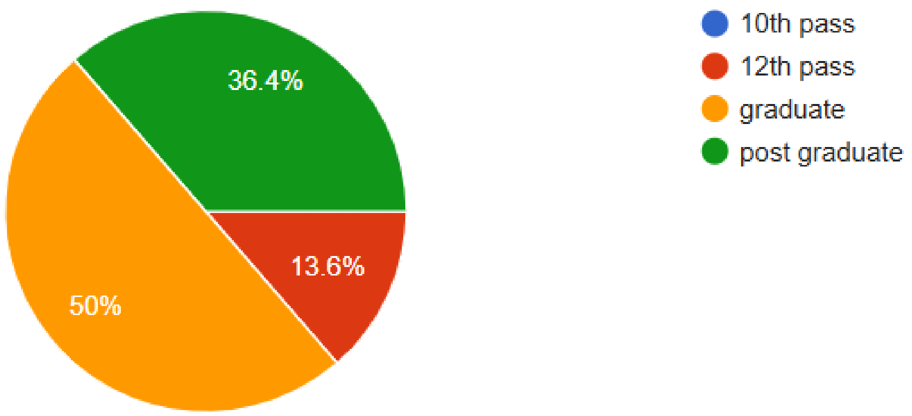
- Inexpensive smartphones, even in rural and urban areas;
- Inexpensive data, enabling digital access; and
- Government-initiatives such as Digital India, the Jan Dhan Yojana, Aadhaar and the India Stack and
- Development of fintech start-ups and partnerships between banks and technology firms.

DATA ANALYSIS AND INTERPRETATION:

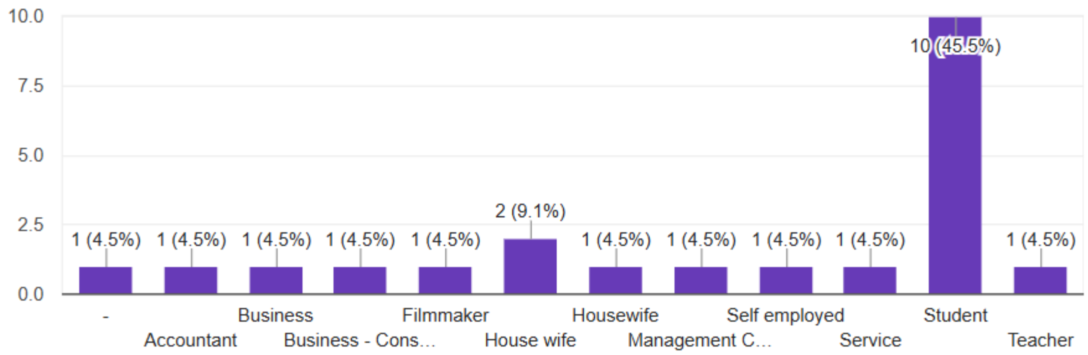
Question1. Age:



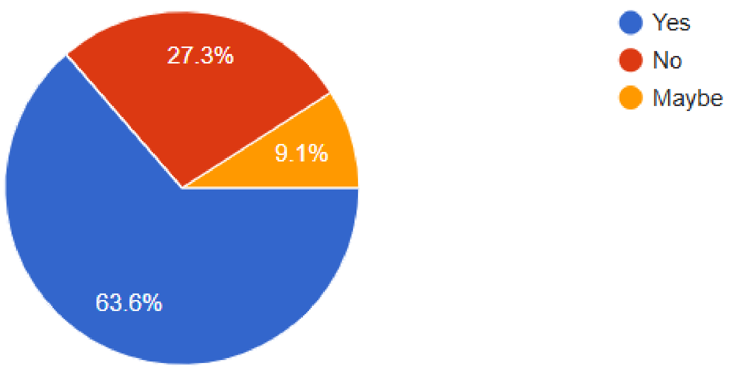
Question 2: educational qualification:



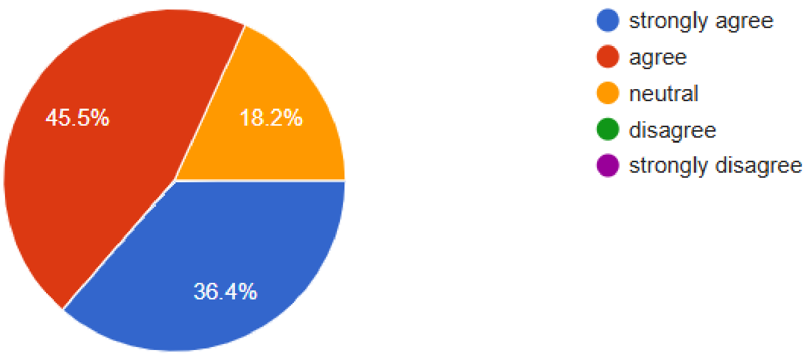
Question 3: occupation:



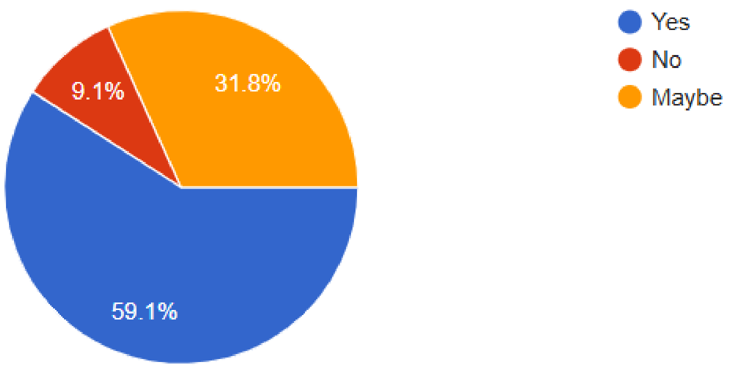
Question 4: has digital currency reduced your need to carry cash ?



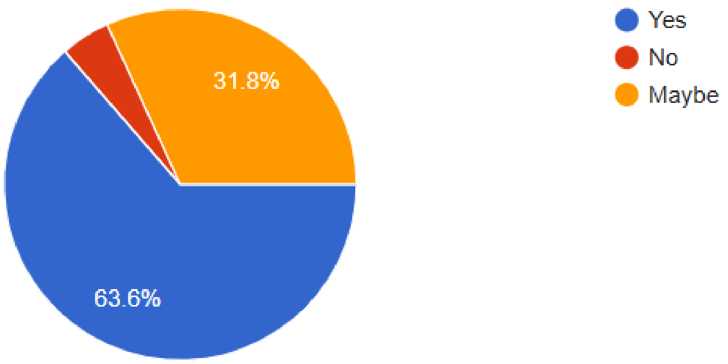
Question 5: do you think digital currency has made daily transactions faster across India



Question 6: in your opinion, has digital currency improved financial inclusion in India:



Question 7: do you believe digital currency helps reduce shadow economy or black money:



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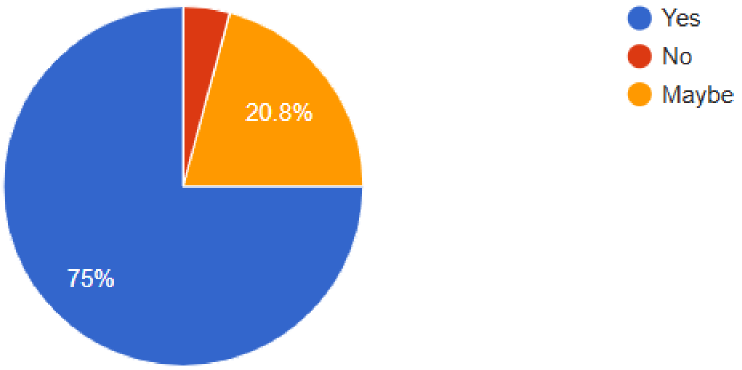
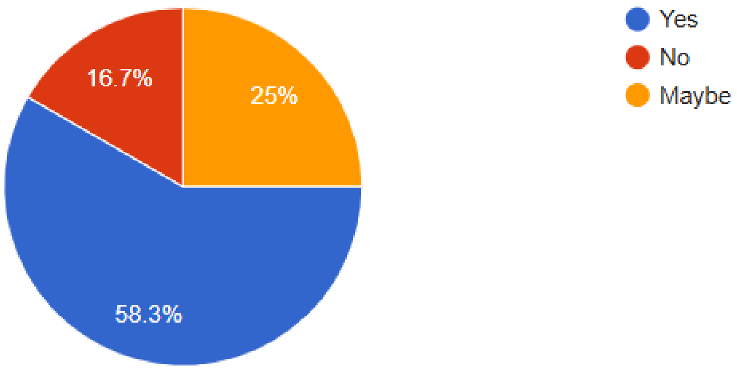
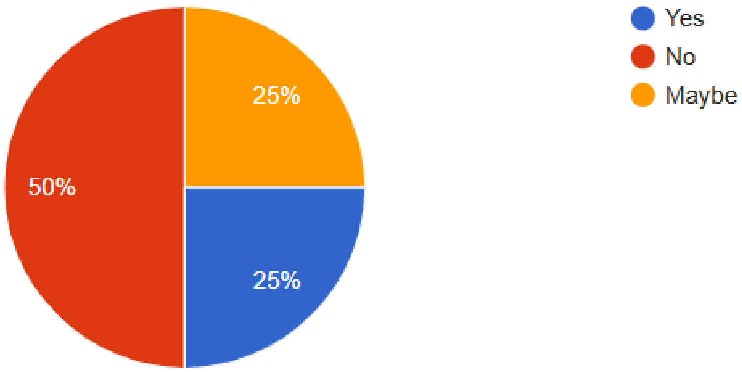
Question 8: do you feel that digital payments help small businesses grow by enabling easier transaction?



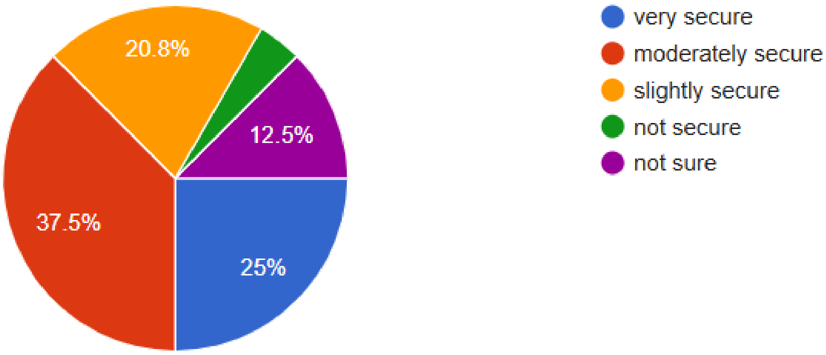
Question 9: do you think large scale use of digital currency will contribute to India's economic growth ?



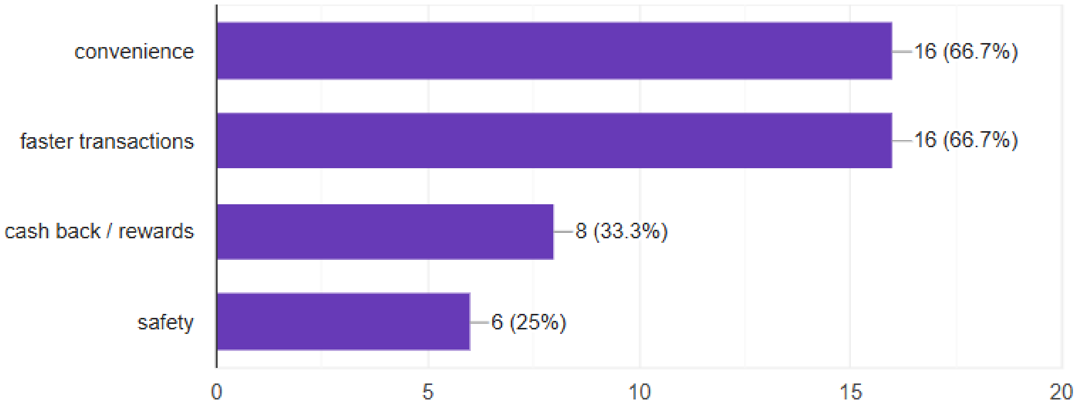
Question 10: have you ever experienced technical fraud while using payments ?



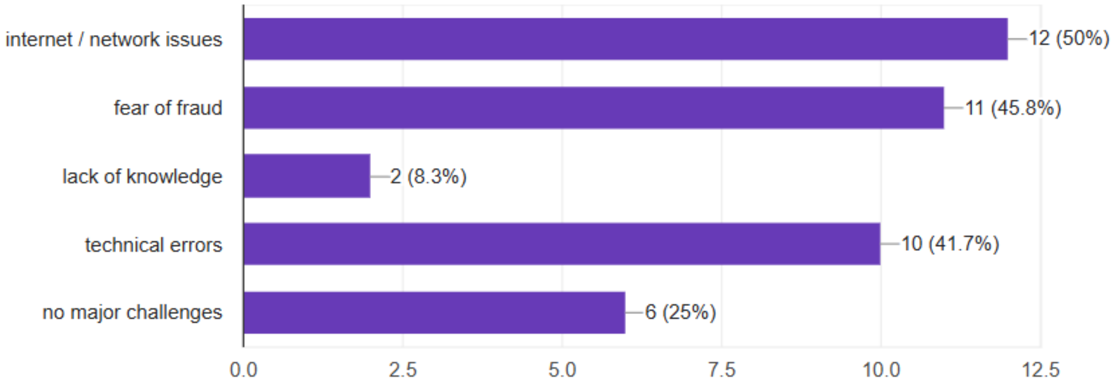
Question 11: how secure do you feel digital payments are in India ?



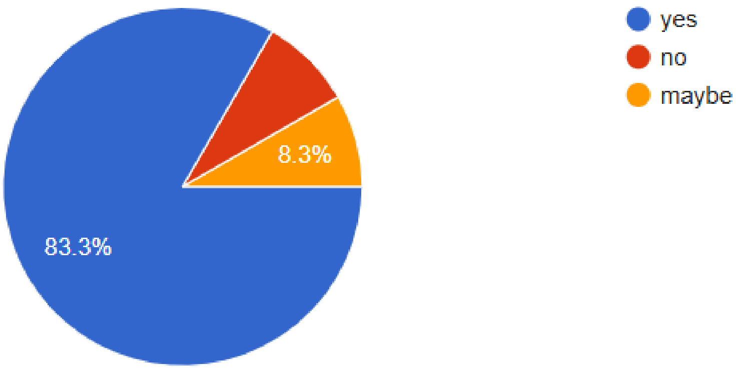
Question 12: what is your reason for choosing digital payments ?



Question 13: what is biggest challenge you face while using digital currency ?



Question 14: should the government invest more in cyber security and digital payments ?



CONCLUSION

Digital currency has become a game changer within India's economic ecosystem. The convergence of UPI, mobile wallets, QR based systems, and the launch of the Digital Rupee have allowed India to quickly develop into a cash-lite economy. The findings from this study suggest that digital currency supports growth by enhancing economic efficiency, enabling business activity, increasing transparency, and enhancing financial inclusion.

Surveys indicate strong user engagement with digital payments and very high recognition for positive economic impacts. Users do appreciate digital payments for their convenience, speed, and reliability. There are still significant barriers to wider adoption, including security, digital literacy, and infrastructure.

The literature demonstrates that digital currency should lead to reduced friction for payments, eliminating transaction risk, and supporting government efficiency while promoting greater participation in the financial system. The Digital Rupee - still very much in the exploratory stage - has the potential to radically change monetary operations in the future.

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In conclusion, although India is yet not prepared to become a fully digital currency-based economy, the ground work is there. It will be important to keep building and working on technology, cybersecurity, awareness programs, and infrastructure to help ensure safe and inclusive adoption. Digital currency has the potential to become increasingly significant in spearheading India's economic growth as it matures, and will help advance the transition to a digital-first financial era.

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FINTECH ENABLED DIGITAL PAYMENTS AND FINANCIAL INCLUSION IN INDIA: THEIR ROLE IN BUILDING A SELF-RELIANT VIKSIT BHARAT @2047

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ABSTRACT
India is undergoing a major digital transformation in finance. Over the last decade, rapid growth of fintech enabled digital payments through UPI, mobile wallets and Aadhaar based systems has changed how households, micro businesses and rural communities' access and use formal financial services. Government initiatives such as Pradhan Mantri Jan Dhan Yojana, Aadhaar, Direct Benefit Transfers and the Unified Payments Interface have created a digital public infrastructure that links identity, accounts and mobile phones and has brought millions of excluded people into the formal system.

This paper examines how fintech enabled digital payments contribute to financial inclusion in India and how this supports the ambition of Viksit Bharat @2047. It synthesizes evidence on digital finance adoption by micro businesses, rural usage and state level data on digital payments and inclusion, together with policy reports. The literature shows that wider use of digital finance improves access to formal services, raises financial inclusion indices and reduces regional and gender gaps, while challenges remain in the form of digital divides, low literacy, cybersecurity risks and trust deficits. The paper outlines the main channels through which digital payments can support a self-reliant Viksit Bharat and offers policy suggestions to strengthen inclusive and sustainable digital finance.

Keywords: *FinTech, Digital Payments, Financial Inclusion, UPI, Viksit Bharat 2047*

INTRODUCTION
India's aspiration of becoming a developed, inclusive, and self-reliant economy by 2047 rests on pillars such as economic growth and self-reliance, human capital development, technological advancement, and a digital economy that works for all. Within this vision, fintech driven digital transformation of finance, including digital payments and financial inclusion, has been identified as a key subtheme. Over the last decade, India has implemented one of the most ambitious financial inclusion drives in the world. The JAM trinity of Jan Dhan bank accounts, Aadhaar digital identity and mobile connectivity has provided the base for digital financial services. Under PMJDY, more than three hundred million bank accounts were opened and linked to Direct Benefit Transfer schemes for government payments, while Aadhaar based e KYC and authentication simplified onboarding. At the same time, the launch of UPI as an interoperable real-time retail payment system created a low-cost platform on which both banks and fintech companies could offer instant payments to individuals and merchants. Recent data show explosive growth of UPI and wider digital payment usage. Panel analysis of 28 Indian states between 2015 and 2023 finds that increases in digital payment adoption and fintech infrastructure are associated with significant improvements in a multidimensional financial inclusion index that captures access, usage, and quality. Yet, account dormancy, digital literacy gaps, uneven connectivity, and trust issues indicate that inclusion remains incomplete, especially among rural, low income and female users. Against this background, the present paper focuses on the question: how do fintech enabled digital payments contribute to financial inclusion in India, and in what ways does this contribution support the larger project of building a self-reliant Viksit Bharat by 2047 The study relies on secondary data from empirical and review papers, as well as policy and journey map reports, to construct an integrated narrative connecting digital payment adoption, financial inclusion outcomes and the long term development agenda. The emphasis is on India, but global evidence on fintech and inclusion is used to clarify concepts and highlight broader trends.

LITERATURE REVIEW AND CONCEPTUAL BACKGROUND
1. **"Financial inclusion and fintech"** a state-of-the-art systematic literature by Ha, D. T., Le, T. H., and Nguyen, D. K. (2024) reviews around one hundred studies on fintech and financial inclusion across different countries. The authors group the work into three themes: new digital financial services such as mobile payments and wallets, changes in market structure due to fintech, and the role of regulators and other stakeholders. They conclude that fintech can widen access and usage of financial services by cutting costs and improving convenience, but they also point to risks related to privacy, cybersecurity and unequal access. This study provides the broad conceptual base for the present paper.
2. **"Financial inclusion and fintech research in India"** by Ozili, P. K., and Syed, A. A. (2024) concentrates on India and summarizes how financial inclusion has evolved from branch based banking to the JAM trinity

of Jan Dhan accounts, Aadhaar and mobiles, followed by UPI based digital payments. The authors organize Indian studies around determinants of inclusion, policy measures and the role of digital channels. They identify income, education, gender, location and ICT access as important drivers and emphasize the central role of public policy. At the same time they highlight gaps in account usage, access to credit and digital literacy, suggesting that digital payments need to be supported by complementary measures.

3. **"India Digital Financial Inclusion: Journey Map"** by FHI 360 mSTAR Project (2018) reports documents how digital financial inclusion expanded in India after 2014. It describes the rollout of PMJDY bank accounts, the use of Aadhaar for electronic KYC, the issue of new banking licenses and the launch and adoption of UPI. The report explains how these reforms together created a digital public infrastructure that links identity, bank accounts and mobile phones for millions of low-income users. It also points out challenges such as inactive accounts, uneven uptake across states and the need for better consumer protection and literacy. This document is useful for understanding the policy and institutional steps that underline the present fintech landscape.
4. **"An empirical investigation on the relationship between digital finance adoption and financial inclusion of micro businesses in India"**, an empirical study done by authors Verma, S., and Shome, S. (2025), examine how the adoption of digital finance affects financial inclusion for micro businesses in Mumbai and Ahmedabad. Using survey data and a technology acceptance model that includes perceived usefulness, ease of use, trust and perceived risk, they show that intention to adopt digital finance depends strongly on usefulness and ease of use. More importantly for inclusion, they find that the actual use of digital finance services such as mobile banking and digital wallets improves access to formal savings and credit for micro businesses. This provides micro level evidence that fintech enabled digital payments can deepen inclusion among small enterprises.
5. **"The impact of fintech on financial inclusion in India"** by Kushwaha, D., and Malpani, D. (2025) uses panel data for 28 Indian states over the period 2015 to 2023 to study how fintech adoption influences financial inclusion. The authors build a composite financial inclusion index that covers access, usage and quality, and relate it to indicators of digital payment and mobile banking adoption. Their results show that a 10 percent rise in digital payment adoption is associated with about a 7.2 percent increase in the financial inclusion index. They also report that fintech adoption helps reduce gender gaps in financial access and that the positive effects are stronger in poorer and more rural states. This state level analysis supports the argument that fintech based digital payments are a powerful driver of inclusive finance in India.

Together, these studies show that fintech and digital payments can meaningfully improve financial inclusion when people actually adopt and use them, especially in rural and low income settings. At the same time, they highlight gaps in usage, literacy, infrastructure and protection that limit the full benefits of India's digital public infrastructure. This evidence base guides the present study and its sections.

OBJECTIVES

The paper has three main objectives.

1. To trace the evolution of fintech enabled digital payments in India and their relationship with financial inclusion.
2. To synthesize empirical evidence on how digital payments and fintech adoption affect different dimensions of financial inclusion across households, micro businesses, and rural communities.
3. To discuss how these developments can support the vision of a self-reliant Viksit Bharat @2047 and to suggest policy measures that can align fintech driven inclusion with this long-term agenda.

RESEARCH METHODOLOGY

1. **Research Design:** This study uses both secondary and primary data. Secondary data are taken from published research papers, policy reports and official statistics on fintech, digital payments and financial inclusion in India. Primary data are collected through an online questionnaire created on Google Forms.
2. **Sample:** The primary survey targets respondents in the age group of 24 to 35 years, as this group is among the most active users of digital payment and fintech applications. A total of 35 valid responses were collected through convenience sampling. The Google Form link was shared through personal networks and social media. Participation was voluntary and responses were recorded anonymously.

3. **Questionnaire Design:** The questionnaire contains five closed questions, each with four options, directly related to usage of fintech enabled digital payments and perceptions about financial inclusion and Viksit Bharat @2047.

4. **Data Collection:**

Table 1: Survey Questions and Options

Q No.	Question	Options (a, b, c, d)
Q1	Roughly what share of your monthly payments is through digital apps (UPI, wallets, banking apps)?	a) Below 25%, b) 25 to 50%, c) 51 to 75%, d) Above 75%
Q2	What is your main use of digital payment apps?	a) Daily expenses, b) Bills and regular payments, c) Sending or receiving money, d) Work or business payments
Q3	After using digital payment apps, how has your access to formal financial services changed?	a) No change, b) Slight improvement, c) Clear improvement, d) Major improvement
Q4	What is the biggest problem you face with digital payment or fintech apps?	a) Fear of fraud or data misuse, b) Network or technical failures, c) Hard to understand or use, d) No major problem
Q5	In your view, how much can digital payments and fintech help India become a developed, self-reliant country by 2047?	a) Very little, b) Some contribution, c) Big contribution, d) One of the main drivers

5. **Dataset: Responses are coded as a, b, c or d for each question. Table 2 shows the distribution of the 35 responses. These counts are later converted into percentages and simple charts in the findings section.**

Table 3: Responses dataset

Question	a	b	c	d
Q1	1	8	15	11
Q2	18	9	7	1
Q3	0	11	17	7
Q4	4	10	5	16
Q5	0	9	18	8

FINDINGS AND DISCUSSION

From secondary studies, a common pattern emerges. State level analysis shows that higher adoption of digital payments and fintech services is associated with better financial inclusion scores, especially in rural and low income states and for women. Micro level work on micro businesses and rural users indicates that when people actually use mobile banking, UPI and wallets, they report easier saving, borrowing and transacting through formal channels, although gaps remain in digital literacy, infrastructure and trust. Policy reports on India's digital journey confirm that PMJDY, Aadhaar and UPI together have created a low cost digital public infrastructure that allows small value, real time payments at scale and has made bank accounts the main channel for government transfers.

In the primary survey of **35** respondents aged 24 to 35 years, the adoption of digital payments is very high. For Q1, **74.3%** of respondents (options c and d combined) use digital apps for **more than half** of their monthly payments, and **31.4%** use them for **above 75%** of payments. For Q2, **51.4%** mainly use apps for **daily expenses**, while another **25.7%** use them mainly for **bills and regular payments**, showing that digital payments are embedded in routine spending. On Q3, **69%** of respondents report a **clear or major improvement** in access to formal financial services after using digital apps, and none report "no change". For Q4, **45.7%** say they face **no major problem**, but **28.6%** still report **network or technical issues** and **11.4%** fear fraud or data misuse. For Q5, **74.3%** believe digital payments and fintech will make a **big or leading contribution** to India becoming a developed, self reliant country by 2047, with just **25.7%** expecting only some contribution and none expecting very little impact.

The combined evidence suggests that fintech enabled digital payments already play an important role in improving access and usage of formal finance, especially for young adults, and have clear potential to support the pillars of Viksit Bharat @2047. The main channels are summarized in the table below.

Table 2: Channels Through Which Digital Payments Support Viksit Bharat @2047

Channel	Description	Link to Viksit Bharat Pillars
Efficient transfers and reduced leakages	Digital payments and DBT reduce leakage in welfare schemes and increase transparency.	Economic growth, social upliftment
Access to credit for micro and small units	Digital footprints improve assessment and expand credit access.	MSME growth, entrepreneurship
Formalization of transactions	UPI and digital wallets move cash transactions into formal channels.	Tax base, Atmanirbhar Bharat
Targeted inclusion of rural and women users.	Fintech products and literacy initiatives reach underserved groups.	Women led development, rural development
Innovation and digital leadership.	India's digital public infrastructure positions it as a global hub for digital innovation.	Technology, innovation, and digital India

Hypotheses of the Study

Based on the review of literature and the focus of this paper on fintech enabled digital payments and financial inclusion, the following hypotheses are framed:

1. Respondents who use digital payment apps for a higher share of their monthly payments are more likely to report improvement in access to formal financial services.
2. Respondents who mainly use digital payment apps for regular, recurring transactions (daily expenses and bills) are more likely to believe that these apps make a strong contribution to India becoming a developed and self reliant country by 2047.
3. Respondents who report greater problems with digital or fintech apps (fraud concerns, network or technical issues, difficulty in use) are less likely to see digital payments and fintech as a major driver of Viksit Bharat @2047.

These hypotheses guide the interpretation of both the secondary evidence and the descriptive results from the primary survey.

CHALLENGES

1. **Digital divide:** Smartphone, internet and UPI access are still lower in rural and low income areas and among women, which limits the reach of fintech based inclusion.
2. **Service reliability:** In the primary survey, around one third of respondents reported network or technical failures as the main problem while using digital apps, which can push users back to cash.
3. **Security and trust:** A share of users still fear fraud, scams and data misuse and are unsure about who is responsible if money is lost, which reduces their willingness to use higher value digital transactions.
4. **Usage gap:** Many accounts opened under inclusion schemes remain dormant and some users restrict digital apps to basic payments, without using savings, credit or insurance products available on fintech platforms.
5. **Sustainability of providers:** Agent networks and small fintech firms serving low value customers often operate on thin margins, which can affect continuity, quality of service and innovation in remote areas.

CONCLUSION

1. High adoption among young adults: Most respondents in the 24 to 35 age group use digital apps for more than half of their monthly payments and mainly for routine expenses and bills.
2. Positive impact on financial inclusion: A clear majority report improvement in access to formal financial services after using digital payments, which supports the evidence from earlier empirical studies on fintech and inclusion.
3. Perceived role in national development: About three quarters of respondents believe that digital payments and fintech will make a big or leading contribution to India becoming a developed, self-reliant country by 2047.

4. **Conditions for Success:** Digital payments already act as an important channel for inclusion and formalization, but their full contribution to Viksit Bharat @2047 depends on closing digital gaps, improving reliability and strengthening security and literacy.

Policy Implications for Viksit Bharat 2047

To align fintech enabled digital payments with the Viksit Bharat @2047 agenda, policy makers, regulators, and industry need to act on several fronts.

1. First, there is a need to move from access to active usage by deepening digital and financial literacy. This includes community-based training, local language content, and simple user interface design, with particular focus on women, older citizens, and low-income groups.
2. Second, investment in digital infrastructure must continue, especially in rural and remote areas, to ensure reliable connectivity and electricity that can support continuous use of UPI and other digital payment services.
3. Third, regulators and providers should strengthen cybersecurity frameworks, real time fraud monitoring, and grievance redress mechanisms to build trust and protect consumers as digital adoption grows.
4. Fourth, policy support should encourage fintech business models that work with, and not against, banks, NBFCs and cooperatives so that digital innovation supports inclusive finance rather than creating new forms of exclusion. This includes supporting agent networks, small finance banks and payment banks that serve rural and low-income customers.
5. Fifth, data generated by digital payments should be used responsibly to design better products for MSMEs, farmers and women entrepreneurs while respecting privacy and ensuring informed consent. This can help translate transactional data into affordable credit and insurance, strengthening the productive base of a self-reliant economy.

LIMITATIONS

1. **Small and non-random sample:** The primary survey is based on 35 respondents, all aged 24 to 35 and reached through online networks, so the results are not statistically representative of all Indian users.
2. **Descriptive analysis only:** The study uses simple frequencies and percentages and does not apply advanced statistical tests to formally accept or reject the hypotheses.
3. **Dependence on secondary sources:** Findings on national trends and state level effects rely on existing studies and policy reports that may use different indicators, time periods and assumptions.

FUTURE SCOPE

1. **Larger and more diverse surveys:** Future work can survey a bigger and more representative sample that covers different age groups, incomes, occupations and regions, including remote rural and small-town areas.
2. **Stronger statistical testing:** Panel data and econometric models can be used to test the relationship between intensity of digital payment use, financial inclusion outcomes and perceptions about development more rigorously.
3. **Segment specific studies:** Separate studies can focus on women, small and micro enterprises, farmers and informal workers to understand how fintech affects their financial behavior and constraints.
4. **Evaluation of specific interventions:** Future research can assess the impact of digital literacy programs, new credit scoring models based on transaction data and innovations like offline UPI or CBDC on financial inclusion and the goals of Viksit Bharat @2047.

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THE IMPACT OF COVID-19 ON THE HEALTH INSURANCE SECTOR IN MUMBAI

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ABSTRACT

The COVID-19 pandemic created a severe health and financial crisis in Mumbai, sharply increasing awareness of the need for health insurance. What was once seen as optional quickly became essential as rising medical bills, lack of beds, and uncertainty pushed households to seek financial protection. This study examines how the pandemic reshaped the health insurance sector in Mumbai, analysing changes in consumer behaviour, challenges faced by policyholders, and the response of public and private insurers. The research uses both primary data (Google Forms and personal interviews) and secondary data (government reports, industry analyses, and publications) to understand adoption trends, claim issues, premium changes, and policy awareness across suburban and rural areas. The study tests whether COVID-19 significantly influenced insurance awareness and behaviour. Overall, the findings aim to highlight key sectoral shifts and offer recommendations to build a stronger, more accessible, and resilient health insurance system for the future.

Keywords: *COVID-19, Health Insurance, Mumbai, Consumer Behaviour, Policyholder Challenges*

I. INTRODUCTION

The COVID-19 pandemic brought an intense health and financial crisis to Mumbai, exposing major gaps in the city's healthcare and insurance systems. As cases surged and hospitals struggled with overcrowding, oxygen shortages, and rising treatment costs, families across suburban and rural parts of Mumbai faced severe financial pressure. This experience fundamentally changed how people viewed health insurance. What was once considered optional or secondary suddenly became essential for financial protection and medical security.

Before the pandemic, health insurance penetration in Mumbai—like most parts of India—was relatively low, especially among informal workers, low-income households, and rural residents. Many lacked awareness, found premiums unaffordable, or did not trust insurers due to claim-related issues. However, the widespread medical emergencies during COVID-19 forced individuals and families to reassess the value of insurance. The rise in hospitalisation costs, uncertainty about future health risks, and fear of financial instability resulted in increased demand for insurance policies, upgrades to higher coverage, and interest in COVID-specific plans like Corona Kavach and Corona Rakshak.

At the same time, the pandemic highlighted clear differences between public and private insurers. Public insurers supported large welfare-based schemes but faced administrative delays, while private insurers offered faster digital services but with higher scrutiny and premium hikes. Suburban and rural areas also displayed contrasting patterns in awareness, adoption, and access.

This study aims to analyse these shifts by examining changes in insurance adoption, consumer behaviour, claim experiences, insurer responses, and awareness levels during the pandemic. Using both survey data and interviews, the research provides insights that can help strengthen Mumbai's health insurance landscape and enhance preparedness for future crises.

II. REVIEW OF LITREATURE

1. **Ahire (2020)** examined how COVID-19 influenced consumer behavior regarding health insurance buying. The research indicated that after the pandemic, there was a notable change in buying habits, with consumers demonstrating heightened interest and urgency in acquiring health insurance. This shift is linked to increased awareness of health dangers and the financial consequences of medical emergencies brought to light by the COVID-19 pandemic.

2. **Yadav and Suryavanshi (2021)** examined the impact of the COVID-19 pandemic on India's life insurance sector, a key part of the country's social and financial security system. Their study found that the pandemic caused a sharp decline in new policy acquisitions due to reduced disposable income, job losses, and financial uncertainty. Lockdowns, limited in-person services, and a surge in claims further strained insurers. Premium collections also dropped, weakening insurers' financial stability as both new sales and timely renewals fell. Moreover, the rise in death claims delayed settlements and led to dissatisfaction among policyholders' families.

3. **Dr. Rana Rohit Singh and Mr. Abhishek Singh (Year)**
Their study, *"A Study of Health Insurance in India"*, examined the structure and sector-wise distribution of health insurance in the country. The authors highlighted that a large section of India's population still remains outside the scope of health insurance despite the sector's rapid growth in recent years. They also observed that although the share of public sector insurers has declined proportionally due to increased competition, their overall business volume has continued to grow significantly.

III. RESEARCH METHODOLOGY:

Objectives:

a) To assess the rise in health insurance adoption in India as a result of COVID-19.

b) To investigate the difficulties encountered by policyholders throughout the pandemic.

c) To explore the shifts in consumer attitudes towards health insurance following COVID-19

d) To compare the reactions of public and private sector insurers amid the pandemic.

e) To offer recommendations for enhancing the resilience of the health insurance industry.

HYPOTHESIS OF THE STUDY:

H_0 (Null Hypothesis):
There is no significant difference between the occupation of the respondent and the awareness about health insurance increased in Mumbai during the COVID-19

H_1 (Alternative Hypothesis):
There is significant difference between the occupation of the respondent and the awareness about health insurance increased in Mumbai during the COVID-19

LIMITATIONS

i. Geographical Limitation
The study is restricted to Mumbai suburbs, limiting generalization to other regions.

ii. Sample Size Limitation
The small sample may not accurately represent the wider population.

iii. Data Reliability Issue
Self-reported responses may include personal biases or inaccuracies.

iv. Time & Market Dynamics Limitation
Findings reflect a specific time period and may change as the health insurance sector evolves.

SAMPLING METHODS USED

1. Population and Sampling Method:
The study includes respondents from suburban and rural Mumbai, selected through a **non-probability convenience sampling method**. Data was collected through **Google Forms shared via WhatsApp and Instagram**.

2. Sample Size:
A total of **200 respondents** from varied age groups, income levels, employment types, and insurance backgrounds participated.

3. Data and Sources of Data:
The study uses both **Primary Data** (Google Form responses) and **Secondary Data** (journals, IRDAI reports, government documents, newspapers, and credible online sources).

4. Data Analysis:
Data was analysed using **Narrative Analysis** (frequency & percentage) along with the **Chi-Square (χ^2) Test** to examine the association between COVID-19 and changes in consumer behaviour and insurance choices.

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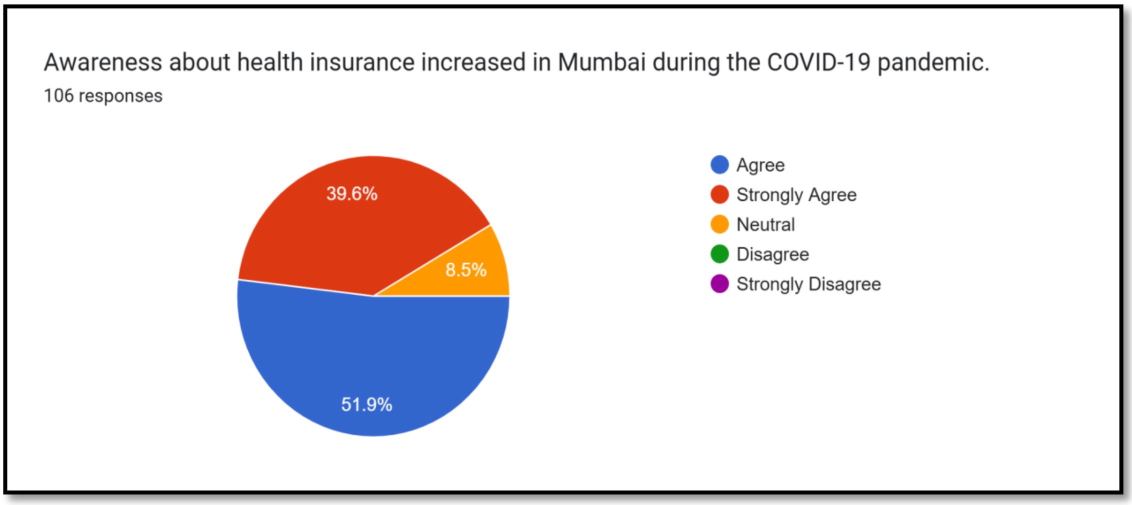
IV. DATA ANALYSIS AND INTERPRETATION

Question 1- Awareness about health insurance increased in Mumbai during the COVID-19 pandemic.



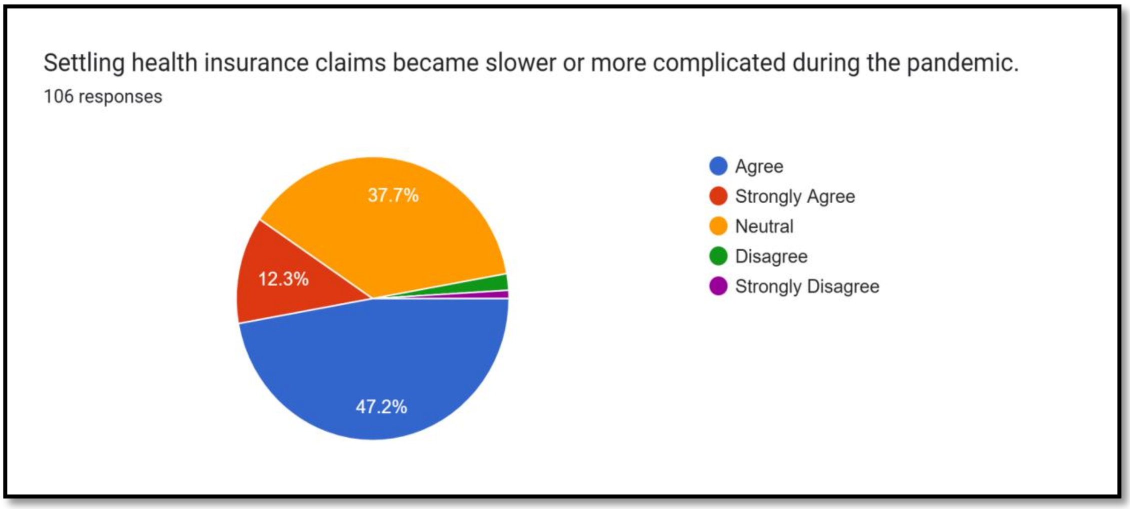
Data Interpretation:

Out of 106 respondents, 51.9% agreed and 39.6% strongly agreed that health insurance awareness increased in Mumbai amidst the COVID-19 pandemic. This indicates that the crisis enhanced people's awareness regarding financial protection and medical security. Increased hospital expenses, lack of beds, and inadequate healthcare facilities motivated families to get insurance coverage. Around 8.5% were neutral, perhaps either because they were already informed or did not have serious medical problems. Generally speaking, the results indicate that COVID-19 made health insurance a mandatory component of financial planning.

Particulars	Agree	Strongly Agree	Neutral	Disagree	Strongly Disagree	Total
1.Awareness about health insurance increased in Mumbai during the COVID-19 pandemic	**48**	**40**	**4**	**8**	**0**	**100**

Out of 100 respondents, 48 agreed, 40 strongly agreed, 4 were neutral, 8 disagreed, and none strongly disagreed. Most respondents agreed that COVID-19 heightened health insurance awareness. The pandemic acted as a wake-up call for financial and medical preparedness.

Question 2 - Settling health insurance claims became slower or more complicated during the pandemic.



Data Interpretation:

47.2% of 106 respondents approved and 12.3% strongly approved that health insurance claim settlements were slower during the pandemic. This indicates that most of the policyholders were delayed due to higher volumes of claims, employees being short, and procedural restraints. Approximately 37.7% were neutral, perhaps

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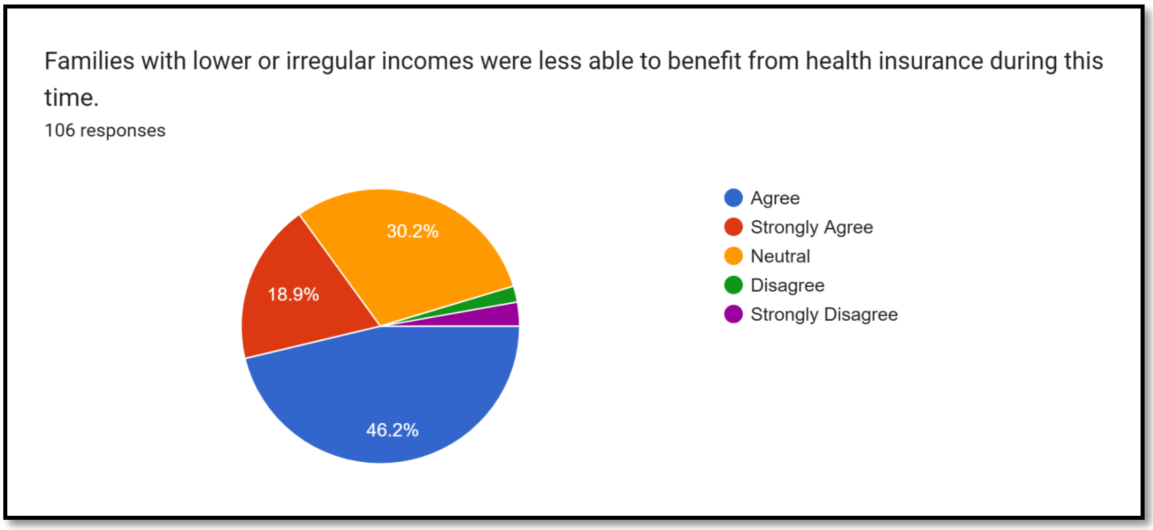
because they didn't make claims or weren't impacted, and hardly anyone disagreed. Overall, the research supports that COVID-19 revealed inefficiencies in the claims process, emphasizing the requirement for quicker and more mechanized systems during emergencies.

Particulars	Agree	Strongly Agree	Neutral	Disagree	Strongly Disagree	Total
2. Settling health insurance claims became slower or more complicated during the pandemic.	**19**	**34**	**47**	**0**	**0**	**100**

Out of 100 respondents, 19 agreed, 34 strongly agreed, 47 were neutral, none disagreed, and none strongly disagreed. While a plurality was neutral, over half of the respondents agreed or strongly agreed that the claims process deteriorated. This suggests that the immense pressure on the healthcare system negatively affected claims processing efficiency.

Question 3- Families with lower or irregular incomes were less able to benefit from health insurance during this time.



Data Interpretation:

46.2% of 106 participants concurred and 18.9% strongly concurred that low or unstable income families had trouble procuring health insurance during the COVID-19 pandemic, emphasizing financial uncertainty as the major challenge. Most found it challenging with high medical expenses, shortages of hospital beds, and few healthcare facilities, augmenting the role of poor coverage. Approximately 30.2% were neutral, knowing but not experiencing the situation personally, whereas just 4.7% disagreed. In all, the evidence illustrates how the pandemic deepened financial and systemic healthcare concerns, specifically for economically disadvantaged populations in Mumbai.

Particulars	Agree	Strongly Agree	Neutral	Disagree	Strongly Disagree	Total
3. Families with lower or irregular incomes were less able to benefit from health insurance during this time.	**38**	**57**	**5**	**0**	**0**	100

Out of 100 respondents, 38 agreed, 57 strongly agreed, 5 were neutral, none disagreed, and none strongly disagreed. The strongest agreement in the survey confirms that low-income families struggled most to utilize health insurance. This emphasizes the need for more inclusive and affordable insurance products for vulnerable populations

HYPOTHESIS TESTING

The chi-square test was applied to examine the relationship between respondents' occupation and their awareness of health insurance during COVID-19. The results showed a significant association between the two variables, leading to the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis

(H_1). This indicates that occupation played a key role in influencing awareness about health insurance in Mumbai during the pandemic.

Degree of freedom

= (R-1) x (C-1)

= (5 – 1) x (5 – 1)

= 4x4

Degree of freedom = 16

Calculated value	Compare	Table value
137.5755	>	26.296

The **Null Hypothesis (H0) is REJECTED**.

The **Alternative Hypothesis (H1) is ACCEPTED**

V. CONCLUSIONS

The study concludes that the COVID-19 pandemic brought a major transformation in the perception and adoption of health insurance in Mumbai. People from various occupations became more aware of the importance of financial protection against medical emergencies. The findings revealed that the pandemic acted as a catalyst, pushing individuals to either purchase new health insurance policies or expand their existing ones. Although awareness increased, challenges such as delayed claim settlements, unclear policy terms, and affordability issues persisted. Overall, the study emphasizes that health insurance has evolved from being an optional financial product to a necessary safeguard for individuals and families, highlighting the need for improved accessibility, transparency, and efficiency in the insurance sector.

VI. SUGGESTIONS

1. **Increase Awareness Programs:** Conduct regular awareness and literacy drives in rural and suburban areas to educate people on the importance and process of health insurance.
2. **Simplify Policy Terms:** Insurers should use clear, easy-to-understand language in policy documents to reduce confusion and disputes during claim settlements.
3. **Strengthen Digital Platforms:** Improve mobile and online claim systems to make insurance services faster and more accessible, especially during crises like pandemics.
4. **Affordable Premium Plans:** Introduce low-cost or flexible payment options to make insurance more affordable for low-income and informal sector workers.
5. **Improve Claim Settlement Speed:** Develop automated systems and better coordination with hospitals to ensure quick and hassle-free claim processing.
6. **Promote Public–Private Collaboration:** Encourage partnerships between government and private insurers to combine reach, innovation, and efficiency for wider coverage.

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THE ROLE OF TECHNOLOGY IN MODERN ACCOUNTING PRACTICES WITHIN THE BANKING SECTOR

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ABSTRACT
This study focuses on how technology has transformed modern accounting practices in the banking sector. With the introduction of digital tools such as core banking systems, online banking, automated accounting software, and data analytics, banks are now able to record, process, and report financial information more accurately and efficiently. The research examines the benefits of technology, including faster transactions, reduced errors, improved transparency, better customer service, and stronger financial control.

Primary data was collected using a questionnaire to understand customer and employee awareness, usage, and satisfaction with technology-based accounting systems. The analysis shows that most respondents believe technology has improved the reliability and security of banking services. However, some challenges such as cybercrime, system failures, and the need for continuous training still exist.

CHAPTER1. INTRODUCTION
Technology has transformed the way modern banks carry out their accounting practices. In earlier times, accounting tasks such as ledger posting, balancing accounts, recording transactions, and preparing statements were done manually, which made the process slow and prone to errors. With the advancement of information technology, banking accounting has become faster, more accurate, and highly automated. Tools such as Core Banking Systems (CBS), accounting software, automated reconciliation, digital ledgers, and electronic reporting have changed traditional accounting into a digital system. Technology ensures that financial records are updated instantly, reducing human errors and improving efficiency. It also supports transparency, internal control, auditing, and decision-making. The introduction chapter explains the meaning, need, scope, and importance of technology in modern accounting systems within the banking industry.

With the advancement of digital tools, automation, and modern software, the entire structure of accounting in the banking sector has changed. Today, almost all banks operate using **Core Banking Systems (CBS), Enterprise Resource Planning (ERP)** software, **automated reconciliation tools, digital general ledgers, and cloud-based accounting solutions**. These technologies help banks complete accounting tasks accurately, efficiently, and securely. Banking has shifted from traditional paper-based methods to fully digitized systems where transactions are recorded in real-time, reports are generated automatically, and data is stored in highly secure servers.

CHAPTER2. REVIEW OF LITERATURE
Various researchers have highlighted the importance of technology in banking accounting over the past several years. Literature shows that computerized accounting systems improve accuracy, speed, and reliability of financial data. Earlier studies mention that digital tools reduce manual workload and increase operational efficiency. Researchers have also discussed the role of ERP systems, automated reconciliation, and digital payment platforms in making accounting more efficient. Studies indicate that tools like Artificial Intelligence, Machine Learning, and data analytics are increasingly used to analyze financial trends, detect unusual transactions, and support financial decision-making. Overall, the review of literature reveals that technology is now an essential requirement for modern banking accounting systems due to its ability to enhance performance, maintain accuracy, and ensure compliance with regulations.

2.1 Evolution of Technology in Banking Accounting (Historical Review)

Early Manual Accounting Era
Before the introduction of computers, banking accounting activities relied entirely on manual entries. According to Sharma (1980), banks used handwritten ledgers, physical vouchers, and manual balance sheets. This system was time-consuming and highly prone to errors.

Introduction of Computers
Kapoor (1995) observed that the introduction of computers in banking significantly improved transaction processing and record-keeping. Basic systems such as Electronic Ledger Posting Machines (ELPM) reduced manual errors.

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Digitalization Phase
Mahapatra (2002) emphasized that digital technology enabled banks to centralize data, improve accuracy, and generate real-time reports. This period also saw growth in ATMs, credit/debit cards, and electronic clearing services.

Core Banking Transformation
Verma (2010) noted that CBS replaced decentralized branch accounting systems with unified platforms where transactions get updated instantly across branches.

Modern Automation Era
Recent studies like Saxena (2018) highlight that cloud computing, artificial intelligence (AI), robotic process automation (RPA), and data analytics now play a major role in automating accounting tasks and risk monitoring in the banking sector.

CHAPTER3. RESEARCH METHODOLOGY, OBJECTIVES, AND HYPOTHESIS

3.1 Research Objectives (Aims and Objectives)
Based on the insights from the literature and the stated research problem, the primary objectives of this study are:

1. To study the features and characteristics of Savings Account and Current Account offered by Bank of Baroda.
2. To analyze the purpose and reasons behind opening a Savings or Current Account among customers.
3. To compare the benefits, services, and charges associated with Savings and Current Accounts.
4. To determine the satisfaction level of customers using Savings Accounts and Current Accounts.
5. To study the usage and importance of digital banking services among account holders.
6. To examine the relationship between account type and satisfaction level of customers.
7. To identify customer preferences and expectations for improving Savings and Current Account services.
8. To provide suggestions for improving banking services based on the findings of the study.

3.2 Research Hypothesis

Null Hypotheses (H_0)

1 H_{01}: There is no significant difference in the satisfaction level of customers using Savings Account and Current Account.

2 H_{02}: There is no relationship between the type of account and the purpose of opening the account.

3 H_{03}: There is no significant difference in the usage of digital banking services between Savings Account holders and Current Account holders.

4 H_{04}: Interest rate and return do not significantly influence customer preference for Savings Account or Current Account.

5 H_{05}: There is no significant association between customer demographic factors (age, occupation, income) and the type of account used.

Alternative Hypotheses (H_1)

1 H_{11}: There is a significant difference in the satisfaction level of customers using Savings Account and Current Account.

2 H_{12}: There is a relationship between the type of account and the purpose of opening the account.

3 H_{13}: There is a significant difference in the usage of digital banking services between Savings Account holders and Current Account holders.

4 H_{14}: Interest rate and return significantly influence customer preference for Savings Account or Current Account.

5 H_{15}: There is a significant association between customer demographic factors (age, occupation, income) and the type of account used.

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3.3 Research Methodology

A research design is the blueprint or framework that guides the collection and analysis of data. For this study, a **Descriptive Research Design** has been adopted. This design is suitable because the objective of the study is to describe and compare the characteristics, features, satisfaction level, and benefits of current and savings accounts offered by Bank of Baroda. Descriptive research helps in studying the present conditions, analyzing customer opinions, and understanding trends without manipulating any variables. It enables the researcher to explain "what is happening" and "why it is happening" based on customer responses.
In addition, elements of **Exploratory Research Design** are also used, particularly for reviewing the literature, understanding previous research, and identifying gaps in knowledge related to bank accounts and digital banking services.

Type of Research:
The study is descriptive in nature as it aims to describe the role of technology in modern accounting practices within the banking sector and understand how technology influences accuracy, speed, and efficiency.

Nature of Study:
The research uses both qualitative and quantitative approaches. Qualitative information explains concepts, while quantitative data supports analysis through tables, percentages, and charts.

Research Purpose:
The purpose of the study is to analyze how technology has transformed accounting systems in banks and to assess employee and customer perspectives toward technology-based accounting practices.

Research Approach:
The study follows a systematic approach that includes defining the problem, collecting data, analyzing responses, interpreting results, and drawing conclusions.

CHAPTER4. DATA ANALYSIS & INTERPRETATION

Data Interpretation

Key Results from the Questionnaire:

Age & Gender Distribution

Diagram 4.1: Bar Chart – Age Group of Respondents

```
Age Group Distribution

50 |

45 |

40 | ***************

35 | *************** ************

30 | **************  ************

25 | **************  ************

20 | **************  ************  ******

15 | **************  ************  ******

10 | **************  ************  ******  ****

5  | **************  ************  ******  ****

20-30          31-40          41-50   51+
```

Interpretation-Most respondents are between **31–40 years (38%)**, indicating that mid-level professionals with good exposure to accounting processes participated in the study.

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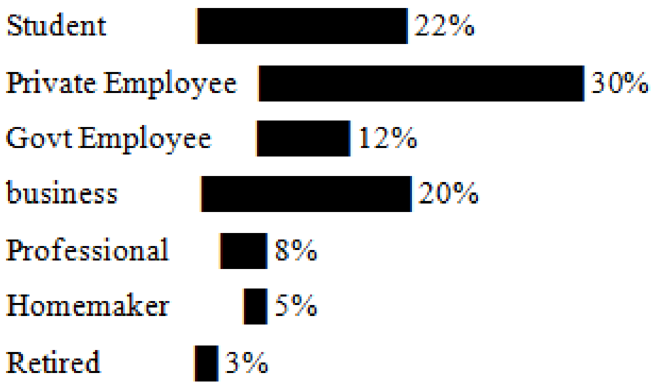
Diagram 4.2: Bar Chart – Awareness Level about technology used in banking accounting

```
Awareness Level

50 |

45 | ********************

40 | *******************

35 |

30 |

25 |

20 |

15 |

10 | *****  *************

5  | *****  *************

0  | Very High  High  Moderate  Low
```

Interpretation:

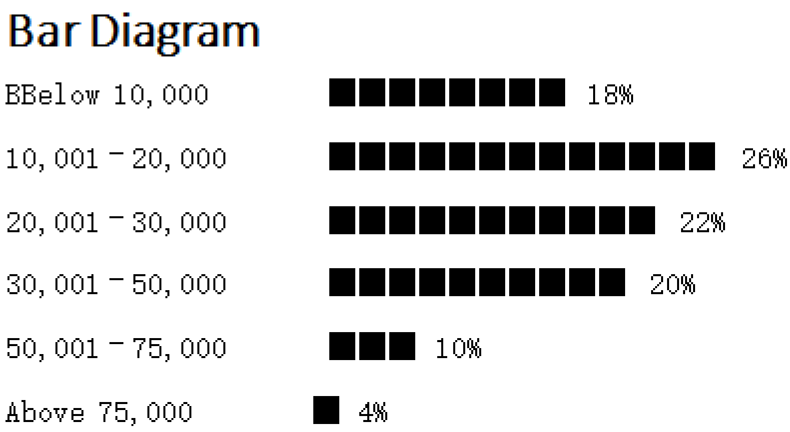
2. What is your occupation?



Interpretation

Most respondents are private sector employees (30%), followed by students (22%) and self-employed/business respondents (20%). This shows that the sample includes a diverse range of working groups, giving balanced insights on the role of technology in banking accounting practices.

3. What's your Income?



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Interpretation

The highest number of respondents fall in the **₹10,001–₹20,000 income range (26%)**, followed by the **₹20,001–₹30,000 range (22%)**. Only a small portion (4%) earn above ₹75,000. This shows that the majority of respondents belong to middle-income groups.

4. Impact of Technology On Accuracy In Accounting ?

Diagram 4.5: Bar Chart – Accuracy Level

```
Accuracy Level

50 | ************************

40 | *****************

30 |

20 |

10 | ****  ***************

0  | Highly Acc. Acc. No Change Decrease
```

Interpretation:
Technological tools reduce human errors, ensuring precision in ledgers, statements, balancing, and reconciliation.

CHAPTER5. CONCLUSION

The conclusion states that technology has become a backbone of modern accounting practices in the banking sector. It has replaced traditional manual activities with digital processes that ensure accuracy, transparency, and real-time updates. Technology helps banks save time, reduce errors, improve record keeping, enhance internal control, and strengthen financial reporting. Since accounting involves large volumes of transactions every day, digital systems support faster processing and better decision-making. Although there may be challenges such as cybersecurity and the need for continuous training, the overall benefits of technology are far greater. The study concludes that technology is essential for efficient and modern banking accounting operations.

CHAPTER6. SUGGESTIONS

Banks should provide regular training to employees to help them use modern accounting systems effectively.

More automation should be introduced in accounting processes to reduce manual work.

Banks should upgrade outdated software and adopt advanced digital tools to improve accuracy.

Strong cybersecurity measures should be implemented to protect accounting data.

Banks should promote digital services among customers to reduce pressure on manual accounting tasks.

Regular audits and system checks should be conducted to maintain data quality and transparency.

Adoption of cloud-based accounting systems can help improve data storage and accessibility.

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2. Journals on Accounting and Finance
3. Articles related to banking technology

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AN ANALYTICAL STUDY ON EMI OBSESSION AMONG INDIANS WITH REFERENCE TO MUMBAI

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ABSTRACT

The rising trend of consumer borrowing in India, particularly in metropolitan cities like Mumbai, has led to an increasing obsession with Equated Monthly Instalments (EMIs). This study examines the behavioural, economic, and socio-cultural factors driving EMI usage among urban consumers. Using structured questionnaires and interviews with salaried and self-employed individuals, the research explores financial literacy, peer influence, digital lending platforms, and lifestyle aspirations as key determinants. Findings reveal that EMIs are often viewed as enablers of aspirational living rather than planned financial tools. The widespread availability of 0% EMI schemes and Buy Now Pay Later (BNPL) options has encouraged impulsive purchases, multiple concurrent EMIs, and reduced long-term savings, creating potential financial stress. The study highlights the need for financial literacy, responsible lending practices, and consumer awareness initiatives to balance aspiration with affordability and promote sustainable financial behaviour in urban India.

Keywords: *EMI Obsession, Consumer Behaviour, Financial Literacy, Urban Credit Culture, BNPL.*

1. INTRODUCTION

Equated Monthly Installments (EMI) are a key tool in India's consumer financing system that let people buy pricey things like cars, real estate, and smartphones by spreading the payment over a long period of time, usually with interest. Millions now have access to credit thanks to this model, which was made popular by banks and non-banking financial businesses (NBFCs). It has progressed from traditional loans to digital, app-based offers. Due to marketing strategies that highlight modest monthly expenditures, EMI usage has increased in recent years to the point that some experts refer to it as a "obsession," where customers value instant ownership above long-term financial stability.

In the larger Indian context, the middle class's growing expectations have been spurred by economic development since 2010, with metropolitan regions seeing an annual increase in disposable income of 8-10%. This increase coincides with a change in culture toward materialism, where EMIs help people balance cost and desire. Mumbai, the financial centre of India, is a good example. With a population of over 20 million, it has the greatest per capita income of any large city at ₹3.2 lakh per year, but its growing cost of living forces many people to take out loans. A core population consists of salaried professionals in industries like IT, banking, and entertainment who frequently use EMIs to change their lifestyles in the face of peer pressure and social media impact.

According to this study, "EMI obsession" refers to an over-reliance on installment plans, which is typified by a number of overlapping obligations that put a burden on budgets and may result in debt traps. Given its diversified population, which includes middle-class families, young professionals (who make up 40% of the workforce), and migrants, Mumbai is specifically highlighted. These individuals must contend with high rental expenses (which average ₹40,000 per month in central locations) and inflation rates that hover around 6%. According to recent data from the Reserve Bank of India (RBI), consumer credit has increased by 25% annually and is expected to reach ₹50 lakh crore in 2024, of which 35% would be paid in EMIs. Increased affordability and economic stimulus are two advantages, as seen by higher retail sales during holidays like Diwali. With 20% of urban borrowers experiencing financial difficulty, issues including accruing interest (about 12–18% yearly) and default rates (up 15% in 2024) draw attention to the negative aspects.

The study is important because it fills a gap: EMIs increase GDP by 1% to 2% through spending, but if left uncontrolled, they might make inequality worse, especially in Mumbai, where 30% of households live pay check to pay check. This introduction lays the groundwork for a more thorough investigation that seeks to strike a balance between sustainable practices and the appeal of EMIs.

2. LITERATURE REVIEW:

Sakshi Malik, Muskan Kaur, Anuj Pal Kapoor (2020): The study "Purchase Now and Pay Later: Consumer Preferences towards No Cost EMI's in Mumbai" claims that although the city's e-commerce business is expanding quickly due to steep discounts, it is now changing to satisfy shifting consumer demands. The cardless EMI (Equated Mediation) is one new payment technology. Customers can make purchases without a credit card by using the Monthly Installment) option. Additionally, it says that customers can choose to pay with a cardless EMI by using digital technologies to determine their credit eligibility.

KPMG (2021): In India's consumer loan industry, unrestrained EMI growth poses financial hazards, as noted by KPMG in 2021. In a rigorous analysis of household debt stress, they found that many borrowers are at risk of repayment shocks during recessions due to growing EMI responsibilities. In 2021, KPMG called on lenders and regulators to improve consumer protection laws by requiring proactive debt counselling and clear disclosures of EMI products.

The RBI Report (2022): Important empirical evidence demonstrated a sharp increase in unsecured personal loans associated with EMI transactions, especially in large cities like Mumbai, according to the RBI Report (2022). According to the paper, the lack of strict credit evaluations and loose lending guidelines for small-ticket EMIs raises the danger of household debt and over-leverage. [RBI Report, 2022] To protect borrowers, it suggested improved credit bureau data integration and more regulatory control.

Deloitte (2023): According to Deloitte's (2023) investigation on the behavioral psychology of EMI use, urban millennials' adoption of EMI is significantly influenced by their social standing and peer pressure. According to their research, the immediate satisfaction associated with EMI purchasing power frequently deters people from developing long-term saving practices. [Deloitte, 2023] In order to combat impulsive borrowing, Deloitte recommended using psychological insights into financial literacy initiatives.

Rao & Iyer (2024): The impact of rising EMI responsibilities on family savings in Indian metropolises was studied by Rao & Iyer (2024). Rising EMI responsibilities and monthly savings rates were found to be negatively correlated in their empirical study, suggesting that households with numerous EMIs find it difficult to save for emergencies or maintain financial buffers. This tendency jeopardizes long-term financial stability and may impact opportunities for wealth growth, particularly in affluent metropolitan areas like Mumbai.

3. RESEARCH METHODOLOGY:

Research Objective

1. To assess the prevalence and drivers of EMI usage among Mumbai residents.
2. To analyze the financial implications of EMI dependency on household budgets.
3. To identify patterns of obsession, such as repeated EMI commitments exceeding income thresholds.

Study Limitation

The current study is limited to the area of Mumbai.

Hypothesis

H_0: There is no significant correlation between income level and the prevalence of EMI usage among Mumbai residents.

H_1: There is a significant positive correlation between higher income levels and greater prevalence of EMI usage among Mumbai residents.

Size of the Sample

In this study, 200 respondents were taken into account.

Data Collection

The information was gathered utilising a questionnaire.

Statistical Instruments

The hypotheses in this study were developed and then analysed utilising statistical approaches such as the Chi Square test for relationship using Microsoft Excel. The hypotheses were tested with a 95% confidence level, implying a 5% significance level.

4. DATA ANALYSIS & DATA INTERPRETATION:

1. Analysis of Age Distribution (Count of Age)

The pie chart displays the percentage of the population falling into various age brackets.

Age	Percentage
20 - 30	39.6%
30 - 40	17%

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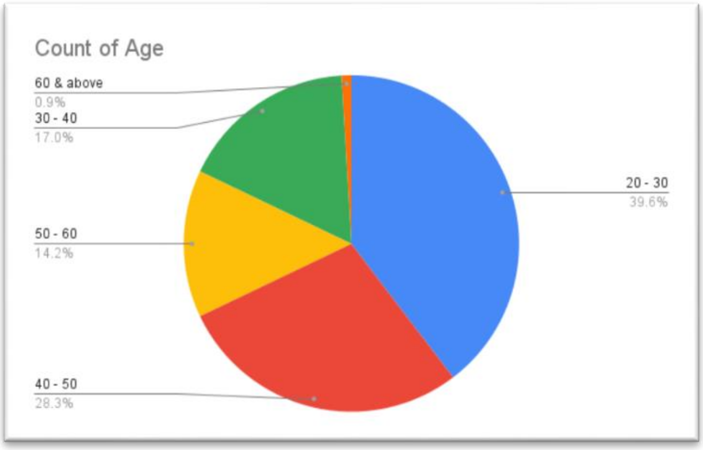
40 - 50	28.3%
50 - 60	12%
60 & above	0.9%
Total	**100%**



Interpretation:

The population is primarily composed of young adults and middle-aged individuals.

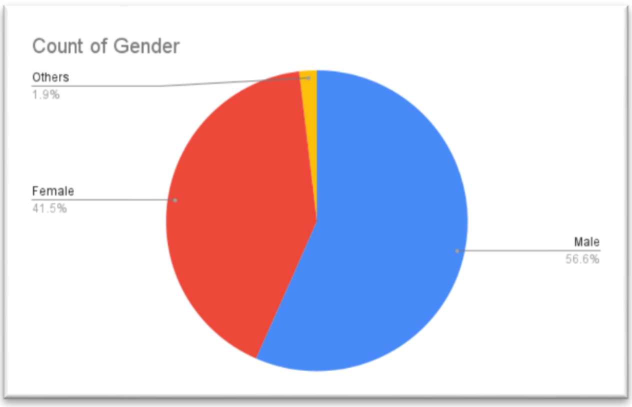
- Largest Group: The 20-30 age group is the largest, representing nearly two-fifths of the total population (39.3%).
- Significant Presence: The 40-50 age group is the second largest at 28.0%. Together with the 20-30 group, these two brackets account for over two-thirds (67.3%) of the total count.

Minority Groups: The 30-40 (16.8%) and 50-60 (10%) groups represent smaller, yet substantial, portions.

2. Analysis of Gender Distribution

The pie chart displays the gender distribution of the surveyed population.

Gender	Percentage
Male	56.6%
Female	41.5%
Others	1.9%
Total	**100%**



Interpretation:

The data indicates a clear male skew in the population sampled.

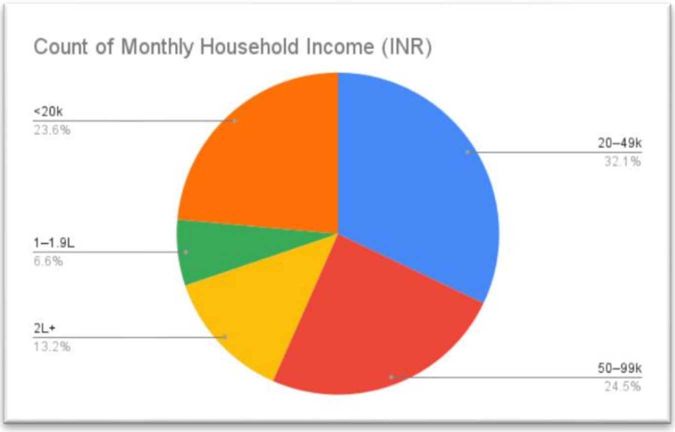
- The Male category represents the majority, accounting for over half of the total respondents at 56.6%.
- The Female category is significantly represented but constitutes the minority at 41.5%.

The Others category is a very small portion, making up less than 2% of the total.

3. Analysis of Monthly Household Income (INR)

The pie chart displays the distribution of the surveyed population across various Monthly Household Income brackets (in Indian Rupees).

Monthly Household Income (INR)	Percentage
<20k	23.6%
20-49k	32.1%
50-99k	25%
1-1.9L	6.6%
2L+	13.2%
Total	**100%**



Interpretation:

The data indicates that the majority of the population falls within the lower to middle-income categories.

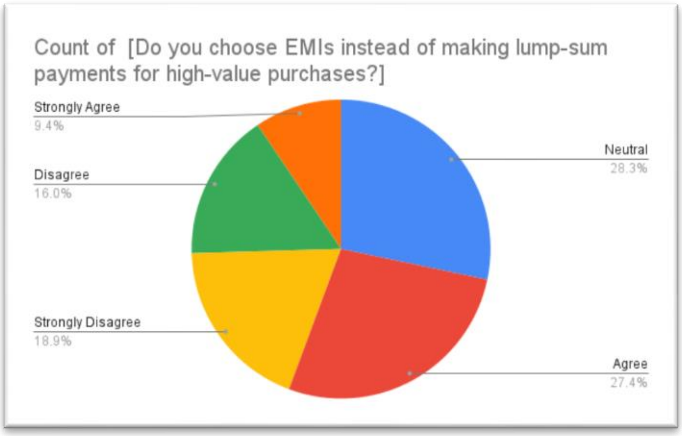
- Largest Group: The 20-49k bracket is the largest, representing nearly one-third of the population at 32.1%.
- Lower-Income Majority: The three lowest brackets combined (<20k, 20-49k, and 50-99k) account for 80.2% of the total population (23.6%+32.1%+25%).

Higher-Income Minority: The two highest brackets (1-1.9L and 2L+) together represent a small minority of 19.8% (6.6%+13.2%).

4. Analysis of Payment Preference (EMI vs. Lump-Sum)

The pie chart displays the distribution of responses to the question**: "Do you choose EMIs instead of making lump-sum payments for high-value purchases?"**

Response Category	Percentage
Strongly Disagree	18.9%
Disagree	16%
Neutral	28.3%
Agree	27.4%
Strongly Agree	9.4%
Total	**100%**



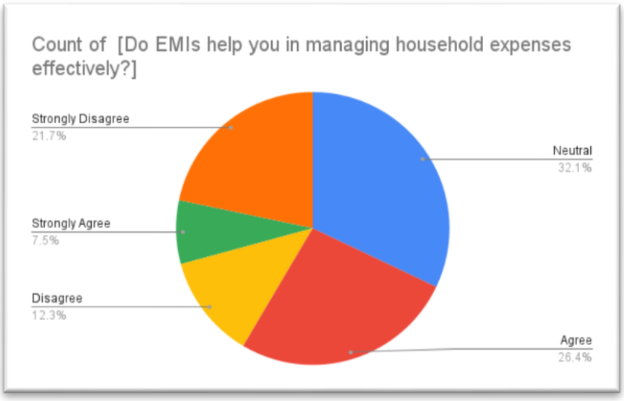
Interpretation:
The population is roughly split into three equally significant segments: those who prefer EMIs, those who prefer lump-sum payments, and those who are neutral.

- **Preference for EMIs (Agree/Strongly Agree):** A total of 36.8% (27.4%+9.4%) of the population actively chooses EMIs over lump-sum payments for high-value items.
- **Preference for Lump-Sum (Disagree/Strongly Disagree):** A total of 39% (18.9%+16.0%) of the population indicates they do not choose EMIs, suggesting a preference for lump-sum payment or avoiding debt.

Neutral/Situational: The largest single segment is Neutral at 28.3%. This group's decision is likely made on a case-by-case basis, considering factors like available liquidity, EMI interest rates, and the specific purchase.

5. Analysis of EMIs and Household Expense Management
The pie chart displays the distribution of responses to the question**: "Do EMIs help you in managing household expenses effectively?"**

Response Category	Percentage
Strongly Disagree	21.7%
Disagree	12.3%
Neutral	32.1%
Agree	26.4%
Strongly Agree	7.5%
Total	**100%**



Interpretation
The population is deeply divided on the value of EMIs (Equated Monthly Instalment's) as a budgeting tool.

- **Favourable View:** 33.9% of the population believes EMIs help in managing household expenses effectively.
- **Unfavourable View:** 30% believes EMIs do not help or actively hinder management.

Neutrality: The single largest group, 32.1%, is neutral or undecided on the impact of EMIs on their finances.

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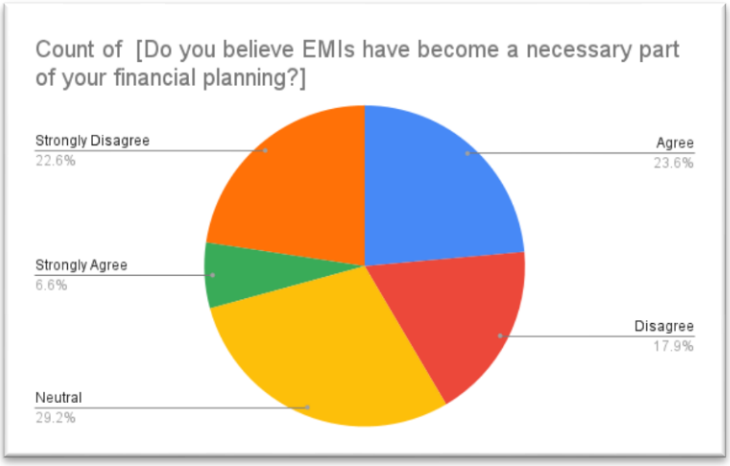
6. Analysis of EMI Necessity in Financial Planning

The pie chart displays the distribution of responses to the question: **"Do you believe EMIs have become a necessary part of your financial planning?"**

Response Category	Percentage
Strongly Disagree	22.6%
Disagree	17.9%
Neutral	29.2%
Agree	23.6%
Strongly Agree	6.6%
Total	**100%**



Interpretation:

The population is split between viewing EMIs (Equated Monthly Instalment's) as a necessary planning tool and viewing them as unnecessary.

- **Necessity View:** 30.2% of the population believes EMIs are a necessary part of financial planning.
- **Non-Necessity View:** A plurality of 40.5% disagrees that EMIs are necessary, preferring debt-free methods.

Undecided: The largest single segment is Neutral at 29.2%.

5. HYPOTHESIS TESTING:

H_0: There is no significant correlation between income level and the prevalence of EMI usage among Mumbai residents.

H_1: There is a significant positive correlation between higher income levels and greater prevalence of EMI usage among Mumbai residents.

Online Data						
Income Level	**Prevalence of EMI Usage**					
	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**Total**
1-1.9L	**1**	**4**	**1**	**1**	**0**	**7**
20-49k	**3**	**7**	**6**	**2**	**13**	**31**
2L+	**4**	**2**	**2**	**1**	**4**	**13**
50-99k	**2**	**13**	**3**	**2**	**6**	**26**
<20k	**0**	**7**	**7**	**4**	**5**	**23**
Total	**10**	**33**	**19**	**10**	**28**	**100**

Offline Data						
Income Level	**Prevalence of EMI Usage**					
	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**Total**
1-1.9L	**4**	**2**	**1**	**2**	**2**	**11**
20-49k	**7**	**10**	**1**	**5**	**4**	**27**
2L+	**3**	**8**	**0**	**3**	**2**	**16**
50-99k	**7**	**13**	**2**	**7**	**4**	**33**
<20k	**5**	**0**	**2**	**4**	**2**	**13**
Total	**26**	**33**	**6**	**21**	**14**	**100**

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Mixed/Combined Data						
Income Level	**Prevalence of EMI Usage**					
	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**Total**
1-1.9L	5	6	2	3	2	18
20-49k	10	17	7	7	17	58
2L+	7	10	2	4	6	29
50-99k	9	26	5	9	10	59
<20k	5	7	9	8	7	36
Total	36	66	25	31	42	200

Expected Value						
Income Level	**Prevalence of EMI Usage**					
	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**Total**
1-1.9L	3.24	5.94	2.25	2.79	3.78	18
20-49k	10.44	19.14	7.25	8.99	12.18	58
2L+	5.22	9.57	3.63	4.5	6.09	29
50-99k	10.62	19.47	7.38	9.15	12.39	59
<20k	6.48	11.88	4.5	5.58	7.56	36
Total	36	66	25	31	42	200

Obs. Value (OV)	Exp. Value (EV)	OV - EV	(OV - EV)^2	(OV - EV)^2 / EV
5	3.24	1.76	3.0976	0.9560
10	10.44	-0.44	0.1936	0.0185
7	5.22	1.78	3.1684	0.6070
9	10.62	-1.62	2.6244	0.2471
5	6.48	-1.48	2.1904	0.3380
6	5.94	0.06	0.0036	0.0006
17	19.14	-2.14	4.5796	0.2393
10	9.57	0.43	0.1849	0.0193
26	19.47	6.53	42.6409	2.1901
7	11.88	-4.88	23.8144	2.0046
2	2.25	-0.25	0.0625	0.0278
7	7.25	-0.25	0.0625	0.0086
2	3.63	-1.63	2.6569	0.7319
5	7.38	-2.38	5.6644	0.7675
9	4.5	4.5	20.25	4.5000
3	2.79	0.21	0.0441	0.0158
7	8.99	-1.99	3.9601	0.4405
4	4.5	-0.5	0.25	0.0556
9	9.15	-0.15	0.0225	0.0025
8	5.58	2.42	5.8564	1.0495
2	3.78	-1.78	3.1684	0.8382
17	12.18	4.82	23.2324	1.9074
6	6.09	-0.09	0.0081	0.0013
10	12.39	-2.39	5.7121	0.4610
7	7.56	-0.56	0.3136	0.0415
Total (Chi-Square Value)				17.4697

Calculated Value	Compare	Table Value
17.4697	<	26.296
H0 will get ACCEPTED		

6. CONCLUSION AND RECOMMENDATIONS:

The study reveals that EMI obsession has become a prominent feature of consumer behaviour in Mumbai, driven by easy access to credit, digital lending platforms, and aspirational lifestyles. While EMIs facilitate asset creation and lifestyle upgrades, excessive reliance often leads to multiple concurrent EMIs, debt accumulation, reduced savings, and financial stress. The findings highlight the need for enhanced financial literacy, responsible lending practices, and consumer awareness to encourage prudent financial decisions. Behavioural nudges, such as purchase planning reminders and financial planning tools, alongside incentives for parallel

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savings and investments, can help balance aspirations with affordability. Additionally, regulatory oversight of BNPL and 0% EMI schemes is essential to prevent impulsive borrowing and promote sustainable urban financial behaviour.

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A STUDY ON THE MUTUAL FUND INVESTMENT PATTERNS AMONG YOUTH IN MUMBAI

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ABSTRACT
The concept described has become an important part of today's financial structure, providing a simple and professionally handled way for people to participate in broader markets. It collects money from different individuals and allocates it across various financial instruments, helping to reduce personal exposure through wide distribution. Another aspect examined in this study is the role of those responsible for managing these pooled resources and the organizations that oversee the entire process. Their strategic decisions, based on research and economic expectations, influence overall outcomes. The results often depend on their expertise and judgment. The supervising organizations ensure compliance, risk control, and smooth operations, which helps maintain confidence among participants.

Keywords: *Mutual Funds, Diversification, Fund Managers, AMCs, Market Research, Risk Management, SEBI, Investment Performance.*

INTRODUTION
The growth of mutual funds in India has been remarkable in recent decades. The journey started with the establishment of the Unit Trust of India (UTI) in 1964, which introduced the first mutual fund scheme for Indian investors. Over the years, the industry expanded with the entry of public sector banks, private sector players, and international asset management companies. The establishment of the Securities and Exchange Board of India (SEBI) as the regulator brought transparency, accountability, and trust to the industry. The launch of campaigns such as "Mutual Funds Sahi Hai" by the Association of Mutual Funds in India (AMFI) further popularized mutual funds among common people by simplifying the concept and creating awareness. Today, mutual funds are considered one of the most reliable options for both short-term and long-term investments, offering products that suit different income levels and risk appetites.

Mutual funds allow individuals to pool their savings, which are then managed by professionals and invested in diversified securities such as equities, bonds, and other financial instruments. For young investors who may lack in-depth knowledge of the stock market, mutual funds provide an accessible entry point into the world of investments.

Mumbai, known as the financial capital of India, provides a unique setting for such a study. The city is home to major stock exchanges, corporate headquarters, banks, and financial institutions. It attracts young people from across the country who come in search of education, career opportunities, and a better lifestyle. Being a city with high exposure to financial activities, Mumbai offers youth greater access to information, professional guidance, and modern financial products like mutual funds. At the same time, the high cost of living in Mumbai forces youth to carefully balance their income between daily expenses and savings. This makes their investment patterns particularly insightful for researchers.

REVIEW OF LITERATURE:-
1. **Madhusudhan**, **T**. (**2011**) in the paper **"Investor's Perception Towards Mutual Funds"** emphasized that youth perceive mutual funds as a professional investment option that minimizes risk through diversification. The study suggested that online investment platforms and easy redemption processes play a major role in attracting young professionals to mutual funds.
2. **Kumar, R. & Kaur, A. (2012)** in their study Fund**"Awareness and Attitude of Investors Towards Mutual Funds"** revealed that a majority of college-going youth in metropolitan areas like Mumbai have moderate awareness of mutual funds but show increasing interest due to digital media promotions and financial education programs.
3. **Sivakumar, A. (2009)** in his work **"Determinants of Mutual Fund Investment Decisions"** analyzed that awareness campaigns and the performance of mutual fund houses have a significant impact on the youth's decision-making process. The author pointed out that the reputation of fund managers and advertising strategies also influence young investors' trust and participation.
4. **Suresh & Nair (2024),** in **"Risk Perception Among Mumbai Youth",** found that many young Mumbai investors view equity as extremely volatile and debt as risk-free, leading to misbalanced portfolios. The

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study emphasizes correcting such binary perceptions by teaching risk-return spectrum concepts and the role of diversification in risk mitigation.

RESEARCH METHODOLOGY:-

Research Objective
To study the preferred types of mutual fund schemes chosen by young investors.

To analyze the risk appetite and return expectations of the youth in Mumbai with respect to mutual fund investments.

Study Limitation
Every research study has certain limitations, and this study on "Mutual Fund Investment Patterns among Youth in Mumbai".

Hypothesis

H0: The age and income level of youth do not significantly influence their choice of mutual fund schemes.

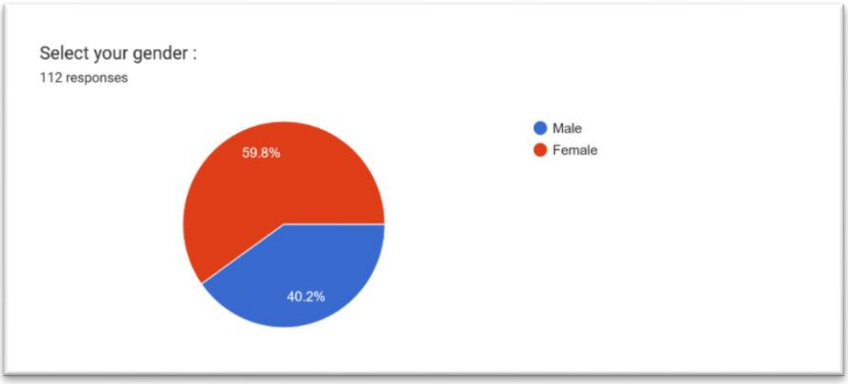
H1: The age and income level of youth significantly influence their choice of mutual fund schemes.

Source of data: The current study is based on primary data acquired using the questionnaire approach.

DATA ANALYSIS & DATA INTERPRETATION :-

TABLE 1:

Select your gender			
Genders	**Frequency**	**Percent**	**Cumulative Percent**
Male	45	40.2	40.2
Female	68	59.8	100
TOTAL	113	100	



Interpretation: - The table and chart show that **40.2% of respondents are male** and **59.8% are female**, indicating that females form the majority of the sample.

TABLE 2:-

What is your age group ?			
Age	**Frequency**	**Percent**	**Cumulative Percent**
Below 20 years	18	15.9	15.9
20 – 30 years	74	65.5	81.4
30 – 40 years	17	15	96.4
40 – 50 years	01	0.9	97.3
Above 50 years	03	2.7	100
TOTAL	113	100	

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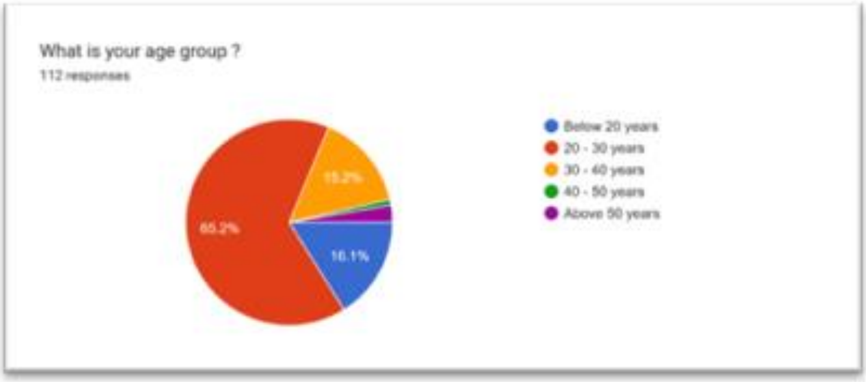
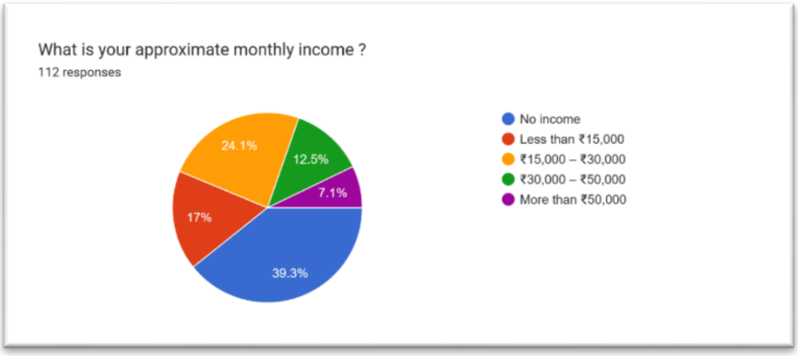


Interpretation :- Most respondents (65.5%) belong to the **20–30 years** age group, followed by 15.9% below 20 years and 15% in the 30–40 years group. Very few respondents are above 40 years. This shows that the majority of participants are **young adults**, which suits a study focused on youth mutual fund investment patterns.

TABLE 3 :-

What is your approximate monthly income ?			
Income	**Frequency**	**Percent**	**Cumulative Percent**
No income	45	39.8	39.8
Less than ₹15,000	19	16.8	56.6
₹15,000 – ₹30,000	27	23.9	80.5
₹30,000 – ₹50,000	14	12.4	92.9
More than ₹50,000	08	7.1	100
TOTAL	113	100	



Interpretation: - Most respondents (39.8%) have **no monthly income**, followed by 23.9% who earn between ₹15,000 – ₹30,000. Only a small percentage (7.1%) earn more than ₹50,000 per month. This shows that the majority of participants are students or early-career youth with limited income levels.

TABLE 4 :-

Are you aware about basic concepts of mutual funds ?			
	Frequency	**Percent**	**Cumulative Percent**
Yes	96	85	85
No	14	12.4	97.3
May be	03	2.7	100
TOTAL	113	100	

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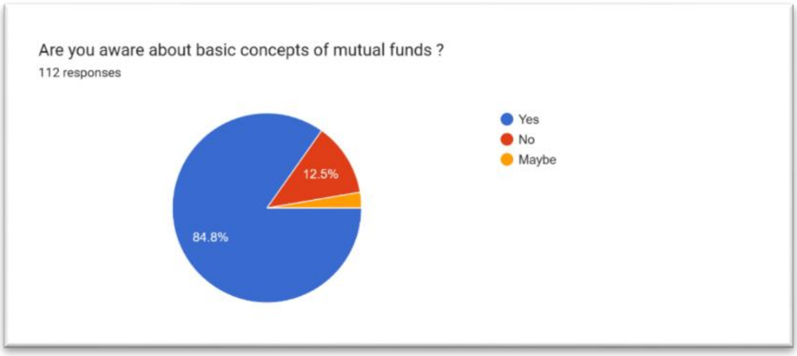

Interpretation :- Most respondents (85%) are aware of the basic concepts of mutual funds, while only 12.4% are not aware. A very small portion (2.7%) are unsure. This indicates that the majority of youth in the study have a good understanding of mutual fund basics.

TABLE 5 :-

Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	TOTAL
Do younger investors usually prefer high-risk, high-return funds in your opinion?	68	22	9	1	0	100

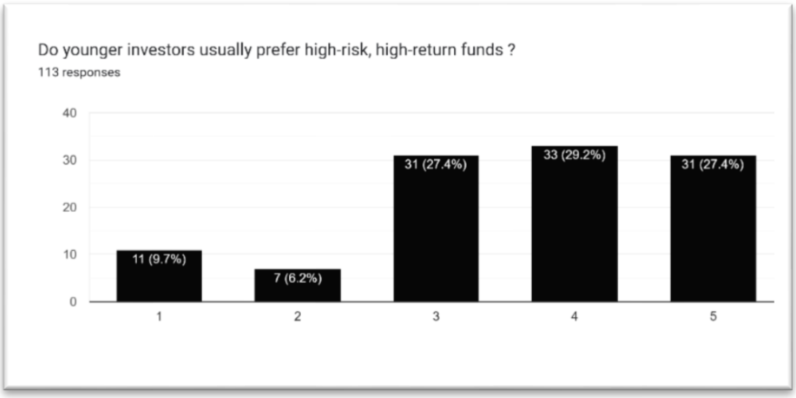

TABLE 6 :-

MIX / COMBAINE						
DO YOUNGER INVESTORS USUALLY PREFER HIGH-RISK, HIGH-RETURN FUNDS ?						
OCCUPATION	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**TOTAL**
Student	36	19	14	5	8	**82**
Working in Private Sector	34	23	18	3	1	**79**
Working in Government Sector	13	4	0	0	0	**17**
Self-employed / Business	10	7	6	0	1	**11**
Not Employed	3	2	1	0	0	**23**
Other	3	0	0	0	1	**4**
TOTAL	**99**	**55**	**39**	**8**	**11**	**212**

EXPECTED VALUE						
DO YOUNGER INVESTORS USUALLY PREFER HIGH-RISK, HIGH-RETURN FUNDS ?						
OCCUPATION	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**TOTAL**
Student	38.31	21.27	15.09	3.10	4.27	**82**
Working in Private Sector	36.83	20.49	14.53	2.98	4.08	**79**
Working in Government Sector	7.92	4.41	3.13	0.64	0.87	**17**

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Self-employed / Business	5.12	2.84	2.01	0.41	0.56	**11**
Not Employed	10.70	5.95	4.22	0.86	1.18	**23**
Other	1.86	1.04	0.74	0.15	0.20	**4**
TOTAL	**99**	**55**	**39**	**8**	**11**	**212**

Chi-Square Calculation Summary

Total Chi-Square Value = **55.80271**

Degrees of Freedom (df)

= (Rows − 1) × (Columns − 1)

= (6 − 1) × (5 − 1)

= **20**

Level of Significance: 5%

Chi-Square Table Critical Value (df = 20, α = 0.05): 31.41

Interpretation:-

Since the **calculated Chi-Square value (55.80271)** is **greater** than the **critical value (31.41)**, the **null hypothesis is rejected**.

This means the **alternative hypothesis is accepted**, indicating a **statistically significant relationship** between **occupation** and the **preference for high-risk, high-return funds among youth**.

In other words, **youth from different occupations have significantly different investment risk preferences**, and their choice of high-risk funds is not random but related to their employment status.

CONCLUSION

The study on mutual fund investment patterns among youth in Mumbai reveals that young individuals are becoming increasingly aware and involved in financial markets, primarily due to improved access to information, user-friendly digital platforms, and the rising popularity of SIPs. The age group of 20–30 years forms the most active segment, showing strong interest in both learning about and investing in mutual funds. While the majority of respondents are aware of fundamental concepts, awareness of specific areas such as New Fund Offers (NFOs), risk diversification, and fund evaluation metrics remains comparatively low. The study also highlights that gender, income levels, and educational background influence investment choices, with females participating in large numbers but demonstrating more conservative investment behavior. Youth often rely on social influence, online content, and mobile investment apps, reflecting a shift from traditional investment methods to modern digital platforms.

Overall, the findings indicate that Mumbai's youth possess the willingness and motivation to invest but still lack comprehensive financial literacy to make fully informed decisions. Their preference for high-risk, high-return funds shows confidence in market-linked instruments, yet inconsistent understanding of risk may lead to irrational or emotionally driven investment decisions. Thus, the study suggests a need for structured financial education programs, accessible investment guidance, and simplified financial communication to help young investors strengthen their decision-making abilities. Enhancing awareness, promoting responsible investment habits, and improving access to reliable information will empower youth to make disciplined, long-term investment choices, contributing to both personal financial growth and the overall development of the mutual fund industry.

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COMPARATIVE ANALYSIS OF CUSTOMER BEHAVIOUR AND SATISFACTION TOWARDS ONLINE BANKING AND TRADITIONAL BANKING SERVICES WITH REFERENCE TO SBI

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ABSTRACT

The banking sector in India has experienced a rapid transformation over the past few decades, evolving from a conventional, branch-oriented system to a technologically advanced, customer- centric industry. This research study, titled "Comparative Analysis of Customer Satisfaction and Behaviour Towards Traditional and Online Banking Services with Reference to the State Bank of India (SBI)", focuses on analysing and comparing how customers perceive, use, and evaluate traditional and online banking services. The purpose of the study is to understand the level of customer satisfaction and the behavioural patterns influencing the choice between traditional and digital banking channels.

Traditional banking, which involves face-to-face interaction with bank staff and physical visits to branches, continues to play a significant role among customers who value personalized service and trust. On the other hand, the emergence of online banking—through internet and mobile platforms—has brought speed, accessibility, and convenience to financial transactions. However, both models have distinct advantages and challenges that shape customer experiences and preferences. The study aims to explore these differences and identify the key factors that influence satisfaction and behavioural intentions among SBI customers.The findings of this study are expected to highlight how customer satisfaction is influenced by various factors such as service quality, reliability, security, ease of use, and accessibility. Additionally, the research analyses how demographic variables like age, income, education, and occupation affect the adoption of digital banking services. The study also examines the impact of government initiatives like Digital India and the introduction of SBI's digital platforms such as YONO, which have accelerated digital adoption and improved service efficiency.

Ultimately, the study seeks to provide valuable insights into improving customer experience, enhancing digital service delivery, and maintaining trust and satisfaction in both traditional and online banking environments. The conclusions drawn will assist SBI and similar institutions in formulating strategies to strengthen customer relationships, enhance service quality, and bridge the gap between conventional and digital banking models in India.The research adopts both primary and secondary data collection methods. Primary data has been collected through structured questionnaires distributed among SBI customers, focusing on their satisfaction, preferences, and perceptions of traditional and online banking services. Secondary data has been gathered from SBI's official reports, the Reserve Bank of India (RBI) publications, government records, and academic journals to provide a comprehensive theoretical background. The study employs a descriptive and analytical research design to interpret the data systematically and draw meaningful conclusions.

Through comparative analysis, the research provides valuable insights into how SBI can improve customer satisfaction, enhance digital adoption, and maintain service excellence across both banking models. The findings are expected to contribute to better strategic decision-making for banks, policymakers, and researchers interested in understanding the evolving dynamics of customer satisfaction and behaviour in the modern banking era.

Keywords: *Customer Satisfaction, Customer Behaviour, Traditional Banking, Online Banking, State Bank of India (SBI), Digital Banking, Internet Banking, Customer Experience, Service Efficiency, Comparative Study.*

1. INTRODUCTION

Banking is one of the cornerstones of modern economic development. A strong and efficient banking system ensures smooth financial intermediation, mobilization of savings, provision of credit, and facilitation of payments, thereby supporting both economic growth and social welfare. Globally, the banking sector has undergone tremendous change over the last three decades, primarily due to globalization, liberalization, financial reforms, and technological innovations.

In the Indian context, the banking sector has always played a crucial role in financial inclusion and poverty reduction. The Reserve Bank of India (RBI), as the central bank, has continuously introduced reforms to strengthen the sector. Public sector banks, private sector banks, regional rural banks, and cooperative banks collectively form the backbone of the system. Among them, **State Bank of India (SBI)** holds a special position as the largest public sector bank, catering to millions of customers across urban, semi-urban, and rural regions.

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The advent of technology has drastically altered the way customers interact with banks. **Traditional banking services**, characterized by branch visits, face-to-face interactions, passbooks, and manual paperwork, are gradually being replaced or supplemented by **online and digital banking services**, which include mobile applications, internet banking portals, UPI transactions, and automated teller machines (ATMs). The increasing penetration of smartphones, cheaper internet, and government-led initiatives such as *Digital India* have accelerated this transformation.

Despite the widespread adoption of online banking services, traditional banking continues to hold relevance. Customers often prefer visiting branches for complex services such as loan processing, investment guidance, or problem resolution. Therefore, both models coexist, and understanding customer satisfaction and behaviour toward each is vital for banks like SBI to frame effective strategies.

The Indian banking sector has witnessed a **paradigm shift** in the last two decades, moving from **branch-centric operations** to a blend of **digital-first and inclusive banking models**. This transformation has been driven by:

- **Government initiatives** such as *Digital India*, *Jan Dhan Yojana*, and *Pradhan Mantri Mudra Yojana*.
- **Regulatory frameworks** by the Reserve Bank of India (RBI) that promote secure and inclusive digital transactions.
- **Technological innovations** like UPI (Unified Payments Interface), Aadhaar-enabled services, and mobile wallets.
- **Changing customer preferences**, especially among urban and younger populations.

State Bank of India (SBI), as the country's largest public sector bank, has played a pioneering role in this transformation.

Theoretical Models of Customer Satisfaction and Behaviour:

(i) SERVQUAL Model (Service Quality Model)
Proposed by Parasuraman et al., SERVQUAL identifies **five dimensions of service quality** that directly affect customer satisfaction:

1. **Reliability –** Delivering promised services accurately.
1. **Responsiveness** – Willingness to help customers promptly. **Assurance** – Knowledge and courtesy of staff, instilling trust.
2. **Empathy** – Caring and personalized attention.
3. **Tangibles** – Physical facilities, equipment, digital platforms, and staff appearance.

SBI's case:

- Traditional banking scores high on **assurance and empathy**.
- Online banking scores high on **tangibles (apps, portals) and responsiveness (instant transfers)**.

(ii) Technology Acceptance Model (TAM)

This model explains how customers accept and use technology. It is based on two key factors:

1. **Perceived Usefulness (PU):** The degree to which a person believes technology will improve performance.
   - Example: Customers use SBI YONO because it saves time compared to branch visits.
2. **Perceived Ease of Use (PEOU):** The degree to which a person believes technology is easy to use.
   - Example: Senior citizens may avoid online banking if they find mobile apps complicated.

Thus, customer adoption of SBI's online services depends on **trust, ease of use, and perceived benefits**.

(iii) Expectancy Disconfirmation Theory
This theory suggests customer satisfaction depends on whether actual service meets, exceeds, or falls short of expectations.

- If performance > expectation → **Positive disconfirmation (high satisfaction)**.
- If performance = expectation → **Confirmation (satisfaction)**.
- If performance < expectation → **Negative disconfirmation (dissatisfaction)**.

1. Growth of Online Banking in India

- **Digital adoption** has accelerated due to smartphones, internet penetration, and UPI-based payment systems.
- SBI's **YONO platform** has emerged as one of the most popular digital banking apps, with over **60 million registered users** as of 2023.
- **UPI transactions** crossed **10 billion per month** in 2023, showing widespread adoption of online payments.
- Younger urban customers increasingly rely on **mobile apps, net banking, and online wallets** for daily transactions.

2. Sustained Importance of Traditional Banking

- Despite digital growth, **traditional branch banking remains significant**, especially in rural and semi-urban areas.
- SBI has the **largest branch network in India (~22,000 branches)**, which ensures financial inclusion.
- Customers continue to visit branches for:
  - Loan applications and approvals
  - Fixed deposits and recurring deposits
  - Government schemes and subsidies
  - Large-value transactions

3. Technological Drivers

- Government initiatives like Digital India, Jan Dhan Yojana, and UPI have driven financial inclusion and digital banking adoption.
- SBI has invested heavily in:
  - Mobile apps (YONO, SBI Anywhere)
  - Internet banking
  - AI-based customer support and chatbots

2. REVIEW OF LITERATURE:

Parasuraman, Zeithaml, and Berry (1988) – SERVQUAL Model

Parasuraman et al. developed the SERVQUAL model**,** one of the most influential frameworks for measuring service quality. The study identified five key dimensions of service quality — Tangibility, Reliability, Responsiveness, Assurance, and Empathy**.** According to their findings, customer satisfaction occurs when perceived service exceeds expectations. In banking, tangibles include branch appearance or digital interface; reliability refers to accurate transaction processing; responsiveness denotes prompt service; assurance relates to employee competence and security, while empathy reflects personalized care.

This model has become a foundation for subsequent studies on banking service quality**,** both in traditional and digital contexts.

Joseph, McClure, and Joseph (1999) – Electronic Banking and Service Quality

This study analyzed how electronic banking services influence customer satisfaction. It found that customers valued **s**peed, accuracy, and convenience**,** which online banking offers. However, the study highlighted issues such as **t**rust, security risks, and technological glitches**,** which often reduce satisfaction. It emphasized that while technology improves operational efficiency, customer satisfaction depends equally on system reliability and user support**.**

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Jun and Cai (2001) – Service Quality Dimensions in Internet Banking
Jun and Cai identified 17 dimensions of service quality related to internet banking, grouped into customer service quality (responsiveness, reliability, empathy) and online system quality (ease of use, content, access speed). Their study concluded that ease of navigation**,** accurate information**,** and prompt online assistanc**e** are essential for customer satisfaction in digital banking. Poor website design or system downtime leads to dissatisfaction even if financial accuracy is maintained.

Gerrard and Cunningham (2003) – Internet Banking Adoption in Singapore
This research studied internet banking adoption among Singaporean customers. It found that age, education, and occupation affect online banking usage. Younger and more educated customers were early adopters. The study also revealed that trust and perceived risk play major roles. Customers hesitant to share personal financial data online were less likely to use e-banking. Hence, security assurance and awareness campaigns were suggested to increase digital adoption.

Pikkarainen et al. (2004) – Online Banking in Finland
The study focused on factors influencing customer satisfaction and adoption of internet banking in Finland. It revealed that information quality**,** perceived usefulness, and ease of use are positively correlated with satisfaction. It also found that trust plays a mediating role between service quality and satisfaction. Customers satisfied with online banking systems were more loyal to their banks, even without visiting physical branches.

3. RESEARCH METHODOLOGY:

OBJECTIVE
To compare the overall customer satisfaction between traditional banking and online banking services of SBI.

To examine the factors influencing customer satisfaction in traditional banking services (e.g., staff behavior, waiting time, service quality).

To analyze the factors influencing customer satisfaction in online banking services (e.g., convenience, security, accessibility, reliability).

To study customer behavior and preferences towards traditional banking and online banking.

HYPOTHESIS

H_0 (Null Hypothesis): There is no significant difference in customer satisfaction between traditional and online banking services of SBI.

H_1 (Alternative Hypothesis): There is a significant difference in customer satisfaction between traditional and online banking services .

Source of Data: The Current Study Is Based on Primary Data Acquired Using Questionnaire Approach

Size of Sample: In This Study, 100 Responses Were Taken into Account

Data Collection: The research relies on responses from a limited number of SBI customers.

4. DATA INTERPRETATION:

1. I am satisfied with the quality of service provided in SBI branches.

Options	Response
Strongly Agree	3
Agree	20
Neutral	18
Disagree	58
Strongly Disagree	1

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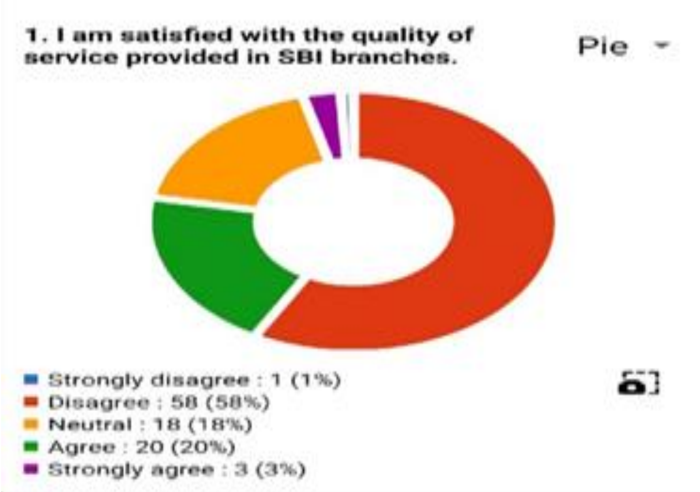


Majority Dissatisfied: A significant portion of respondents, **58% (58 people)**, **disagree** that they are satisfied with the quality of service.

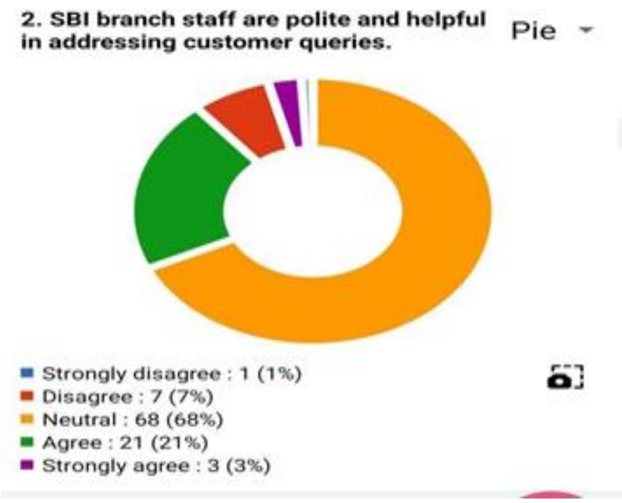
Low Satisfaction: Only **23% (20 + 3 people)** of respondents **agree or strongly agree** that they are satisfied, indicating low overall satisfaction.

Neutral: 18% of respondents are **neutral**, showing some uncertainty or indifference.

Strongly Disagree: Only **1% (1 person)** is extremely dissatisfied.

2. SBI branch staff are polite and helpful in addressing customer queries.

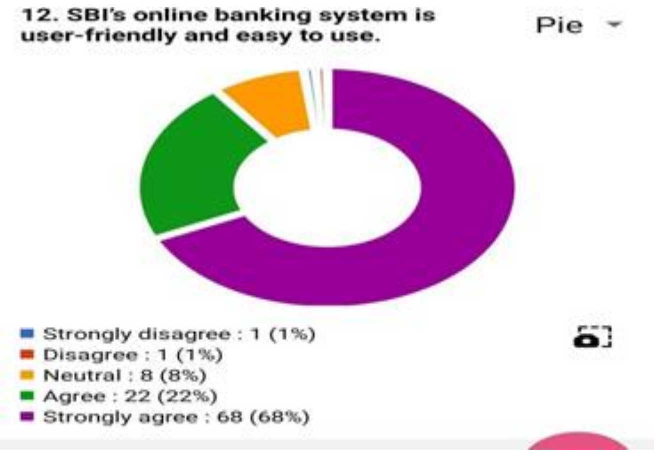
Options	Response
Strongly Agree	3
Agree	21
Neutral	68
Disagree	7
Strongly Disagree	1



The majority of respondents, **68%**, chose **neutral** response, indicating that most customers neither found the environment particularly comfortable nor uncomfortable. This large neutral segment suggests either a lack of strong impression or inconsistency in the branch environments across locations. Only **1%** of respondents provided positive feedback, with **14%** agreeing and **4%** strongly agre16ing the 16% disagreed and **1%** strongly disagreed—suggesting some level of discomfort or dissatisfaction with the physical environment of the branches.

3. SBI's online banking system is user-friendly and easy to use.

Options	Response
Strongly Agree	68
Agree	22
Neutral	8
Disagree	1
Strongly Disagree	1



The majority of respondents, **68%**, give strongly agreel response, indicating that most customers neither found the environment particularly comfortable nor uncomfortable. This large neutral segment suggests either a lack of strong impression or inconsistency in the branch environments across locations. Only **1%** of respondents provided positive feedback, with **14%** agreeing and **4%** strongly agre16ing the 16% disagreed and **1%** strongly disagreed— suggesting some level of discomfort or dissatisfaction with the physical environment of the branches.

The below is the result of Chi-square test

Calculated Value	Compare	Table Value
0.0048	<	**9.488**

H0 Will get ACCEPTED

Which means our ALTERNATE HYPOTHESIS(H1) will automatically get REJECTED

EXPLANATION:
The Chi-Square test indicates that there is no significant relationship between gender of the customer and their perception that SBI online banking provides quick and efficient services.

This means that both male and female (and by extension, different age groups) customers perceive the online banking services offered by SBI as equally userfriendly.

5. CONCLUSION

The present study titled *"Comparative Analysis of Customer Satisfaction and Behaviour Towards Traditional and Online Banking Services with Reference to SBI"* was undertaken to analyze how customers perceive and respond to the two primary modes of banking — traditional and online — and to measure their level of satisfaction with the services offered by the State Bank of India (SBI).

The research aimed to analyze and compare customer satisfaction and behavior towards traditional and online banking services with specific reference to the State Bank of India (SBI). The study revealed that both forms of banking—traditional and online—have their distinct advantages and limitations.

From the findings, it was observed that a majority of respondents have gradually shifted towards online banking due to its convenience, accessibility, and time-saving features. Services such as internet banking, mobile .However, a section of customers still shows a strong inclination towards traditional banking, particularly for complex transactions, personalized services, or issues related to trust and security. The presence of physical branches continues to be important for senior citizens and rural customers who may face challenges with technology adoption.

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Overall, the results indicate that customer satisfaction in SBI is largely dependent on the quality of service delivery, security measures, technological ease, and staff behavior. While digital transformation has enhanced service efficiency, it must be complemented with human interaction to ensure inclusivity and long-term trust. SBI's continuous effort in integrating both traditional and online models has made it one of the most trusted and customer-friendly banks in India.The data collected from 100 respondents through structured questionnaires provided valuable insights into the changing banking patterns and customer expectations. Based on the analysis of responses, it was found that customers are gradually shifting towards online banking, but traditional banking still holds significance for a considerable segment of customers

Another crucial recommendation is for SBI to strengthen its **feedback and monitoring mechanisms**. The bank should periodically conduct customer satisfaction surveys, analyze feedback data, and take timely corrective measures to address recurring issues. SBI can also personalize its services by using data analytics to understand customer preferences and design tailored products, such as targeted loan schemes, savings options, or reward programs. Encouraging customers to shift towards **digital transactions** through incentives like reduced transaction fees or cashback offers could further accelerate digital adoption. Moreover, SBI should emphasize the **integration of traditional and digital banking services**, creating a hybrid banking model where customers can seamlessly switch between both as per their convenience.

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AN ANALYSIS ON AWARENESS ABOUT DIFFERENT TYPES OF INVESTMENT AVENUES AMONG THE STUDENTS OF THAKUR COLLEGE OF SCIENCE AND COMMERCE

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ABSTRACT

An analysis on the awareness about investment avenues amongst youth with special reference to learners from Thakur College of science & commerce was conducted from the period of July, 2025 to October, 2025. The research was initiated to understand the perceptions and patterns about investment avenues. The research is backed by primary data analysis. The researcher is able to create a clear understanding that factors like education, age are determining factors while risk appetite and portfolio management is clearly defined based on the awareness and familiarity of the concept. In the present economic scenario, financial literacy and investment awareness have become crucial skills for the youth to secure their future. The growing complexity of financial products and the increasing importance of early financial planning necessitate a comprehensive understanding of how young individuals approach investment decisions. This study specifically focuses on the students of Thakur College of Science & Commerce, recognizing them as a representative sample of urban youth who are exposed to both traditional and modern investment avenues. The primary objective of this research is to evaluate the level of awareness among young learners regarding different investment options such as mutual funds, stocks, fixed deposits, Government Bonds, Gold Bonds.

Keywords: *Mutual Funds, Stocks, Fixed Deposit, Government Bonds, Gold Bonds, Investment Awareness.*

1. INTRODUCTION

The most commonly used investment avenues in India include Mutual Funds, Fixed Deposits, Stocks, Government Bonds, and Gold Bonds. Each of these options carries a different level of risk, return, and safety. Mutual funds and stocks are market-linked investments, whereas fixed deposits, government bonds, and gold bonds are considered safer and more stable. Awareness about these options helps students make informed financial decisions from an early stage.

Investment avenues allow individuals to grow their savings and secure their future. Students, being early earners and future professionals, must understand basic investment instruments. The most common avenues include:

Mutual Funds: A financial instrument where money is pooled from multiple investors and managed by professional fund managers. It offers diversification, liquidity, and accessibility to the stock market.

Fixed Deposit (FD): A traditional investment option provided by banks that offers fixed returns at a predetermined rate. It is considered one of the safest avenues.

Stocks: Shares of companies traded in the stock market. They offer high return potential but come with high risk.

Government Bonds: Debt instruments issued by the government to raise funds. They offer fixed interest and are considered extremely safe.

Gold Bonds: Also known as Sovereign Gold Bonds (SGBs), they are government securities backed by gold. They provide interest income along with the benefit of gold price appreciation.

Today, financial literacy plays a crucial role in students' decision-making. This study explores students' awareness of different investment avenues.

2. LITERATURE REVIEW:

Mahabub Basha (2023) examined the relationship between financial literacy and investment behaviour, finding that most investors prefer medium-risk, medium-return, and medium-duration investments. The study highlighted how financial awareness significantly influences individuals' savings and investment decisions and emphasized the need for strategic guidance to strengthen investment opportunities in India.

Agarwal (2021) studied the investment behaviour of individual investors and suggested that while profit maximization is a common goal, investors must be educated about savings and risk management. The research also noted that although market risks cannot be eliminated, proper risk analysis can help investors make informed decisions, especially regarding mutual funds.

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Gupta (2023) focused on youth savings and investment behaviour and found that several investors avoid public issues due to limited awareness of market values. The study recommended developing strong financial literacy programs and marketing strategies to encourage rural and urban investors to participate actively in financial markets.

Parimalakanthi (2015) analyzed investment preferences and observed that most investors prefer traditional financial assets like deposits and gold, suggesting that investment behaviour varies according to individual risk-taking capacity and knowledge levels.

Dhayalan (2019) studied saving habits of government school teachers and reported that as their standard of living improved, they increasingly invested in various options to secure their future needs, especially regarding children's education and long-term financial requirements.

3. RESEARCH METHODOLOGY:

Research Objective

- To compare awareness levels across different investment avenues
- To identify sources of investment knowledge among students

Study Limitation The current study is limited to the Thakur College of Science and Commerce.

Hypothesis

H_0: There is No Significant difference between ages and investing in stocks can generate higher returns than any other investment avenue.

H_1: There is a significant difference between ages and investing in stocks can generate higher returns than any other investment avenue.

Source of Data The current study is based on primary data acquired using the questionnaire approach.

Size of the Sample The sample size for this study is 200 students (100 online + 100 offline). While this provides a decent picture of the college community, it may not fully reflect the awareness levels of: All students across multiple streams and years.

Data collection Online Survey was conducted using Google Forms, Questionnaire link disseminated via WhatsApp groups, email, and campus social media channels, Targeted 100 responders. Offline Survey was conducted utilizing printed questionnaires given in classrooms, library, and campus places, Targeted 100 responders.

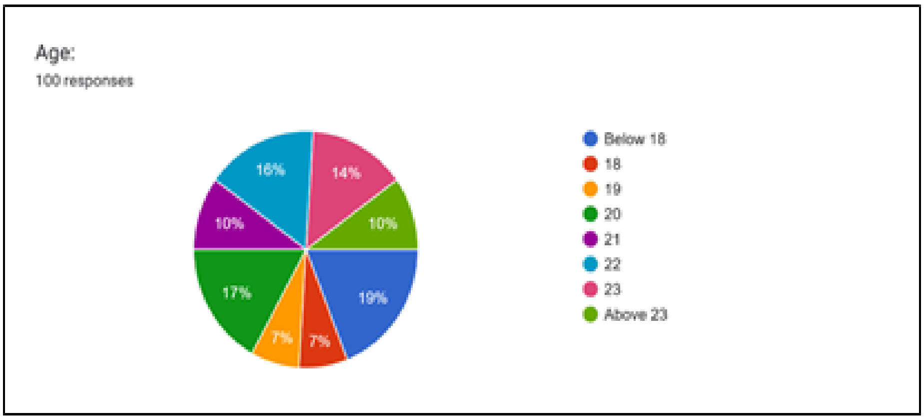
4. DATA ANALYSIS & DATA INTERPRETATION:

Table No: 1

Frequency Distribution of Respondents on the basis of Age

PARTICULARS (AGE)	NO. OF RESPONDENT	PERCENTAGE (%)
BELOW 18	19	19%
18	7	7%
19	7	7%
20	17	17%
21	10	10%
22	16	16%
23	14	14%
23 & ABOVE	10	10%
TOTAL	**100**	**100%**

Chart No: 1

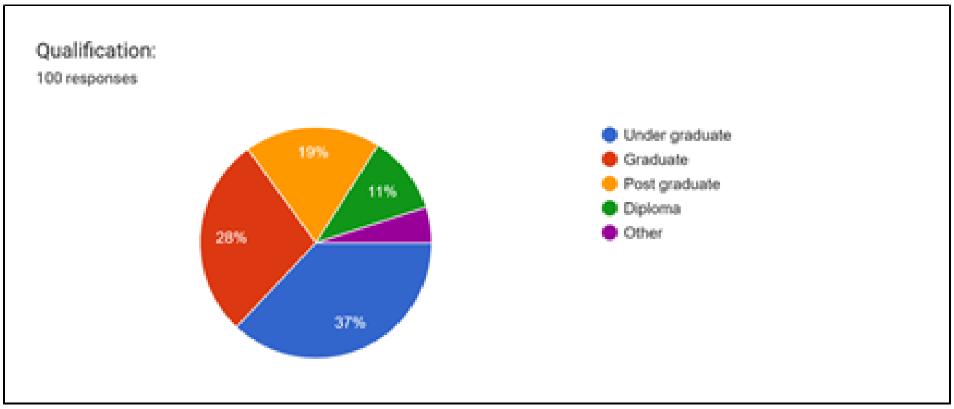


Interpretation: The majority of respondents to the study are between the ages of 18 and 23, with the largest percentage being 20. Younger people predominate in the sample, as evidenced by the noteworthy 19% who are under 18 and the 10% who are over 23.

Table No: 2

Frequency Distribution of Respondents on the basis of Qualification.		
PARTICULARS	**NO. OF RESPONDENTS**	**PERCENTAGE**
UNDER GRADUATE	37	37%
GRADUATE	28	28%
POST GRADUATE	19	19%
DIPLOMA	11	11%
OTHERS	5	5%
TOTAL	**100**	**100%**

Chart No: 2



Interpretation: According to the survey, 37% of the 100 respondents were undergraduates. 28% of the Respondents were Graduate. 19% of the Respondents were Post Graduate. 11% of the Respondents were Diploma. 5% of the Respondents were others.

Table No: 3

You believe mutual funds are a good option for long term wealth creation.		
PARTICULARS	**NO. OF RESPONDENTS**	**PERCENTAGE**
STRONGLY AGREE	20	20%
AGREE	18	18%
NEUTRAL	17	17%
DISAGREE	31	31%
STRONGLY DISAGREE	14	14%
TOTAL	**100**	**100%**

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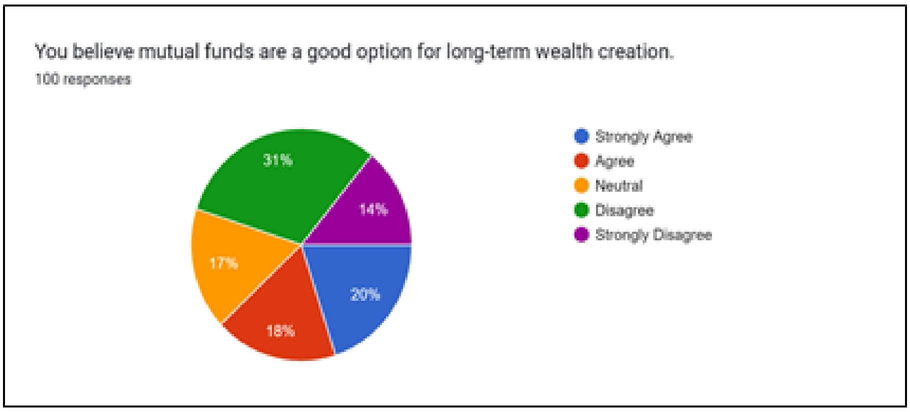
Chart No: 3

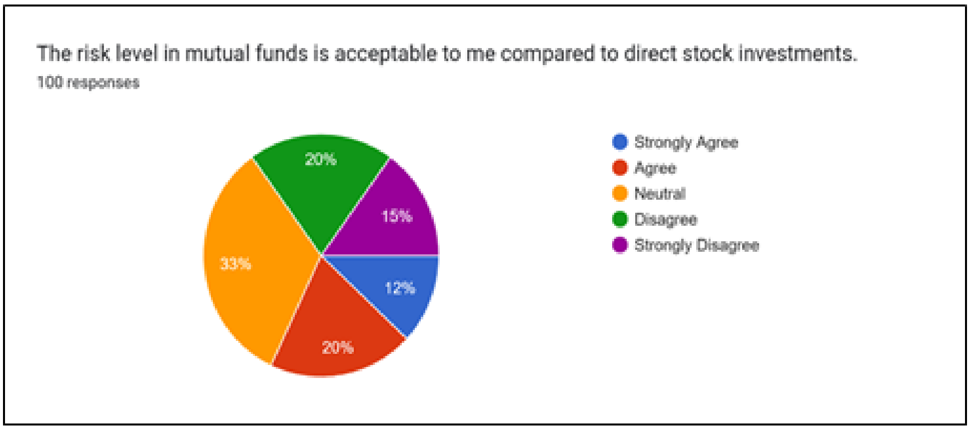


Interpretation: Opinions on mutual funds as a good option for long-term wealth creation are mixed, with 38% of respondents (20% strongly Agree and 18% Agree) holding a positive view, while a larger combined portion (45%) express skepticism or disagreement (31% Strongly Disagree and 14% Disagree).

Table No: 4

The risk level in mutual funds is acceptable to me compared to direct stock investment		
PARTICULARS	**NO. OF RESPONDENTS**	**PERCENTAGE**
STRONGLY AGREE	12	12%
AGREE	20	20%
NEUTRAL	33	33%
DISAGREE	20	20%
STRONGLY DISAGREE	15	15%
TOTAL	**100**	**100%**

Chart No: 4



Interpretation: It's a somewhat divided opinion. A somewhat higher percentage of 35% disagree, while 32% think mutual fund risks are acceptable. A noteworthy 33% express no opinion, indicating potential hesitancy or ignorance regarding the risk levels of mutual funds in contrast to direct equities.

Table No: 5

Do you or your family currently have a fixed deposit (FD) in a bank		
PARTICULARS	**NO. OF RESPONDENTS**	**PERCENTAGE**
YES	37	37%
NO	40	40%
NOT SURE	23	23%
TOTAL	**100**	**100%**

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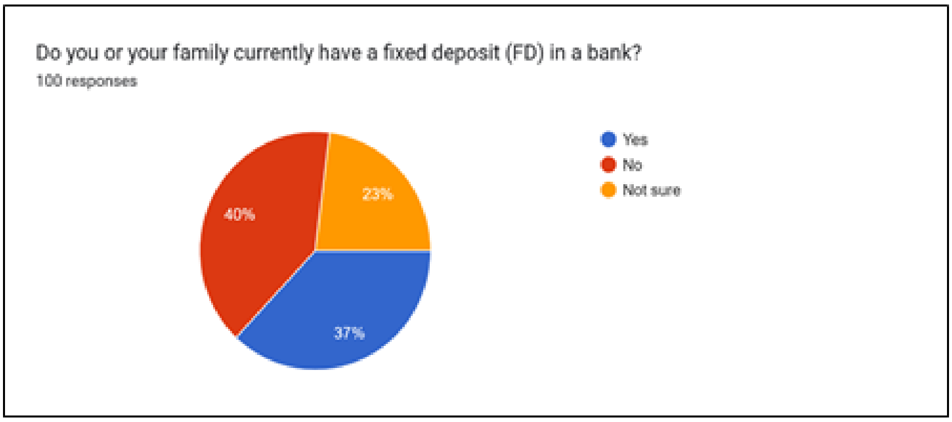
Chart No: 5



Interpretation: 37% of the 100 respondents claimed to hold a fixed deposit, 40% denied it, and 23% were not sure.

Table No: 6

Mixed / Combined Data						
Age	**Investing in stocks can generate higher returns than any other investment avenue**					
	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**Total**
18	13	10	9	6	4	**42**
19	3	4	6	3	5	**21**
20	4	10	6	3	6	**29**
21	2	4	5	4	6	**21**
22	5	5	7	6	5	**28**
23	11	4	6	5	3	**29**
23 & above	6	2	5	6	11	**30**
Total	**;**	**39**	**44**	**33**	**40**	**200**

Expected Value						
Age	**Investing in stocks can generate higher returns than any other investment avenue**					
	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**Total**
18	9.24	8.19	9.24	6.93	8.4	**42**
19	4.62	4.095	4.62	3.465	4.2	**21**
20	6.38	5.655	6.38	4.785	5.8	**29**
21	4.62	4.095	4.62	3.465	4.2	**21**
22	6.16	5.46	6.16	4.62	5.6	**28**
23	6.38	5.655	6.38	4.785	5.8	**29**
23 & above	6.6	5.85	6.6	4.95	6	**30**
Total	**44**	**39**	**44**	**33**	**40**	**200**

Degree of Freedom= 24

Interpretation: Since, the calculated value is more than the Table value, **Ho** (Null Hypothesis) is **Rejected** and **H1** is automatically **ACCEPTED.**

5. CONCLUSION AND RECOMMENDATIONS:

The study concludes that although students of Thakur College show good awareness about traditional investment avenues like Fixed Deposits and moderately about Mutual Funds and Stocks, their awareness of Government Bonds and Gold Bonds remains low. Financial literacy among students is improving, but there remains a substantial gap in understanding modern investment products.

Conduct regular financial literacy workshops in college. Arrange guest lectures by financial experts and brokers. Encourage students to open Demat Accounts and learn through simulation/trading apps. Include practical investment modules in the curriculum. Promote awareness about low-risk options like government bonds and SGBs.

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A COMPARATIVE ANALYSIS OF CUSTOMER BEHAVIORS AND SATISFACTION IN DIGITAL BANKING SYSTEM WITH RESPECT TO SBI & HDFC BANKS

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ABSTRACT

The transformation of the banking industry through digitalization has significantly influenced customer behavior, satisfaction levels, and expectations regarding banking services. This study, titled "A Comparative Analysis of Customer Behavior and Satisfaction in Digital Banking System with Respect to SBI and HDFC Banks", seeks to examine and compare how customers of State Bank of India (SBI) and HDFC Bank perceive and respond to digital banking services such as internet banking, mobile applications, ATMs, and online payment systems.

The main objective of this research is to analyze factors affecting customer satisfaction including service quality, ease of use, accessibility, transaction speed, reliability, security, and grievance redressal mechanisms. The study is based on primary data collected from 150 respondents through structured questionnaires, representing diverse age groups, income levels, and occupations. Secondary data was obtained from bank reports, journal articles, and online sources. The data were analyzed using descriptive statistics and comparative evaluation to identify differences in customer perception between the two banks.

The findings reveal that both SBI and HDFC have made substantial progress in promoting digital banking adoption among their customers. However, HDFC Bank outperforms SBI in terms of customer satisfaction due to its user-friendly interface, personalized digital experience, prompt issue resolution, and robust customer support system. On the other hand, SBI customers value trust, security, and the bank's extensive reach but express moderate dissatisfaction regarding technical glitches and delayed service response.

The study concludes that while private sector banks like HDFC are more proactive in innovation and service responsiveness, public sector banks like SBI are preferred for their reliability and trust factor. To enhance customer satisfaction, both banks need to invest continuously in digital infrastructure, data security, customer awareness programs, and system efficiency. The research highlights the growing importance of customer-centric digital transformation for sustainable competitive advantage in the modern banking landscape.

The rapid evolution of digital technology has transformed the banking sector, leading to a significant shift in customer behavior and service expectations.

Keywords: *Customer Behavior, Customer Satisfaction, State Bank of India (SBI), HDFC Bank, Online Banking, Mobile Banking, Service Quality, User Experience.*

1. INTRODUCTION

The global banking sector has undergone a revolutionary transformation in recent years, driven largely by the advancement of information technology and the growing demand for convenient, secure, and efficient financial services. The traditional branch-based banking model is increasingly being replaced by digital banking systems, which allow customers to perform almost all financial activities through online platforms, mobile applications, and automated services. This shift has not only reduced dependency on physical branches but has also empowered customers to access banking services anytime and anywhere.

In India, the adoption of digital banking has been particularly promotion of cashless transactions, rapid penetration of smartphones and the internet, and increasing customer preference for faster and hassle-free banking. Digital tools like internet banking, mobile banking apps, Unified Payments Interface (UPI), NEFT, RTGS, IMPS, and e-wallets have become an integral part of customer transactions.

Among Indian banks, State Bank of India (SBI) and HDFC Bank play a dominant role in shaping the digital banking landscape. State Bank of India (SBI), being the largest public sector bank, enjoys an extensive customer base across both urban and rural areas. With its focus on financial inclusion, SBI has continuously upgraded its digital banking services through platforms like YONO (You Only Need One), internet banking, and mobile applications. Despite its wide reach, SBI faces challenges related to service speed, system load, and customer support, which often affect customer satisfaction

HDFC Bank, on the other hand, is one of the leading private sector banks in India, known for its technological advancement, superior service quality, and customer-centric approach. Its digital platforms provide highly efficient, user-friendly, and innovative banking solutions. HDFC has consistently ranked high in terms of customer satisfaction, but its services often cater more to urban and tech-savvy customers compared to the mass reach 18of SBI. Customer behaviour in digital banking is influenced by factors such as ease of use, trust and security, reliability, transaction speed, customer support, and overall service experience. Satisfaction levels depend on how well a bank addresses these factors and meets customer expectations. While SBI customers may value accessibility, branch support, and trust in a government-owned bank, HDFC customers may prioritize speed, modern features, and superior service delivery.

Therefore, a comparative analysis of customer behaviour and satisfaction between SBI and HDFC Bank becomes highly relevant. Such a study helps in understanding the strengths and weaknesses of both banks in digital banking, identifies the factors influencing customer preferences, and provides insights into how banks can improve their digital services to enhance customer loyalty. This comparative approach not only highlights the competitive dynamics between public and private sector banks but also contributes to the broader understanding of how customers in India are adapting to the digital transformation in banking. Ultimately, the findings can assist policymakers, banks, and researchers in developing strategies to strengthen digital banking systems and promote financial inclusion while ensuring high customer satisfaction.

2. REVIEW OF LITERATURE:

Davis, F. D. — 1989 Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. Davis develops and validates the Technology Acceptance Model (TAM), showing perceived usefulness (PU) and perceived ease of use (PEOU) as primary drivers of user acceptance of information systems. The paper demonstrates—through two empirical studies—that PU is more strongly correlated with behavioral intention and actual usage than PEOU, though PEOU often influences PU. New measurement scales for both constructs are created and tested for reliability and validity, providing a widely used tool for empirical IS research. Theoretical implications include the parsimonious explanation of acceptance behavior and practical implications for system designers (improve usefulness and ease of use). TAM's operational simplicity made it easy for later adaptation to contexts like e-banking and mobile apps. Many later studies in banking adapt TAM constructs to measure customer adoption of mobile/net banking. This paper is foundational for any study on digital banking adoption, especially in constructing survey instruments and hypotheses.

Venkatesh, Morris, Davis & Davis — 2003 User Acceptance of Information Technology: Toward a Unified View (UTAUT). UTAUT synthesizes eight prior technology-acceptance models (including TAM) into a unified framework that identifies performance expectanancy, effort expectancy, social influence, and facilitating conditions as direct determinants of behavioral intention and usage. The model also posits moderating effects of gender, age, experience, and voluntariness of use. Venkatesh et al. validated UTAUT on workplace technologies, showing it explains substantially more variance in intention/usage than earlier models. For banking research, UTAUT helps explain both adoption of digital channels (internet/mobile banking) and differences across customer segments. The paper is often cited when researchers include social influence and facilitating conditions (e.g., availability of internet/help desks) in their models. Practically, UTAUT suggests that banks should emphasize clear performance benefits and lower effort barriers to boost adoption. Use UTAUT constructs to frame hypotheses comparing SBI vs HDFC customer adoption differences

SEEJPH (Comparative study) — 2025 A Comparative Study of SBI & HDFC Bank technology satisfaction among customers (sample across regions). This recent paper compares factor-level satisfaction (security, reliability, design/usability) for SBI and HDFC using a larger multi-region sample and factor analysis to extract key satisfaction drivers. The study finds security is the most important variable for both banks, followed by reliability/confidence and then website/app design and ease of use. HDFC shows slightly higher variance explained and marginally better scores on UX and response time, suggesting a private bank edge in digital execution. Authors recommend public banks strengthen UI/UX and private banks maintain focus on trust and reliability to avoid churn. Methodologically, the paper is helpful for instrument items (it lists factor loadings), so you can adopt or adapt those items for your questionnaire.

Pandit / AIJSH — 2025 A Comparative Study of Service Quality between SBI and HDFC Banks in Madhya Pradesh. This study applies the SERVQUAL dimensions to a sample of SBI and HDFC customers in Madhya Pradesh, comparing mean scores across tangibility, reliability, responsiveness, assurance, and empathy. The results show HDFC outperforming SBI on most SERVQUAL dimensions except in areas where SBI benefits from legacy trust/assurance. Authors argue that private banks' stronger branch ambience and quicker service response drive superior tangibility and responsiveness scores. Policy 77 implications include targeted training for SBI staff and investment in digital front-end improvements to close the perceived gap. The paper is useful for comparative methodology and for citing regional evidence of public vs private bank differences in service quality. Unnamed authors — 2024 A Study on Customer

Suba, N. R. & Patoliya, R. B. — 2023 "Impact of Digital Banking Services on Customer Satisfaction: A Comparative Study between SBI and HDFC Bank." This study takes SBI (public) and HDFC (private) as sample banks and applies a questionnaire covering five parameters: Service Quality, Responsiveness, Privacy & Security, Ancillary Services, and Resolution of Issues. It uses statistical techniques to test hypotheses about whether digital banking services differ in their influence on satisfaction across the two banks. The results indicate that while both banks show positive effects of service quality on satisfaction, HDFC tends to outperform SBI in responsiveness and ancillary services. The study suggests public banks like SBI should invest more in technological infrastructure and customer training, while private banks should maintainconsistency in support and security. The detailed breakdown per parameter and comparative angle make this paper useful for your SBI vs HDFC focus.

3. RESEARCH METHODOLOGY :

Research Objective

i. To analyze customer behavior regarding the usage of digital banking services in SBI and HDFC.

ii. To assess the level of customer satisfaction with digital banking systems provided by SBI and HDFC.

iii. To compare the digital banking performance of SBI and HDFC in terms of user experience, security, and reliability.

iv. To identify challenges faced by customers while using digital banking services.

v. To evaluate customer perceptions of security, service quality, and technical support in SBI vs. HDFC.

HYPOTHESIS

H_0 (Null hypothesis):- There is no significant relationship between the Age of the customer and their perception of the user- friendliness of mobile app and internet banking platform.

H_1 (Alternative Hypothesis):- There is a significant relationship between the Age of the customer and their perception of the user- friendliness of mobile app and internet banking platform.

Source of Data: The current study is based on primary data acquired Using Questionnaire Approach.

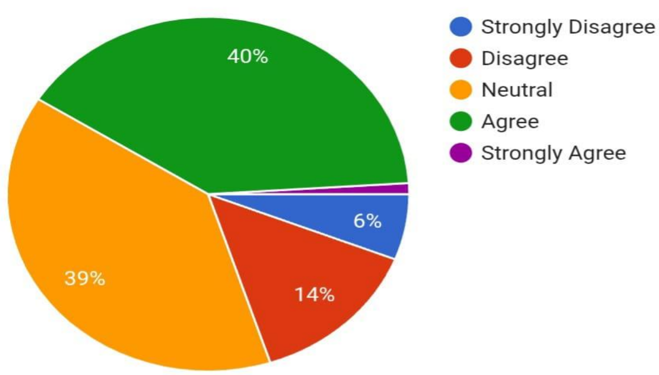
Size of Sample: In This Study, 100 Responses were Taken into Account.

Data collection: The research relies on response from a limited number of SBI Customer and HDFC Customer.

4. DATA INTERPRETATIN:

2. You use digital banking mainly for fund transfers and bill payments.

Option	Response
Strongly Agree	1
Agree	40
Neutral	39
Disagree	14
Strongly Disagree	6



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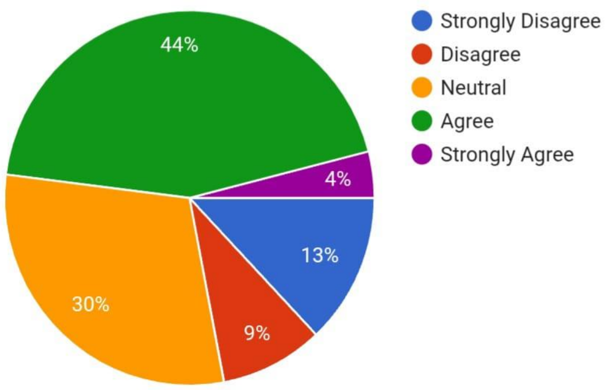
The majority of respondents, 40%, chose agree response, indicating that most customers neither found the environment particularly comfortable nor uncomfortable. This large neutral segment suggests either a lack of strong impression or inconsistency in the branch environments across locations. Only 1% of respondents provided positive feedback, with 14% agreeing and 4% strongly Options Response Strongly Agree 1 Agree 40 Neutral 39 Disagree 14 Strongly Disagree 6 103agre16ing the 16% disagreed and 1% strongly disagreed—suggesting some level of discomfort or dissatisfaction with the physical environment of the branches.

2. The mobile app and internet banking platforms are user-friendly.

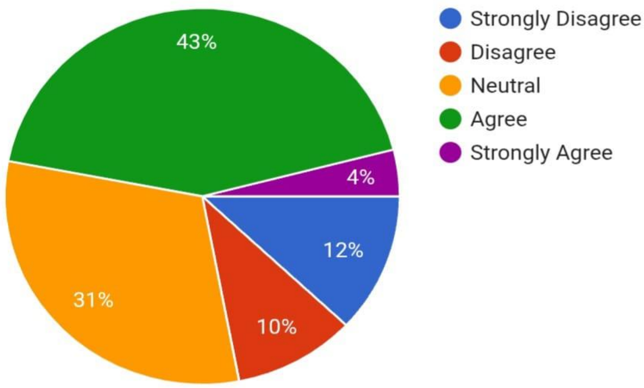
Option	Response
Strongly Agree	4
Agree	44
Neutral	30
Disagree	9
Strongly Disagree	13



The majority of respondents, 44%, chose to give agree response, indicating that most customers neither found the environment particularly comfortable nor uncomfortable. This large neutral segment suggests either a lack of strong impression or inconsistency in the branch environments across locations. Only 1% of respondents provided positive feedback, with 14% agreeing and 4% strongly agre16ing the 16% disagreed and 1% strongly disagreed—suggesting some level of discomfort or dissatisfaction with the physical environment of the branches

3. Digital banking services are secure and trustworthy

Option	Response
Strongly Agree	4
Agree	43
Neutral	31
Disagree	10
Strongly Disagree	12



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The majority of respondents, 43%, give agree response, indicating that most customers neither found the environment particularly comfortable nor uncomfortable. This large neutral segment suggests either a lack of strong impression or inconsistency in the branch environments across locations. Only 1% of respondents provided positive feedback, with 14% agreeing and 4% strongly agre16ing the 16% disagreed and 1% strongly disagreed—suggesting some level of discomfort or dissatisfaction with the physical environment of the branches.

The below is the result of Chi- Square test

Calculated value	Compare	Table Value
6.4302	<	9.488

H0 Will get ACCEPTED

EXPLANATION:

The Chi-Square test indicates that there is no significant relationship between the gender (or age group if you substitute) of the respondents and their perception of the user friendliness of mobile app and internet banking platforms. This means that both male and female (and by extension, different age groups) customers perceive the digital platforms (mobile and internet banking) offered by SBI and HDFC as equally user-friendly**.**

5. CONCLUSION

The research titled "A Comparative Analysis of Customer Behavior and Satisfaction in Digital Banking System with Respect to SBI and HDFC Banks" aimed to understand and compare how customers perceive digital banking services provided by these two major banks in India. The study was conducted to analyze customer satisfaction in terms of user interface, service quality, transaction reliability, security, and overall digital experience.

From the analysis of primary and secondary data, it was found that both State Bank of India (SBI) and HDFC Bank have successfully implemented digital banking platforms to meet the changing needs of their customers. However, the level of satisfaction and behavioral patterns among users of these banks show notable differences. Customers of HDFC Bank expressed relatively higher satisfaction levels due to the bank's emphasis on technology-driven services, attractive user interface, smooth application performance, faster transaction speed, and effective customer support system.

HDFC's proactive approach toward digital innovation and continuous upgrades has enabled it to offer a more seamless and convenient digital experience to its users. On the other hand, SBI, being a public sector bank, continues to maintain a strong reputation for reliability, safety, and wide accessibility across the country. Its customers appreciate the trust and credibility associated with the brand. However, the study revealed that SBI's digital services sometimes lag in terms of real-time responsiveness, interface design, and technical smoothness. Occasional server issues, delayed responses, and less personalized digital features contribute to moderate satisfaction levels among its customers. The study also highlights that customer satisfaction in digital banking depends not only on technological factors but also on emotional and behavioral aspects such as trust, perceived security, and ease of learning. While HDFC leads in providing modern, customer-friendly platforms, SBI dominates in trust and outreach, especially in semiurban and rural areas. In conclusion, the research establishes that digital transformation has greatly influenced customer satisfaction and loyalty in the Indian banking sector.

To sustain competitiveness, both banks must focus on improving digital literacy, ensuring stronger cybersecurity, enhancing system performance, and offering personalized, customercentric services. The findings imply that the future success of Indian banks will largely depend on their 130 ability to blend technology with trust, innovation with inclusivity, and efficiency with reliability in their digital banking operations.

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PROJECT TITLE: CUSTOMER PERCEPTION TOWARDS UPI AND MOBILE BANKING SERVICES IN PUNE REGION

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ABSTRACT
The study focuses on understanding customer perception toward UPI and mobile banking in Pune, an ideal region due to its diverse population and high digital readiness. Despite strong adoption driven by increasing digital literacy, users still face issues such as poor connectivity, transaction delays, and limited awareness of mobile banking features. Using primary data from questionnaires and secondary data from official reports, the research will analyze awareness, satisfaction, trust, and perceived challenges through tools like percentage analysis, Likert scale, and chi-square tests. The expected findings suggest higher satisfaction with UPI for its simplicity and instant transfers, while mobile banking may face barriers such as complex interfaces and fear of cyber fraud. The results will help banks, fintech companies, and policymakers improve digital service quality, security, and user education, ultimately strengthening customer trust and supporting India's move toward a cashless economy.

Keywords
- *UPI (Unified Payments Interface)*
- *Mobile Banking*
- *Digital Payments*

1. INTRODUCTION
India is rapidly shifting from cash-based and traditional banking methods to digital payment systems, with UPI and mobile banking emerging as the most widely used platforms. While UPI enables instant fund transfers through smartphones, mobile banking offers a range of banking services anytime and anywhere. Despite their growing popularity, challenges such as security concerns, fraud risks, transaction failures, and low digital literacy continue to affect customer trust and usage. Pune, a major educational and IT hub, provides an ideal setting to study these trends due to its diverse population of students, professionals, and business owners. The study on "Customer Perception towards UPI and Mobile Banking Services in Pune Region" aims to assess awareness, satisfaction, trust, and barriers among users, while also analyzing how demographic factors influence adoption. Findings indicate that users value the convenience and speed of digital payments but still face issues related to app usability and data privacy. Understanding customer perception is crucial, as positive experiences increase digital adoption and usage, while negative experiences reduce trust. The study highlights key terms such as UPI, mobile banking, digital literacy, adoption, customer satisfaction, and fintech, emphasizing their importance in shaping user behavior and improving service delivery in India's digital financial ecosystem.

- **UPI:** UPI is a payment system developed in India that enables instant money transfers between bank accounts using mobile phones. It removes the need to remember long account numbers or IFSC codes. Users can send or receive money through a Virtual Payment Address (VPA), mobile number, or QR code. It is fast, secure, and available 24/7. Today, it is one of the most widely used digital payment methods.
- **Mobile Banking:** Mobile banking means using a mobile phone to access different banking services. Most banks offer mobile apps or mobile-friendly websites where customers can check balances, transfer funds, pay bills, or recharge phones. They can also apply for services like loans or fixed deposits. Mobile banking makes financial services more convenient by reducing the need to visit a branch. It allows users to complete transactions anytime and from anywhere.
- **Digital Payments:** Digital payments are transactions made electronically instead of using cash. They allow users to pay through methods like UPI, mobile wallets, cards, or online banking. Digital payments are fast, convenient, and secure. They help reduce the need for physical currency in everyday transactions.

2. LITERATURE REVIEW:
- **Patil's study**: Shows strong adoption of digital payments in Pune, especially among youth; older users are more concerned about security.

- **Digital Payment Applications in India study**: Finds that awareness and accessibility differ across regions, affecting adoption levels.
- **Awareness & Perception Towards UPI study**: Uses ANOVA and chi-square to measure satisfaction, convenience, and problems faced.
- **Empirical studies on UPI perception**: Reveal that urban users have higher awareness and usage than rural users.
- **Consumer Perception of UPI study**: Shows growing satisfaction and increasing usage of UPI services overall.
- **Digital Wallets in Pune study**: Finds high acceptance influenced by age, income, and occupation.
- **Study on Age & UPI Preference**: Concludes that age significantly impacts digital payment preferences and usage frequency.
- **Digital Payment Awareness studies**: Emphasize the need for strong awareness programs to increase usage.
- **Studies on Digital Payment Systems**: Highlight convenience, speed, and ease as the main reasons for users shifting away from cash.
- **Impact of UPI on Traditional Banking study**: Shows UPI has reduced dependency on physical banking and increased online transactions.
- **Jariwala's study**: Finds digital literacy plays a major role in UPI adoption and confidence.
- **Takale's research**: Stresses the importance of better security systems and digital education to improve trust.
- **Khandal's exploratory study on mobile banking**: Points out the need for user awareness and risk management in digital banking.
- **Khaitan's study on digital wallets**: Finds high usage in Pune but recommends stronger cybersecurity and more user training to build trust.

3. RESEARCH METHODOLOGY:

Research Objective

The main objective of this research is to understand how customers in Pune perceive UPI and mobile banking services and to identify the key factors influencing their awareness, usage, satisfaction, and trust. The study aims to examine how demographic factors such as age, education, income, and occupation impact awareness and adoption, while also analyzing how frequently customers use these services and for what types of transactions. It further evaluates customer satisfaction levels regarding convenience, security, and reliability, and identifies the challenges or barriers users face, such as technical issues, security concerns, or lack of digital literacy. By providing insights into customer behavior and experiences, the research seeks to help banks, fintech companies, and policymakers improve digital payment services and promote wider, more effective adoption of UPI and mobile banking in the Pune region.

Study Limitations: The current study is limited to the area of Pune Region

Hypothesis

H0: There is no significant relationship between education level and ease of use of UPI/mobile banking services.

H1: There is a significant relationship between education level and ease of use of UPI/mobile banking services**.**

Source of Data: The current study is based on primary data and secondary data acquired using the questionnaire approach.

Size of the Sample: The study uses a sample size of 100 respondents from Pune, selected through stratified random sampling to represent different demographic groups. Data was collected through both online and offline surveys to ensure a diverse and balanced sample. This size is sufficient to identify trends, perceptions, and challenges related to UPI and mobile banking services.

Data Collection: The information was gathered utilising a questionnaire from customer who are using UPI in Pune region.

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Statistical Instruments The hypotheses in this study were developed and then analysed utilising statistical approaches such as the Chi Square test for relationship using Microsoft Excel.

4. DATA ANALYSIS & DATA INTERPRETATION

Chart 1

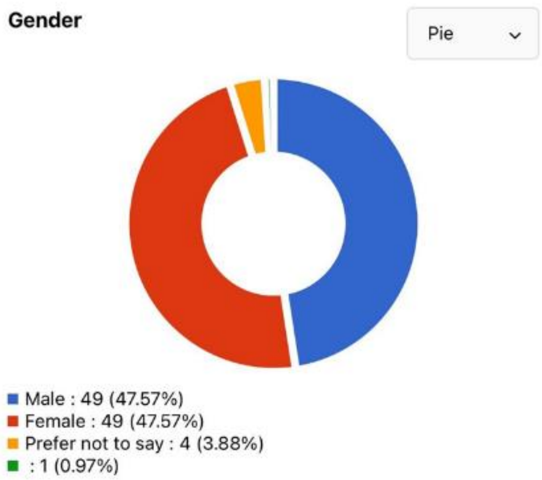

Table 1:

Frequency Distribution of Respondents on the basis of Gender			
Gender	Frequency	Percent	Cumulative Percent
Male	49	47.57	47
Female	49	47.57	94
Prefer not to say	4	3.88	100
Total	100	100	

Interpretation: The frequency distribution of respondents based on gender shows that the sample is almost evenly divided between male and female participants, with each group representing 47% of the total respondents. A small proportion of participants (6%) preferred not to disclose their gender. The balanced representation of male and female respondents indicates that the study captures perceptions from both genders equally, reducing gender bias and enhancing the reliability of the findings.

Chart 2

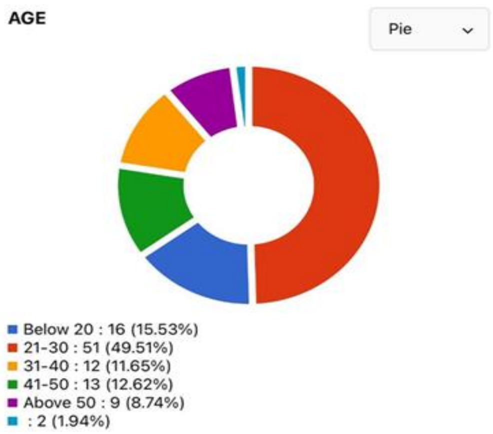

Table 2

Frequency Distribution of Respondents on the basis of Ages			
Age	Frequency	Percent	Cumulative Percent
Below 20	16	15.53	15.35
21-30	51	49.51	65.04
31-40	12	11.65	76.69
41-50	13	12.62	89.31
Above 50	9	8.74	100
Total	100	100	

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Interpretation: The majority of respondents fall in the 21–30 age group (49.51%), indicating that young adults dominate the sample. This is followed by smaller proportions in the 31–40 (11.65%), 41–50 (12.62%), and Below 20 (15.53%) categories. Only 8.74% of respondents are above 50, showing that older individuals are the least represented in the survey. The distribution highlights a predominantly younger respondent base.

Chart 3

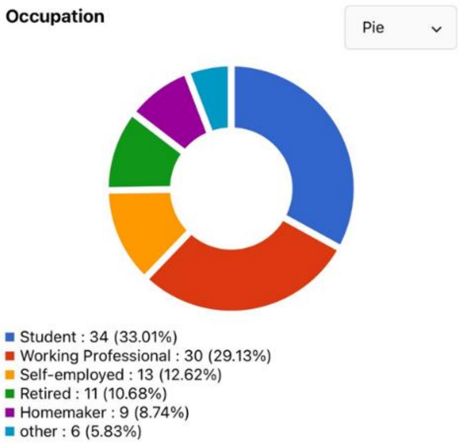

Table 3

Frequency Distribution of Respondents on the basis of Occupation			
Occupation	Frequency	Percent	Cumulative Percent
Student	34	33.01	33.01
Working Professional	30	29.13	62.14
Self employed	13	12.62	74.76
Retired	11	10.68	85.44
Homemaker	9	8.74	94.18
Other	6	5.83	100
Total	100	100	

Interpretation: The data shows that students form the largest group of respondents at 33.01 percent, followed by working professionals at 29.13 percent. Self-employed individuals (12.62 percent), retired persons (10.68 percent), and homemakers (8.74 percent) make up smaller portions of the sample, while the “other” category accounts for 5.83 percent. Overall, the distribution indicates that the survey is mainly represented by students and working professionals.

Chart 4

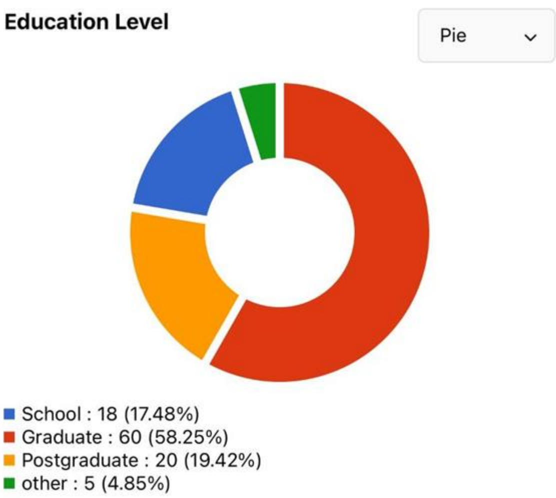

Table 4

Frequency Distribution of Respondents on the basis of Education Level			
Education level	Frequency	Percent	Cumulative Percent
School	18	17.48	17.48

Graduate	60	58.25	75.73
Postgraduates	20	19.42	95.15
Other	5	4.85	100
Total	100	100	

Interpretation: The data indicates that most respondents are graduates, accounting for 58.25 percent of the sample. This is followed by postgraduates at 19.42 percent and those with school-level education at 17.48 percent. Only 4.85 percent fall under the "other" category, showing that the majority of participants have attained higher levels of formal education.

Chart 5

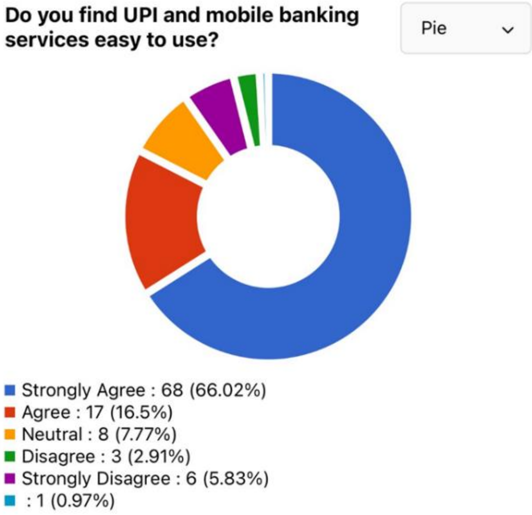

Table 5

Do you find UPI and mobile banking services easy to use?		
	Frequency	Percent
Strongly Agree	68	66.02
Agree	17	16.5
Neutral	8	7.77
Disagree	3	2.91
Strongly Disagree	6	5.83
Total	100	100

Interpretation: The responses show that a large majority of users find UPI and mobile banking services easy to use, with 66.02 percent strongly agreeing and 16.5 percent agreeing. Only a small portion of respondents expressed neutrality (7.77 percent) or disagreement (2.91 percent), while 5.83 percent strongly disagreed. Overall, the data indicates a highly positive user experience with UPI and mobile banking services.

Table 6

	Strongly agreed	**Agree**	**Neutral**	**Disagree**	**Strongly disagreed**	**Total**
School	12	2	1	1	2	18
Graduated	43	10	5	2	0	60
Postgraduated	55	14	7	2	2	80
Total	110	26	13	5	4	158

Expected Value

	Strongly agreed	**Agree**	**Neutral**	**Disagree**	**Strongly disagreed**	**Total**
School	35	12	12	6	7	72
Graduated	44	15	15	8	8	90
Postgraduated	47	16	16	8	9	96
Total	127	42	43	22	24	258

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Degree of freedom = 8

Level of significance = 5%

Chi-square test

Calculated P value = 24.6504164

Interpretation: The calculated Chi-square value of 24.65 is higher than the critical value of 15.507 at 8 degrees of freedom and a 5 percent level of significance. This indicates that the result is statistically significant. Therefore, the null hypothesis is rejected, and it can be concluded that there is a significant association between the variables under study.

5. CONCLUSION AND RECOMMENDATIONS

The study shows high awareness and strong adoption of UPI and mobile banking services in Pune, with most users relying on them for daily transactions. Google Pay emerged as the most preferred platform due to its ease of use and reliability. Users reported high satisfaction with convenience, speed, and time-saving benefits. However, concerns remain regarding security, occasional errors, and customer support responsiveness. Overall, UPI and mobile banking have significantly transformed financial behavior, though continued improvements are needed to enhance trust and user experience.

The study shows that while UPI and mobile banking are widely adopted in Pune, concerns about security, customer support, and technical reliability still exist. Strengthening security measures, improving issue-resolution systems, and enhancing digital literacy can significantly boost user confidence. Simplifying app interfaces and ensuring smooth, error-free performance will improve satisfaction for both tech-savvy and hesitant users. Expanding app features—such as expense tracking, reminders, and integrated services—can increase engagement and long-term usage. Overall, a user-centric approach combining security, support, awareness, and innovation is essential for improving digital banking experiences.

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A STUDY ON DIGITAL ECONOMY, FINTECH REVOLUTION & FINANCIAL INCLUSION BY 2047

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ABSTRACT

India's transition towards a digitally empowered economy has positioned technology-driven financial systems at the core of inclusive and sustainable development. The rapid expansion of the digital economy, supported by innovative FinTech solutions, has redefined financial accessibility, transparency, and economic participation across diverse socio-economic segments. This study examines how digital payment infrastructures, real-time platforms such as UPI, Aadhaar-enabled services, mobile banking, and emerging FinTech models act as transformative tools in bridging financial disparities and integrating underserved communities into the formal financial system.

The research underscores the critical link between digital innovation, financial deepening, and socio-economic upliftment. It analyses how advancements in digital identity, e-KYC systems, algorithm-driven lending, micro-insurance, and digital onboarding processes significantly reduce entry barriers, enhance service delivery, and promote financial inclusion at scale. Further, it evaluates the role of government initiatives including Digital India, JAM trinity, and regulatory interventions by RBI and NPCI in shaping a secure, efficient, and inclusive digital financial ecosystem.

Through a forward-looking perspective, the study also highlights challenges such as cyber security risks, low digital literacy, data protection concerns, and regional connectivity gaps that impede widespread adoption. It stresses the importance of strengthening digital governance, enhancing consumer awareness, and fostering public–private partnerships to ensure equitable and sustainable digital financial growth.

Ultimately, this research seeks to outline strategic pathways through which India's digital economy and FinTech revolution can serve not only as engines of economic efficiency but also as instruments of empowerment, equity, and inclusive growth contributing meaningfully to the vision of a self-reliant and prosperous Viksit Bharat @2047.

Keywords: *Digital Economy, Financial Inclusion, UPI, Digital Payments, Aadhaar-enabled Services, Mobile Banking, Digital Literacy; Financial Technology; Digital Infrastructure, E-KYC, Microfinance, Inclusive Growth, Viksit Bharat @2047*

1. INTRODUCTION

The rapid digitalization of global economies and the emergence of transformative financial technologies are reshaping the nature of economic activity, governance, and social progress. As India envisions becoming a developed nation by 2047 under the Viksit Bharat mission, the creation of an accessible, transparent, and technology-driven financial ecosystem becomes central to this journey. The digital economy powered by internet penetration, real-time payment systems, and data-driven innovations has emerged not only as a driver of economic efficiency but also as a powerful instrument of social inclusion. Digital platforms are enabling citizens across diverse socio-economic backgrounds to participate more actively and equitably in the nation's financial and economic development.

In the 21st century, the FinTech revolution has transformed the traditional financial landscape through innovative solutions such as mobile banking, UPI-based transactions, digital wallets, algorithmic lending, micro-insurance, and Aadhaar-enabled services. The integration of technology into the financial sector has significantly expanded the reach of financial services, allowing individuals and small businesses from remote and underserved areas to access credit, savings, insurance, and digital payments with ease. This widening accessibility has helped reduce long-standing barriers related to geography, documentation, and affordability, making financial participation more inclusive and efficient.

However, digital financial inclusion continues to face challenges in many regions, where limited digital literacy, inadequate digital infrastructure, cyber security concerns, and socio-economic constraints restrict the full adoption of digital services. Bridging this divide is essential for ensuring that technological progress translates into real empowerment for citizens, particularly those who remain on the margins of formal financial systems.

Simultaneously, emerging technologies such as Artificial Intelligence, Blockchain, Big Data Analytics, and RegTech are reshaping financial services by improving security, enhancing transparency, and enabling more personalized and efficient service delivery. These technologies are creating new opportunities for digital innovation, promoting trust, reducing operational costs, and driving India toward a more robust and future-ready financial framework aligned with global standards.

2. REVIEW OF LITERATURE:

1. **Digital Economy & Technology Adoption**:
Scholars such as Tapscott (1996) describe the digital economy as an ecosystem driven by digital technologies that reshape production, communication, and service delivery. Recent studies highlight the role of internet connectivity and technological innovation in transforming financial services.

2. FinTech Revolution:
Arner, Barberis & Buckley (2016) emphasized that FinTech represents the fusion of finance and technology that disrupts traditional banking models. Research shows increasing user adoption of mobile payments, digital wallets, UPI, and online credit systems.

3. Financial Inclusion:
According to World Bank (2018), financial inclusion is essential for reducing poverty and supporting inclusive growth. Studies in India show that digital platforms play a strong role in bringing unbanked populations into formal financial systems.

4. Government Initiatives:
Existing literature highlights the impact of Digital India, JAM Trinity (Jan Dhan–Aadhaar–Mobile), and UPI in accelerating financial inclusion and digital transaction volumes.

5. Research Gap:
Most studies examine FinTech adoption individually but limited research combines Digital Economy + FinTech + Financial Inclusion to study their combined impact, especially in the Indian context.

3. OBJECTIVES OF THE STUDY:

1. To analyse the growth and role of the digital economy in India.
2. To study the impact of FinTech innovations on financial services and user behaviour.
3. To evaluate the contribution of FinTech in promoting financial inclusion.
4. To identify challenges faced by users in adopting digital financial services.
5. To examine government initiatives that support digital financial inclusion.
6. To provide suggestions for strengthening FinTech-based financial inclusion in India**.**

4. HYPOTHESIS:

H_1: The growth of the digital economy has a positive and significant impact on financial inclusion in India

H_0: FinTech innovations such as UPI, digital wallets, and mobile banking significantly improve accessibility and usage of financial services among unbanked and underserved populations.

5. RESEARCH METHODOLOGY:

- **Population of the Study:**
The study targets urban (Mumbai city) respondents including students, working professionals, and educators.

- **Sample Size:**
A total of 100 respondents participated in the survey.

- **Sampling Technique:**
Convenience and snowball sampling methods were used to collect responses.

- **Data Collection Tools:**
Primary data was collected through a structured Google Form questionnaire.

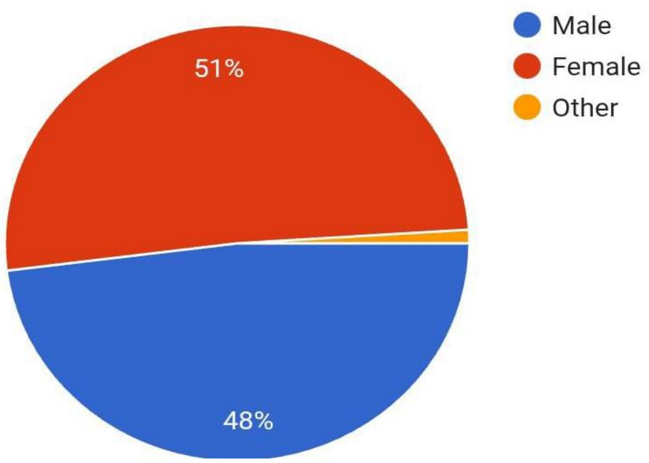
- **Data Analysis Tool:**
The collected data was analysed using descriptive statistics through Microsoft Excel, Pie Chart

6. DATA ANALYSIS AND INTERPRETATION:

Table 1:

Gender	Frequency	Percentage
Male	48	48
Female	51	51
Other	01	01
Total	100	100

Chart 1:

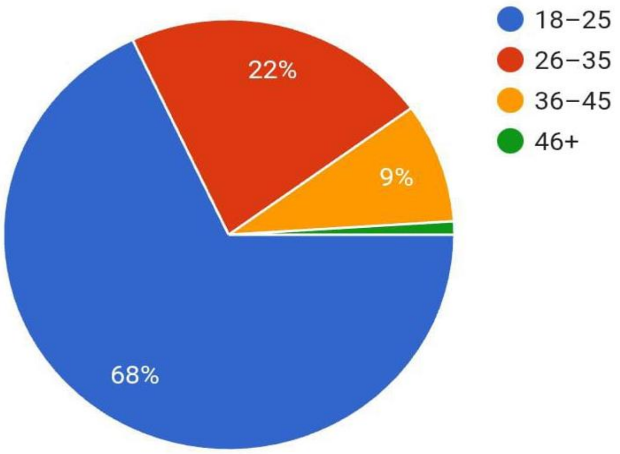


Interpretation: The above table and chart depict the gender-wise distribution of the respondents participating in the study on Digital Economy, FinTech Revolution and Financial Inclusion. The data reveals that the survey sample consists of 48% male respondents, 51% female respondents, and 1% respondents who identified as ‘Other’.

Table 2:

Age	Frequency	Percentage
18-25	68	68
26-35	22	22
36-45	09	09
46+	01	01
Total	100	100

Chart 2:



Interpretation: Table 2 and Chart 2 present the age-wise distribution of the respondents. The data shows that a significant majority of the participants (68%) fall within the 18–25 years age group, indicating that younger individuals were more actively involved in the survey. This suggests that youth are more exposed to digital technologies, FinTech services, and online financial platforms, making them the primary contributors to insights related to the digital economy.

The 26–35 years age group accounts for 22% of the sample. This segment is typically employed, financially independent, and actively engaged in digital banking, mobile wallets, UPI transactions, and other FinTech innovations. Their representation adds valuable practical perspectives on financial decision-making and technological adoption.

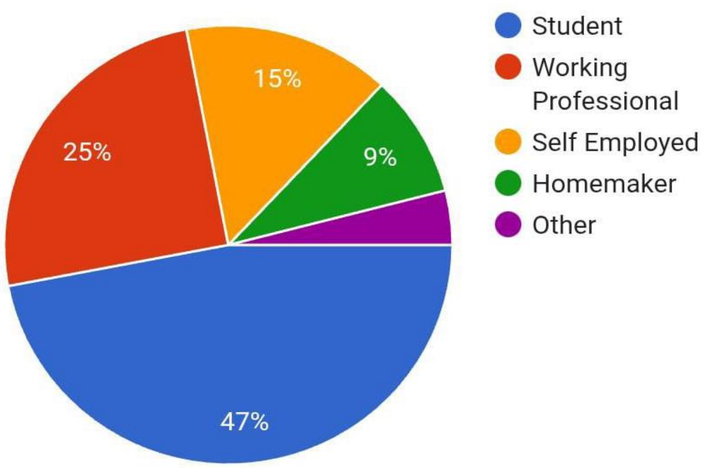
Further, 9% of respondents belong to the 36–45 years age category. Although smaller in number, this group often represents mature financial users who evaluate digital services with greater caution and experience.

The 46+ age group contributes only 1%, indicating minimal participation from older individuals. This may imply comparatively lower familiarity, confidence, or reliance on digital financial platforms among senior respondents.

Table 3:

Occupation	Frequency	Percentage
Student	47	47
Working Professional	25	25
Self employed	15	15
Homemaker	9	9
Other	4	4
Total	100	100

Chart 3:



Interpretation: Table 3 and Chart 3 present the occupation profile of the respondents. The data indicates that students form the largest group, representing 47% of the total respondents. This suggests that a major portion of the participants belong to the younger demographic engaged in education, who are generally more aware of and more actively involved with digital platforms, online payment systems, and FinTech applications. Their high participation also aligns with the increasing trend of students adopting digital banking, UPI, and mobile wallet services for daily transactions.

The second major group comprises working professionals (25%), indicating that a significant share of respondents is employed in formal sectors. This group is likely to have stable income sources and frequent usage of digital financial tools for salaries, bill payments, investment apps, and online purchases. Their input provides practical insights into the adoption of digital finance in professional and workplace environments.

Additionally, 15% of respondents are self-employed, representing small business owners, freelancers, and independent earners. This segment is critical in understanding the role of FinTech in promoting financial inclusion, especially for individuals relying on digital payments, online banking, and UPI for business transactions.

Homemakers account for 9%, highlighting moderate awareness and involvement of household managers in digital finance. Their participation indicates a growing trend of digital literacy among homemakers, particularly in managing household expenses through digital modes.

Lastly, 4% of respondents belong to the ‘Other’ category, showing that the study includes diverse occupational backgrounds, ensuring a broad representation of financial behaviors.

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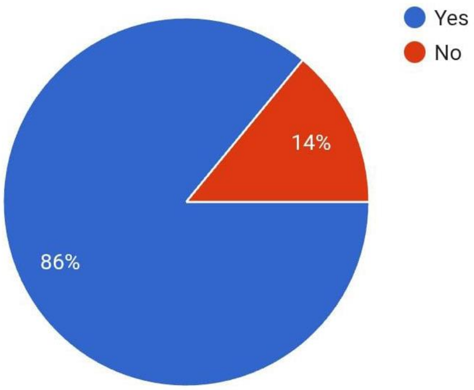
Table 4:

Do you use digital payment?	Frequency	Percentage
Yes	86	86
No	14	14
Total	100	100

Chart 4:



Interpretation: Table 4 reveals the respondents' usage pattern of digital payment systems. The data clearly indicates that a substantial majority—86% of the respondents—reported that they use digital payment methods. This high percentage demonstrates a strong acceptance and adoption rate of digital financial services among the surveyed population. It reflects the growing popularity of UPI, mobile wallets, internet banking, QR-code payments, and other FinTech innovations in daily transactions.

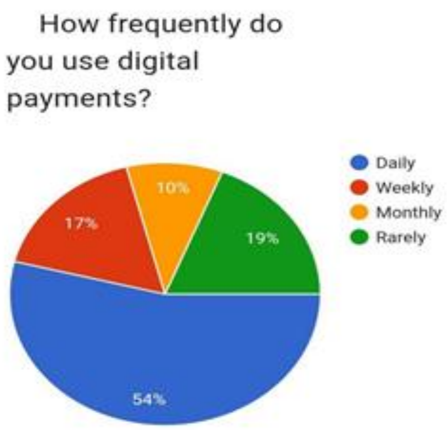
The widespread use of digital payments may also be attributed to factors such as convenience, speed, government initiatives promoting cashless transactions, increased smartphone penetration, and user-friendly payment interfaces. This also signifies an overall positive shift toward a digital economy where electronic modes of payment are becoming the preferred choice over cash.

On the other hand, 14% of respondents reported that they do not use digital payment methods. This minority group may include individuals who face challenges such as lack of digital literacy, limited access to smartphones or internet connectivity, security concerns, or a preference for traditional cash-based transactions. Their reluctance highlights that although digital financial inclusion is growing rapidly, there is still a segment of the population that remains outside the digital financial ecosystem.

Table 5:

How frequently do you use digital payment?	Frequency	Percentage
Daily	54	54
Weekly	17	17
Monthly	10	10
Rarely	19	19
Total	100	100

Chart 5:



Interpretation: Overview of Digital Payment Usage
The data from Table 5 and Chart 5 indicates how often respondents use digital payments. Out of 100 respondents, the majority (54%) use digital payments daily. This suggests a significant portion of people are actively using digital payment methods in their daily transactions. The remaining respondents are distributed across weekly (17%), monthly (10%), and rarely (19%) usage categories.

Breakdown of Usage Frequency
Looking at the distribution, daily users make up more than half of the respondents with 54%. Weekly users account for 17%, indicating a notable segment that uses digital payments on a regular but not daily basis. Monthly users are the smallest group at 10%, and those who rarely use digital payments make up 19%. This breakdown shows varying levels of engagement with digital payment systems among the respondents.

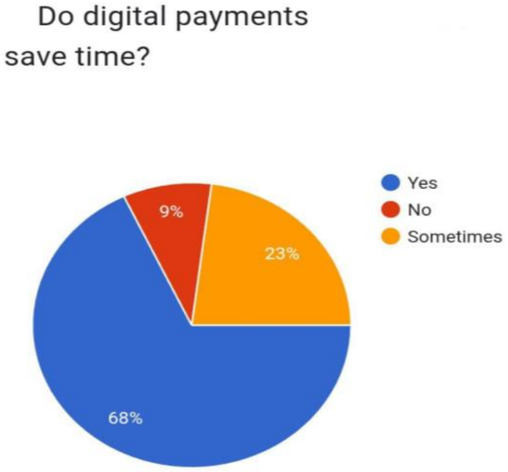
Implications of Digital Payment Adoption
The high percentage of daily users (54%) implies a strong adoption and possibly comfort with digital payment methods among more than half of the respondents. This could be due to the convenience, accessibility, or necessity of digital payments in daily life. On the other hand, the 19% who rarely use digital payments might indicate a segment that prefers traditional payment methods or faces barriers to digital payment adoption.

Potential Insights for Financial Inclusion and FinTech
In the context of financial inclusion and the FinTech revolution, this data suggests that a majority are already leveraging digital payments frequently. For initiatives aiming to increase financial inclusion through digital means, targeting the 19% who rarely use digital payments could be an area of focus. Understanding the reasons behind less frequent usage (e.g., lack of access, preference, or awareness) could help in designing more inclusive digital payment solutions.

Table 6

Do digital payments save times?	Frequency	Percentage
Yes	68	68
No	9	9
Sometimes	23	23
Total	100	100

Chart 6



Interpretation: Table 6 presents the respondents' perception regarding whether digital payment methods help in saving time. The data shows that 68% of respondents believe that digital payments do save time, indicating strong confidence in the efficiency and convenience offered by digital financial systems. This majority response reflects that users find online transactions faster compared to traditional cash-based or manual banking processes. Features such as instant UPI transfers, QR-code payments, and quick wallet transactions contribute significantly to this perception.

Meanwhile, 23% of respondents stated that digital payments 'sometimes' save time. This group may have mixed experiences, where digital transactions are occasionally delayed due to issues such as network problems, server downtime, app glitches, or slow internet connectivity. Their feedback suggests that while digital modes are generally efficient, reliability can vary depending on situational factors.

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A small portion 9% of respondents reported that digital payments do not save time. These users may face challenges such as unfamiliarity with digital tools, technical difficulties, device issues, or a preference for traditional cash transactions. Their response highlights that despite technological progress, digital literacy and accessibility remain barriers for some individuals.

7. **Hypothesis test:** The findings support H_1: The fintech revolution in India's digital economy significantly advances financial inclusion by enhancing access to financial services for underserved populations. Respondents favour fintech-driven solutions emphasizing their importance for increasing financial accessibility, reducing transaction costs, and promoting digital transactions. The data shows these approaches directly address barriers to financial inclusion, demonstrating a strong, positive impact on broadening financial access compared to traditional banking method.

8. SUGGESTION & CONCLUSION:

➢ **Enhance Digital Literacy:**
Digital literacy programs should be expanded, especially in rural and underserved areas, to help people understand and confidently use digital financial services.

➢ **Improve Network Infrastructure:**
Stronger internet connectivity and reliable network coverage are required to increase the accessibility and efficiency of digital payments across all regions.

➢ **Increase Cybersecurity Measures:**
Banks and FinTech companies must adopt advanced security features, fraud detection systems, and awareness campaigns to build user trust and reduce cyber risks.

➢ **Simplify Digital Platforms:**
Digital payment applications should be made more user-friendly, with local-language support to help new users, senior citizens, and low-literacy groups.

➢ **Introduce Tailored Financial Products:**
FinTech firms should design affordable, accessible financial products such as micro-loans and small savings tools to support unbanked and underserved populations.

➢ **Promote Bank–FinTech Collaboration:**
Partnerships between banks and FinTech companies can improve service delivery, encourage innovation, and expand digital financial access

➢ **Provide Incentives for Digital Use:**
Cashback offers, discounts, and reward programs can motivate more users to adopt digital payment systems.

➢ **Strengthen Customer Support:**
Efficient helplines and digital grievance redressal mechanisms are necessary for building trust and improving the overall user experience.

The study concludes that the digital economy and FinTech revolution have significantly contributed to the advancement of financial inclusion in India. The high adoption of UPI, digital wallets, and mobile banking reflects increasing trust and reliance on digital financial services. Survey findings show that users experience greater convenience, faster transactions, and improved accessibility through digital payment systems.

Both hypotheses of the study are supported:

The growth of the digital economy has a positive and significant impact on financial inclusion.

FinTech innovations significantly enhance accessibility and usage of financial services among unbanked and underserved populations.

Overall, digital transformation is reshaping India’s financial ecosystem by reducing barriers, improving access, and empowering individuals with modern, efficient financial tools. With continuous improvement in digital literacy, infrastructure, security, and user-friendly technology, India can further strengthen financial inclusion and accelerate its journey toward a fully digital and inclusive economy.

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IMPACT OF UPI TRANSACTIONS ON ROADSIDE VENDORS

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ABSTRACT
To study impact of UPI transactions on roadside vendors what are its positive or negative impacts ,how UPI has improved financial inclusion, how rewards we get are useful,what are the challenges faced while using UPI transactions

INTRODUCTION
UPI stands for Unified Payments Interface. It is an instant payment system developed by National Payments Corporation of India that allows you to transfer money instantly between bank accounts.

UPI system powers multiple bank accounts into a single mobile application, merging banking features and enabling seamless fund routing and merchant payments.

OBJECTIVES
. To find number of road side vendors using UPI

. To find whether UPI payment system has increased their sale or not,& how it is attracting more customers who prefer digital payment

. To find the challenges that vendor faces such as managing transactions dealing with technical issues & enhancing security

. To find how UPI supports small business

. To find how UPI payment provide convenience, how UPI simplify payments for road side vendors reducing need to handle cash & provide change

. To study, how UPI has improved security, digital payments reduce risk of carrying large amounts of cash, minimizing chance of theft

RESEARCH METHODOLOGY

Primary Data
Primary research is a method of gathering first and, original data directly from the source for a specific purpose, rather than relying on previously published information. It involves collecting new data through methods like interviews, surveys, focus groups, and experiments to gain deep insights or solve specific problems. This direct data collection provides fresh, up-to-date, and relevant information tailored to the research needs, offering a deeper understanding of a topic.

Key Characteristics

- **Original Data:**

You collect the data yourself or hire someone to do it for you, creating a unique dataset.

- **First and Information:**

The data comes directly from subjects, customers, or the source of interest, providing unique perspectives.

- **Specific to Needs:**

It's conducted to answer specific questions or solve particular problems relevant to your project.

- **High Control:**

You control the data collection process, ensuring quality and relevance to your research objectives.

When to Use Primary Research

- When existing data is insufficient or unavailable on a subject.
- When you need detailed, specific information for a particular project.
- To get current insights into consumer behavior, market trends, or public opinion.
- To test new product ideas, gather feedback, or validate assumptions.

COMMON METHODS

- **Surveys & Questionnaires:** Collecting information from a sample of people through structured questions.
- **Interviews:** One-on-one discussions to gather in-depth opinions and experiences.
- **Focus Groups:** Small group discussions to explore attitudes and perceptions.
- **Experiments:** Controlling variables to understand causal relationships and test hypotheses.
- **Observations:** Directly observing and recording behavior in a natural or controlled setting.

Advantages

- **Fresh and Relevant Data:** Provides up-to-date information tailored to your specific needs.
- **Deeper Insights:** Offers a unique and direct perspective from the source.
- **Quality Control:** You have control over the data collection process.
- **Ownership:** You have ownership of the collected data.

Disadvantages

- **Costly:** Gathering primary data can be expensive.
- **Time-Consuming:** The process of data collection and analysis takes time.
- **Complexity:** Designing and executing an effective primary research study requires expertise.

By conducting survey questions that ,what is impact of UPI transactions on roadside vendors

Through survey, we get to know different respoonses of people

Data Collection method - Secondary data

Secondary data refers to data that has already been collected by someone else for a purpose other than the current research, such as census data, government publications, or existing research reports.

Secondary data is information that already exists., It's collected by other people or organisations for a different purpose.

It's usually readily available, although special permission may sometimes be needed to access it. Secondary data may be provided by: previous evaluations of a project or programme.

Sample size

Gone through recent publish data available on Google websites,case study,reseach papers,journals reports

LITERATURE REVIEW

IMPACT OF DIGITAL PAYMENTS ON THE EARNINGS AND BUSINESS OPERATIONS OF **ROADSIDE** STREET **VENDORS**

NM SIDDIQ, SR AHAMED, YR KHAN, MS AHMED- 2025 - researchgate.net

They encompass various modes such as mobile wallets, **UPI** (Unified Payments Interface **roadside vendors**. They significantly reduce the time taken for **transactions**

Impact of M-Payment on Business Performance of Street **Vendors** in Bengaluru

P Singh, M Rizwana, SB Rashmi - Financial Resilience 2025 – Springer

vendors have adopted digital payment methods, their **impact** of how digital **transactions** benefit street **vendors** (Panda & **vendors**' use of mobile payments and evaluating the **impact** on vendors

Impact of COVID-19 Crisis on the **UPI** usage by Street **Vendors** in Bengaluru

MR Dhanush, PR Swathi - DHARANA-Bhavan's International 2024 papers.ssrn.com

Vendors commonly refer to hawkers, pedlars, **roadside** BHIM-**UPI transactions**, NEFT and RTGS **transactions** during that the positive **effect** of COVID-19 on digital **transactions** anubooks.com

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Volume 13, Issue 4 (II): October - December 2025
ISSN 2322 - 0899

The Socio-Economic **Effects** of **UPI** (Cashless Tansactions) on Small Businesses, Shopkeepers and Peddlers in India

MP Singh - Journal Global Values, 2025 - anubooks.com

With a QR code and a bank account, even the smallest **roadside vendor** can now cater to customers who prefer digital payments. This transition has not only made **transactions** more

Demonetisation in 2016 and COVID impact **in last two years have made digital payment in form of** UPI**, BHIM, NEFT and IMPS was encouraged to minimise physical cash** transactions**.**

Street **Vendors** in India: The Beginnings of a Digital Transformation Journey

BS Gopal, BGJ Davidson - Evolving Landscapes of Research and 2025 - igi-global.com

impact on the acceptance of **UPI** among street **vendor** should find it convenient to use it for **UPI transactions**, and receive notifications of **UPI transactions**, government schemes

thelensjournal.com

The **Impact** of Digitalization on Informal **Roadside** Businesses in Indonesia and its Contribution to GDP

R Bharwani - 2024 - thelensjournal.com

transaction volumes and digital payment adoption rates with qualitative insights from **roadside sellers** engage in digitalization. Through analyzing data and interviewing real-life **vendors**

The Transformative **Impact** of **UPI** on Indian Fintech Landscape

AJ Joshy - 2024 - norma.ncirl.ie

society ranging from **roadside** vegetable **vendors** up to high such as payment wallets and fintech **companies** (James, D. and frequency of **UPI transactions**, and the overall **impact** on

Adoption intention of mobile QR code payment system among marginalized street **vendors**: an empirical investigation from an emerging economy

P Nandru, SK SA, M Chendragiri - Journal of Science and 2024 - emerald.

Chapter 4 – Data Analysis, Interpretation and Presentation

Vendors opinion	**%Yes**	**%No**
1)Use or find UPI transaction	**50%**	**50%**
2)Issues with transactional fees	**23.5%**	**76.5%**
3) UPI has improved customer satisfaction	**82.4%**	**17.6%**
4)UPI has increased customer interaction	**93.8%**	**6.3%**
5) UPI transactions will have competitive advantage in future	**75%**	**18.8%**
6) Feel secure with UPI transactions compared to cash handling	**88.2%**	**11.8%**
9)Rewards are useful or not	**47.1%**	**52.9%**

CONCLUSION & SUGGESTION

The widespread adoption of UPI among vendors has been driven by its ease of use, affordability& convenience it offers to both vendors and customers.

.With government support, increased smartphone penetration, financial incentives, and growing customer comfort with digital payments, UPI has transformed how small businesses operate, making it an essential tool for vendors in both urban and rural areas.

Several organization initiatives are attempting to address these issues

- Offering low-cost smartphones or easy-to-use devices tailored to small business needs.
- Collaborating with local banks or fintech companies to provide training on UPI.
- Improving network infrastructure, especially in rural or low-connectivity areas.
- Raising awareness among vendors and customers about the security and vendors and e-commerce giants.
- Factors Driving Adoptions &

- **Accessibility:**

UPI's universal acceptance and ability to facilitate payments via smartphones have benefits of using UPI.

Merchant Adoption:

- More than 500 million merchants in India accept UPI payments, including small democratized digital payments for all.

- **Inclusivity:**

The platform's support for over 26 regional languages ensures broad accessibility across India's linguistic diversity.

User Base:

Over 450 million to 491 million individuals currently use UPI in India.

Rural Penetration:

More than 55% of rural India is now using UPI for digital payments, showing strong adoption outside of urban centers.

Digital Transactions:

- UPI accounts for the dominant share of digital payments, representing over 80% of all digital transactions in India.

Market Dominance:

- UPI is expected to capture 90% of India's mobile payment market.

Widespread Adoption

- **Large Merchant Base**:

As of July 2025, the UPI platform serves 65 million merchants across India, a figure that includes many small businesses and roadside vendors.

- **Grassroots Inclusion**:

UPI's success is rooted in its penetration into the grassroots level of the economy, with even small vendors like tea and golgappa sellers adapting to it.

- **Contactless Benefits**:

The COVID-19 pandemic accelerated the adoption of UPI by street vendors due to its swift, contactless, and hassle-free payment process, reducing reliance on cash

Challenges and Reversals

- **GST Notices and Fear of Taxation**:

A significant reason for vendors returning to cash is the receipt of unexpected Goods and Services Tax (GST) notices based on their UPI transaction inflows, even for small businesses.

"Cash Only" Movement: In response to tax concerns, many small vendors are now displaying "Cash Only" signs and ditching UPI, leading to a noticeable digital reversal in some urban areas

Some vendors and critics argue that relying solely on UPI receipts to calculate turnover for tax purposes is a flawed approach for the informal sector.

The Future of UPI for Small Vendors

- **Balancing Digital and Informal Economies**:

The situation highlights the challenge of integrating the informal sector into the formal tax system while ensuring digital payment systems remain accessible and beneficial to small-scale vendors.

- **Tailored Interventions**:

There is a recognized need for tailored strategies and support for street vendors to address their unique needs and concerns regarding digital payments and taxation.

Percentage of Indians using UPI

While the exact percentage of UPI users varies by source, recent reports from early to mid-2025 indicate that over 55% of rural India uses UPI, with the overall user base crossing 450-491 million individuals, representing a vast majority of India's mobile payment users and over 80% of digital transactions in the country.

Key Statistics on UPI Usage:

User Base:
Over 450 million to 491 million individuals currently use UPI in India.

Rural Penetration:
More than 55% of rural India is now using UPI for digital payments, showing strong adoption outside of urban centers.

Digital Transactions:

- UPI accounts for the dominant share of digital payments, representing over 80% of all digital transactions in India.

- **Convenience:**

Instant, fee-free transfers and 24/7 availability have made UPI a preferred payment method for many

Trust and Security:
Strong security measures and regulatory oversight from the National Payments Corporation of India build user trust in the platform.

The Role of Nonbanks and Fintechs in Boosting India's UPI Person-to Person

30 Aug 2024 — Since launching in 2016, UPI has democratized payments in India, providing financial services access to any user

. How many Merchants use UPI

5 Crore Merchants
If there is one Indian innovation that has grabbed global headlines in recent years, it is undoubtedly the UPI (Unified Payments Interface) payments system.

Today, more than 40% of all payments done in India are digital, with UPI having a lion's share, used by over 30 crore individuals and over 5 crore merchants.

- **How many transactions per day in India**
- 20 transactions
- 1,00,000 for most banks with a maximum of 20 transactions allowed per day. Additionally, Google Pay limits vary based on your bank and transaction type (e.g. P2P, merchant, or capital market transactions). Knowing these limits helps ensure seamless bill payments, shopping, and money transfers through UPI.

Who owns UPI transactions in India

- The National Payments Corporation of India (NPCI), a non-profit organization established by the Reserve Bank of India (RBI) and the Indian Banks' Association (IBA), owns and operates the Unified Payments Interface (UPI) platform in India.
- While NPCI operates UPI, it is regulated by the RBI and owned by a consortium of banks and financial institutions.

Key entities involved with UPI:

- **National Payments Corporation of India (NPCI):**

This is the primary owner and operator of the UPI platform. NPCI is responsible for developing, managing, and regulating UPI, ensuring interoperability and real-time transfers for users.

- **Reserve Bank of India (RBI):**

The RBI is the central bank of India and regulates UPI through NPCI, ensuring the system's stability and security.

- **Indian Banks' Association (IBA):**

The IBA, a consortium of major banks, was a co-founder of NPCI and continues to be a part of its ownership structure.

- **Banks as Third Party Application Providers (TPAP)**

Payment apps (like Google Pay, PhonePe, etc.) are participants in the UPI ecosystem, leveraging the platform for transactions and operating under NPCI's rules and regulations.

In essence, UPI is a collaborative effort, but the operational ownership rests with the NPCI, which is a creation of India's public and private financial institutions, overseen by the RBI.

. Highest UPI transactions in India

The highest single UPI transaction limit in India for specific use cases, such as IPO applications, is ₹5,00,000, while a general limit for most person-to-person and merchant payments is ₹1,00,000.

However, these are per-transaction limits, and there is no information available on the single highest transaction value ever made through UPI, as that is not a publicly tracked figure.

UPI Transactions Limits by Type

- **Person-to-Person Transfers, Merchant Payments, and Bill Payments:** Up to ₹1,00,000.
- **Capital Markets and Insurance Premiums:** Up to ₹2,00,000.
- **IPO Applications:** Up to ₹5,00,000.
- **Government Collections:** Up to ₹2,00,000

Key Points to Note:

- These limits are set by the National Payments Corporation of India (NPCI) and can vary based on the specific bank and transaction type.
- Banks may have their own limits, and a new user might have a lower limit for the first 24 hours after account activation.
- Daily and monthly transaction limits also apply in addition to the per-transactions

There isn't an exact number for roadside vendors using UPI, but it's estimated that around 46% of street vendors received online payments in a 2024 survey, with significant variations by city and individual circumstances, as many are also switching away from UPI due to GST concerns.

Which UPI App is mostly used by Vendors

While specific vendor preferences aren't always tracked, PhonePe and Google Pay (GPay) are the most dominant UPI apps in India and are widely used by roadside vendors due to their large user bases and user-friendly interfaces, often facilitated through personalized QR codes.

Other platforms like Paytm and BHIM are also utilized, with acceptance increasing thanks to the overall growth of digital payments and government initiatives like NPCI's promotion of UPI technology.

Dominant UPI Apps for Vendors

- **PhonePe:**

As the market leader in UPI payments, PhonePe has a massive user base that extends to small vendors and businesses across India.

- **Google Pay (GPay):**

As a close second in market share, Google Pay is also extremely popular and widely used by roadside vendors for its convenience.

- **Paytm:**

Paytm is another well-known platform that many roadside vendors use to accept digital payments from customers

- BharatPe:
- This app has gained popularity among small merchants by focusing on their specific needs.
- It offers a universal QR code to accept payments from various UPI apps and provides working capital assistance to businesses.

Factors Driving Usage

- **Ease of Use:**

UPI apps, in general, simplify the payment process for both customers and vendors by using QR codes for quick and easy transactions.

- **Customer Preference:**

A large number of customers prefer cashless payments, making it essential for vendors to adopt UPI.

- **Digital Transformation:**

UPI has facilitated the digital transformation of the Indian economy, making digital payments accessible and beneficial for street vendors.

- **Government Support:**

Initiatives and the government's role in expanding UPI technology contribute to its widespread adoption by all segments of society, including vendors

The PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) scheme reported that only about 42,000 of 1.3 lakh digitally active vendors used UPI, suggesting a specific segment of vendors who embrace digital transactions.

Key factors influencing UPI use among roadside vendors:

- **Digital Adoption:**

A 2024 report showed that about 46% of street vendors receive online payments, indicating a notable but not universal trend

- **PM SVANidhi Scheme:**

Data from the scheme reveals that out of 1.3 lakh digitally active vendors, only about 42,000 specifically use UPI, which is around 32% of this group.

- **GST-Related Issues:**

In some areas, particularly cities like Bengaluru, many vendors are returning to cash-only transactions due to fears about GST notices derived from large UPI inflows.

- **Preference:**

Despite the challenges, a significant number of vendors still accept digital payments for transactions under ₹1,000.

- **Regional Variation:**

The prevalence of UPI use varies by location , with some regions seeing higher adoption rates and others experiencing a shift back to cash due to tax-related issues.

1. **Record Keeping:**

The payment is then credited to the vendor's linked bank account, helping them maintain digital records of their income.

PhonePe and Google Pay are the two most widely used UPI apps among roadside vendors in India, with Paytm also having a significant presence.

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8. UPI Payment Influence on Retail Sector in Mumbai UPI and Its Impact on Business Performance of Retailers Unified Payments Interface Adoption and the Business Growth
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UPI AND ITS IMPACT ON TRADITIONAL BANKING CHANNELS

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ABSTRACT

Unified Payments Interface (UPI), launched in 2016 by the National Payments Corporation of India (NPCI), has revolutionized India's digital payment ecosystem. Offering instant, interoperable, and low-cost real-time transactions, UPI has reshaped consumer payment behavior and significantly impacted traditional banking channels such as NEFT, RTGS, IMPS, cheque transactions, and ATM withdrawals. This study explores the growth, adoption, and influence of UPI on traditional banking systems by analyzing customer preferences, transaction trends, and operational challenges faced by banks.

Primary data was collected through structured questionnaires, and analytical tools such as frequency distribution and charts were used to interpret the findings. Results indicate a strong shift from branch-based and card-based transactions towards mobile-based UPI payments due to convenience, speed, zero-cost transfers, and superior user experience. The study concludes with recommendations for banks to innovate, strengthen digital infrastructure, and collaborate with fintech platforms.

Keywords: *UPI, Digital Payments, NPCI, Traditional Banking, NEFT, RTGS, IMPS, Financial Inclusion, Fintech, Customer Behaviour.*

INTRODUCTION

India's financial system has undergone a major digital transformation in recent years. Prior to digital payments, banking relied heavily on physical channels such as cheques, demand drafts, and branch visits. Although systems like NEFT and RTGS improved interbank transfers, they lacked simplicity and round-the-clock accessibility.

In 2016, NPCI introduced UPI as a unified real-time payment system enabling instant transfers via smartphones using Virtual Payment Addresses (VPAs). UPI's simplicity, interoperability, and secure architecture contributed to mass adoption across individuals, merchants, and institutions.

The exponential rise of UPI has reduced dependency on traditional payment instruments. Banks have witnessed declining footfall, lower ATM withdrawals, and reduced cheque and card transactions. UPI has also facilitated financial inclusion by offering easy access to digital payments, especially in semi-urban and rural regions.

This study aims to examine the influence of UPI on traditional banking channels and identify behavioural, technological, and operational changes within the financial ecosystem.

LITERATURE REVIEW

Santosh Anagol (2012): Found hidden charges in investment platforms influenced investor decisions and highlighted the importance of transparency in financial services.

K. Lakshmana Rao (2011): Emphasized the need for investor awareness and the role of regulators in improving financial literacy in digital services.

Kannad (2006): Studied investment decisions influenced by age, gender, income, risk appetite, and awareness—factors also applicable to digital financial behavior.

Desigan et al. (2006): Found women investors avoided financial products due to low understanding—similar trends appear in digital payment adoption.

Anand & Murugalah (2004): Stressed the need for innovation in financial services, supporting the argument that UPI is a disruptive innovation.

Priti Mane (2016): Highlighted changing investor and consumer behaviour due to advancing financial markets and technology.

Gap Identified:

While earlier studies focus on mutual funds and investor behaviour, limited research exists on UPI's impact on traditional banking—this study aims to fill that gap.

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RESEARCH METHODOLOGY

1. Objectives of the Study

- To analyze the growth and adoption of UPI in India.
- To study customer preferences toward UPI and traditional banking channels.
- To examine the impact of UPI on NEFT, RTGS, IMPS, and cheque transactions.
- To analyze demographic factors influencing UPI usage.
- To provide suggestions for strengthening digital banking.

2. Hypothesis

H0: UPI has no significant impact on traditional banking channels.

H1: UPI has a significant impact on traditional banking channels.

3. Data Collection

- **Primary Data:** Survey through structured questionnaire (100 respondents).
- **Secondary Data:** RBI reports, NPCI publications, journals, websites, government data.

4. Sample Design

Random convenience sampling across students, professionals, and self-employed individuals aged 18–60.

5. Tools Used for Analysis

- Frequency tables
- Pie charts & bar diagrams
- Percentage analysis

DATA ANALYSIS & INTERPRETATION

Chart 1

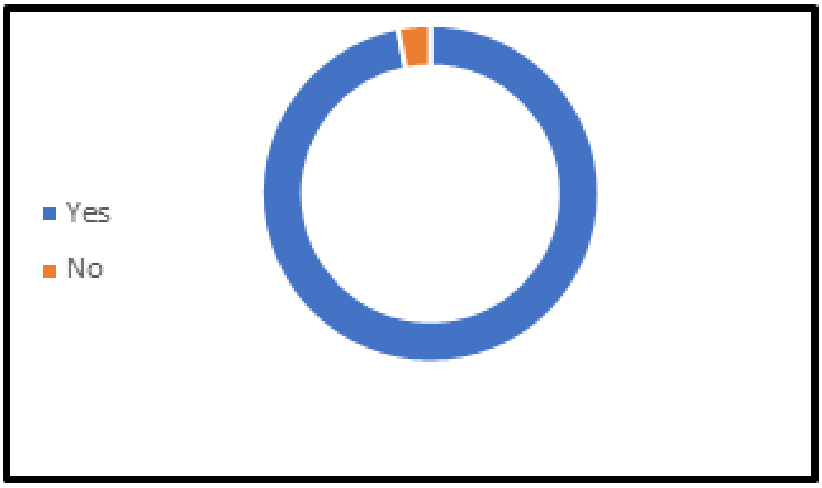

Table 1

Response Category	Frequency	Percent	Cumulative Percent
Yes	222	96.9	96.9
No	7	3.1	100
Total	229	100	100

Interpretation:

The survey data indicates a very high adoption of UPI among the respondents. Out of 229 participants, 222 individuals (96.9%) reported using UPI for their transactions, while only 7 respondents (3.1%) do not use it. This overwhelming majority highlights that UPI has become a preferred and widely accepted mode of digital payment within this group. The near-universal usage suggests that UPI is well-integrated into the daily financial habits of the respondents, reflecting its convenience, speed, and ease of use. Overall, the data underscores UPI's dominant role in facilitating digital transactions among users.

Chart 2

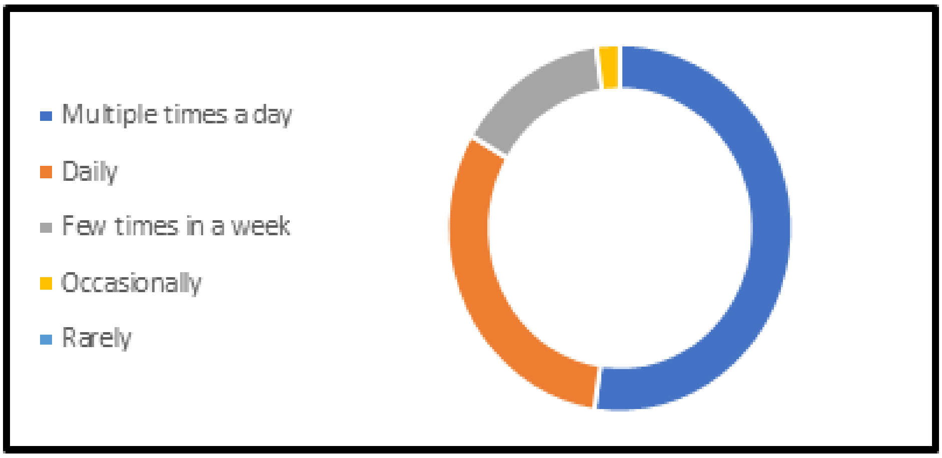

Table 2

Response Category	Frequency	Percent	Cumulative Percent
Multiple times a day	120	52.4	52.4
Daily	71	31	83.4
Few times in a week	33	14.4	97.8
Occasionally	5	2.2	100
Rarely	0	0	100
Total	229	100	100

INTERPRETATION:

The frequency distribution of UPI usage reveals that a majority of respondents use UPI very frequently. 52.4% of participants use UPI multiple times a day, showing a strong dependence on digital payment systems for daily financial activities. Another 31% use UPI daily, further emphasizing UPI's integral role in routine transactions. A smaller portion of respondents use UPI less frequently, with 14.4% using it a few times a week and 2.2% using it only occasionally. Notably, no respondents reported using UPI rarely, indicating that UPI has become a highly adopted and consistently used payment method across the sample.

Chart 3

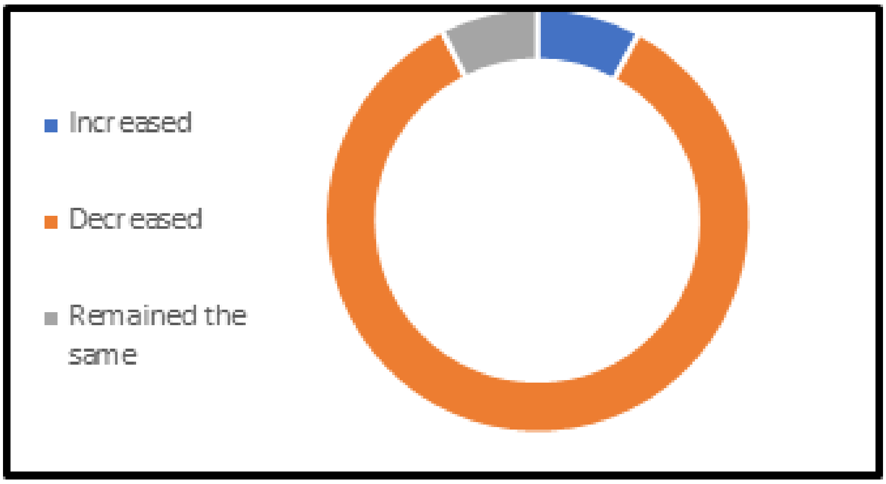

Table 3

Response Category	Frequency	Percent	Cumulative Percent
Increased	18	7.9	7.9
Decreased	194	84.7	92.6
Remained the same	17	7.4	100
Total	229	100	100

Interpretation:

The data clearly indicates that the adoption of UPI has significantly reduced the use of traditional banking channels. A majority of 194 respondents (84.7%) reported a decrease in their usage of NEFT, RTGS, or IMPS since using UPI. Only 18 respondents (7.9%) indicated an increase, while 17 respondents (7.4%) stated that their usage remained the same. This highlights that UPI has largely replaced traditional digital banking methods for most users, offering greater convenience, speed, and accessibility for everyday transactions, and reflecting a shift toward cashless and digital payment preferences.

Chart 4

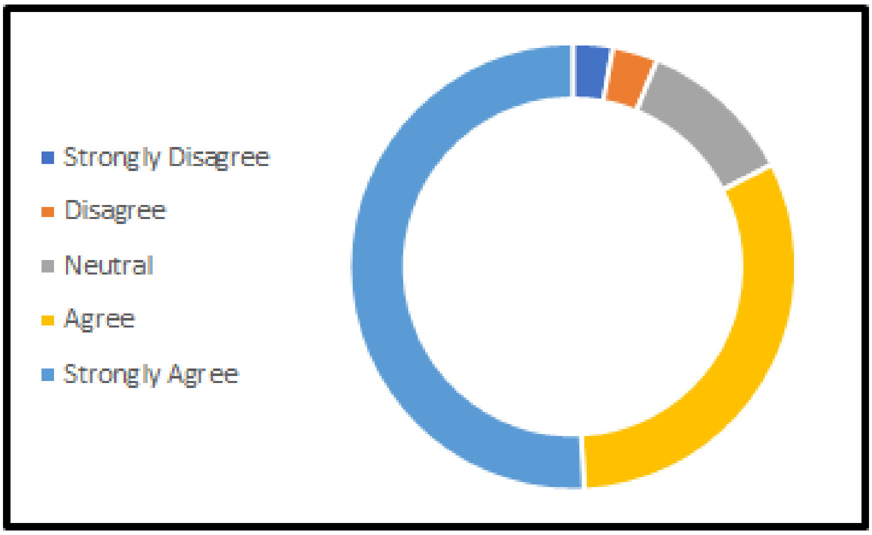

Table 4

Response Category	Frequency	Percent	Cumulative Percent
Strongly Disagree	7	2.9	2.9
Disagree	8	3.3	6.2
Neutral	26	11.4	17.6
Agree	78	32	49.6
Strongly Agree	125	51.2	100
Total	229	100	100

Interpretation:

The data indicates that respondents overwhelmingly perceive UPI transactions as faster than traditional methods. A total of 203 respondents (83.2%) either agree (78 respondents, 32%) or strongly agree (125 respondents, 51.2%) with this statement. Meanwhile, 26 respondents (11.3%) remain neutral, and only 15 respondents (6.2%) disagree or strongly disagree. This highlights that speed and efficiency are key factors contributing to UPI's popularity, positioning it as a preferred alternative to traditional digital banking methods like NEFT, RTGS, and IMPS for everyday financial transactions.

Chart 5

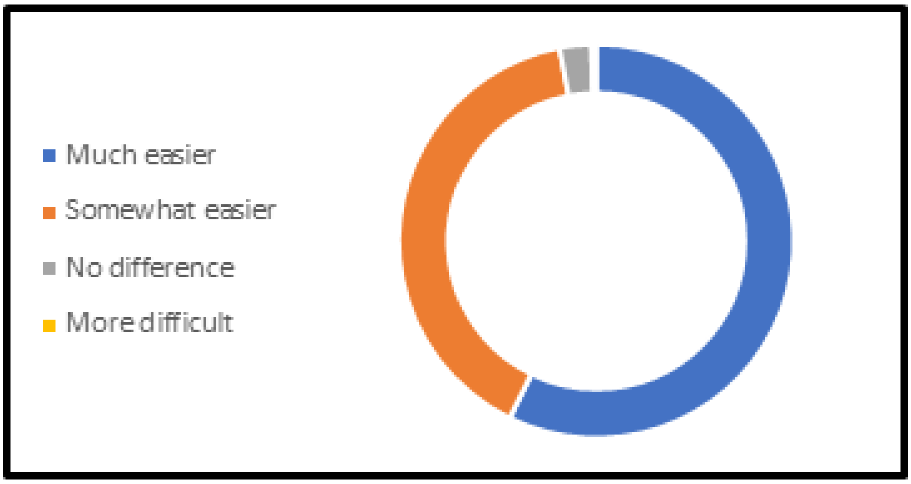

Table 5

Response Category	Frequency	Percent	Cumulative Percent
Much easier	131	57.2	57.2
Somewhat easier	91	39.7	96.9
No difference	6	2.6	99.5
More difficult	1	0.4	100

Interpretation:
The data shows that UPI has significantly simplified banking for respondents. A majority of 131 respondents (57.2%) feel that banking has become much easier, while 91 respondents (39.7%) consider it somewhat easier. Only a small fraction reported no difference (6 respondents, 2.6%) or found it more difficult (1 respondent, 0.4%). This indicates that UPI has had a positive impact on banking convenience, streamlining transactions and reducing dependence on traditional methods, thereby enhancing the overall efficiency and accessibility of financial services for most users.

Expected Value

Do you use UPI for transaction?	Since using UPI your use of traditional banking channels (NEFT/RTGS/IMPS)			
	Increased	Decreased	Remained the Same	Total
Yes	40	163	53	255
No	11	47	15	74
Total	51	210	68	329

Degree of Freedom: 2

Level of Significance: 5%

Chi-Square test

Calculated P value: 98.8469

Interpretation
The chi-square test shows a calculated value of 98.8469, which is greater than the table value of 5.991 at 2 degrees of freedom. Since the calculated value exceeds the critical value, the result is statistically significant, and therefore the null hypothesis (H_0) is rejected.

SUGGESTIONS & RECOMMENDATIONS

1. **Banks should integrate advanced UPI features** such as autopay, mandate approvals, and credit-lined UPI.
2. **Increase cyber-security awareness** to reduce fraud risks.
3. **Banks must adopt fintech collaborations** to stay innovative.
4. **UPI infrastructure should be strengthened** to handle rising transaction volumes.
5. **Digital financial literacy campaigns** should target rural and older populations.
6. **Banks should redesign service models**, focusing more on digital over physical infrastructure.
7. **Encourage UPI integration in all merchant categories**, including micro-businesses.

CONCLUSION
UPI has emerged as the most preferred digital payment method in India, significantly transforming traditional banking. Its ease of use, instant settlement, zero charges, and interoperability have resulted in declining dependency on ATMs, cheques, NEFT, and RTGS for routine transactions. Banks must adapt by improving digital infrastructure and innovating services to align with customer expectations. UPI is not just a payment tool but a driver of India's digital financial evolution.

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THE ROLE OF SOCIAL MEDIA IN SHAPING E-COMMERCE BRAND PERCEPTION

Malhar Mane

ABSTRACT

In these days' digitally driven market, the bounds between social interaction, emblem engagement, and on-line buying have blurred. The upward thrust of social media has transformed how clients perceive, have interaction with, and examine e-trade brands. This report, titled "The function of Social Media in Shaping E-trade brand perception," explores how systems along with Instagram, Facebook, YouTube, and X (previously Twitter) impact patron attitudes, trust, and shopping for intentions toward on-line manufacturers. As purchasers increasingly depend on digital touchpoints for product discovery and brand engagement, know-how the dynamics among social media activity and emblem perception has turn out to be a critical element of modern advertising method.

The study investigates the quantity to which social media contributes to logo image formation, client believe, and buy choices inside the e-commerce sector. It emphasizes that social media is no longer a supplementary advertising and marketing device however a core mechanism for emblem storytelling, patron interaction, and loyalty building. With hundreds of thousands of customers enticing every day across numerous structures, brands need to strategically curate their content material and engagement patterns to create genuine and steady perceptions. The record highlights how visuals, consumer-generated content material, influencer endorsements, and customer critiques together create social surroundings that shapes consumer consider and brand fee.

To acquire these insights, a complete primary survey was conducted among social media customers, specializing in their behaviour, perceptions, and attitudes toward e-trade manufacturers. A dependent questionnaire containing thirteen questions turned into administered, taking pictures responses from a diverse demographic group. The survey collected statistics on preferred systems, frequency of interplay, consider in social media promotions, and the impact of consumer feedback and influencer advertising and marketing on purchaser notion. The results revealed that more youthful audiences predominantly favoured Instagram for emblem discovery, even as older respondents leaned more in the direction of fb and YouTube. moreover, the evaluation established that general customer accepts as true with in social media promotions turned into substantially above the neutral stage, indicating the growing have an impact on of virtual engagement on purchase self-assurance. The secondary studies included an extensive assessment of literature from instructional journals, reports, and advertising and marketing research. It revealed that social media plays more than one role in influencing emblem perception — acting as a discovery engine, a network hub, and a feedback loop. Influencer advertising emerged as a chief driver of credibility, as clients have a tendency to believe private hints over traditional advertisements.

INTRODUCTION

Over the past many years, the digital revolution has transformed the way groups function, communicate, and build relationships with customers. one of the maximum huge tendencies in this variation has been the upward push of social media as a worldwide verbal exchange and advertising platform. From being easy networking gear, structures like facebook, Instagram, YouTube, and X (previously Twitter) have advanced into effective devices of consumer engagement, brand storytelling, and on-line trade. In parallel, e-change has emerged as a dominant retail version, reshaping conventional purchasing styles and enabling consumers to shop for nearly something with only a few clicks. This convergence of social media and e-trade has given beginning to a brand-new environment—social trade—in which logo notion is increasingly shaped through digital interplay, peer affect, and content cloth pushed reports.

Within the early 2000s, brand picture and purchaser perception have been in large part formed thru conventional media inclusive of television, print, and out of doors advertisements. the ones channels accompanied a one-manner verbal exchange model, in which clients passively obtained advertising messages. information, the rise of web 2.0 technology and person-generated content material transformed this dynamic right into a manner interactive relationship. nowadays, consumers aren't genuinely recipients of advertising and marketing data—they're active participants who co-create brand which means thru remarks, opinions, likes, and stocks. This democratization of communication has shifted strength from manufacturers to customers, allowing audiences to persuade expertise manufacturers are perceived within the digital environment.

The growth of e-trade has been exponential, in particular in emerging economies like India. The huge use of smartphones, less expensive net get admission to, and the benefit of digital price structures have increased on-line buying adoption. in keeping with agency estimates, India's e-change market is projected to surpass USD 100 and fifty billion with the resource of 2026, with social media structures gambling an important characteristic in driving consumer recognition and engagement. The growing interconnection among social media advertising and e-commerce has created a dynamic panorama where clients rely intently on online interactions, influencer endorsements, and peer critiques to form opinions about producers in advance than making purchase choices.

Social media structures have revolutionized brand conversation with the aid of allowing businesses to connect without delay with customers, construct emotional resonance, and maintain everyday engagement. in evaluation to standard marketing, social media lets in for customized, actual-time interplay with audiences. manufacturers now use seen storytelling, influencer partnerships, and network-building techniques to bolster their photograph. The non-forestall float of person-generated content material fabric (UGC), inclusive of critiques, testimonials, and purchaser snap shots, has come to be a right supply of emblem credibility.

This has delivered approximately the upward push of the "social evidence" phenomenon, wherein clients are stimulated by using manner of the critiques and stories of others. The evaluations shared by means of manner of friends on social media systems often deliver greater weight than formal marketing campaigns, making social engagement a cornerstone of brand belief.

In nowadays relatively aggressive e-trade surroundings, emblem belief serves as a essential differentiator. With countless options available online, customers tend to select producers they perceive as sincere, obvious, and relatable. emblem notion encompasses know-how customers view and emotionally hook up with a logo based totally on their stories, interactions, and publicity to its advertising and marketing messages. A high-quality logo perception no longer only draws new customers understanding ever knowledge moreover fosters emblem loyalty and advocacy, both of which is probably important for lengthy-time period fulfilment inside the virtual financial system. Social media, with the aid of supplying an open region for expression, considerably impacts understanding this notion is common and maintained. the benefit with which clients can proportion their opinions or dissatisfaction way that a brand's reputation may be each strengthened or broken inner moments.

Some other key transformation added via social media is the upward thrust of influencer advertising. Influencers—individuals with robust followings and perceived information— have become powerful intermediaries among brands and clients. Their endorsements and evaluations regularly appear greater real and relatable than conventional movie star advertisements. For e-trade producers, taking element with influencers enables bridge the accept as true with gap that occasionally exists in digital transactions. studies have validated that customers are much more likely to consider merchandise encouraged through way of influencers or buddies than by means of using brand-generated content material. This shift underscores the developing importance of authenticity and relatability in logo conversation, factors that immediately affect logo belief within the on-line market.

The main objectives of this research are:

1. To explore how social media marketing strategies impact brand awareness and perception in e-commerce.
2. To examine the influence of user-generated content (e.g., reviews, testimonials) on consumer trust.
3. To analyse the role of influencers and brand advertisements in shaping consumer behaviour.
4. To identify which social media platforms have the greatest impact on consumer buying decisions.
5. To provide recommendations for e-commerce businesses to improve their social media strategies.

LITERATURE REVIEW

1. Menon, P. Balakrishnan (2021) — "Influence of social media Marketing Efforts on Brand Equity and Consumer Response to Branded shoes in India"

This has a look at examines how social media advertising sports—especially enjoyment, trendiness, word-of-mouth and interplay—impact brand fairness among customers of luxurious branded shoes in Kerala, India, and how that emblem equity mediates purchaser response along with willingness to pay a premium, brand desire and loyalty. the usage of PLS-SEM on primary information from 18–50-year-olds, the studies unearths that social media efforts drastically decorate logo recognition, brand photograph, perceived best and affiliation, which in flip force consumer alternatives and loyalty. This underscores the important function of social media in building emblem perception and fairness in the Indian e-commerce (or branded items)

2. Siji, Smitha (2021) — "Social commerce of Indian customers: Role of Social Media usage."
In this paper, the author investigates how social trade constructs (like ratings and referrals, online forums, ratings and opinions) integrate with social media usage amongst Indian clients and have an impact on line purchase aim. based on a survey of 500 social media users throughout India, the results display that social commerce constructs and social media utilization have a nice impact on buy intention, thereby implying that higher engagement on social media systems shapes how customers perceive e-trade manufacturers and decide to purchase. This study gives insight into how emblem belief and buy behaviour are connected thru social media usage inside the Indian marketplace.

3. Kulkarni, Swati & Bharath S (2025) — "Impact of Social Media on Brand Perception and Purchase Decision."
This research explores the have an impact on of social media on customer purchase decisions and logo belief in India via classifying social media's roles at every stage of the customer selection-making system (problem recognition, records seek, assessment, purchase, publish purchase). The findings imply that social media notably shapes brand attitudes and perceptions thru content material sharing, social validation and interactive engagement, and types have to innovate in how they disseminate information and control belief throughout systems. This helps the belief that belief is shaped continuously via social media engagement.

4. Srivastava, Aditi; Gupta, Ruchika; Singh, Shalini (2022) — "A conceptual study of the impact of brand loyalty, brand perception and brand promotion on customers to purchase products using E-commerce."
Even though this painting is theoretical in nature, it discusses how influencer presence on social media, emblem promotion and logo notion engage in the Indian e-commerce environment. The take a look at reveals that brand loyalty, notion and merchandising are substantially stimulated by influencers and social media presence, thereby linking the strategic function of social media engagement in shaping consumer belief of e-commerce brands.

5. Kaplan, Andreas M., & Haenlein, Michael (2010) — "Users of the world, unite! The challenges and opportunities of social media."
This seminal paper posted in industrial enterprise Horizons is one of the most stated works in the on-line of social media advertising and marketing. Kaplan and Haenlein conceptualize social media as a group of net-based absolutely programs built on the ideological and technological foundations of internet 2.0, allowing consumer-generated content material. The examine classifies social media into training like collaborative tasks (e.g., Wikipedia), blogs, content material companies (e.g., YouTube), social networking web sites (e.g., fb), digital exercise worlds, and virtual social worlds.

6. Mangold, W. Glynn, & Faulds, David J. (2009) — "Social media: The new hybrid element of the promotion mix."
Mangold and Faulds, of their influential article published in business corporation Horizons, argue that social media represents a progressive hybrid detail in the traditional promotional blend. in contrast to conventional channels in which messages are tightly controlled by way of the use of marketers, social media lets in customers to play an identical characteristic in growing and shelling out content. The paper stresses that customers' conversations on structures like fb, Twitter, and YouTube can construct, enhance, or spoil logo image in actual-time.

7. Brodie, Roderick J., Holle Beek, Linda D., Juric, Biljana, & Ilić, Ana (2011) — "Customer engagement: Conceptual domain, fundamental propositions, and implications for studies."
This has a look at, posted inside the journal of provider studies, lays the theoretical basis for know-how purchaser engagement — a crucial assemble for current social media advertising and marketing. The authors conceptualize engagement as a multidimensional construct encompassing cognitive, emotional, and behavioural dimensions, emphasizing that engagement is going beyond easy transactions to mirror an interactive customer dating.

8. Freberg, Karen, Graham, Kristin, McGaughey, Karen, & Freberg, Laura (2011) — "who are the social media influencers?"
The authors argue that influencers range from traditional endorsers due to their perceived authenticity, expertise, and relatability. the use of an aggregate of surveys and case research, they look into know-how influencers are evaluated primarily based on credibility, elegance, and content material consistency.

DATA ANALYSIS

Which type of social media content material influences your belief of an E-trade brand the most?
The most common responses were influencer posts, client evaluations/testimonials, and emblem advertisements. Influencer posts held a considerable share, closely followed via client evaluations.

Interpretation: customers are much more likely to agree with content created with the aid of friends or influencers in place of universal advertisements. This supports the social evidence principle (Cialdini, 2001), which emphasizes the role of social validation in shaping perceptions. manufacturers should therefore stability influencer partnerships with patron testimonials to construct authenticity.

When you see a product promoted on social media, how does it affect your trust in the brand?

Responses Revealed 3 Styles:

- Increases trust considerably/slightly – Majority
- No trade in agree with – Slight share
- Decreases believe – Minimal percentage

Interpretation: While promotions beautify consider for many, a splendid component stays unaffected, indicating scepticism. consider is built now not just by way of presence on social media but additionally via steady great and transparency. Literature (Erdem & Swait, 2004) highlights that credibility is significant to logo consider, and mere advertising might not suffice.

Which social media platform do you feel has the strongest impact on your e-commerce buying selections?
Most of the people selected Instagram, followed by using YouTube. FB received fewer responses, whilst emerging systems had negligible effect.

Interpretation: visual-first structures dominate purchaser belief. Instagram's emphasis on visuals and influencer collaborations resonates with young clients, confirming preceding studies (Smith, 2020). YouTube plays a complementary function via imparting special opinions and unboxings.

What aspect makes you most engaged with an e-trade emblem on social media?
Pinnacle responses included reductions and promotions, purchaser evaluations and remarks, and interactive campaigns.

Interpretation: Reductions appeal to immediately interest, however engagement is sustained via interaction and transparency. This locating suggests that a aggregate of promotional and relational techniques is best in preserving long-time period engagement.

When comparing an e-commerce brand, which type of engagement metric influences you the most?
Respondents highlighted customer opinions, likes, stocks, and feedback, with opinions being the most relied on.

Interpretation: Engagement metrics act as social validation. opinions carry greater weight than superficial likes or shares, underscoring the significance of proper feedback. This supports the Elaboration probability model (Petty & Cacioppo, 1986), where consumers use rational cues (reviews) over peripheral ones (likes).

What motivates you the maximum to comply with an e commerce emblem on social media?
Top motivators blanketed specific offers/discounts, staying up to date on new merchandise, and purchaser interplay possibilities.

Interpretation: customers comply with brands now not most effective for discounts but additionally for continuous engagement. This highlights the position of social media as both a transactional and relational device.

How do influencer collaborations affect your perception of an e commerce emblem?
Maximum respondents pronounced that collaborations cause them to agree with the logo greater, at the same time as a smaller proportion stated no effect.

Interpretation: Influencers act as agree with-developers, in particular for more youthful demographics. however, over-commercialization may additionally reduce authenticity. studies (Freberg et al., 2011) indicate that perceived authenticity is key in influencer advertising and marketing.

CONCLUSION & SUGGESTIONS

The evaluation performed on this research presents a comprehensive information of ways social media has emerged as a imperative pressure in defining, shaping, and transforming patron perceptions of e-commerce manufacturers. The findings derived from the survey, supported by using relevant secondary records, honestly set up that social media is no longer a supplementary marketing channel however a fundamental ecosystem that drives consciousness, trust, and loyalty. through an in-intensity interpretation of person responses and pass-verification with literature, it turns into evident that the role of social media in present day brand building extends a ways past mere advertising—it constructs emotional stories and personal relationships between purchasers and types.

The study reveals that the inspiration of logo perception today lies in visibility and engagement through virtual platforms. clients no longer rely entirely on conventional commercials or movie star endorsements; instead, they form their opinions thru interactive stories, visual storytelling, and proper user content encountered daily on social platforms. among these, Instagram emerged as the maximum influential medium, mainly amongst more youthful audiences, who understand it as a area for discovery and concept. The platform's attention on visuals, short videos, and influencer collaborations allows brands to create a sturdy emotional enchantment. Older demographics, meanwhile, retain to rely on Facebook and YouTube, valuing these systems for his or her reliability, informational content material, and network-pushed nature. This generational distinction underlines how brand belief on social media is formed not handiest via content but additionally with the aid of platform tradition and target audience conduct.

Some other important conclusion drawn from the take a look at is the crucial position of authenticity in shaping purchaser believe. The present-day virtual target audience values realness over perfection. Audiences are greater willing to engage with manufacturers that show off honesty, transparency, and human qualities in preference to curated perfection. This shift displays a new technology in branding wherein relatability, empathy, and openness decide a emblem's credibility. Social media permits manufacturers to speak those features immediately, breaking the barrier among the organization and the purchaser. The inclusion of at the back of-the-scenes content material, customer testimonials, and person-generated cloth allows purchasers to feel concerned inside the brand's story, thereby fostering emotional belonging and advocacy.

Influencers also play a pivotal role in forming e-trade logo notion. but, their effectiveness is largely decided by using authenticity and personal connection in preference to follower count number. The study concludes that audiences have become more discerning; they could effortlessly differentiate among proper pointers and paid promotions. Influencers who preserve credibility and reveal proper perception in the goods they promote are perceived as sincere extensions of the logo itself.

SUGGESTION

1. Prioritize Authenticity Over Promotion

Manufacturers need to cognizance on genuine storytelling and obvious verbal exchange rather than openly promotional content. Audiences are increasingly more resistant to standard advertising and marketing methods. real visuals, in the back of-the-scenes posts, and sincere product remarks create emotional agree with and humanize the logo.

2. Leverage Influencer marketing Strategically

Instead of participating with influencers completely based on follower depend, brands must companion with individuals who align closely with their values, aesthetics, and target audience demographics. lengthy-time period collaborations are more powerful than one-time promotions as they bring about continuity, credibility, and proper endorsement.

3. Encourage user-Generated content (UGC)

Manufacturers ought to actively inspire clients to share reviews, testimonials, picks, or unboxing films. Campaigns including "Tag us to get featured" or "proportion your story" can expand user participation. UGC acts as a cutting-edge form of digital phrase-of-mouth, which notably improves brand believe and authenticity.

4. Optimize Platform-specific techniques

Each social media platform caters to a distinct audience mind-set. Instagram and TikTok work pleasant for visible storytelling and aspirational content material, Facebook for community engagement, and YouTube for in-depth tutorials and product demonstrations. manufacturers should create platform-tailored content material as opposed to the use of identical posts throughout all structures.

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5. Improve Brand Responsiveness and Engagement

Short, empathetic, and customized responses to feedback or messages enhance brand perception and credibility. Social media should now not be considered as a printed channel however as a -manner verbal exchange platform in which manufacturers concentrate, acknowledge, and reply.

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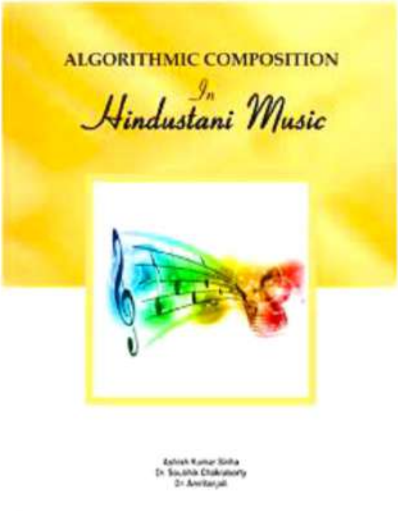

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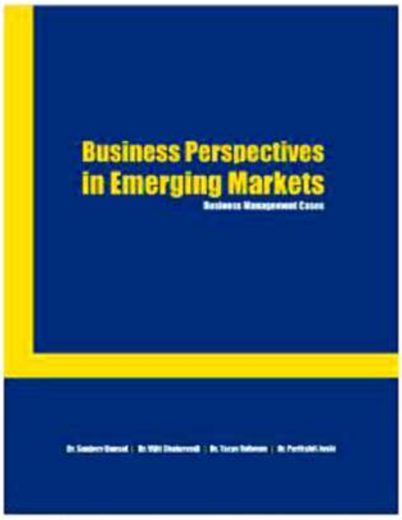

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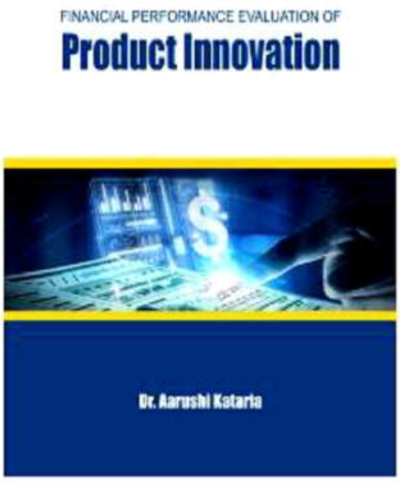

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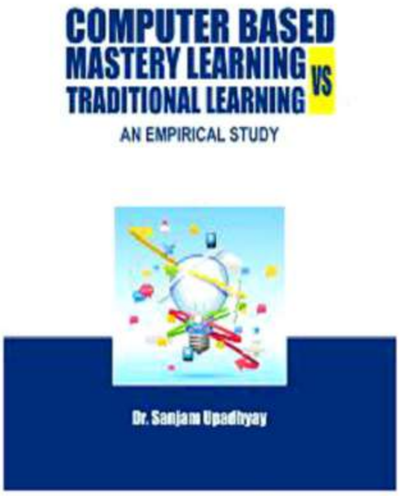

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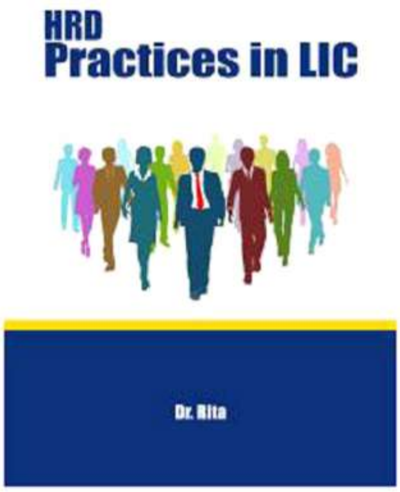

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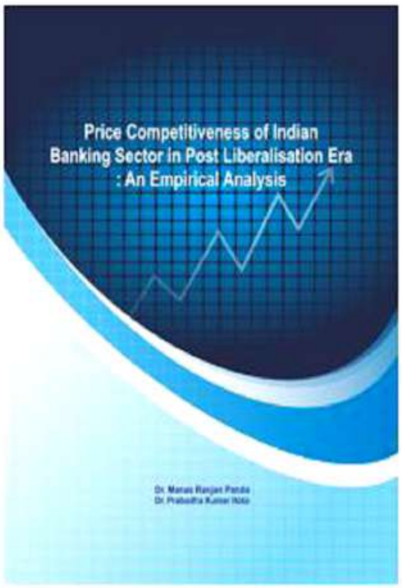

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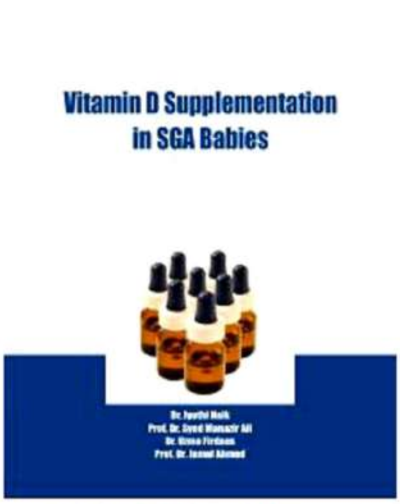

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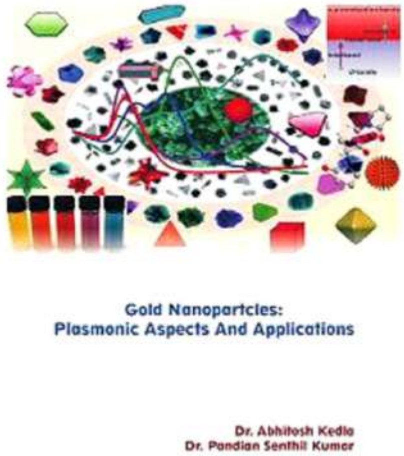

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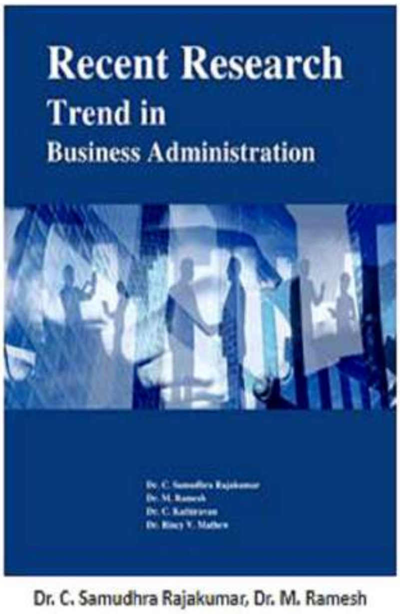

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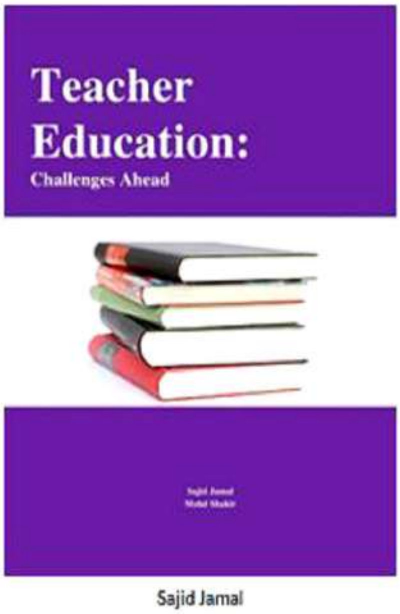

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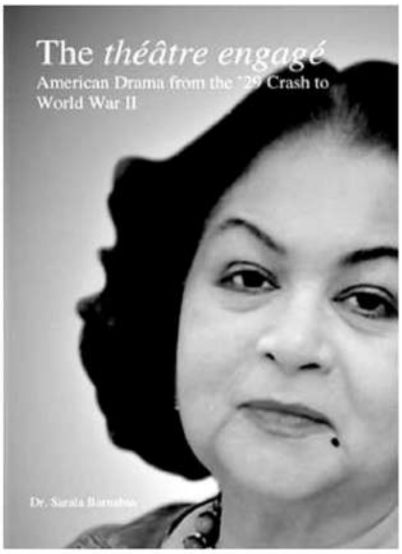

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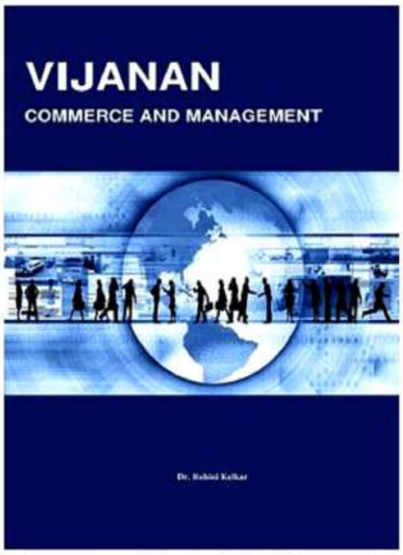

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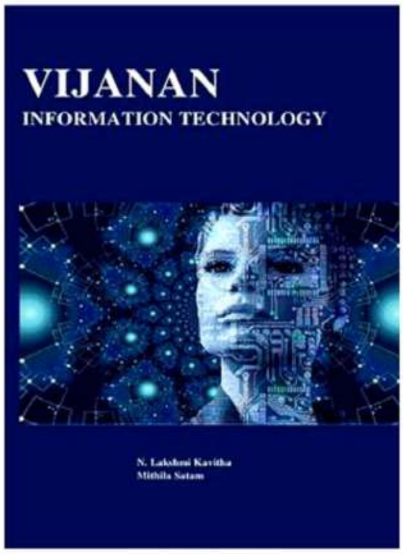

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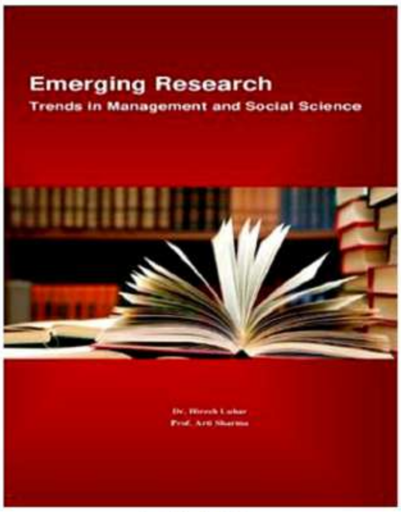

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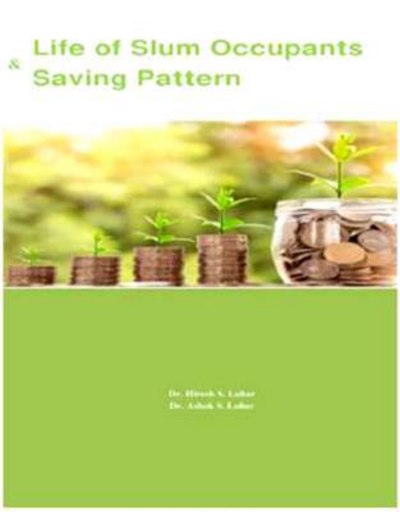

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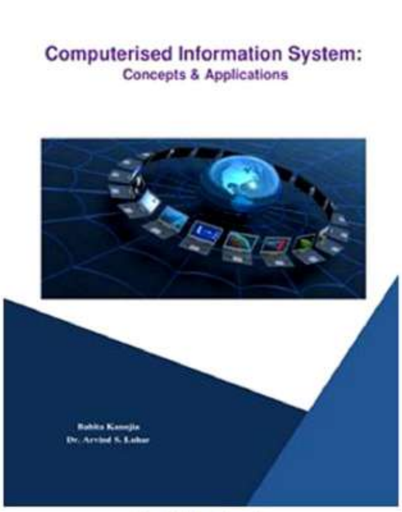

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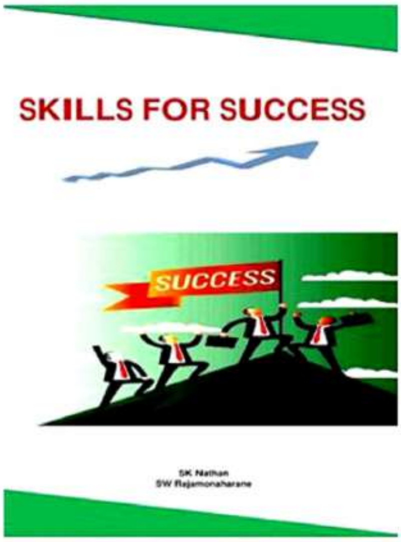

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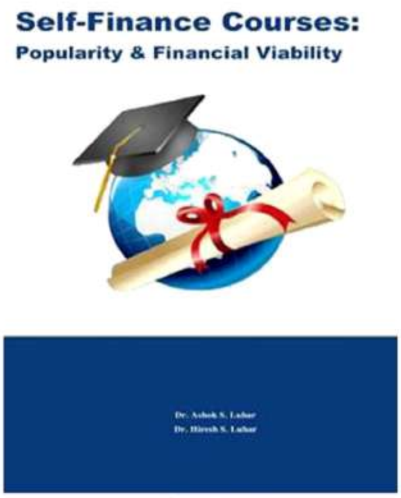

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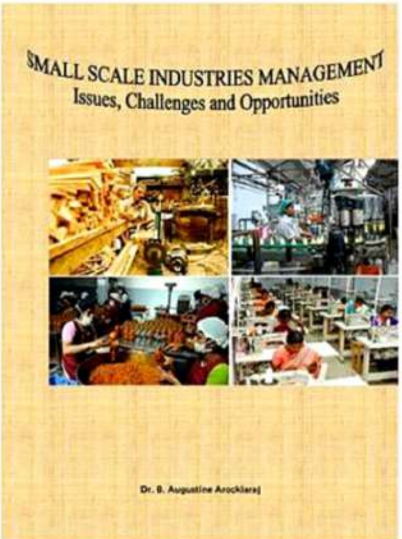

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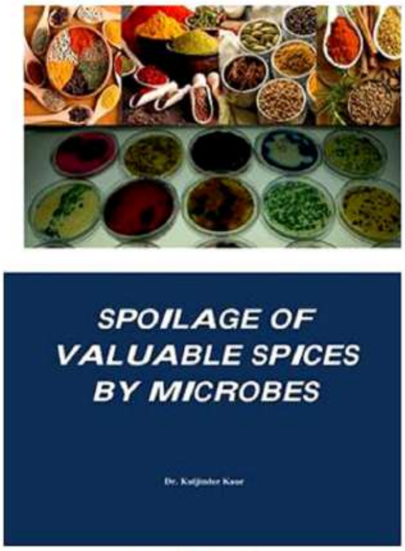

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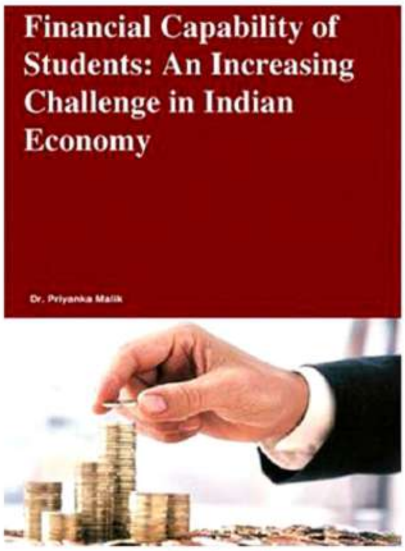

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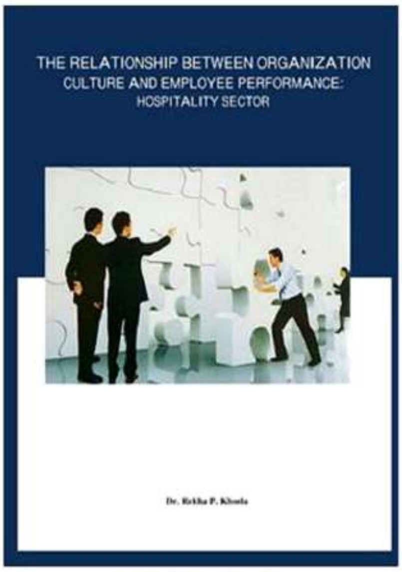

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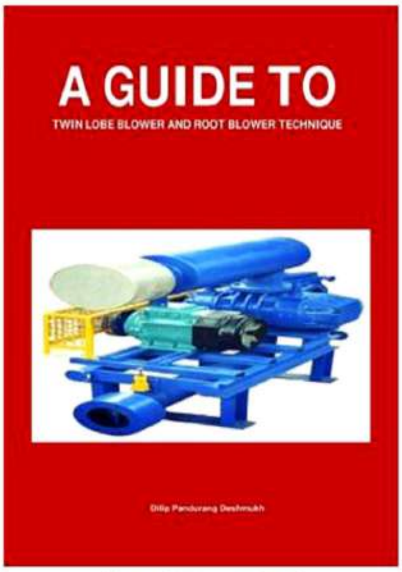

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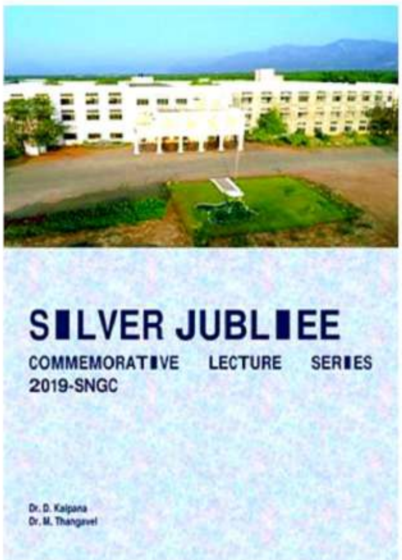

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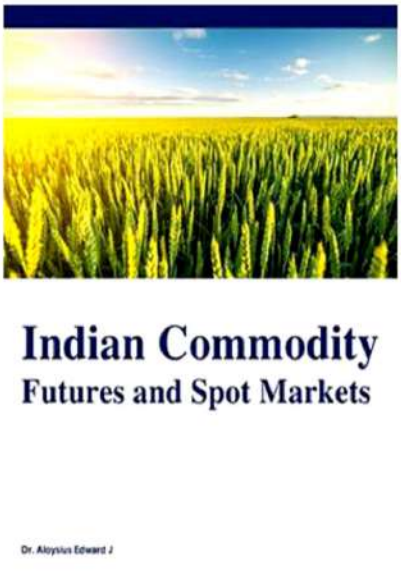

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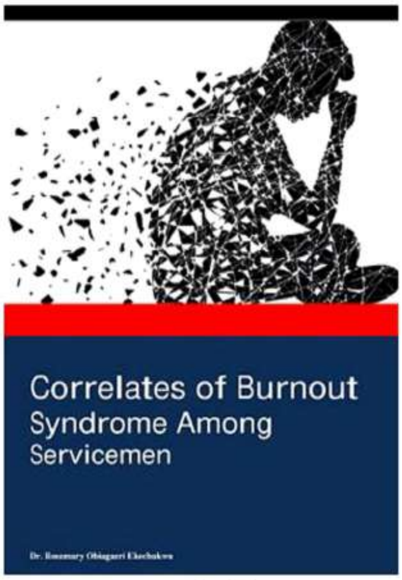

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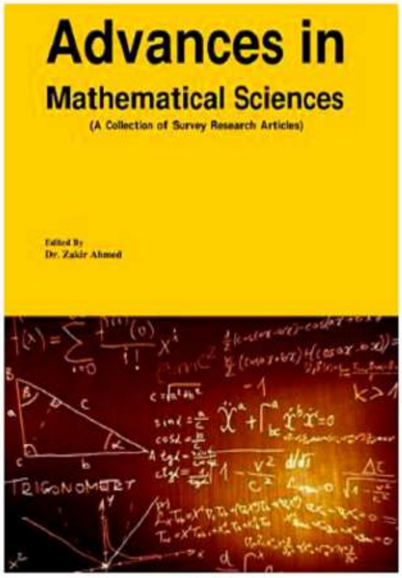

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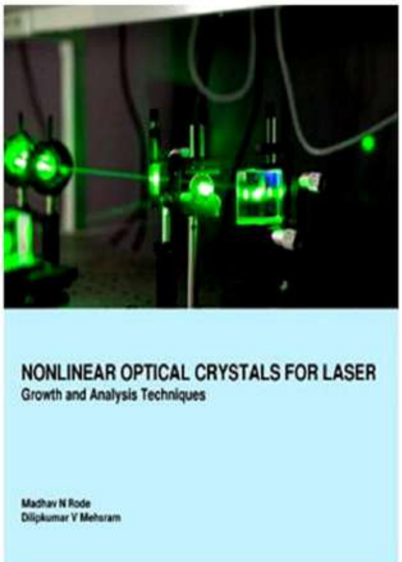

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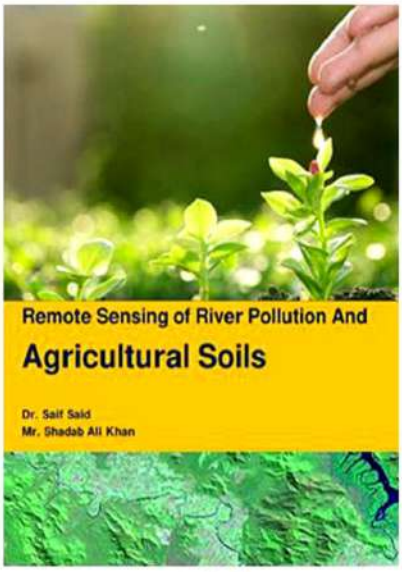

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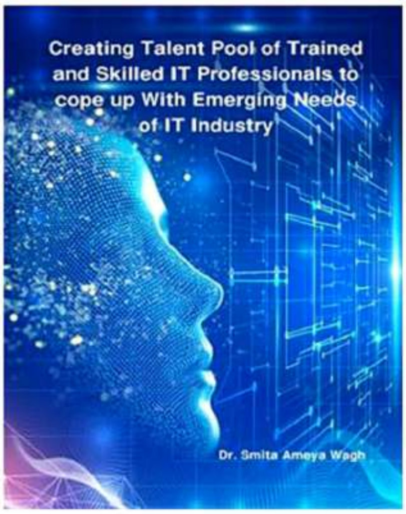

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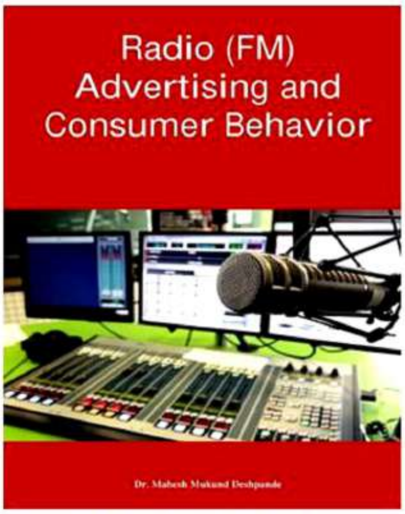

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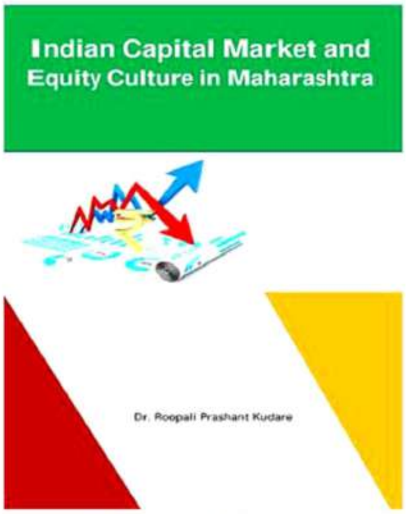

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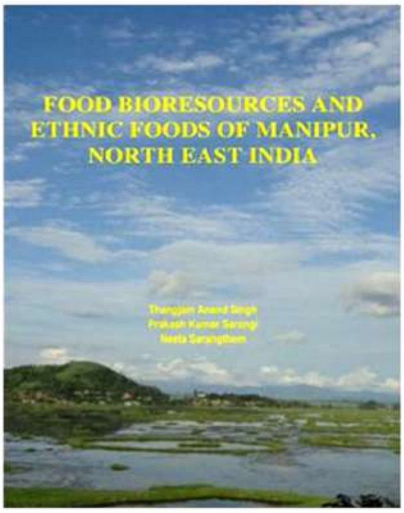

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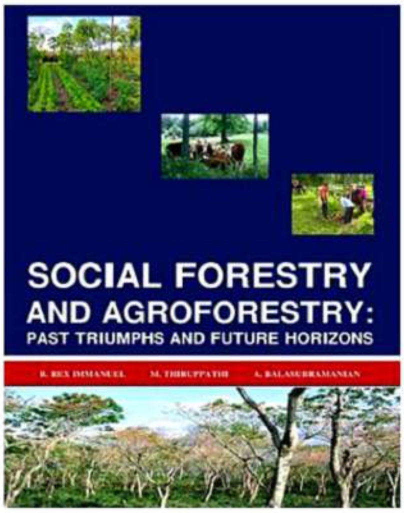

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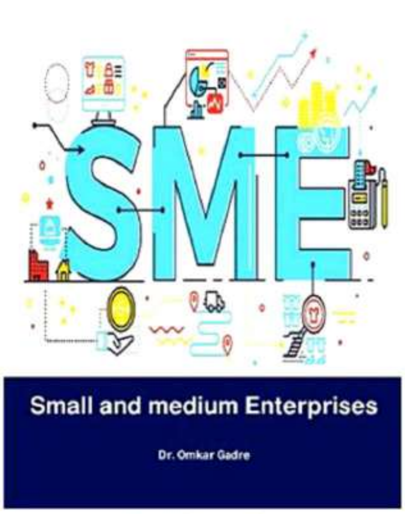

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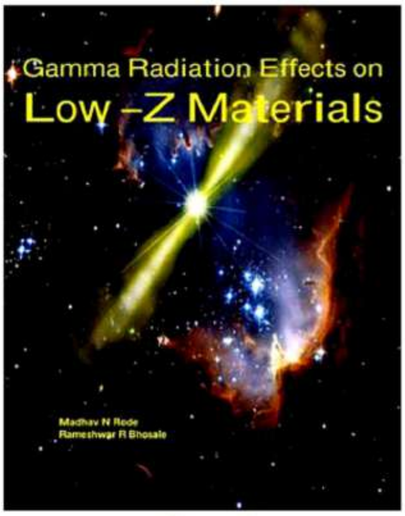

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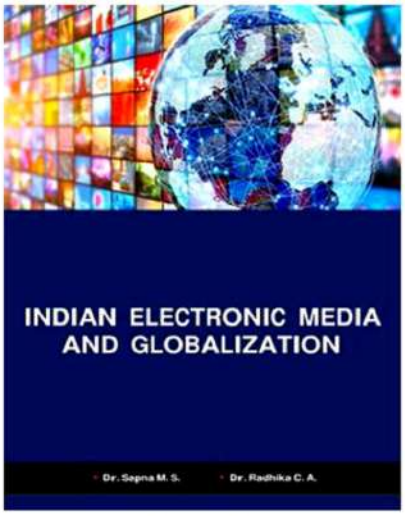

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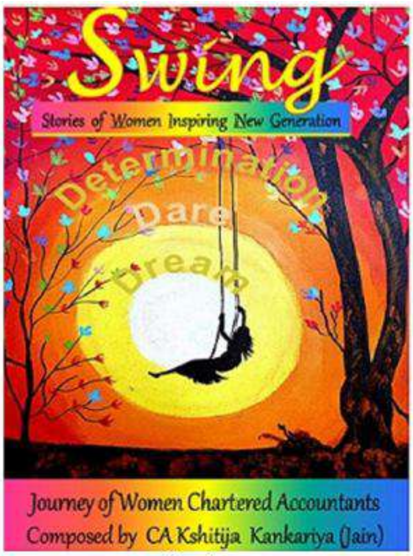

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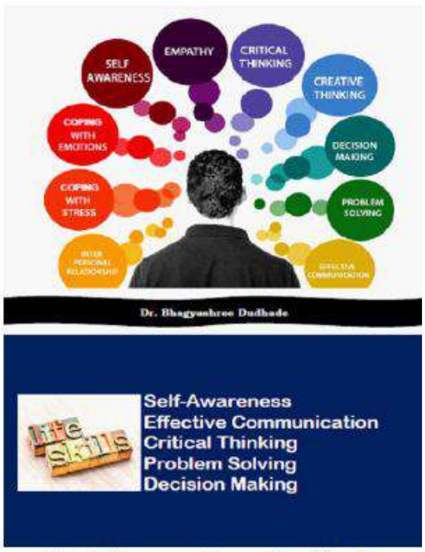

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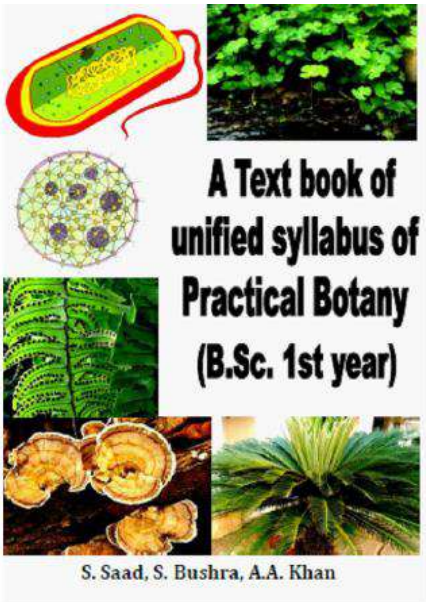

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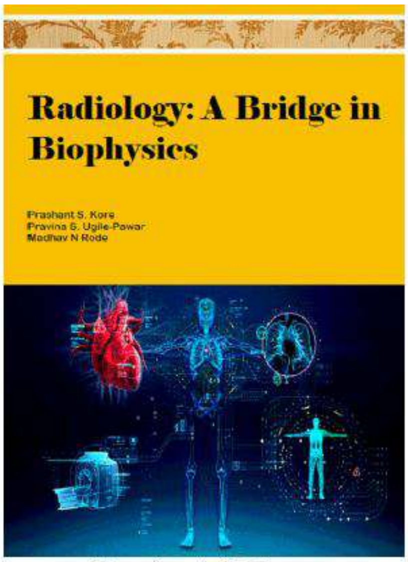

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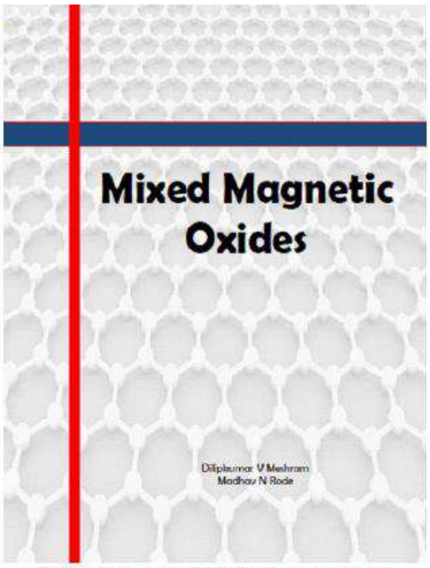

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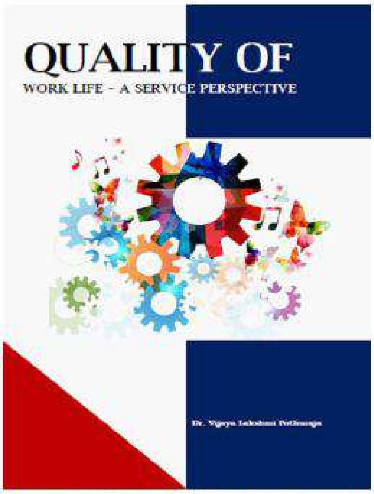

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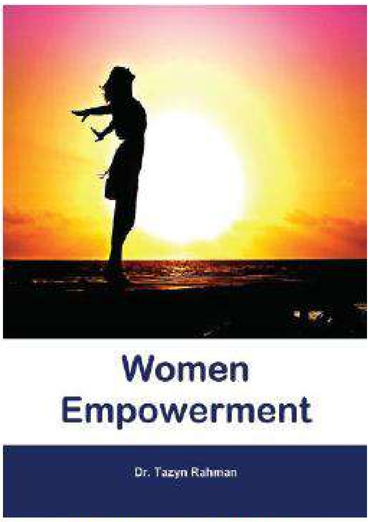

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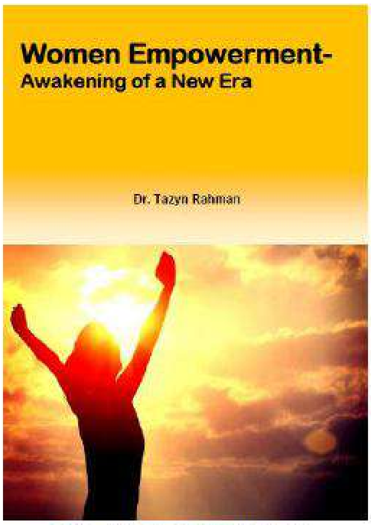

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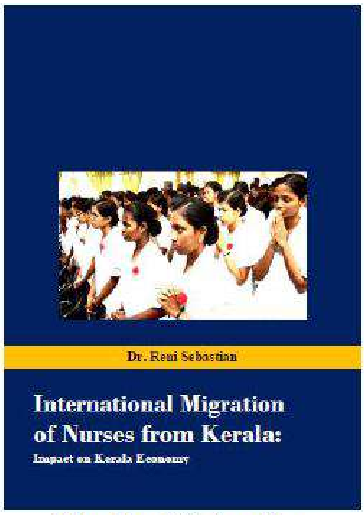

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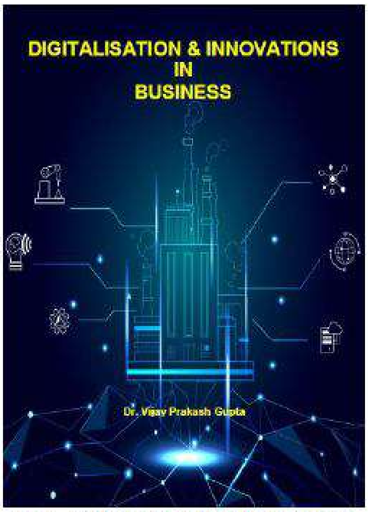

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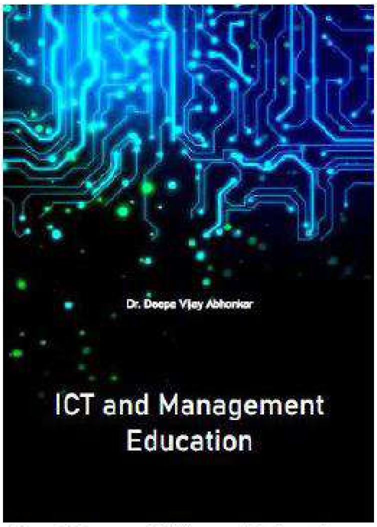

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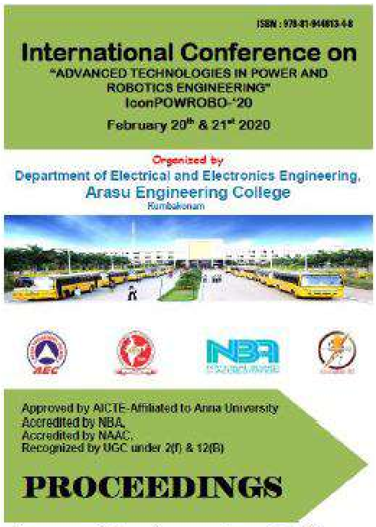

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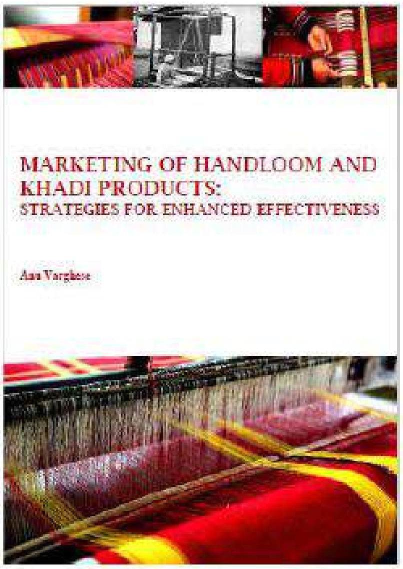

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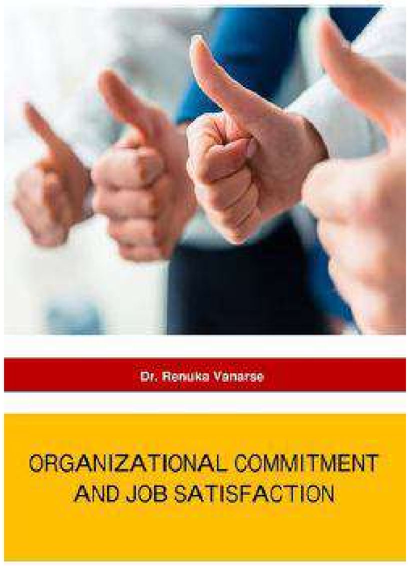

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