

# A Study on Role of Digital Financial Services in Promoting Financial Inclusion

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## ABSTRACT

Financial inclusion has emerged as a critical component of sustainable economic development, particularly in developing economies like India. The rapid advancement of digital technologies has transformed the financial landscape by enabling the delivery of financial services through digital platforms. This study examines the role of digital financial services (DFS) in enhancing financial inclusion by improving accessibility, affordability, and efficiency of financial systems. The research focuses on awareness, usage patterns, and factors influencing the adoption of DFS, along with the challenges faced by users. The findings suggest that digital financial services significantly contribute to expanding financial access and empowering underserved populations. However, issues such as digital illiteracy, security concerns, and infrastructural limitations continue to hinder their full potential.

**Keywords:** Digital Financial Services, Financial Inclusion, UPI, Mobile Banking, FinTech, Digital Literacy

## INTRODUCTION

Financial services play a vital role in facilitating economic activities by enabling individuals and businesses to manage financial resources efficiently. These services include savings, credit, insurance, payments, and investment opportunities offered by formal financial institutions.

Financial inclusion refers to the provision of accessible, affordable, and timely financial services to all segments of society, particularly marginalized and underserved groups. Despite various policy interventions, a significant proportion of the population in developing countries remains excluded from the formal financial system.

In recent years, digital financial services have emerged as a transformative solution to bridge this gap. These services utilize digital platforms such as mobile applications, internet banking, and electronic payment systems to deliver financial services efficiently. By reducing geographical and cost barriers, DFS has enhanced the accessibility of financial services, especially in rural and remote areas.

The integration of digital technologies into financial systems has not only improved convenience but also increased transparency, reduced transaction costs, and promoted financial discipline. Thus, digital financial services act as a key enabler in achieving the broader goal of financial inclusion.

## LITERATURE REVIEW

□ **Khatri, Idrees & Sultan (2025)**

Fintech improves financial inclusion through mobile payments and digital wallets, with digital literacy as a key factor. It reduces costs and increases efficiency, though lack of awareness remains a barrier.

#### □ **Tandilino et al. (2025)**

Digital financial tools enhance small business performance by improving financial management and access to credit. Adoption depends on government support and digital literacy, while infrastructure gaps persist.

#### □ **Adetokunbo et al. (2025)**

Fintech, including digital banking and blockchain, expands financial access and transparency. Regulatory issues and literacy gaps remain challenges.

#### □ **Rajeer (2025)**

Mobile banking and AI-driven services improve access and reduce costs in emerging economies, though infrastructure and awareness challenges exist.

#### **Ha et al. (2025)**

Fintech enhances efficiency and accessibility in financial services. Strong regulatory frameworks and further research are needed to maximize its impact.

## **RESEARCH GAP**

Although existing studies have extensively explored the role of digital financial services in promoting financial inclusion, there is still a need to examine user awareness, behavior, and challenges in specific contexts. Many studies focus on macro-level analysis, while limited research addresses individual-level adoption patterns and practical difficulties faced by users. Therefore, this study aims to bridge this gap by analyzing the awareness, usage, and challenges of digital financial services among respondents.

## **RESEARCH METHODOLOGY**

### **3.1 Nature of the Study**

The study is descriptive and analytical in nature. It describes the level of awareness and usage of digital financial services and analyzes their impact on financial inclusion. This approach helps in understanding user behavior, trends, and influencing factors.

### **3.2 Sources of Data**

The study uses both primary and secondary data.

- **Primary Data:** Collected through a structured questionnaire to gather information on awareness, usage, and challenges.
- **Secondary Data:** Collected from journals, reports, websites, and previous studies to support the research.

### **3.3 Sample Design**

The study includes 220 respondents selected using convenience sampling based on availability and willingness. Though it may not fully represent the population, it provides useful insights.

### 3.4 Data Collection Method

Data were collected using a structured questionnaire with closed-ended questions covering awareness, usage, factors influencing adoption, and challenges. This ensures uniform and reliable responses.

### 3.5 Tools for Analysis

- **Percentage Analysis:** Converts data into percentages for easy understanding and comparison.
- **Descriptive Analysis:** Summarizes data using frequency, mean, and percentages.
- **Correlation Analysis:** Examines relationships between variables (range: -1 to +1).
- **Regression Analysis:** Measures the impact of independent variables on financial inclusion.
- **ANOVA:** Tests differences between groups; p-value < 0.05 indicates significance.

## DATA ANALYSIS AND INTERPRETATION

**Table 4.1: Percentage Analysis**

Age group	Frequency	Percentage
21-30	47	21.4%
31-40	127	57.7%
41-50	36	16.4%
Above 50	10	4.5%
<b>Total</b>	<b>220</b>	<b>100%</b>

### Interpretation

The table shows that most respondents belong to the 31–40 age group (57.7%) and are predominantly female (52.7%). A majority are salaried employees (37.3%), followed by self-employed individuals (33.2%). In terms of education, most respondents are undergraduates (58.2%), with school-level and postgraduate respondents forming similar proportions.

### Result

The findings reveal that middle-aged individuals (31–40 years) are the primary users of digital financial services, indicating higher adoption among economically active and working-age populations.

**Table 4.2: Descriptive Statistics**

Variable	Mean	Standard Deviation
Level of awareness	2.83	0.651
Digital transactions are safe	2.90	0.637
Trust in digital payments	2.89	0.602
Data protection online	3.09	0.558
Confidence in usage	3.01	0.549
Reliability of services	2.97	0.552

### Interpretation

The mean values are close to 3, indicating a moderate to positive perception toward digital financial services. Data protection (Mean = 3.09) shows the highest agreement among respondents.

**Result**

Respondents generally have a positive perception regarding the safety, trust, and reliability of digital financial services.

**Table 4.3: Correlation Analysis**

Variables	Correlation	Significance
Safety vs Trust	0.495	0.000
Safety vs Data Protection	0.402	0.033
Safety vs Confidence	0.411	0.002
Safety vs Reliability	0.524	0.024
Trust vs Confidence	0.252	0.000
Data Protection vs Reliability	0.372	0.010
Confidence vs Reliability	0.321	0.072

**Interpretation**

The correlation results indicate a positive relationship between key variables such as safety, trust, data protection, and confidence. Most relationships are statistically significant ( $p < 0.05$ ), showing that these factors are closely related in influencing digital financial service usage.

**Result**

The correlation analysis reveals that there is a significant positive relationship between key factors such as safety, trust, data protection, and confidence. Since most significance values are less than 0.05, the null hypothesis is rejected and the alternative hypothesis is accepted, indicating that these variables are interrelated and influence the usage of digital financial services.

**Table 4.4: Regression Analysis**

**Model Summary**

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error
0.789	0.623	0.62	0.45

**Anova**

Source	F	Significance (Sig)
Model	136.06	0.000

**Coefficients**

Variable	B	Beta	Significance (Sig)
Digital transactions are safe	0.541	0.652	0.000

**Interpretation**

The regression results show a strong positive impact ( $R = 0.789$ ), with 62.3% of the variation explained ( $R^2 = 0.623$ ). The model is statistically significant ( $p < 0.05$ ), and the variable “Digital transactions are safe” has a positive and significant impact on the dependent variable.

### Result

The regression analysis confirms that IR Impact has a significant positive influence on the dependent variable. The model is statistically significant and explains a substantial proportion of the variation, making it reliable for prediction and analysis.

**Table 4.5: ANOVA Analysis**

Source	F value	Sig.
Between Groups	2.357	0.043

### Interpretation

The significance value ( $0.043 < 0.05$ ) indicates a statistically significant difference in gender based on digital payment system.

### Result

$H_0$  is rejected and  $H_1$  is accepted, confirming that gender influences digital payment system.

### Results and Discussion

The study reveals that the majority of respondents belong to the 31–40 age group and are predominantly female, with most being undergraduates and salaried employees. This indicates that digitally active, educated, and working individuals form the primary users of digital financial services.

The percentage analysis shows that respondents have a moderate to good level of awareness, with most being familiar with services such as internet banking and UPI. Social media emerges as the major source of awareness, highlighting its importance in promoting digital financial services.

Descriptive analysis indicates a generally positive perception, as respondents moderately agree that digital financial services are safe, reliable, and trustworthy. Among these, data protection received relatively higher agreement.

The correlation analysis shows a significant positive relationship between variables such as trust, safety, data protection, and confidence. This suggests that these factors are interconnected and play a crucial role in influencing user behavior.

Regression analysis reveals that digital transaction safety has a statistically significant impact on usage, but the low R-square value indicates that its influence is limited and other factors also contribute to usage.

The ANOVA results confirm that educational qualification significantly influences the usage of digital financial services, indicating that higher education levels may lead to better adoption and understanding.

## FINDINGS

- ✓ The majority of respondents belong to the 31–40 age group, indicating that middle-aged individuals are the primary users of digital financial services.
- ✓ A significant proportion of respondents are female and undergraduates, showing that educated individuals are more aware and active in using digital platforms.
- ✓ Most respondents have a moderate level of awareness, with higher familiarity towards services like internet banking and UPI.
- ✓ Respondents show a positive perception towards digital financial services, especially regarding data protection, trust, and reliability.
- ✓ Correlation analysis reveals a significant relationship between trust, safety, and confidence, indicating that these factors influence user adoption.
- ✓ Educational qualification has a significant impact on usage, while regression analysis shows that safety has only a limited influence, suggesting other factors also play a role.

## SUGGESTIONS

- ✓ Awareness programs should be conducted to improve digital financial literacy, especially among less educated and rural populations.
- ✓ Financial institutions should focus on enhancing security measures to increase user trust and confidence in digital transactions.
- ✓ Governments and banks should promote user-friendly platforms to improve accessibility and ease of use.
- ✓ Social media can be effectively utilized to spread awareness and education about digital financial services.
- ✓ Training programs should be introduced to help users understand safe digital practices and avoid fraud.
- ✓ Efforts should be made to encourage inclusive participation, ensuring balanced representation across different demographic groups.

## CONCLUSION

The study examined the awareness and usage of digital financial services in promoting financial inclusion. The findings show that most respondents are aware of and actively use these services, mainly for bill payments and online transactions. Convenience, time-saving, and cost efficiency are the key factors influencing adoption. The results indicate a positive perception in terms of trust, security, and reliability. Correlation analysis shows a significant relationship between trust, safety, and confidence, while regression analysis reveals that safety has a limited but significant impact on usage. Educational qualification also influences adoption. Overall, digital financial services play a significant role in financial inclusion, but improving awareness, digital literacy, and security can further enhance their adoption.