# A Study on Payments Digitalization to Examine the Effect of Digital Payment Adoption on Financial Inclusion

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## ABSTRACT

This study investigates the impact of digital payment adoption on financial inclusion. It aims to understand the factors influencing digital payment adoption and evaluate its effect on promoting financial inclusion. Through quantitative analysis and factor examination, the study explores the challenges and opportunities associated with **INTRODUCTION** 

In recent years, the rapid advancements in technology have led to transformative changes in global economies, particularly in financial services. Among these changes, digitalization of payments has emerged as a pivotal force, reshaping how individuals, businesses, and governments conduct financial transactions. This research aims to explore the implications of digital payment adoption on financial inclusion, examining factors influencing adoption rates and its impact on financial participation. Through a quantitative approach, we seek to understand how digital payment technologies can bridge the economic divide, empower the unbanked, and create a more inclusive financial ecosystem, contributing to evidence-based policies for socio-economic development.

payment digitalization. The findings will provide valuable insights for policymakers and stakeholders to promote digital payment methods that enhance financial inclusion and address related The study contributes challenges. to the understanding of how digitalization of payments can play a crucial role in advancing financial inclusion in today's digital era.

#### LITERATURE REVIEW

In the research of Jorge Ponce, titled "Digitalization, retail payments and Central Bank Digital Currency" the variables are Central Bank Digital Currency, Basic CBDC arrangements, synthetic CBDC, e-Peso the methodology used are Primary and Secondary Research, the major findings are, with regards to retail payments, the digital era provides a rationale for central banks to have a deeper involvement in the core payment infrastructures.

In the research of Marco Cangiano, Alan Gelb, and Ruth Goodwin-Groen, titled, "Public Financial Management and the Digitalization of Payments", the factors and variables include, Information Technology, cyber-attacks. The methodology used is Fundamental research, the major findings are, future can be reached faster if digitalization becomes a constituent element of a modern and functioning PFM and is combined with broader reform agendas such as financial and social inclusion or digital identification.

In the research of Markus K. Brunnermeier, Harold "The James. Jean-Pierre Landau. titled digitalization of money" the factors and variables are, The digitalization of money, transactions rebundling of money, Digital dollarization, the methodology used is descriptive research, the major findings are, the rise of digital currencies will have implications for the treatment of private money, data ownership regulation, and central bank independence. For monetary policy to influence credit provision and risk sharing, public money must at least be used as a unit of account.

In the research of Shobha B.G, titled, "DIGITAL PAYMENTS- ANALYSIS OF IT'S PRESENT STATUS IN INDIA", the variables and factors are Digitalization, Digital Payments, Indian Economy, Opportunities, the methodology used is secondary research, the major findings are, there is a growth in the phase of digitalized payments, but still cash is playing a dominant role in many of the urban and most of the villages.

In the research of Linn-Birgit, Kampen, Kristensen & Mona Solvoll, titled, "Digital payments for a digital generation", the variables and factors are Generation Z, e-books, digitalization. The research methodology used is Primary and Secondary Research, the major findings are, Newspapers have experienced three significant disruptions related to consumption trends: the transition from print to digital, the rise of social media and the influence of mobile technology.

In the research of Yuri Okina, titled, "Digitalization of Payment Instruments: Cashless Payments and Loyalty Points Systems ", the factors and variables are, Cashless Payments, Cashless Economy, the methodology used is Secondary research, the major findings are, the industry began reconsidering its shift from a vertically integrated business to a fragmented distribution of financial services where the business model framework is that of a platform structure, in which different actors—producers, consumers, etc.—connect and conduct interactions with one another using the resources provided by the platform.

# **RESEARCH GAP**

Despite the growing adoption of digital payment methods, there is a lack of comprehensive research examining the specific impact of digital payment adoption on financial inclusion. While studies have explored the benefits and challenges of digital payments, few have focused on their effect on financial inclusion. particularly among marginalized or underserved populations. Understanding the extent to which digital payment adoption promotes financial inclusion, as well as the barriers and opportunities associated with it, remains an underexplored area of research. This study aims to bridge this gap by investigating the relationship between digital payment adoption and financial inclusion, providing valuable insights for policymakers, financial institutions, and other stakeholders seeking to enhance financial inclusion efforts through digitalization.

### **RESEARCH QUESTIONS**

- What are the key factors influencing individuals' decisions to adopt or resist digital payment methods?
- How does the adoption of digital payment methods contribute to increased access to financial services for underserved communities?

- What role does digital payment adoption play in improving financial literacy and promoting financial inclusion among marginalized populations?
- What are the major challenges faced by individuals and businesses in adopting and using digital payment methods?
- How does the digitalization of payments impact the overall efficiency and resilience of financial systems?

#### **OBJECTIVES**

- To examine the extent of adoption of digital payment methods and identify the factors driving or hindering their adoption.
- To evaluate the impact of digital payment adoption on financial inclusion based on acceptance.
- To explore the challenges and opportunities associated with the digitalization of payments, including issues related to security, privacy, and consumer protection.
- To contribute to the growing body of knowledge on the digitalization of payments and its implications for financial systems and economic development.

# RESEARCH METHODOLOGY

 Research Design: The research design for this study will be quantitative in nature, utilizing a survey questionnaire to collect data from a sample of participants. The survey will be designed to capture information on digital payment adoption, financial inclusion, and relevant factors that influence the relationship between the two.

- 2. Sampling: The target population for this study will be individuals who have adopted digital payment methods and are part of the financial ecosystem. A purposive sampling technique will be employed to select a representative sample of participants. The sample size will be determined based on the appropriate statistical calculations to ensure sufficient statistical power.
- 3. Questionnaire Design: The questionnaire will be designed to collect relevant data related to digital payment adoption, financial inclusion, and factors that influence the relationship between the two. The questions will be structured to elicit responses on a Likert scale, allowing participants to rate their agreement or disagreement with statements. Additionally, demographic information will be collected to understand the characteristics of the sample.
- 4. Data Collection: The data will be collected using the survey questionnaire distributed electronically. Participants will be provided with clear instructions and guidelines for completing the questionnaire. The survey will be administered through online platforms or email questionnaire, ensuring ease of participation and timely data collection.
- 5. Data Analysis: Quantitative data obtained from the questionnaire will be analysed using appropriate statistical software, like SPSS. The following methods will be used:
  - a. Factor Analysis: Factor analysis will be performed to identify underlying factors or dimensions related to digital payment adoption and financial inclusion. This analysis will help in reducing the number of variables and simplifying the data, allowing for a

better understanding of the relationships between these factors.

- b. Hypotheses Testing: To examine the effect of digital payment adoption on financial inclusion, relevant hypotheses will be formulated. The study will use statistical tests, such as the chi-square test, to analyse the association between digital payment adoption and financial inclusion. Chi-square test will be used for categorical variables to determine if there is a significant relationship between the two variables.
- 6. Ethical Considerations: Ethical considerations will be addressed throughout the research process. Informed consent will be obtained from participants, ensuring confidentiality and privacy of their responses. The research will adhere to ethical guidelines and regulations governing human subject's research.
- 7. Limitations: The study may face limitations such as potential bias in self-reported data, sample representativeness, and reliance on participants' subjective perceptions. These limitations will be acknowledged and discussed in the research report.

#### **HYPOTHESIS:**

## TN ACCESS

**H0:** Digital payment adoption has a positive effect on financial inclusion by providing individuals with greater access to financial services and increasing their participation in the formal financial system.

**H1:** Digital payment adoption has no positive effect on financial inclusion by providing individuals with greater access to financial services and increasing their participation in the formal financial system

## ANALYSIS AND INTERPRETATION

#### **Factor Analysis**

Factor Analysis has been employed in this study in order to identify the factors driving or hindering their adoption.

| Kaiser-Meyer-Olkin Mea                              | asure of         | 0.808               |
|---|------------------|---------------------|
| Sampling Adequacy.                                  |                  |                     |
| Bartlett's Test of                                  | Approx. Chi-     | 592.346             |
| Sphericity  | Square           |                     |
| sphericity  | df               | 28                  |
|   |                  |                     |
|   | Sig.             | 0.000               |
|   |                  |                     |
| - tok   | nunalities       |                     |
| Which is the most                                   | Initial<br>1.000 | Extraction<br>0.594 |
| relevant factor that                                |                  |                     |
| influenced your decision<br>to adopt digital modes  |                  |                     |
| of payment?<br>Convenience and ease                 |                  |                     |
| of use]   |                  |                     |
| Which is the most                                   | 1.000            | 0.705               |
| relevant factor that<br>influenced your decision    |                  |                     |
| to adopt digital modes                              |                  |                     |
| of payment? [Increased<br>security compared to      |                  |                     |
| raditional payment<br>methods]                      |                  |                     |
| Which is the most<br>relevant factor that           | 1.000            | 0.642               |
| influenced your decision                            |                  |                     |
| to adopt digital modes<br>of payment? [Ability to   |                  |                     |
| rack and manage<br>ransactions digitally]           |                  |                     |
| Which is the most                                   | 1.000            | 0.660               |
| relevant factor that                                | 1.000            | 0.000               |
| influenced your decision<br>to adopt digital modes  |                  |                     |
| of payment? [Reduction                              |                  |                     |
| in the need to carry cash<br>or physical cards]     |                  |                     |
| Which is the most                                   | 1.000            | 0.596               |
| relevant factor that<br>influenced your decision    |                  |                     |
| to adopt digital modes                              |                  |                     |
| of payment? [Access to wider range of financial     |                  |                     |
| services]   |                  |                     |
| How confident are you<br>in the security of digital | 1.000            | 0.727               |
| modes of payment?                                   |                  |                     |
| How important is trust                              | 1.000            | 0.703               |
| in digital payment<br>service providers for         |                  |                     |
| your decision to adopt<br>and use their services?   |                  |                     |
| How would you rate the                              | 1.000            | 0.786               |
| convenience of digital                              | 1.000            | 0.780               |
| modes of payment<br>compared to traditional         |                  |                     |
| cash-based transaction?                             |                  |                     |

|           |        | Т             | <mark>otal</mark> Varianc | e Explair | ied        |            |        |           | 1         |
|-----------|--------|---------------|---------------------------|-----------|------------|------------|--------|-----------|-----------|
|           | Initia | ıl Eigenvalue | S                         | Extract   | ion Sums ( | of Squared | Rotati | on Sums c | f Squared |
|           |        | % of          | Cumulative                |           | % of       | Cumulative |        | % of      | Cumulativ |
| Component | Total  | Variance      | %                         | Total     | Variance   | %          | Total  | Variance  | . %       |
| 1         | 4.269  | 53.363        | 53.363                    | 4.269     | 53.363     | 53.363     | 2.778  | 34.720    | 34.72     |
| 2         | 1.144  | 14.300        | 67.663                    | 1.144     | 14.300     | 67.663     | 2.635  | 32.943    | 67.66     |
| 3         | 0.829  | 10.361        | 78.024                    |           |            |            |        |           |           |
| 4         | 0.490  | 6.125         | 84.149                    |           |            |            |        |           |           |
| 5         | 0.439  | 5.492         | 89.641                    |           |            |            |        |           |           |
| 6         | 0.333  | 4.167         | 93.808                    |           |            |            |        |           |           |
| 1         | 0.299  | 3.737         | 97.545                    |           |            |            |        |           |           |
| 8         | 0.196  | 2.455         | 100.000                   |           |            |            |        |           |           |

| Compor  | ient Matrix <sup>a</sup> |        |   |
|---|--------------------------|--------|---|
|   | Compo                    |        |   |
|   | 1                        | 2      |   |
| Which is the most                                 | 0.781                    |        |   |
| relevant factor that                              |                          |        |   |
| influenced your decision                          |                          |        |   |
| to adopt digital modes<br>of payment? [Ability to |                          |        |   |
| track and manage                                  |                          |        |   |
| transactions digitally]                           |                          |        |   |
| - ···   |                          |        |   |
| How would you rate the                            | 0.779                    | -0.423 |   |
| convenience of digital                            |                          |        |   |
| modes of payment                                  |                          |        |   |
| compared to traditional                           |                          |        |   |
| eash-based transaction?                           |                          |        |   |
| Which is the most                                 | 0.772                    |        |   |
| relevant factor that                              |                          |        |   |
| influenced your decision                          |                          |        |   |
| to adopt digital modes                            |                          |        |   |
| of payment? [Access to                            |                          |        |   |
| wider range of financial                          |                          |        |   |
| services]   |                          |        |   |
| How confident are you                             | 0.757                    |        |   |
| in the security of digital                        |                          |        | 1 |
| modes of payment?                                 |                          |        | 1 |
| Which is the most                                 | 0.740                    |        |   |
| relevant factor that                              |                          |        |   |
| influenced your decision                          |                          |        |   |
| to adopt digital modes                            |                          |        |   |
| of payment?                                       |                          |        |   |
| [Convenience and ease                             |                          |        |   |
| of use]   |                          |        |   |
| Which is the most                                 | 0.709                    | 0.450  |   |
| relevant factor that                              |                          |        |   |
| influenced your decision                          |                          |        |   |
| to adopt digital modes                            |                          |        |   |
| of payment? [Increased                            |                          |        |   |
| security compared to                              |                          |        |   |
| traditional payment                               |                          |        |   |
| methods]  |                          |        |   |
| How important is trust                            | 0.698                    | -0.465 |   |
| in digital payment                                |                          |        |   |
| service providers for                             |                          |        |   |
| your decision to adopt                            |                          |        |   |
| and use their services?                           |                          |        |   |
| Which is the most                                 | 0.588                    | 0.560  |   |
| relevant factor that                              | 0.300                    | 0.560  |   |
| influenced your decision                          |                          |        |   |
| to adopt digital modes                            |                          |        |   |
| of payment? [Reduction                            |                          |        |   |
| in the need to carry cash                         |                          |        |   |
| or physical cards]                                |                          |        |   |
| 1 2 - 5   |                          |        |   |

| - Advertise  |                             |              |
|--|-----------------------------|--------------|
| Rotated Con  | nponent Matrix <sup>a</sup> | 3.4.3        |
| - Cilder   | Componen<br>1               | 1 <u>t</u> 2 |
| How would you rate the<br>convenience of digital<br>modes of payment<br>compared to traditional<br>cash-based transaction?   | 0.856                       | 2            |
| How important is trust<br>in digital payment<br>service providers for<br>your decision to adopt<br>and use their services?   | 0.826                       |              |
| How confident are you<br>in the security of digital<br>modes of payment?   | 0.818                       |              |
| Which is the most<br>relevant factor that<br>influenced your decision<br>to adopt digital modes<br>of payment? [Access to<br>wider range of financial<br>services]                   | 0.556                       | 0.535        |
| Which is the most<br>relevant factor that<br>influenced your decision<br>to adopt digital modes<br>of payment? [Increased<br>security compared to<br>traditional payment<br>methods] |                             | 0.815        |
| Which is the most<br>relevant factor that<br>influenced your decision<br>to adopt digital modes<br>of payment? [Reduction<br>in the need to carry cash<br>or physical cards]         |                             | 0.811        |
| Which is the most<br>relevant factor that<br>influenced your decision<br>to adopt digital modes<br>of payment? [Ability to<br>track and manage<br>transactions digitally]            | 0.440                       | 0.670        |
| Which is the most<br>relevant factor that<br>influenced your decision<br>to adopt digital modes<br>of payment?<br>[Convenience and ease<br>of use]                                   |                             | 0.667        |

| <b>Component Transformation Matrix</b> |        |       |  |  |
|--|--------|-------|--|--|
| Component                              | 1      | 2     |  |  |
| 1                                      | 0.723  | 0.691 |  |  |
| 2                                      | -0.691 | 0.723 |  |  |

#### **Interpretation:**

Factor analysis was conducted to explore the underlying factors influencing the adoption of digital payment methods and their impact on financial inclusion. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, which assesses the proportion of variance among variables that might be common variance, was found to be 0.808. This indicates that the data is suitable for factor analysis. Additionally, Bartlett's test of sphericity yielded a significant p-value of < 0.001, indicating that the variables are interrelated, making factor analysis appropriate for the data.

The factor analysis extracted two components that collectively account for 67.663% of the total variance. The first component explains 53.363% of the variance, while the second component explains an additional 14.3% of the variance.

The factor loadings represent the correlations between the variables and the identified components. The factor loadings greater than 0.5 are considered significant and indicate a strong relationship between the variable and the component.

After applying the Varimax rotation with Kaiser normalization, the factor loadings become clearer and more interpretable.

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#### **Major factors**

The most important factors as per the analysis are as follows:

- Convenience of digital modes of payment compared to traditional cash based transaction
- Trust in digital payment service providers
- Confidence in the security of digital modes of payment
- Increased security compared to traditional payment method
- Reduction in the need to carry cash or physical card

#### <u>Chi Square Test</u>

Chi Square Test has been employed in this study in order to evaluate the impact of digital payment adoption on financial inclusion.

#### What is your mode of transaction? \* Which of the following is the biggest challenge faced while using digital modes of payment?

| Chi-Square Tests             |                     |    |   |  |  |
|------------------------------|---------------------|----|---|--|--|
| and a second                 | Value               | df | Asymptotic<br>Significance<br>(2-sided) |  |  |
| Pearson Chi-Square           | 18.871 <sup>ª</sup> | 20 | 0.53                                    |  |  |
| Likelihood Ratio             | 19.663              | 20 | 0.479                                   |  |  |
| Linear-by-Linear Association | 0.337               | 1  | 0.562                                   |  |  |
| N of Valid Cases             | 150                 |    |   |  |  |

#### Interpretation:

The chi-square test results indicate that there is no statistically significant association between the respondents' mode of transaction and the biggest challenge they face while using digital modes of payment (p > 0.05). The test suggests that the observed distribution of challenges faced does not differ significantly across different modes of transactions.

How satisfied are you with the overall user experience of digital modes of payment? \* Which of the following is the biggest challenge you face while using digital modes of payment?

| Chi-Sq                       | uare Test           | s  |   |
|------------------------------|---------------------|----|---|
|                              | Value               | df | Asymptotic<br>Significance<br>(2-sided) |
| Pearson Chi-Square           | 43.005 <sup>a</sup> | 16 | 0                                       |
| Likelihood Ratio             | 43.633              | 16 | 0                                       |
| Linear-by-Linear Association | 0.383               | 1  | 0.536                                   |
| N of Valid Cases             | 150                 |    |   |

#### Interpretation:

The chi-square test results indicate a significant association between respondents' satisfaction with the overall user experience of digital modes of payment and the biggest challenge they face while using these payment methods (p < 0.001). The test suggests that the observed distribution of challenges faced differs significantly across different levels of user satisfaction.

Occupation \* Which is the most relevant factor that influenced your decision to adopt digital modes of payment? [Convenience and ease of use]

| Chi                          | -Square T           | Tests | 4                                    |
|------------------------------|---------------------|-------|--------------------------------------|
|                              | Value               | df    | Asymptotic Significance<br>(2-sided) |
| Pearson Chi-Square           | 10.571 <sup>a</sup> | 9     | 0.306                                |
| Likelihood Ratio             | 10.964              | 9     | 0.278                                |
| Linear-by-Linear Association | 2.642               | 1     | 0.104                                |
| N of Valid Cases             | 150                 |       |                                      |

#### Interpretation:

The chi-square test results indicate that there is no statistically significant association between respondents' occupation and the most relevant factor influencing their decision to adopt digital modes of payment (p > 0.05). The test suggests that the observed distribution of factors influencing adoption does not differ significantly across different occupations.

Occupation \* Which is the most relevant factor that influenced your decision to adopt digital modes of payment? [Increased security compared to traditional payment methods]

| Chi-Sq                       | uare Tests          | 5  |   |
|------------------------------|---------------------|----|---|
|                              | Value               | df | Asymptotic<br>Significance<br>(2-sided) |
| Pearson Chi-Square           | 23.992 <sup>a</sup> | 9  | 0.004                                   |
| Likelihood Ratio             | 20.54               | 9  | 0.015                                   |
| Linear-by-Linear Association | 10.581              | 1  | 0.001                                   |
| N of Valid Cases             | 150                 |    |   |

#### **Interpretation:**

The chi-square test results indicate a statistically significant association between respondents' occupation and the most relevant factor influencing their decision to adopt digital modes of payment (p < 0.05). The test suggests that the observed distribution of factors influencing adoption differs significantly different across occupations. Particularly, occupation 1 (Student) shows a higher preference for increased security compared to traditional payment methods as the most relevant factor, while occupation 3 (Self-Employed) exhibits a lower preference for this factor.

Occupation \* Which is the most relevant factor that influenced your decision to adopt digital modes of payment? [Ability to track and manage transactions digitally]

| Chi-Square Tests             |                     |    |   |  |  |
|------------------------------|---------------------|----|---|--|--|
| Chroqe                       | Value               | df | Asymptotic<br>Significance<br>(2-sided) |  |  |
| Pearson Chi-Square           | 22.136 <sup>a</sup> | 9  | 0.008                                   |  |  |
| Likelihood Ratio             | 20.353              | 9  | 0.016                                   |  |  |
| Linear-by-Linear Association | 0.012               | 1  | 0.914                                   |  |  |
| N of Valid Cases             | 150                 |    |   |  |  |

#### Interpretation:

The chi-square test results indicate a statistically significant association between respondents' occupation and the most relevant factor influencing their decision to adopt digital modes of payment (p < 0.05). The test suggests that the observed distribution of factors influencing adoption varies significantly across different occupations.

Occupation \* Which is the most relevant factor that influenced your decision to adopt digital modes of payment? [Reduction in the need to carry cash or physical cards]

| Chi-Squ                      | uare Tests          | 2 24 | 1                                       |
|------------------------------|---------------------|------|---|
|                              | Value               | df   | Asymptotic<br>Significance<br>(2-sided) |
| Pearson Chi-Square           | 44.454 <sup>a</sup> | 9    | 0                                       |
| Likelihood Ratio             | 41.073              | 9    | 0                                       |
| Linear-by-Linear Association | 20.049              | 1    | 0                                       |
| N of Valid Cases             | 150                 |      |   |

#### **Interpretation:**

The chi-square test results indicate a highly statistically significant association between respondents' occupation and the most relevant factor influencing their decision to adopt digital modes of payment (p < 0.001). The test suggests that the observed distribution of factors influencing adoption significantly differs across different occupations. Particularly, occupation 1 (Student) shows a higher preference for the reduction in the need to carry cash or physical cards as the most relevant factor, while occupation 3 (Self-Employed) exhibits a lower preference for this factor.

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**Occupation \* Which is the most relevant factor** that influenced your decision to adopt digital modes of payment? [Access to wider range of financial services]

| Chi-Sq                       | uare Test           | s  |   |   |
|------------------------------|---------------------|----|---|---|
|                              | Value               | df | Asymptotic<br>Significance<br>(2-sided) |   |
| Pearson Chi-Square           | 15.716 <sup>a</sup> | 9  | 0.073                                   |   |
| Likelihood Ratio             | 15.487              | 9  | 0.078                                   |   |
| Linear-by-Linear Association | 0.583               | 1  | 0.445                                   |   |
| N of Valid Cases             | 150                 |    |   | 1 |
| Interpretation               |                     | 1. | NU                                      | 2 |

#### **Interpretation:**

The chi-square test results indicate that there is no statistically significant association between respondents' occupation and the most relevant factor influencing their decision to adopt digital modes of payment, which is access to a wider range of financial services (p > 0.05). The test suggests that the observed distribution of factors influencing differ adoption not does significantly across different occupations.

How frequently do you use digital modes of payment for your financial transactions? \* How with financial education and resources related to digital modes of payment?

| Chi-So                       | juare Tes           | ts |   |
|------------------------------|---------------------|----|---|
|                              | Value               | df | Asymptotic<br>Significance<br>(2-sided) |
| Pearson Chi-Square           | 24.288 <sup>a</sup> | 12 | 0.019                                   |
| Likelihood Ratio             | 15.172              | 12 | 0.232                                   |
| Linear-by-Linear Association | 7.669               | 1  | 0.006                                   |
| N of Valid Cases             | 150                 |    |   |

#### Interpretation:

The chi-square test results indicate a statistically significant association between respondents' frequency of using digital modes of payment for financial transactions and their familiarity with financial education and resources related to digital payment methods (p < 0.05). The test suggests that the observed distribution of familiarity with financial education varies significantly

across different usage frequencies. Particularly, respondents who use digital modes of payment more frequently show higher familiarity with financial education resources, while those who use them less frequently demonstrate lower familiarity.

#### **Demographic Profile of Respondents**

#### 1. Age

The survey population shows a significant representation of young adults (18-25 years) at 45.3%, indicating the inclusion of students and young individuals. 26-35 years age group constitutes 26.7%. representing young professionals and early-career individuals. The 36-55 years age group accounts for 28%, suggesting a substantial presence of individuals with more work experience or those approaching mid-life stages

#### 2. Level of education

52% are holding a Master's degree or higher, and 36.7% having completed their Bachelor's degree. A smaller percentage, 11.3%, has education up to the Pre-University level or lower. The majority of respondents are well-educated, with a substantial proportion having achieved advanced degrees.

#### 3. Occupation

A diverse group of individuals, with students and professionals comprising the majority, accounting for about 66.7% of the respondents. The significant presence of self-employed individuals at 22.7% indicates a notable entrepreneurial aspect. Homemakers represent 10.7% of the population. A range of educational and occupational backgrounds, are included providing valuable insights into various segments of the population.

#### **Study Analysis**

#### 4. What is your mode of transaction?

The survey reveals that mobile wallets are the most favoured mode of transaction, chosen by 51.3% of the respondents. Online banking and credit/debit cards are the next popular choices at 18% and 10.7%, respectively. Peer-to-peer platforms and digital currencies have lower adoption rates at 2.7% and 8%. 9.3% of the respondents reported using other, less common methods for their transactions. Mobile wallets dominate as the preferred digital payment method among the surveyed group.

5. Which is the most relevant factor that influenced your decision to adopt digital modes of payment?

Majority of respondents have selected the option Convenience and ease of use followed by Ability to track and manage transactions digitally.

# 6. How frequently do you use digital modes of payment for your financial transactions?

The digital modes of payment are widely used on a daily basis, accounting for approximately 72% of financial transactions. About 20.7% of transactions occur weekly, indicating frequent usage. Monthly usage stands at around 4%, signifying a lesser but still significant presence. Rare usage of digital payment methods is observed in only 3.3% of cases. There is a strong preference for digital payment methods, with daily usage being the most prevalent among the surveyed group.

# 7. Please select the option that best describes any changes in your spending habits since adopting digital modes of payment:

Adopting digital modes of payment has had a positive impact on users' financial habits. A significant portion reported becoming more mindful of their spending and budgeting, indicating that digital transactions promote better financial management practices. The ease and accessibility of digital payment methods have led to more frequent and smaller transactions for 24.7% of users, while 20.7% experienced a sense of control and visibility over their finances. Digital platforms empower users to manage their finances effectively, enhancing financial mindfulness and control among a considerable number of individuals.

# 8. How confident are you in the security of digital modes of payment?

A majority of respondents (64%) have either high or very high confidence in the security of digital modes of payment. However, a considerable portion still has moderate to low confidence (34%) or the lowest level of confidence (2%).

# 9. Which of the following is the biggest challenge you face while using digital modes of payment?

The biggest challenge faced while using digital modes of payment is undoubtedly technical issues or system downtime, which accounts for 34.7% of the respondents' concerns. This indicates that reliability and seamless functionality of digital payment platforms are crucial for user satisfaction. Connectivity issues in certain areas also pose a significant obstacle, impacting 24% of users. While concerns about security and trust are

prominent at 13.3%, it is reassuring that this percentage is lower, suggesting that advancements in security measures have instilled some level of confidence. Limited acceptance at certain merchants or locations, as well as difficulties in navigating different platforms, are also valid points of concern, with 18.7% and 9.3% respectively.

10. What role do you believe digital modes of payment play in promoting financial inclusion among marginalized or underserved communities?

35.3% of respondents believe that these digital payment methods are essential for providing access to financial services and empowering underserved populations. 31.3% of respondents believe that while digital modes of payment have potential, additional efforts are needed to achieve a more meaningful impact. 22% of respondents believe that digital modes of payment have limited impact on promoting financial inclusion among marginalized or underserved communities. 11.3% of respondents acknowledge the significant role of digital modes of payment in promoting financial inclusion but stress the importance of tailored solutions to address specific challenges faced by marginalized or underserved communities.

11. How has the adoption of digital modes of payment influenced your financial planning and goal-setting?

Few respondents (28.6%) reported that adopting digital payment methods has positively influenced their financial planning and goal-setting, enabling more effective financial goal achievement. A significant proportion (27.9%) expressed that digital modes of payment have provided them with improved financial planning tools and resources, enhancing their financial management capabilities.

A smaller group (6.1%) found that digital payment adoption financial made planning more challenging or confusing, potentially due to complexities associated with these technologies. The remaining respondents (37.45%) indicated that digital payment adoption had minimal impact on their financial planning and goal-setting, suggesting that while these technologies exist in their financial ecosystem, they haven't significantly altered their financial decision-making.

12. How would you rate the customer satisfaction w.r.t. support provided by digital payment service providers?

The overall customer satisfaction with the support provided by digital payment service providers is around 43.75%. This indicates that a significant proportion of customers (around 56.25%) might not be completely satisfied with the support they are receiving from these service providers.

13. Please select the option that best describes any impact you have noticed on local businesses since the adoption of digital modes of payment:

The impact of adopting digital modes of payment on local businesses is quite varied: 30.7% of local businesses have experienced increased sales and customer traffic due to digital payment adoption. 30.7% of local businesses have faced challenges in adapting to digital payment technologies. 28% of local businesses have seen improved operational efficiency and reduced transaction costs with digital payment adoption. 10.7% of respondents have not noticed any significant impact on local businesses from adopting digital payment methods.

# 14. How satisfied are you with the overall user experience of digital modes of payment?

The overall user experience of digital modes of payment is relatively positive. The majority of respondents (34%) rated their satisfaction as 51, with an additional 40% giving a rating of 60. These figures suggest that a significant proportion of users are content with the digital payment methods they are using. There is a minority (18%) that rated their satisfaction at 27, indicating that there might be some room for improvement in certain aspects of the user experience. A smaller percentage (7.3%) gave a rating of 11, suggesting that there are still a few dissatisfied users.

# 15. How would you rate the convenience of digital modes of payment compared to traditional cash-based transaction?

The overall user satisfaction with digital modes of payment is quite positive. The majority of respondents (a total of 74%) expressed their satisfaction by choosing either "Satisfied" or "Very Satisfied" options (51 and 60, which constitute 34% and 40% of the respondents, respectively). A significant portion of respondents (18%) marked "Neutral" (27), indicating a somewhat moderate satisfaction level. Only a small fraction of respondents (7.3%)combined) expressed dissatisfaction, with 0.7% choosing the "Dissatisfied" option (1).

# 16. How accessible do you find digital payment services in terms of availability and infrastructure?

The majority of respondents (64.7%) perceive digital payment services to be accessible to some degree, either highly, moderately, or somewhat accessible. However, there is a minority (7.7%) who find them less accessible or not accessible at all.

# 17. Please select the option that best describes the influence of digital payment adoption on your saving habits:

The majority of respondents (33.3%) believe that digital payments have improved their ability to track expenses and save, indicating a positive impact on their saving habits. 20.7% of respondents feel that digital payment methods have provided them with tools for easier and more effective saving. 14.7% of respondents stated that their savings have increased since adopting digital payments, suggesting a direct positive influence on their saving habits. A significant portion of respondents (31.3%) claimed that there has been no significant impact on their saving habits despite using digital payment methods.

# 18. How familiar are you with financial education and resources related to digital modes of payment?

52 respondents (34.7%) are very familiar with financial education and resources related to digital modes of payment. 42 respondents (28%) are somewhat familiar, 40 respondents (26.7%) have moderate familiarity, 14 respondents (9.3%) have low familiarity, and 2 respondents (1.3%) have very little familiarity.

# **19.** How important is trust in digital payment service providers for your decision to adopt and use their services?

The factor of Trust plays a crucial role in the decision-making process when it comes to adopting and using digital payment service providers. The majority of respondents, 46%, consider trust as highly important, and an

additional 28% also emphasize its significance. In total, 74% of respondents prioritize trust, which indicates that the majority of users are keenly aware of the importance of trusting the service provider with their financial transactions and personal information. Only 6% of respondents appear to be less concerned about trust, while 2% have a neutral stance. The overwhelming majority of participants highlight the significance of trust when selecting a digital payment service provider.

#### CONCLUSION

The study aimed to investigate the impact of digital payment adoption on financial inclusion. Through a questionnaire and data analysis methods, key findings were obtained. The most relevant factors

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influencing the decision to adopt digital payment methods were convenience, ease of use, increased security, transaction tracking, and reduced reliance on physical cash or cards. Digital payment methods play a crucial role in providing access to financial services and empowering underserved communities.

Trust in service providers and user experience were significant factors influencing adoption. While generally well-received, there were concerns about security and the need for improved financial education. The study suggests that promoting digital payment adoption, improving security and user experience, and providing financial education can enhance financial inclusion efforts.

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