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## CHALLENGES AND PROSPECTS OF DIGITAL FINANCIAL INCLUSION AMONG RURAL RESIDENTS IN IDUKKI DISTRICT, KERALA

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### ABSTRACT

Digital financial inclusion has emerged as a vital factor in promoting inclusive economic growth by enhancing the accessibility of financial services among rural communities. This study focuses on analysing the challenges and opportunities associated with digital financial inclusion in the rural regions of Idukki district, Kerala. The research is primarily based on data collected from 100 rural respondents through a structured interview schedule. Respondents were selected using the purposive sampling method, considering individuals who regularly utilise digital financial services such as mobile banking, internet banking, UPI platforms and digital wallets. For the purpose of analysis, statistical techniques including percentage analysis, mean and standard deviation, Chi-square test, and One Sample t-test were employed. The results of the study indicate that digital financial inclusion has considerably enhanced financial access and encouraged greater participation in formal financial activities among rural residents. At the same time, several barriers continue to limit the effective adoption of digital financial services. These challenges include inadequate digital literacy, unstable internet connectivity, concerns regarding cybersecurity and insufficient awareness about digital financial platforms. The study concludes that the development of digital infrastructure together with effective financial literacy programmes is essential for achieving sustainable and inclusive digital financial growth in the rural areas of Idukki district, Kerala.

**KEYWORDS:** Digital Financial Inclusion, Rural Kerala, Financial Accessibility, Financial Literacy, Digital Banking, UPI, Rural Development.

### INTRODUCTION

Digital financial inclusion refers to the provision of financial services through digital technologies in order to make banking and financial facilities easily accessible, affordable and convenient to all



sections of society. The advancement of technology in the banking and financial sector has transformed conventional financial practices into digitally enabled services, including mobile banking, internet banking, digital wallets, Unified Payments Interface (UPI) and online payment platforms. These services have made financial transactions faster and more efficient while improving access to formal financial systems among rural populations.

In India, digital financial inclusion has received significant attention through various government initiatives such as Digital India, Pradhan Mantri Jan Dhan Yojana, Aadhaar-enabled payment systems and UPI-based payment mechanisms. Such initiatives have played an important role in promoting digital banking practices and expanding financial inclusion among rural residents. Kerala, with its high literacy level and increasing acceptance of technology, has witnessed considerable growth in digital financial transactions over the past few years.

Although digital financial services have expanded rapidly, many rural residents still encounter difficulties in effectively using these services. Factors such as inadequate digital literacy, weak internet connectivity, cybersecurity concerns, limited awareness and hesitation towards adopting new technologies continue to hinder the effective implementation of digital financial inclusion in rural regions. On the other hand, digital financial inclusion offers several opportunities, including enhanced access to financial services, reduced dependence on cash transactions, improved saving behaviour, greater financial awareness and overall rural economic progress.

The rural regions of Idukki district in Kerala have undergone significant changes in financial practices due to the increasing influence of digitalisation. Rural consumers are increasingly using mobile banking applications, UPI transactions and digital payment platforms for their day-to-day financial activities. Hence, analysing the challenges and opportunities related to digital financial inclusion in the rural areas of Idukki district, Kerala, has become an important subject of study in the field of commerce and management.

### **STATEMENT OF THE PROBLEM**

Digital financial inclusion has considerably enhanced the accessibility of formal financial services among rural residents. Despite these advancements, many rural consumers continue to experience challenges in effectively using digital financial services due to inadequate digital literacy, poor internet connectivity, cybersecurity issues and limited awareness of technology. Even though Kerala has made notable progress in digital development, inequalities still persist in rural regions with respect to the adoption and efficient utilisation of digital financial services. Hence, it becomes essential to analyse the major challenges and opportunities related to digital financial inclusion in the rural areas of Idukki district, Kerala.



## **OBJECTIVES OF THE STUDY**

1. To identify the major challenges faced by rural residents in using digital financial services.
2. To examine the prospects of digital financial inclusion in improving financial accessibility among rural residents.

## **HYPOTHESES OF THE STUDY**

### **Hypothesis 1**

H0: There is no significant relationship between digital literacy and usage of digital financial services among rural residents.

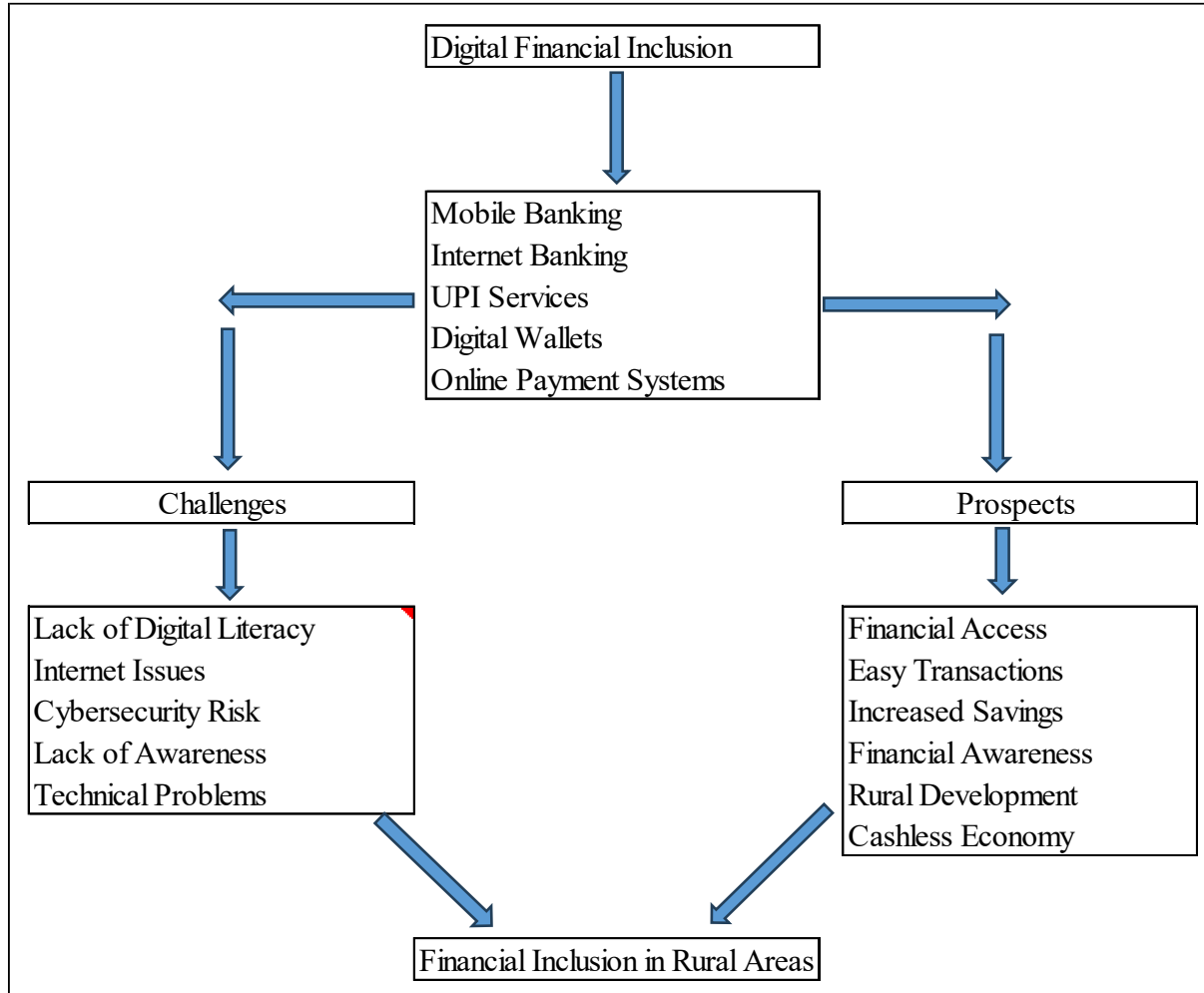
H1: There is a significant relationship between digital literacy and usage of digital financial services among rural residents.

### **Hypothesis 2**

H0: Digital financial inclusion does not significantly improve financial accessibility among rural residents.

H1: Digital financial inclusion significantly improves financial accessibility among rural residents.

## **Conceptual Model of the Study**



**RESEARCH METHODOLOGY**

The present study is descriptive as well as analytical in nature and is based on both primary and secondary sources of data. Primary data were gathered from 100 rural residents in Idukki district, Kerala, through a structured interview schedule. Secondary data for the study were obtained from various sources such as journals, books, reports, government publications, websites, and earlier research studies related to digital financial inclusion.

• **Sources of Data**

Primary data for the study were collected directly from rural residents with the help of a structured interview schedule. Secondary data were sourced from journals, books, RBI reports, government publications, websites, and earlier studies relating to digital financial inclusion and rural banking services.



- **Sampling Technique**

The study employed the purposive sampling technique for selecting respondents. Rural residents that actively utilised digital financial services such as UPI, mobile banking, internet banking, and digital payment applications were chosen as the sample for the study.

- **Sample Size**

The sample for the study comprised 100 rural respondents selected from various rural areas of Idukki district, Kerala.

- **Tools for Analysis**

Percentage analysis was used to examine the demographic characteristics of the respondents. Mean and standard deviation were applied to assess the views of respondents towards digital financial inclusion. The relationship between digital literacy and the use of digital financial services among rural residents was analysed with the help of the Chi-square test. Furthermore, the One Sample t-test was conducted to evaluate whether digital financial inclusion has significantly enhanced financial accessibility among rural residents.

## **REVIEW OF LITERATURE**

Shreya Biswas (2024) examined the influence of mobile financial services on financial behaviour in India. The study revealed that digital financial services play a significant role in enhancing financial participation, formal saving practices and borrowing behaviour among financially excluded groups. It also highlighted that mobile-based financial services improve access to banking facilities in rural regions.

Hardev Singh, Gurleen Kaur, Kuntala Khound, M. K. Taruna, and Amandeep Kaur (2024) analysed the behavioural factors affecting financial inclusion in India. Their study identified financial literacy, trust, perceived usefulness and digital preparedness as the major determinants influencing the adoption of digital financial services among rural consumers.

Nivedita Sharma and Ramandeep Kaur (2024) investigated the savings and investment behaviour of rural residents through investor awareness programmes. The findings showed that financial awareness and digital literacy considerably improve financial decision-making and accessibility to financial services among rural residents.

Suresh Gopal and Prakash Malliasamy (2022) studied the transformational impact of COVID-19 on the savings and spending patterns of rural residents in India. The study found that the adoption of digital financial services significantly altered saving behaviour and encouraged the use of digital transactions among rural consumers.

Meenakshi Rajeev and Shika Saravanabhavan (2024) examined the influence of financial infrastructure and financial education on formal savings in India. The study concluded that improved financial infrastructure and digital banking facilities positively affect the saving behaviour of residents in rural areas.

Kalaivani Elangovan, V. Ravikumar, C. Velusamy, D. K. Kawethaashree, and K. Selvaraju (2024) analysed digital financial inclusion and household investment behaviour in rural India using NSSO and RBI data. The findings indicated that digital financial inclusion positively influences investment diversification and productive capital formation among rural residents.

The review of existing literature shows that digital financial inclusion plays a significant role in improving financial accessibility, saving behaviour and financial participation among rural residents. Nevertheless, issues such as inadequate digital literacy, poor internet connectivity and cybersecurity concerns continue to hinder the effective utilisation of digital financial services in the rural areas of Idukki district, Kerala. Many rural consumers still depend on traditional banking practices due to limited confidence in digital transaction systems. Lack of proper training and awareness programmes also restricts the adoption of advanced digital financial services among rural residents. Infrastructural limitations in remote areas further create difficulties in accessing uninterrupted digital banking facilities. Therefore, strengthening digital education and improving technological infrastructure are essential for ensuring effective and inclusive digital financial development in rural regions.

**Data Analysis and Interpretation**

**Table 1:  
Awareness Level of Digital Financial Services**

Awareness Source	Frequency	Percentage
Banks	34	34%
Social media	26	26%
Friends and Relatives	22	22%
Government Campaigns	18	18%

**Interpretation:** The majority of respondents became aware of digital financial services through banks (34%), followed by social media platforms (26%). This indicates that banks and digital communication platforms play an important role in promoting digital financial inclusion among rural residents.

**Table 2:**  
**Major Challenges Faced by Rural Respondents**

Challenges	Frequency	Percentage
Lack of Digital Literacy	30	30%
Poor Internet Connectivity	26	26%
Cybersecurity Concerns	18	18%
Technical Errors	14	14%
Lack of Trust	12	12%

**Interpretation:** The study identified lack of digital literacy as the major challenge faced by rural respondents (30%), followed by poor internet connectivity (26%). Cybersecurity concerns and lack of trust also affect the effective utilisation of digital financial services in rural areas.

**Table 3:**  
**Prospects of Digital Financial Inclusion**

Prospects	Mean	Standard Deviation
Improved Banking Accessibility	4.41	0.66
Faster Financial Transactions	4.32	0.72
Reduction in Cash Dependency	4.08	0.81
Increased Financial Awareness	3.96	0.88
Better Saving Habit	4.12	0.79

**Interpretation:** The respondents strongly agreed that digital financial inclusion improves banking accessibility and enables faster financial transactions. The findings also reveal that digital financial services encourage better financial awareness and reduce dependency on cash transactions.

**Table 4:**  
**Chi-Square Test Between Digital Literacy and Usage of Digital Financial Services**

Variables	Chi-Square Value	df	Sig. Value
Digital Literacy & Usage of Digital Financial Services	18.642	4	0.001

**Interpretation:** The significance value (0.001) is less than 0.05. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted. This indicates that there is a significant relationship between digital literacy and usage of digital financial services among rural residents.

**Table 5:**  
**One Sample t-Test on Financial Accessibility**

Variable	Mean	Test Value	t Value	Sig. Value
Financial Accessibility	4.18	3	11.524	0.000

**Interpretation:** The significance value (0.000) is less than 0.05. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted. This indicates that digital financial inclusion significantly improves financial accessibility among rural residents.

### MAJOR FINDINGS

1. Banks are the major source of awareness regarding digital financial services among rural residents.
2. Lack of digital literacy is the most significant challenge affecting digital financial inclusion.
3. Poor internet connectivity and cybersecurity concerns reduce effective utilisation of digital financial services.
4. Rural respondents strongly agreed that digital financial inclusion improves banking accessibility and transaction convenience.
5. Chi-square analysis confirmed a significant relationship between digital literacy and usage of digital financial services.
6. One Sample t-test revealed that digital financial inclusion significantly improves financial accessibility among rural residents.



## **SUGGESTIONS**

1. Financial literacy programmes should be conducted in rural areas to improve digital awareness.
2. Government should strengthen internet infrastructure in rural regions.
3. Banks should improve cybersecurity measures to increase customer trust.
4. Rural residents should be provided with practical training regarding mobile banking and UPI usage.
5. Financial institutions should simplify digital applications for easy usage among rural consumers.

## **CONCLUSION**

The study concludes that digital financial inclusion has a substantial influence on enhancing financial accessibility and financial participation among rural residents in the rural regions of Idukki district, Kerala. The growing use of digital banking facilities such as UPI, mobile banking, internet banking and digital wallets has increased the convenience of financial transactions and strengthened the process of financial inclusion in rural communities.

The statistical findings of the study indicate that digital literacy has a significant impact on the utilisation of digital financial services among rural residents. The results of the Chi-square test established a meaningful association between the level of digital literacy and the usage of digital financial services. Accordingly, the alternative hypothesis was accepted, while the null hypothesis was rejected. Similarly, the results of the One Sample t-test confirmed that digital financial inclusion considerably improves financial accessibility among rural residents, leading to the acceptance of the second alternative hypothesis and rejection of the corresponding null hypothesis.

Even though digital financial inclusion creates several opportunities for rural economic progress, certain barriers continue to limit its effective adoption. Problems such as inadequate digital literacy, weak internet connectivity, and concerns regarding cybersecurity remain major challenges in rural areas. Therefore, greater attention should be given to strengthening digital infrastructure, improving financial and technological awareness, and promoting secure digital transaction practices to ensure sustainable and inclusive digital financial development in the rural areas of Idukki district, Kerala.

## **REFERENCES**

- Biswas, S. (2024). Can mobile financial services influence financial behaviour in India? *The Indian Economic Journal*. <https://doi.org/10.1177/00194662241265470>
- Elangovan, K., Ravikumar, V., Velusamy, C., Kawethaashree, D. K., & Selvaraju, K. (2024). Digital financial inclusion and household investment behavior in rural India: Evidence from NSSO and RBI



data. *Journal of Applied Bioanalysis*, 11(15s), 1147–1156. <https://doi.org/10.53555/jab.v11si15.2488>

Gopal, S., & Malliasamy, P. (2022). Transformational impact of COVID-19 on savings and spending patterns of Indian rural residents. *SAGE Open*. <https://doi.org/10.1177/21582440221079885>

Rajeev, M., & Saravanabhavan, S. (2024). Spatial impact of education on formal savings in India: A household-level analysis. *Margin: The Journal of Applied Economic Research*, 18(1), 125–143. <https://doi.org/10.1177/09749101251364587>

Sharma, N., & Kaur, R. (2024). Savings and investment behaviour in rural India: An impact assessment of investor awareness programme. *Social Change*, 55(4), 629–647. <https://doi.org/10.1177/00490857251401635>

Singh, H., Kaur, G., Khound, K., Taruna, M. K., & Kaur, A. (2024). Understanding barriers and behavioural determinants of financial inclusion: Evidence from empirical investigation. *European Economic Letters*, 15(3), 4289–4301. <https://doi.org/10.52783/eel.v15i3.3991>