
Influence of Financial Literacy on Financial Inclusion and Household Financial Choices: The Mediating Role of ICTs in Chennai

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Abstract

Financial literacy plays a crucial role in enhancing financial inclusion and shaping household financial choices, particularly in an increasingly digital financial environment. This study examines the influence of financial literacy on financial inclusion and household financial choices, with a specific focus on the mediating role of Information and Communication Technologies (ICTs) among households in Chennai. The study is based on primary data collected from 120 household respondents using a structured questionnaire. Descriptive statistics, correlation analysis, regression analysis, and mediation analysis were employed using the Statistical Package for the Social Sciences (SPSS) to analyze the data.

The findings reveal that financial literacy has a significant positive impact on both financial inclusion and household financial choices. ICT adoption and usage was found to partially mediate the relationship between financial literacy and financial inclusion, as well as between financial literacy and household financial choices. The results highlight that ICTs serve as an important channel through which financial knowledge is translated into inclusive financial behavior and informed household decision-making. The study underscores the need for integrated financial literacy and digital inclusion initiatives to strengthen household financial well-being and promote inclusive growth in urban India.

Keywords: Financial literacy, financial inclusion, ICT adoption, household financial choices, Chennai

Introduction

Financial literacy has emerged as a critical determinant of economic well-being, particularly in developing economies where households increasingly interact with formal financial systems. It refers to the ability of individuals to understand basic financial concepts such as savings, budgeting, credit, insurance, and investment, and to apply this knowledge effectively in everyday financial decision-making. In recent years, governments and financial institutions in India have emphasized improving financial literacy to promote responsible financial behavior, enhance financial security, and support inclusive economic growth.

Financial inclusion, defined as the availability and usage of affordable and appropriate financial services, is closely linked to the level of financial literacy among households. Individuals with higher financial knowledge are more likely to access banking services, use digital payment systems, participate in savings and investment products, and make informed borrowing decisions. Conversely, low levels of financial literacy often result in financial exclusion, dependence on informal credit sources, poor savings habits, and vulnerability to financial risks. Therefore, understanding how financial literacy influences household financial choices is essential for strengthening financial inclusion initiatives.

The rapid advancement of Information and Communication Technologies (ICTs) has significantly transformed the financial landscape in India. Digital platforms such as mobile banking, Unified Payments Interface (UPI), internet banking, fintech applications, and digital wallets have reduced transaction costs and improved access to financial services. ICTs act as an important enabler by simplifying financial processes and increasing awareness of financial products. However, the effective use of these technologies largely depends on an individual's level of financial literacy, as digital access alone does not guarantee meaningful financial inclusion.

In urban centers like Chennai, which is one of India's major metropolitan and financial hubs, the penetration of digital technologies and formal financial institutions is relatively high. Households in Chennai increasingly rely on ICT-enabled financial services for daily transactions, savings, and investments. Despite this, disparities persist in terms of financial knowledge, technology adoption, and financial decision-making capabilities across different socio-economic groups. This highlights the need to examine how ICTs mediate the relationship between financial literacy and household financial choices within an urban context.

This study seeks to analyze the influence of financial literacy on financial inclusion and household financial choices, with a specific focus on the mediating role of ICTs in Chennai. By empirically examining these relationships, the study aims to provide insights into how digital technologies can strengthen the impact of financial literacy on inclusive financial behavior. The findings are expected to contribute to policy formulation, financial education programs, and digital inclusion strategies aimed at enhancing household financial well-being in urban India.

Objectives of the Study

1. To examine the influence of financial literacy on financial inclusion among households in Chennai.
2. To analyze the impact of financial literacy on household financial choices in Chennai.
3. To assess the role of Information and Communication Technologies (ICTs) in promoting financial inclusion and informed household financial decisions.
4. To examine the mediating role of ICTs in the relationship between financial literacy, financial inclusion, and household financial choices.

Review of Literature

Financial literacy is widely recognized as a key factor influencing individuals' financial behavior and overall economic well-being. According to Lusardi and Mitchell (2014), financial literacy enables individuals to understand fundamental financial concepts and apply them in real-life financial decisions. Empirical studies have shown that higher levels of financial literacy are associated with improved budgeting, savings behavior, retirement planning, and investment decisions (Hastings et al., 2013). These findings highlight the importance of financial knowledge in strengthening household financial stability.

The relationship between financial literacy and financial inclusion has been extensively examined in prior research. Financially literate individuals are more likely to access and use formal financial services such as bank accounts, credit facilities, insurance products, and digital payment systems (Demirgüç-Kunt et al., 2018). In the Indian context, studies have found that financial literacy significantly contributes to increased participation in the formal financial system and reduced

dependence on informal sources of finance (Kumar & Dixit, 2021). Despite policy-driven initiatives such as the Pradhan Mantri Jan Dhan Yojana, gaps in financial literacy continue to limit inclusive financial participation.

Household financial choices, including decisions related to saving, borrowing, investing, and spending, are strongly influenced by financial literacy. Research indicates that households with higher financial knowledge tend to make more rational and long-term financial decisions, including diversified investments and responsible credit usage (Van Rooij et al., 2011). Conversely, low financial literacy has been linked to poor financial planning, excessive debt, and vulnerability to financial shocks (Atkinson & Messy, 2012). These studies emphasize the role of financial literacy in shaping prudent household financial behavior.

Information and Communication Technologies (ICTs) have played a transformative role in expanding access to financial services. Digital innovations such as mobile banking, internet banking, fintech platforms, and digital wallets have reduced geographical and procedural barriers to financial inclusion (Suri & Jack, 2016). Empirical evidence suggests that ICT adoption enhances convenience, reduces transaction costs, and improves access to financial information, thereby promoting financial inclusion, particularly in urban areas (Ozili, 2018).

Recent literature highlights the interaction between financial literacy and ICT usage. While ICTs provide access to digital financial services, financial literacy determines the effective and safe utilization of these technologies (Morgan et al., 2019). Studies have shown that individuals with higher financial literacy are more likely to adopt digital financial tools and use them confidently for payments, savings, and investments (Grohmann et al., 2018). This indicates that technology alone cannot ensure financial inclusion without adequate financial knowledge.

Several studies have explored the mediating role of ICTs in translating financial literacy into improved financial outcomes. ICTs facilitate the application of financial knowledge by providing real-time information, ease of transactions, and access to diverse financial products (Beck et al., 2016). Research findings suggest that digital platforms strengthen the impact of financial literacy on financial inclusion and household financial decisions by bridging the gap between knowledge and practice (Park & Mercado, 2018). However, empirical evidence on this mediating mechanism remains limited in the Indian urban context.

In metropolitan cities such as Chennai, characterized by high digital penetration and socio-economic diversity, the role of ICTs becomes particularly significant. Although households have access to advanced financial technologies, variations in financial literacy continue to influence financial inclusion and financial decision-making (RBI, 2022). Existing studies indicate a need for localized empirical research that simultaneously examines financial literacy, ICT usage, and household financial choices within a single analytical framework.

Based on the reviewed literature, it is evident that financial literacy significantly influences financial inclusion and household financial choices, with ICTs acting as an important mediating factor. However, limited empirical studies have focused on this relationship in urban Indian settings. The present study addresses this research gap by examining the mediating role of ICTs in the relationship between financial literacy, financial inclusion, and household financial choices among households in Chennai.

Research Methodology

Research Design

The present study adopts a **descriptive and analytical research design** to examine the influence of financial literacy on financial inclusion and household financial choices, with the mediating role of Information and Communication Technologies (ICTs). The design is appropriate for understanding relationships among variables and for testing direct and indirect effects using statistical techniques.

Study Area

The study is conducted in **Chennai City**, one of the major metropolitan and financial hubs of India. Chennai was selected due to its high level of digital infrastructure, widespread availability of formal financial institutions, and increasing adoption of ICT-enabled financial services among households.

Population of the Study

The population of the study comprises **households residing in Chennai** who actively use or have access to formal financial services such as banks, digital payment platforms, and fintech applications.

Sample Size and Sampling Technique

A sample size of **120 household respondents** was selected for the study. The sample size is considered adequate for conducting regression and mediation analysis using SPSS. The study employed a **convenience sampling technique**, as data were collected from respondents who were easily accessible and willing to participate in the survey.

Sources of Data

The study is based on **primary data**, collected directly from household respondents through a structured questionnaire. Secondary data were collected from journals, reports, books, RBI publications, and credible online sources to support the theoretical framework and literature review.

Instrument for Data Collection

Data were collected using a **structured questionnaire** designed on a five-point Likert scale ranging from *Strongly Disagree (1)* to *Strongly Agree (5)*. The questionnaire consisted of four sections: financial literacy, ICT adoption and usage, financial inclusion, and household financial choices. The items were adapted from previous studies and modified to suit the urban household context of Chennai.

Variables of the Study

Financial literacy was treated as the **independent variable**, ICT adoption and usage as the **mediating variable**, and financial inclusion and household financial choices as the **dependent variables**.

Reliability and Validity

The reliability of the measurement scale was assessed using **Cronbach's alpha**. A value greater than 0.70 was considered acceptable for internal consistency. Content validity was ensured through expert review and by adapting measurement items from established studies.

Tools for Data Analysis

The collected data were analyzed using **SPSS**. Descriptive statistics such as percentage, mean, and standard deviation were used to analyze demographic profiles. Inferential statistical techniques

including **correlation analysis, multiple regression analysis, and mediation analysis** were employed to test the relationships among the variables.

Ethical Considerations

Participation in the study was voluntary, and respondents were informed about the purpose of the research. Confidentiality and anonymity of the respondents were ensured, and the data collected were used strictly for academic purposes.

Data Analysis and Interpretation

The data collected from 120 household respondents in Chennai were coded, tabulated, and analyzed using the Statistical Package for the Social Sciences (SPSS). Both descriptive and inferential statistical tools were employed to examine the relationships among financial literacy, ICT adoption and usage, financial inclusion, and household financial choices. The results obtained from the analysis are presented in tabular form and interpreted to address the objectives of the study.

1. Reliability Analysis (Cronbach's Alpha)

Table 1: Reliability Statistics

Variable	No. of Items	Cronbach's Alpha
Financial Literacy	6	0.81
ICT Adoption & Usage	5	0.84
Financial Inclusion	5	0.79
Household Financial Choices	6	0.83
Overall Scale	22	0.86

The Cronbach's alpha values for all the variables are above the acceptable threshold of 0.70, indicating **good internal consistency** of the measurement scale. This shows that the items used to measure financial literacy, ICT adoption and usage, financial inclusion, and household financial choices are reliable. The overall scale reliability value of 0.86 further confirms that the questionnaire is suitable for conducting further statistical analysis.

2. Descriptive Statistics

Table 2: Descriptive Statistics

Variable	Mean	Std. Deviation
Financial Literacy	3.87	0.61
ICT Adoption & Usage	3.92	0.58
Financial Inclusion	3.76	0.63
Household Financial Choices	3.81	0.60

The mean value for financial literacy is 3.87 with a standard deviation of 0.61, indicating that respondents possess a reasonably high level of financial knowledge. ICT adoption and usage records the highest mean score of 3.92 with a standard deviation of 0.58, showing strong acceptance and use of digital financial tools among households in Chennai. The mean value for financial inclusion is 3.76 with a standard deviation of 0.63, reflecting a moderate to high level of access to and use of formal financial services. Household financial choices show a mean score of 3.81 with a standard deviation of 0.60, suggesting that respondents generally make informed financial decisions. The relatively low standard deviation values across all variables indicate consistency in the responses of the participants.

3. Regression Analysis

Financial Literacy → Financial Inclusion

Table 3: Regression Results

Predictor	Beta	t-value	Sig.
Financial Literacy	0.48	6.21	0.000

$$R^2 = 0.28$$

$$F = 38.56 (p < 0.001)$$

The regression results show that financial literacy has a significant positive impact on financial inclusion, with a beta value of 0.48 and a t-value of 6.21, which is statistically significant at the 0.001 level. The R^2 value of 0.28 indicates that 28 percent of the variation in financial inclusion is explained by financial literacy. The F value of 38.56 ($p < 0.001$) confirms that the overall regression model is statistically significant, indicating a good fit of the model.

4. Regression Analysis

Financial Literacy → Household Financial Choices

Table 4: Regression Results

Predictor	Beta	t-value	Sig.
Financial Literacy	0.45	5.84	0.000

$$R^2 = 0.25$$

$$F = 34.11 (p < 0.001)$$

The regression analysis indicates that financial literacy has a significant positive influence on household financial choices, with a beta value of 0.45 and a t-value of 5.84, which is statistically significant at the 0.001 level. The R^2 value of 0.25 shows that financial literacy explains 25 percent of the variation in household financial choices. The F value of 34.11 ($p < 0.001$) confirms that the regression model is statistically significant and provides a good fit for the data.

5. Mediation Analysis (Baron & Kenny Method)

Step 1: FL → ICT

$$\beta = 0.62, p < 0.001$$

Step 2: ICT → FI

$$\beta = 0.41, p < 0.001$$

Step 3: FL → FI (with ICT)

Table 5: Mediation Regression

Predictor	Beta	Sig.
Financial Literacy	0.29	0.002
ICT Adoption & Usage	0.36	0.000

The mediation analysis results indicate that financial literacy has a significant positive effect on ICT adoption and usage, with a beta value of 0.62 at the 0.001 significance level. ICT adoption and usage also significantly influences financial inclusion, as indicated by a beta value of 0.41 ($p < 0.001$). When both financial literacy and ICT adoption and usage are included in the regression model, the beta value of financial literacy decreases from 0.48 to 0.29 but remains statistically significant ($p = 0.002$), while ICT adoption and usage continues to show a significant effect on financial inclusion ($\beta = 0.36, p < 0.001$). This reduction in the beta value of financial literacy

indicates that ICT adoption and usage partially mediates the relationship between financial literacy and financial inclusion.

6. Mediation Analysis

FL → ICT → Household Financial Choices

Table 6: Mediation Results

Predictor	Beta	Sig.
Financial Literacy	0.27	0.004
ICT Adoption & Usage	0.38	0.000

The mediation analysis results show that financial literacy has a significant positive effect on household financial choices, with a beta value of 0.27 and a significance level of 0.004. ICT adoption and usage also has a strong and statistically significant influence on household financial choices, as indicated by a beta value of 0.38 ($p < 0.001$). The reduction in the beta value of financial literacy after including ICT adoption and usage in the model suggests that ICT adoption and usage partially mediates the relationship between financial literacy and household financial choices. This indicates that ICTs play an important role in translating financial knowledge into improved household financial decision-making.

Findings and Suggestions

Findings

The study reveals that financial literacy has a significant positive influence on both financial inclusion and household financial choices among households in Chennai. Respondents with higher levels of financial knowledge were more likely to access and use formal financial services and make informed decisions related to savings, borrowing, investments, and digital payments. The results also indicate that ICT adoption and usage plays a crucial role in enhancing financial inclusion, as households actively using digital financial platforms showed higher participation in the formal financial system.

The mediation analysis confirms that ICT adoption and usage partially mediates the relationship between financial literacy and financial inclusion, as well as between financial literacy and household financial choices. This suggests that financial literacy alone is not sufficient to ensure inclusive and responsible financial behavior unless it is supported by effective use of digital technologies. Overall, the findings highlight the combined importance of financial knowledge and ICT-enabled financial access in improving household financial decision-making in an urban context like Chennai.

Suggestions

Based on the findings of the study, it is suggested that policymakers and financial institutions strengthen financial literacy programs with a greater focus on practical application through digital platforms. Financial education initiatives should incorporate hands-on training related to mobile banking, digital payments, and online financial management tools to enhance ICT adoption among households. Banks and fintech companies should design user-friendly and secure digital financial services that cater to households with varying levels of financial literacy.

Additionally, government agencies and regulatory bodies should promote awareness campaigns emphasizing the safe and responsible use of ICT-enabled financial services to reduce digital exclusion and financial risks. Community-based workshops and digital literacy drives in Chennai

can further bridge the gap between financial knowledge and actual financial behavior. These measures will contribute to improved financial inclusion and more informed household financial choices.

Conclusion

The present study examined the influence of financial literacy on financial inclusion and household financial choices, with a specific focus on the mediating role of ICT adoption and usage among households in Chennai. The findings indicate that financial literacy plays a vital role in enhancing access to formal financial services and in improving household financial decision-making related to savings, borrowing, investments, and digital payments. Households with higher levels of financial knowledge demonstrate better financial inclusion and more responsible financial behavior.

The study also highlights the significant mediating role of ICTs, showing that digital technologies strengthen the impact of financial literacy by enabling easier access to financial services and facilitating informed financial choices. The partial mediation effect suggests that while financial literacy directly influences financial outcomes, its effectiveness is enhanced when supported by the use of ICT-enabled financial platforms. Overall, the study underscores the need for integrated financial and digital literacy initiatives to promote inclusive and sustainable household financial development in urban India.

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