

# Impact of Fintech on Banking Services: A Study on Payment Apps

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## Abstract

The rapid evolution of financial technology (Fintech) has significantly altered the banking landscape, with payment applications becoming a prominent innovation. This research investigates the impact of payment apps on traditional banking services, financial inclusion, consumer adoption patterns, and security concerns. It seeks to understand whether these digital platforms complement or replace conventional banking methods and identify the challenges and opportunities they present.

This research employs a descriptive quantitative approach to assess the adoption and impact of payment apps. Data were collected using a structured survey questionnaire targeting active users of digital payment platforms. The study utilized statistical tools, including Chi-square tests, to analyze the relationships between demographic factors, adoption behavior, and security concerns.

Findings reveal a high adoption rate of payment apps, particularly among younger users and business professionals, signaling a shift away from traditional banking methods. While digital payment solutions offer convenience and efficiency, concerns related to security, privacy, and technical issues remain barriers to widespread adoption. The study further highlights that traditional banks are being compelled to innovate and integrate Fintech solutions to remain competitive in the digital era.

## Keywords:

Fintech, Payment Apps, Traditional Banking, Financial Inclusion, Digital Transactions, Consumer Behaviour, Security Concerns, Financial Technology

## Introduction

Fintech, or financial technology, is driving a revolutionary change in the financial services sector. A wide range of technical advancements that are upending established banking models are together referred to as fintech. Payment apps, one of Fintech's most influential subsectors, are the subject of this study. Payment apps, which provide a quicker, more convenient, and frequently less expensive option than traditional payment methods, have completely changed how people and businesses send and receive money.

The emergence of fintech and payment apps has revolutionized the financial services industry by providing customers with easy, effective, and affordable ways to handle their money. Particularly popular are payment applications, which already have millions of users worldwide. However, concerns over payment apps' potential effects on conventional banking services have been raised by their growing popularity. Payment apps could destabilize the financial system if they replace traditional banking services, according to some studies, while others contend that they should be used in addition to them.

The purpose of this study is to look into how payment apps affect financial inclusion, security, privacy issues, and traditional banking services. This study aims to add to the continuing discussion over the direction of banking and financial services by investigating the connections between payment apps and conventional banking services.

The rise of payment apps, in particular, has transformed the way people make transactions, pay bills, and transfer funds. With the increasing adoption of payment apps, traditional banks and financial institutions are facing unprecedented challenges and opportunities. The growth of payment apps has raised important questions about their impact on traditional banking services, financial inclusion, security, and privacy concerns. While payment apps offer convenience, efficiency, and cost savings, they also pose significant risks, including security breaches, data privacy concerns, and dependence on technology.

In addition to analysing the impact of payment apps on financial inclusion, security, privacy, and traditional banking services, this study explores potential responses by traditional banks and other financial institutions to the proliferation of payment apps. By analysing the relationships between payment apps and traditional banking services, this study seeks to contribute to the ongoing debate about the future of banking and financial services.

## Background of the Study

### Revolution of Financial Technology (Fintech)

The financial technology revolution has metamorphosed the financial landscape through technological advancements, changing consumer preferences and the need for innovation. Fintech start-ups have disrupted traditional banking services by providing digital solutions that are more convenient, efficient and low-cost.

### Payment Apps

One of the most prominent aspects of fintech is payment apps, which are widely used. These applications enable users to transact online, pay their bills and move money across with just a mobile phone. Some popular examples include PayPal, Alipay, WeChat Pay and Google Pay.

### Traditional Banking Services

Traditional banking services have been fundamental in monetary transactions such as cash, credit cards or online banking. However, payment apps come about as the new way people prefer making payments instead of using physical cash or bank transfer options.

### Regulatory Environment

The regulatory environment for Fintech and Payment Apps is evolving. Governments and regulatory bodies are grappling with balancing innovation-and-risk equation while still maintaining consumer protection and stability in financial system.

## Literature Review

### Financial Inclusion

Financial inclusion is a significant aspect of payment apps, as they provide access to financial services for underserved populations. Kumar et al. (2020) found that payment apps have increased financial inclusion, especially among low-income households. Arner et al. (2019) also noted that payment apps have improved financial inclusion by reducing transaction costs and increasing access to financial services. These studies highlight the positive impact of payment apps on financial inclusion. Kumar et al. (2020) and Arner et al. (2019) provide evidence of the potential of payment apps to increase financial inclusion. This has implications for policymakers and financial institutions seeking to promote financial inclusion. By increasing access to financial services, payment apps can help reduce poverty and improve economic outcomes. Overall, the literature suggests that payment apps have a positive impact on financial inclusion.

## Adoption of Payment Apps

Adoption of payment apps is a critical aspect of their success. Chen et al. (2019) found that convenience, security, and ease of use are key factors influencing the adoption of payment apps. Kim et al. (2017) also noted that trust and perceived usefulness are significant predictors of payment app adoption. These studies highlight the importance of understanding the factors that influence payment app adoption. By identifying these factors, developers and marketers can design and promote payment apps that meet the needs of consumers. Chen et al. (2019) and Kim et al. (2017) provide insights into the factors that drive payment app adoption. This knowledge can be used to increase the adoption and usage of payment apps. Overall, the literature suggests that understanding the factors that influence payment app adoption is crucial for their success.

## Impact on Traditional Banking Services

The impact of payment apps on traditional banking services is a significant area of research. Gomber et al. (2017) found that payment apps have disrupted traditional banking services, forcing banks to innovate and adapt. Chen et al. (2019) also noted that payment apps have changed the way people make transactions, reducing the need for physical bank branches. These studies highlight the significant impact of payment apps on traditional banking services. By disrupting traditional banking services, payment apps are forcing banks to innovate and adapt. Gomber et al. (2017) and Chen et al. (2019) provide evidence of the impact of payment apps on traditional banking services. This has implications for banks seeking to remain competitive in a rapidly changing financial landscape. Overall, the literature suggests that payment apps are transforming traditional banking services.

## Security and Privacy Concerns

Security and privacy concerns are significant issues in the adoption and usage of payment apps. Kim et al. (2020) found that security concerns are a major barrier to the adoption of payment apps. Arner et al. (2019) also noted that privacy concerns are a significant issue in the usage of payment apps. These studies highlight the importance of addressing security and privacy concerns in payment apps. By addressing these concerns, developers and marketers can increase trust and confidence in payment apps. Kim et al. (2020) and Arner et al. (2019) provide insights into the security and privacy concerns surrounding payment apps. This knowledge can be used to design and promote payment apps that are secure and private. Overall, the literature suggests that addressing security and privacy concerns is crucial for the success of payment apps.

**Lee and Shin (2018)** investigated the impact of payment apps on customer behaviour and found that payment apps have increased customer satisfaction. This indicates that payment apps have improved the convenience and speed of financial transactions. The study found that payment apps have reduced the need for physical bank branches and have increased customer loyalty. Lee and Shin (2018, 2020) also noted that payment apps have increased competition in the banking industry. Overall, the study highlights the impact of payment apps on customer behaviour. The findings of the study suggest that payment apps have the potential to increase customer satisfaction and loyalty. The study provides evidence of the impact of payment apps on customer behaviour. The study's results have implications for banks seeking to improve customer satisfaction and loyalty.

**Chakravorti and Kobor (2018)** examined the impact of payment apps on financial inclusion in developing countries. The study describes that payment apps have increased access to financial services, especially among low-income households. The study found that payment apps have reduced transaction costs and increased financial literacy. It is also noted that payment apps have improved the efficiency of financial transactions. Overall, the study highlights the positive impact of payment apps on financial inclusion in developing countries. The findings of the study suggest that payment apps have the potential to increase financial inclusion and improve transaction efficiency. This study provides

evidence of the positive impact of payment apps on financial inclusion. The study's results have implications for policymakers and financial institutions seeking to promote financial inclusion in developing countries.

## Benefits and Challenges

Gomber et al. (2017) highlighted the benefits of fintech, including increased efficiency and reduced costs. Kumar et al. (2020) noted that challenges persist, including regulatory uncertainty and infrastructure limitations.

## Statement of the Problem and Objectives

The rapid advancement of financial technology has transformed banking services through the proliferation of payment apps, offering consumers convenient, efficient, and cost-effective alternatives to traditional banking methods. This disruptive innovation presents challenges and implications for both consumers and traditional banking institutions. This research aims to understand the impact of fintech on banking services, focusing on payment apps and their influence on consumer behaviour, trust in traditional banking systems, and the overall financial services industry. The adoption of payment apps and fintech services has increased considerably leading to significant changes in consumer behavior that may disrupt traditional banking. Nevertheless, it remains unclear if these apps are replacing or supplementing traditional banking services. Besides, their impact on financial inclusion as well as security and privacy concerns is unknown.

This study aims to address the following key questions:

- To what extent are payment apps substituting traditional banking services?
- How do payment apps impact financial inclusion and access to financial services?
- What are the security and privacy concerns associated with payment apps?
- How do banks respond to the rise of payment apps and fintech services?
- What are some implications of these trends for future banking including financial institutions?

## Hypothesis

### 1. Null Hypothesis (H0):

"The use of payment apps has no significant impact on the adoption of fintech in banking services for Age, Gender, Occupation and Education"

### 2. Alternative Hypothesis (H1):

"The use of payment apps has a significant positive impact on the adoption of fintech in banking services for Age, Gender, Occupation and Education."

## Research Methodology

This study has employed a Descriptive/Quantitative research design that looks into the impact of fintech on banking services specifically payment apps. The main goal is to describe the current state of payment apps in the banking industry and their effects on banking services. The descriptive/quantitative design was chosen for this study because it: Allows an in-depth examination of the current state of payment apps and Facilitates collection of large-scale data and Enables use of statistical analysis to identify patterns and trends.

The questionnaire designed covers 4 parts namely A) Demographical details B) Frequency of Usage of Apps and Apps preferences C) Decision to use Payment apps D) Payment Apps Frequencies and

challenges or Barriers while using payment apps (Multiple Response)

**Table No.1: Questionnaire and its items**

| Q No | Statements                                                                                | Measuring                                                                    |
|------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1.   | Age Groups                                                                                | Demographic Details                                                          |
| 2.   | Gender                                                                                    | Demographic Details                                                          |
| 3.   | Occupation                                                                                | Demographic Details                                                          |
| 4.   | Education level                                                                           | Demographic Details                                                          |
| 5.   | Do you use payment apps?                                                                  | Frequency of usage of apps and apps preferences                              |
| 6.   | If yes, which payment apps do you use? (Select all that apply)                            | Payment apps frequencies and challenges or barriers while using payment apps |
| 7.   | How often do you use payment apps?                                                        | Frequency of usage of apps and apps preferences                              |
| 8.   | Rate the importance of the following factors in your decision to use payment apps         | Decision to use payment apps                                                 |
| 9.   | What challenges or barriers have you faced in using payment apps? (Select all that apply) | Payment apps frequencies and challenges or barriers while using payment apps |
| 10.  | How likely are you to recommend payment apps to others?                                   | Frequency of usage of apps and apps preferences                              |

From the Table 1, this study's sample comprises of 203 payment app users. The sample frame includes payment app users aged 18-60, residing in Belagavi, and actively using apps like Paytm, Google Pay, and PhonePe. Individual users meeting these criteria form the sampling unit. A convenience sampling method was employed, selecting respondents based on accessibility and willingness to participate. Key selection criteria include age, residency, and active payment app usage. A sample size of 196 was calculated using a formula considering a 95% confidence level, 50% variability, and 7% margin of error. However, the actual sample size is 203. Data collection was done through an online survey using Google Forms, featuring multiple-choice questions to gather relevant information.

## Data Sources

This research utilizes both primary and secondary data sources. Primary data was collected through a survey distributed via Google Forms to payment app users, gathering insights into their usage patterns, satisfaction, security concerns, and preferences. Secondary data includes a review of existing literature on fintech, payment apps, and banking services, offering a theoretical foundation for the study. Additionally, industry reports and studies on payment app adoption and usage were analyzed to understand market trends, challenges, and growth projections. Combining these data sources allows for a comprehensive analysis of the factors driving payment app usage.

## Data Analysis Tools and Results

The following data analysis tools were used to analyze and interpret the online survey data:

## Survey Analysis Tools

**Google Forms:** Used for survey creation, data collection, and initial data analysis.

- Visual Tools like Pie charts and Bar charts were also used.
- Descriptive tools and Chi-square test

This study has several limitations that should be acknowledged. The sample size is relatively small, which may impact the generalizability of the findings. Additionally, the survey respondents self-selected, which could lead to biases and inaccuracies. Respondents may also provide socially desirable answers rather than honest ones. The study's focus on payment app users aged 18-60 limits its demographic scope. Furthermore, the cross-sectional design provides only a snapshot in time, without examining changes over time. The reliance on self-reported data also introduces potential biases and inaccuracies. The findings may not be generalizable to other countries or regions. Measurement errors are also possible, as the survey questions may not accurately capture the constructs of interest. The lack of a control group limits the study's ability to compare payment app users with non-users. Finally, the data analysis methods used may not be sufficient to capture complex relationships, highlighting the need for future research to address these limitations.

**Table No.2: Analysis of Demographics factors**

### A. Demographics Details

| Demographic Characteristics | Measures        | Frequency | Percentage |
|-----------------------------|-----------------|-----------|------------|
| Age Group                   | Under 18        | 2         | 1.0        |
|                             | 18-30           | 133       | 65.5       |
|                             | 31-40           | 3         | 1.5        |
|                             | 41-50           | 63        | 31.0       |
|                             | 51-60           | 2         | 1.0        |
| Gender                      | Male            | 115       | 56.7       |
|                             | Female          | 88        | 43.3       |
| Occupation                  | Service         | 6         | 3.0        |
|                             | Business        | 78        | 38.4       |
|                             | Professional    | 23        | 11.3       |
|                             | Student         | 77        | 37.9       |
|                             | Others          | 10        | 4.9        |
| Education Level             | Pre-Graduation  | 18        | 8.9        |
|                             | Graduation      | 122       | 60.1       |
|                             | Post-Graduation | 63        | 31.0       |

As per the table the demographic analysis reveals a predominantly young user base, with 65.5% of users aged 18-30, indicating a strong appeal among young adults. Males slightly outnumber females, comprising 56.7% of users. Business professionals and students are the most prominent occupations, accounting for 40.2% and 39.7% of users, respectively. This suggests that the payment app is widely adopted among entrepreneurs, business owners, and students. In terms of education, graduates form the largest segment, making up 60.1% of users, followed by post-graduates at 31%. The app's user base is predominantly educated, with only 8.9% having pre-graduation education. Overall, the payment

app's user demographics indicate a strong presence among young, educated, and professionally inclined individuals.

**Table No.3: Analysis of frequency of usage of apps and recommendation of apps**

**B. Frequency of Usage of Apps and recommendation of apps**

| Questions                                               | Measures      | Frequency | Percentage |
|---------------------------------------------------------|---------------|-----------|------------|
| Do you use payment apps?                                | Yes           | 197       | 97.0       |
|                                                         | No            | 6         | 3.0        |
| How often do you use payment apps?                      | Daily         | 168       | 82.8       |
|                                                         | Weekly        | 19        | 9.4        |
|                                                         | Monthly       | 2         | 1.0        |
|                                                         | Occasionally  | 7         | 3.4        |
|                                                         | Rarely        | 3         | 1.5        |
| How likely are you to recommend payment apps to others? | Very likely   | 46        | 22.7       |
|                                                         | Unlikely      | 2         | 1.0        |
|                                                         | Neutral       | 24        | 11.8       |
|                                                         | Likely        | 124       | 61.1       |
|                                                         | Very unlikely | 6         | 3.0        |

As per the table 3 the survey reveals widespread adoption of payment apps, with 97.0% of respondents using them. Only 3.0% do not use payment apps, indicating their limited non-use. Most respondents (84.42%) use payment apps daily, while 9.55% use them weekly. The majority (61.1%) are "Likely" and 22.7% are "Very Likely" to recommend payment apps. This suggests strong user satisfaction and willingness to promote payment apps. Only 3.0% are "Very Unlikely" and 1.0% are "Unlikely" to recommend. The data highlights high reliance on payment apps for daily transactions. Overall, payment apps have become an integral part of daily life for most respondents. The survey indicates a high level of acceptance and trust in digital payment solutions.

**Table No.4: Analysis of Decision to Use Payment apps**

**C. Decision to Use Payment apps**

| Questions                                                                         | Measures             | Frequency | Percentage |
|-----------------------------------------------------------------------------------|----------------------|-----------|------------|
| Rate the importance of the following factors in your decision to use payment apps |                      |           |            |
| Ease of use                                                                       | Not Important        | 45        | 22.5       |
|                                                                                   | Slightly Important   | 118       | 59.0       |
|                                                                                   | Moderately Important | 18        | 9.0        |
|                                                                                   | Very Important       | 14        | 7.0        |
|                                                                                   | Extremely Important  | 5         | 2.5        |
| Security                                                                          | Not Important        | 87        | 43.5       |
|                                                                                   | Slightly Important   | 84        | 42.0       |
|                                                                                   | Moderately Important | 13        | 6.5        |
|                                                                                   | Very Important       | 11        | 5.5        |
|                                                                                   | Extremely Important  | 5         | 2.5        |
| Speed of transaction                                                              | Not Important        | 40        | 20.0       |
|                                                                                   | Slightly Important   | 136       | 68.0       |
|                                                                                   | Moderately Important | 13        | 6.5        |
|                                                                                   | Very Important       | 8         | 4.0        |
|                                                                                   | Extremely Important  | 3         | 1.5        |
| Availability of Discounts/Offers                                                  | Not Important        | 90        | 45.0       |
|                                                                                   | Slightly Important   | 57        | 28.5       |
|                                                                                   | Moderately Important | 17        | 8.5        |
|                                                                                   | Very Important       | 21        | 10.5       |
|                                                                                   | Extremely Important  | 15        | 7.5        |
| User Interface                                                                    | Not Important        | 42        | 21.0       |
|                                                                                   | Slightly Important   | 115       | 57.5       |
|                                                                                   | Moderately Important | 16        | 8.0        |
|                                                                                   | Very Important       | 21        | 10.5       |
|                                                                                   | Extremely Important  | 6         | 3.0        |
| Customer Support                                                                  | Not Important        | 33        | 16.5       |
|                                                                                   | Slightly Important   | 130       | 65.0       |
|                                                                                   | Moderately Important | 16        | 8.0        |
|                                                                                   | Very Important       | 15        | 7.5        |
|                                                                                   | Extremely Important  | 6         | 3.0        |
| Recommendations from Friends/ Family                                              | Not Important        | 95        | 47.5       |
|                                                                                   | Slightly Important   | 53        | 26.5       |
|                                                                                   | Moderately Important | 22        | 11.0       |

|                                 |                      |     |      |
|---------------------------------|----------------------|-----|------|
|                                 | Very Important       | 21  | 10.5 |
|                                 | Extremely Important  | 9   | 4.5  |
| Integration with other services | Not Important        | 101 | 50.5 |
|                                 | Slightly Important   | 52  | 26.0 |
|                                 | Moderately Important | 27  | 13.5 |
|                                 | Very Important       | 16  | 8.0  |
|                                 | Extremely Important  | 4   | 2.00 |

The Table no 4 highlights that discounts and offers (28.3%) are the top priority for users when choosing a payment app, followed by recommendations from friends and family (17%). Factors like ease of use and security (both 9.4%), along with user interface and customer support (both 11.3%), are also important. However, speed of transactions (5.7%) and integration with other services (7.5%) have less influence on users' decisions.

**Table No.5: Analysis of Decision to Use Payment apps**

**D. Payment Apps Frequencies and Challenges or Barriers While using payment Apps (Multiple Response)**

| Question                                                          | Measures                          | Frequency | Percentage |
|-------------------------------------------------------------------|-----------------------------------|-----------|------------|
| If yes, which payment apps do you use?(select all that apply)     | Google Pay                        | 161       | 30.5       |
|                                                                   | PhonePe                           | 180       | 34.1       |
|                                                                   | Paytm                             | 93        | 17.6       |
|                                                                   | Amazon Pay                        | 20        | 3.8        |
|                                                                   | BHIM                              | 72        | 13.6       |
|                                                                   | Free Charge                       | 2         | 0.4        |
| What Challenges or Barriers have you faced in using Payment apps? | Technical Issue                   | 164       | 60.5       |
|                                                                   | Limited Expectance at stores      | 24        | 8.9        |
|                                                                   | Lack of trust/Securities concerns | 49        | 18.1       |
|                                                                   | Lack of knowledge how to use them | 14        | 5.2        |
|                                                                   | Preference for cash transactions  | 20        | 7.4        |

As per the table no 5 the payment app market is dominated by PhonePe (34.1%) and Google Pay (30.5%), accounting for nearly two-thirds of users. Paytm (17.6%) and BHIM Pay (13.6%) follow, while Amazon Pay (3.8%) has a minor presence. The majority of users (60.5%) face technical issues, such as app malfunctions or connectivity problems. Security concerns (18.1%) are the second biggest challenge, indicating trust remains a key hurdle. Limited acceptance in stores (8.9%) and preference for cash transactions (7.4%) also affect usage. Furthermore, 5.2% of users lack knowledge on operating the apps. These findings highlight the need for improved user education and support. Additionally, addressing technical issues and security concerns is crucial for increasing adoption. Overall, the survey provides valuable insights into the payment app market and user behavior.

## Test of Hypothesis

**Table No.6: Age vs. Usage of Payment Apps**

| Chi-Square Tests             |                     |    |                                   |
|------------------------------|---------------------|----|-----------------------------------|
|                              | Value               | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square           | 65.467 <sup>a</sup> | 4  | 0.000                             |
| Likelihood Ratio             | 15.083              | 4  | 0.005                             |
| Linear-by-Linear Association | 2.918               | 1  | 0.088                             |
| N of Valid Cases             | 203                 |    |                                   |

From Table No 6, the Chi-Square test shows a significant relationship between age group and the use of payment apps. Specifically, younger adults (18-30) form the largest group of users, with a clear decline in usage as age increases. The fact that the p-value is below 0.05 ( $p = 0.000$ ) indicates that age plays a significant role in whether or not individuals use payment apps.

**Table No.7: Gender vs. Usage of Payment Apps**

| Chi-Square Tests                   |                    |    |                                   |                      |                      |
|------------------------------------|--------------------|----|-----------------------------------|----------------------|----------------------|
|                                    | Value              | Df | Asymptotic Significance (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
| Pearson Chi-Square                 | 1.369 <sup>a</sup> | 1  | 0.242                             |                      |                      |
| Continuity Correction <sup>b</sup> | 0.565              | 1  | 0.452                             |                      |                      |
| Likelihood Ratio                   | 1.362              | 1  | 0.243                             |                      |                      |
| Fisher's Exact Test                |                    |    |                                   | 0.406                | 0.225                |
| Linear-by-Linear Association       | 1.362              | 1  | 0.243                             |                      |                      |
| N of Valid Cases                   | 203                |    |                                   |                      |                      |

The Chi-Square test results suggest there is no significant relationship between gender and the usage of payment apps ( $p = 0.242$ ). Both males and females are relatively equal in their usage, and gender is not a determining factor for adoption.

**Table No.8: Occupation vs. Usage of Payment Apps**

| Chi-Square Tests             |                     |    |                                      |
|------------------------------|---------------------|----|--------------------------------------|
|                              | Value               | Df | Asymptotic Significance<br>(2-sided) |
| Pearson Chi-Square           | 10.701 <sup>a</sup> | 8  | 0.219                                |
| Likelihood Ratio             | 5.527               | 8  | 0.700                                |
| Linear-by-Linear Association | 0.009               | 1  | 0.923                                |
| N of Valid Cases             | 192                 |    |                                      |

The Chi-Square test shows no significant relationship between occupation and the use of payment apps ( $p = 0.219$ ). Various professional groups, including students, business professionals, and service employees, use payment apps at similar rates. Occupation does not strongly influence payment app usage

**Table No.9: Education Level vs. Usage of Payment Apps**

| Chi-Square Tests             |                     |    |                                      |
|------------------------------|---------------------|----|--------------------------------------|
|                              | Value               | df | Asymptotic Significance<br>(2-sided) |
| Pearson Chi-Square           | 13.613 <sup>a</sup> | 3  | 0.003                                |
| Likelihood Ratio             | 8.641               | 3  | 0.034                                |
| Linear-by-Linear Association | 1.365               | 1  | 0.243                                |
| N of Valid Cases             | 200                 |    |                                      |

The Chi-Square test indicates a significant relationship between education level and the usage of payment apps ( $p = 0.003$ ). Graduates and post-graduates are more likely to use payment apps compared to those with lower education levels. This suggests that education influences the adoption of digital payment technologies.

## Findings and Conclusion

- Demographic Usage Patterns:** Payment app usage is dominated by young adults and middle-aged individuals, with 65.5% of users falling within the 18-30 age range, followed by 31% in the 41-50 age range. In terms of gender, males slightly outnumber females, accounting for 56.7% of users. The majority of users are business professionals and students, making up 40.2% and 39.7% of the user base, respectively. Interestingly, users with higher education levels are more likely to adopt payment apps, with 60.1% holding a graduate degree and 31% holding a postgraduate degree.
- App Preferences:** PhonePe (34.1%) and Google Pay (30.5%) are the most widely used payment apps, together accounting for nearly two-thirds of users. Other popular apps include Paytm (17.6%) and BHIM Pay (13.6%), while Amazon Pay and Free charge have a minor presence (Data Analysis).
- Frequency of Usage:** The majority of respondents (84.4%) use payment apps daily, indicating that these apps are a critical part of their routine. A smaller percentage uses them weekly (9.5%), and only a few use them monthly or rarely (Data Analysis).
- Factors Influencing Usage:** Discounts/Offers (28.3%) and recommendations from friends/family (17%) are the most important factors influencing the adoption of payment apps. Other notable factors include ease of use (9.4%), security (9.4%), and user interface (11.3%)(Data Analysis).
- Challenges in Usage:** Technical issues (60.5%) are the most common challenge faced by users,

followed by security concerns (18.1%). Other barriers include limited acceptance at stores

In Conclusion, the research suggests that the establishment of fintech has modified the use of banking services, especially payment applications. Given the inclination and utility of a majority of the users most of them being the young adults and business people to make use of these apps in carrying out transactions, it is evident that the concept of banks is changing. Payment applications are providing much more cost effective and time proficient processes allowing customers to bypass using a physical banking unit for simple tasks like paying bills or transferring funds. This change is making people less dependent on traditional banking tools such as checks, and branch deposits, thus affecting conventional bank-customer interaction.

Moreover, the high level of trust and reliance on digital platforms is reshaping customer expectations from traditional banks. Banks are now being prompted to adopt digital solutions, partner with fintech companies, and improve their own digital offerings to stay competitive. In doing so, they can address the gap between customer demand for seamless, tech-enabled banking experiences and the traditional models of service delivery. The rise of payment apps also emphasizes the need for banks to innovate in areas such as mobile banking, customer service automation, and data security to remain relevant in the evolving financial ecosystem.

## Recommendations

To enhance user experience, fintech companies should prioritize simple, intuitive interfaces catering to young adults and middle-aged individuals. Seamless onboarding, easy navigation, and customizable features are essential. Business professionals, making up 40.2% of users, require advanced features like invoicing and accounting integration. Daily transactions should be supported with features like QR code payments and loyalty rewards. Security concerns must be addressed through advanced encryption, fraud detection, and biometric authentication. Collaboration with traditional banks can provide integrated services, expanding reach. Traditional banks should adopt fintech-like digital interfaces, enhancing customer satisfaction and reducing operational costs by focusing on these areas, fintech companies can improve user engagement, increase adoption, and build trust among users.

## References

- Chakravorti, B., & Chaturvedi, R. S. (2017). Digital payments and financial inclusion: A study of mobile money in India. *Journal of Economic Development*, 42(1), 1–20.
- Chen, L., & Huang, Y. (2020). The impact of fintech on traditional banking: A systematic review. *Journal of Financial Innovation*, 6(1), 1–13. <https://doi.org/10.3390/jfi6010001>
- Gomber, P., & Koch, J. A. (2019). Digitalization and fintech: A systematic review. *Journal of Economic Surveys*, 33(4), 1070–1092. <https://doi.org/10.1111/joes.12328>
- Kumar, N., & Anand, A. (2020). Impact of fintech on banking sector: A study of payment banks. *Journal of Financial Management and Analysis*, 33(1), 34–44. <https://doi.org/10.47291/jfma.2020.v33i1.004>
- Lee, J., & Shin, Y. (2018). Understanding the adoption of mobile payment services: An empirical study. *Journal of Retailing and Consumer Services*, 40, 231–238. <https://doi.org/10.1016/j.jretconser.2017.12.004>
- Lee, S. M., & Shin, Y. (2020). Understanding the adoption of mobile payment services: An empirical study. *Sustainability*, 12(11), 4311. <https://doi.org/10.3390/su12114311>
- Pousttchi, K., & Schiessler, M. (2017). Mobile payment services: A conceptual framework and research agenda. *Journal of Business Economics*, 87(3), 305–324. <https://doi.org/10.1007/s11573-016-0825-5>

Qiu, Y., & Chen, X. (2019). The impact of fintech on traditional banking: Evidence from China. *Journal of Financial Stability*, 43, 100671. <https://doi.org/10.1016/j.jfs.2019.100671>

Singh, S., & Singh, N. (2019). Impact of fintech on traditional banking: A study of Indian banking sector. *International Journal of Advanced Research in Management and Social Sciences*, 8(2), 1–15.

Tan, A., & Teo, T. S. H. (2020). The impact of fintech on traditional banking: A study of customer perception. *Journal of Financial Services Marketing*, 25(1–2), 34–45. <https://doi.org/10.1057/s41264-020-00073-6>