

Usage of FinTech Services among Rural People

Special Reference to Kerala

Dr. Sreekumar P G¹, Mrs. Suchitra V G², Dr Gibin Jacob³, Dr. Amritha M. S⁴

Assistant Professor in Commerce, Post Graduate Department of Commerce and Management Studies¹

N.S.S. College Nemmara Palakkad Kerala¹

Assistant Professor, Acharya Institute of Graduate Studies²

Associate Professor, Department of Commerce, St Paul's College, Kalamassery³

Assistant Professor, School of Management, De Paul Institute of Science and Technology, Angamaly⁴

sreekumarp1988@gmail.com, suchiakshay95@gmail.com

ORCID ID: 0009-0008-2678-1446

ORCID ID: 0009-0001-5138-0088

Abstract: *The rapid development of Financial Technology (FinTech) has transformed the delivery and accessibility of financial services, particularly through digital payments, mobile banking, internet banking, and digital wallets. FinTech services have the potential to improve financial accessibility, reduce transaction costs, and promote financial inclusion among rural communities. However, their effective utilisation may be influenced by digital literacy, financial literacy, accessibility, perceived usefulness, trust, and security concerns. This study aims to examine the usage patterns and preferences of FinTech services among rural people in Kerala and analyse the factors influencing their usage. The study adopts a descriptive and analytical research design, considering an illustrative sample of 200 respondents from diverse demographic and socioeconomic backgrounds. Data may be collected through a structured questionnaire and analysed using frequency and percentage analysis, weighted mean and ranking analysis, the chi-square test of independence, and correlation analysis. The illustrative findings indicate that UPI and digital payment applications are the most frequently used FinTech services, accounting for 62% of respondents, followed by mobile banking at 18%. Money transfers represent the leading purpose of usage, while perceived usefulness and accessibility emerge as the highest-ranked factors influencing FinTech usage, with mean scores of 3.98 and 3.88, respectively. However, fear of online fraud, poor internet connectivity, and limited technical knowledge remain significant challenges. The illustrative chi-square results also suggest an association between gender and regular FinTech usage, which requires verification using actual survey data. The study highlights the importance of strengthening digital and financial literacy, improving rural digital infrastructure, enhancing transaction security, and providing effective customer support. It is expected to contribute to a better understanding of FinTech adoption in rural Kerala and offer useful insights for financial institutions, policymakers, and digital service providers seeking to promote safe and inclusive digital financial services*

Keywords: Financial Technology (FinTech), Rural Financial Inclusion, Digital Payments, Digital Financial Literacy, FinTech Adoption.

I. INTRODUCTION

The rapid advancement of information and communication technology has brought significant changes to the financial services sector across the world. The integration of technology with financial services, commonly known as Financial Technology (FinTech), has transformed the way individuals access, manage, and utilise financial products and services. FinTech refers to the application of digital technologies to provide financial services in a faster, more convenient, cost-



effective, and accessible manner. It includes a wide range of services such as digital payments, mobile banking, internet banking, Unified Payments Interface (UPI), digital wallets, online lending, digital insurance, investment applications, and other technology-based financial solutions. The growing adoption of these services has contributed to the transformation of traditional banking systems and has created new opportunities for financial inclusion, particularly among people living in rural areas.

In India, the development of digital financial services has received considerable attention from the government, financial institutions, and technology companies. Initiatives such as Digital India, the Pradhan Mantri Jan Dhan Yojana (PMJDY), Aadhaar-enabled payment systems, and the expansion of UPI have contributed to the growth of digital financial transactions. The increasing availability of smartphones, affordable internet connectivity, and digital banking platforms has encouraged people to move from traditional cash-based transactions towards electronic payment methods. These developments have made financial services more accessible to individuals who previously faced geographical, economic, and institutional barriers to banking facilities. FinTech has therefore emerged as an important instrument for promoting financial inclusion, improving transaction efficiency, and supporting the economic development of rural communities.

Rural people constitute an important segment of the Indian population, and their access to efficient financial services is essential for inclusive economic growth. Traditionally, rural households have depended on physical bank branches, cash transactions, local moneylenders, and informal financial arrangements to meet their financial requirements. However, these traditional methods may involve challenges such as travelling long distances to access banking facilities, spending time on financial transactions, limited availability of formal credit, and difficulties in accessing financial information. FinTech services offer potential solutions to several of these challenges by enabling individuals to transfer money, pay utility bills, receive government benefits, check account balances, make purchases, and access selected financial products through digital platforms. Farmers, small traders, self-employed individuals, rural employees, and members of self-help groups can potentially benefit from these services by reducing transaction costs and improving the convenience of financial management.

Despite the growing availability of digital financial services, the actual utilisation of FinTech among rural people depends on several interconnected factors. Digital literacy, financial literacy, educational qualifications, income levels, age, occupation, smartphone ownership, internet connectivity, and awareness of digital financial products can influence the willingness and ability of rural individuals to adopt these services. While younger and educated individuals may find digital platforms relatively easy to use, older people and those with limited digital experience may experience difficulties in navigating mobile applications and completing electronic transactions. Similarly, concerns relating to cyber fraud, unauthorised transactions, data privacy, online scams, and the security of personal banking information may discourage individuals from using digital financial services. Therefore, the availability of FinTech infrastructure alone does not necessarily guarantee widespread adoption or regular usage among rural communities.

Kerala provides an interesting setting for examining the usage of FinTech services among rural people because of its distinctive social, economic, and demographic characteristics. The state is widely recognised for its achievements in literacy, healthcare, social development, and the expansion of banking facilities. The presence of cooperative banks, commercial banks, local self-government institutions, Kudumbashree networks, and various community-based organisations has contributed to the development of financial awareness and community participation. The growing use of smartphones, internet-based services, and digital payment platforms has further created opportunities for rural residents to participate in the digital financial ecosystem. Digital payment methods such as UPI, mobile banking, internet banking, and Aadhaar-enabled services can support everyday transactions, including payments to local merchants, money transfers, bill payments, and the receipt of financial assistance.

Nevertheless, rural Kerala cannot be considered completely free from the challenges associated with digital financial adoption. Differences in age, educational attainment, household income, occupation, geographical accessibility, and technological familiarity may result in varying levels of FinTech usage across rural communities. Some individuals may use digital payment applications regularly for routine purchases and money transfers, whereas others may depend



primarily on cash transactions or seek assistance from family members and banking intermediaries. In certain situations, fear of making mistakes, lack of confidence in digital platforms, inadequate awareness of grievance-redressal mechanisms, and concerns about financial fraud may limit the independent use of digital services. Furthermore, using a digital payment application for occasional transactions is different from regularly using a wider range of FinTech services, such as digital savings, insurance, credit, and investment platforms. Understanding these differences is essential to assessing the actual extent of FinTech adoption among rural people.

The usage of FinTech services can influence the financial behaviour and economic participation of rural households in several ways. Digital transactions may improve the speed and convenience of payments, facilitate the transfer of funds between family members, support small businesses, and enable easier access to selected formal financial services. Digital platforms may also help rural individuals monitor their transactions, maintain financial records, and reduce dependence on physical banking visits. For small entrepreneurs and rural traders, accepting digital payments can provide additional transaction options and potentially improve business convenience. However, the benefits of FinTech depend on whether users possess the necessary knowledge, infrastructure, confidence, and financial resources to use these services safely and effectively. Consequently, it is important to examine not only whether rural people have adopted FinTech but also the frequency, purpose, diversity, and challenges associated with its usage.

Against this background, the present study, entitled “Usage of FinTech Services Among Rural People: Special Reference to Kerala,” seeks to examine the extent to which rural residents utilise technology-based financial services in their daily lives. The study focuses on identifying the commonly used FinTech services, understanding the factors influencing their adoption, examining usage patterns, and assessing the major difficulties encountered by rural users. It also seeks to understand the role of digital literacy, financial awareness, accessibility, convenience, trust, and security perceptions in shaping the utilisation of these services. By examining these dimensions, the study aims to provide insights into the opportunities and challenges associated with digital financial service usage among rural communities in Kerala.

The findings of the study may be useful to banks, financial technology companies, policymakers, local government institutions, and community organisations in developing strategies to improve the adoption and effective use of digital financial services. Greater emphasis on digital financial education, cybersecurity awareness, user-friendly applications, reliable internet connectivity, and accessible customer support may help address existing barriers. Ultimately, promoting the safe, informed, and inclusive use of FinTech services can contribute to strengthening rural financial participation and supporting sustainable economic development in Kerala.

II. REVIEW OF LITERATURE

Abdul Azeez and Akhtar (2021), in their study titled “Digital Financial Literacy and Its Determinants: An Empirical Evidence from Rural India,” examined the importance of digital financial literacy in enabling rural people to use technology-based financial services. The study highlighted the role of digital knowledge, awareness, skills, and attitudes in facilitating financial transactions through digital platforms. It emphasised that the availability of digital banking facilities alone may not ensure effective usage unless individuals possess the necessary knowledge and confidence to conduct transactions. The study is relevant to the present research because digital financial literacy may influence the extent to which rural people in Kerala adopt and utilise FinTech services independently.

Jena (2025), in the study “Factors Influencing the Adoption of FinTech for the Enhancement of Financial Inclusion in Rural India Using a Mixed Methods Approach,” investigated the factors affecting FinTech adoption among rural populations. The study examined the potential of financial technology to improve access to financial services and promote financial inclusion. It highlighted the importance of understanding the technological, behavioural, and socioeconomic factors that influence the adoption of digital financial services. The research provides a useful foundation for examining how rural individuals perceive and use FinTech platforms. In the context of Kerala, these factors can help explain differences in the adoption of mobile banking, digital payments, and other technology-enabled financial services.



Haque, Azeez, and Akhtar (2025), in their study “UPI and Financial Inclusion in Rural India: A Case Study,” examined the factors influencing Unified Payments Interface (UPI) usage among rural residents in Aligarh district. The researchers employed binary logistic regression to analyse the relationship between socioeconomic characteristics and UPI adoption. The findings indicated that age, gender, educational qualifications, occupation, and income were important factors associated with UPI usage. Younger, better-educated, and higher-income respondents were more likely to use UPI, while certain other demographic variables were not statistically significant. The study suggested the need for targeted financial literacy initiatives and greater support for groups with lower adoption levels. It is relevant to the present study because similar demographic factors can be investigated among rural residents in Kerala.

Ranjith Kumar and Ashwin Anand (2025), in their study “The Role of FinTech in Transforming the Financial Services Landscape in Rural India,” explored the role of financial technology in changing the delivery and utilisation of financial services in rural communities. The study focused on barriers such as limited digital literacy, suspicion regarding digital transactions, resistance to technological change, and concerns about trust. It highlighted the need to understand the behavioural and institutional factors that influence rural consumers' willingness to adopt FinTech services. The study suggests that improving technological access should be accompanied by financial education and confidence-building measures. These observations are relevant to rural Kerala, where the level of awareness and trust may influence the use of digital payment applications and mobile banking facilities.

Sahu, Chakraborty, and Banerjee (2025), in their study “From a Cash-Heavy to a Cashless Economy: How UPI Is Revolutionizing Rural India's Ease of Doing Business,” investigated how UPI-based digital payments affect business activities among rural entrepreneurs. The researchers analysed feedback from entrepreneurs operating in the rural informal economy using computational thematic analysis. The study explored the perceived benefits of UPI in facilitating transactions and supporting business operations. Its focus on rural entrepreneurs demonstrates the relevance of digital payment systems beyond individual consumers, particularly for small traders and self-employed individuals. The study is useful for examining how rural people in Kerala use FinTech for business payments, customer transactions, and everyday commercial activities.

Saleem, Pallavi, and Narasimha Rao (2025), in their study “Digital Banking in Rural India: Assessing Usage and Identifying Adoption Barriers,” examined the extent of digital banking usage and the challenges experienced by rural bank customers in Krishna district, Andhra Pradesh. Based on a descriptive study involving 120 rural customers, the researchers observed that digital banking was used for basic activities such as bill payments and mobile recharges, but its wider adoption faced several barriers. These included poor internet connectivity, fear of financial risk, limited digital confidence, and difficulties in using digital interfaces. The study emphasised that awareness alone may not be sufficient to ensure regular usage without practical assistance and digital literacy training. These findings provide a basis for examining the infrastructure and user-related challenges experienced by rural residents in Kerala.

Samantaray and Khandelwal (2026), in their study “Adoption and Usage of Digital Banking Services: A Rural Indian Perspective,” examined the factors influencing the adoption and use of digital banking services in rural India. The study identified user-friendliness, convenience, awareness, digital banking self-efficacy, and confidence in trust and security as significant predictors of adoption intention and usage behaviour. The findings indicate that the decision to use digital banking depends not only on the availability of services but also on users' perceptions of convenience and their ability to operate digital platforms confidently. The study is relevant to the present research because these factors can be investigated to understand the usage patterns of mobile banking, internet banking, and digital payment services among rural people in Kerala.

Raju and Gupta (2026), in their study “Exploring Enablers and Barriers of M-Banking Adoption for Financial Inclusion in Rural India,” investigated the factors that encourage or discourage mobile banking adoption among rural communities. The study examined mobile banking adoption through established technology acceptance perspectives, including the Technology Acceptance Model and the Unified Theory of Acceptance and Use of Technology. Its focus highlights the importance of understanding the conditions under which rural users accept and utilise mobile banking services. The study is particularly relevant to the present research because mobile banking constitutes an important



component of FinTech. Examining the perceived usefulness, ease of use, and barriers to adoption can help explain differences in mobile banking utilisation among rural households in Kerala.

Sutradhar and Ghosh (2026), in their study “Digital Financial Inclusion in Rural India: Findings from NSS 77th Round Survey,” examined digital financial inclusion using evidence from the National Sample Survey's 77th round. The study highlighted the importance of integrating rural populations into digital financial systems to encourage electronic transactions and inclusive economic development. It also drew attention to limitations in smartphone and internet access, which can restrict the use of phone-based financial services. The study indicates that access to alternative digital payment instruments and supporting infrastructure is important for improving participation in the digital financial ecosystem. Its findings are relevant to understanding the infrastructural and accessibility-related factors that may influence FinTech usage among rural people in Kerala.

Swapna and Kanthimathinathan (2026), in their study “Understanding UPI Payment Adoption Among Rural Women: Insights from the Technology Acceptance Model,” examined the adoption of UPI payments among rural women using the Technology Acceptance Model and structural equation modelling. The study addressed the underrepresentation of rural women in digital payment adoption and investigated the factors associated with their willingness to use UPI platforms. Its focus on gender-specific adoption provides an important perspective on the differences that may exist within rural communities. Although the study concentrates on rural women rather than the entire rural population, it is relevant to the present research because it highlights the importance of examining user perceptions and demographic differences when studying FinTech usage in Kerala.

Research Gap

The review of the ten studies indicates that FinTech adoption in rural India is influenced by digital financial literacy, income, education, age, accessibility, convenience, trust, security, and technological confidence. Existing research has examined digital banking, UPI adoption, mobile banking, and financial inclusion in different rural settings. However, there is scope for a focused empirical investigation into the overall usage of FinTech services among rural people in Kerala.

The present study can address this gap by examining the types of FinTech services used by rural residents, the frequency and purposes of their usage, the factors influencing adoption, and the major difficulties encountered by users. It can also investigate whether usage patterns differ according to age, gender, education, income, and occupation. A Kerala-specific study would provide localised evidence to help financial institutions and policymakers develop appropriate strategies for promoting safe, accessible, and effective FinTech usage among rural communities.

Objectives:

1. To examine the usage patterns and preferences of FinTech services among rural people in Kerala, with particular reference to digital payments, mobile banking, internet banking, and digital wallets.
2. To analyse the factors influencing the usage of FinTech services among rural people in Kerala, with particular reference to digital literacy, financial literacy, accessibility, perceived usefulness, trust, and security concerns.

III. RESEARCH METHODOLOGY

The present study adopts a descriptive and analytical research design to examine the usage patterns, preferences, and factors influencing the adoption of FinTech services among rural people in Kerala. The study focuses on digital payments, mobile banking, internet banking, digital wallets, and other digital financial services. Both primary and secondary data are considered relevant to the investigation. Primary data may be collected from rural respondents through a structured questionnaire, while secondary data may be obtained from research articles, journals, books, reports published by the Reserve Bank of India (RBI), and other relevant sources.

For the proposed analysis, an illustrative sample size of 200 respondents is considered. The respondents represent different age groups, genders, educational backgrounds, and monthly household income categories. A suitable sampling



technique, such as multistage sampling or convenience sampling, may be adopted depending on the availability of respondents and the geographical scope of the study. The questionnaire may include questions relating to demographic characteristics, preferred FinTech services, frequency and purposes of usage, digital literacy, financial literacy, accessibility, perceived usefulness, trust, and security concerns. A five-point Likert scale may be used to measure respondents' perceptions of the factors influencing FinTech usage.

The collected data may be classified, tabulated, and analysed using appropriate statistical tools. Frequency and percentage analysis can be used to examine demographic profiles, service preferences, usage frequency, purposes of usage, and problems encountered. Weighted mean and ranking analysis can identify the relative importance of factors influencing FinTech adoption. The chi-square test of independence can examine the association between gender and regular FinTech usage, while Pearson's correlation coefficient or Spearman's rank correlation can assess the relationship between digital literacy and usage frequency, depending on the measurement scales and statistical assumptions. The level of significance may be fixed at 5%.

The study is intended to identify the major patterns and challenges associated with FinTech usage in rural Kerala and suggest measures to promote safe, accessible, and effective digital financial services. Since the numerical tables and statistical results provided are illustrative, the final analysis, hypothesis testing, and conclusions must be based on actual survey data collected from the selected respondents.

IV. DATA ANALYSIS AND INTERPRETATION:

Objective 1: To examine the usage patterns and preferences of FinTech services among rural people in Kerala.

Table 1: Demographic Profile of Respondents

Demographic variable	Category	Frequency	Percentage
Age	18–30 years	52	26.0%
	31–45 years	68	34.0%
	46–60 years	50	25.0%
	Above 60 years	30	15.0%
Gender	Male	104	52.0%
	Female	96	48.0%
Education	Primary/secondary	54	27.0%
	Higher secondary	48	24.0%
	Graduate	66	33.0%
	Postgraduate and above	32	16.0%
Monthly household income	Below ₹15,000	56	28.0%
	₹15,001–₹30,000	74	37.0%
	₹30,001–₹50,000	46	23.0%
	Above ₹50,000	24	12.0%
Total respondents		200	100%

Statistical tool: Frequency and percentage analysis.

Interpretation: The illustrative demographic profile shows that 34% of respondents belong to the 31–45 age group, followed by 26% in the 18–30 age group. Males account for 52% of the sample, while females represent 48%. Regarding education, 33% are graduates, making them the largest educational category. In terms of monthly household income, 37% earn between ₹15,001 and ₹30,000. The sample therefore includes respondents from different age,



gender, educational, and income groups, allowing usage patterns to be examined across diverse socioeconomic backgrounds.

Table 2: Most Frequently Used FinTech Services

FinTech service	Respondents	Percentage
UPI/digital payment applications	124	62.0%
Mobile banking	36	18.0%
Internet banking	16	8.0%
Digital wallets	12	6.0%
Online investment/insurance services	7	3.5%
Digital lending services	5	2.5%
Total	200	100%

Statistical tool: Frequency and percentage analysis.

Interpretation: The table indicates that UPI and digital payment applications are the most frequently used FinTech services, accounting for 62% of respondents. Mobile banking ranks second at 18%, while internet banking accounts for 8%. Digital wallets are used by 6% of respondents, whereas online investment and insurance services and digital lending services account for smaller proportions. These illustrative findings suggest that rural users may primarily utilise FinTech for routine transactions rather than for a broad range of financial products. This pattern highlights the importance of examining whether rural residents are aware of and comfortable using services beyond basic digital payments.

Table 3: Frequency of FinTech Usage

Frequency of usage	Frequency	Percentage
Daily	82	41.0%
Several times a week	56	28.0%
Once a week	30	15.0%
Occasionally	22	11.0%
Rarely	10	5.0%
Total	200	100%

Statistical tool: Frequency and percentage analysis.

Interpretation: The table shows that 41% of respondents use FinTech services daily, while 28% use them several times a week. Thus, 69% of the illustrative sample report using FinTech at least several times a week. Meanwhile, 15% use these services once a week, 11% use them occasionally, and 5% rarely use them. The results suggest that digital financial services may be integrated into the everyday financial activities of many rural users. However, the proportion of occasional and rare users indicates a potential need to understand the barriers preventing more regular use.

Table 4: Major Purposes of FinTech Usage

Purpose of usage	Frequency	Percentage
Money transfers	52	26.0%
Shopping and merchant payments	48	24.0%
Mobile recharges and utility bills	40	20.0%
Receiving salary or government benefits	28	14.0%
Checking account balance and transaction history	20	10.0%
Other financial activities	12	6.0%



Total 200 100%

Statistical tool: Frequency and percentage analysis.

Interpretation: Money transfers constitute the leading purpose of FinTech usage, representing 26% of respondents, followed by shopping and merchant payments at 24%. Payments for mobile recharges and utility bills account for 20%, while receiving salaries or government benefits accounts for 14%. Only 10% primarily use FinTech to check account balances and transaction histories, and 6% report other financial activities. The illustrative results indicate that transaction-oriented activities form the major purpose of FinTech usage. Banks and service providers could therefore encourage broader use by improving awareness of digital savings, insurance, and other formal financial services.

Objective 2: To analyse the factors influencing the usage of FinTech services among rural people in Kerala.

Table 5: Factors Influencing FinTech Usage

Respondents' perceptions of the factors influencing their FinTech usage are measured using a five-point Likert scale, where 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, and 1 = Strongly Disagree.

Factors	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Digital literacy	60	70	35	25	10
Financial literacy	55	72	38	25	10
Accessibility	75	65	30	20	10
Perceived usefulness	80	70	25	15	10
Trust and security	45	60	40	35	20

Statistical tool: Frequency distribution and weighted mean analysis. Each row totals 200 respondents.

Table 6: Weighted Mean Analysis of Factors Influencing FinTech Usage

The weighted mean is calculated using the following formula:

$$\bar{X} = \frac{\sum f_{ix_i}}{N}$$

Where f_i represents the frequency for each response score, x_i represents the Likert-scale score, and N represents the total number of respondents.

Factors	Weighted score	Mean score	Rank
Perceived usefulness	795	3.98	1
Accessibility	775	3.88	2
Digital literacy	745	3.73	3
Financial literacy	737	3.69	4
Trust and security	675	3.38	5

Statistical tool: Weighted mean and ranking. Results are illustrative.

Interpretation: The weighted mean analysis indicates that perceived usefulness ranks first, with a mean score of 3.98, followed by accessibility at 3.88. This suggests that the practical benefits of FinTech, such as convenience, time savings, and ease of completing transactions, may be important considerations for rural users. Digital literacy ranks third with a mean of 3.73, followed by financial literacy at 3.69. Trust and security rank fifth, with a mean of 3.38. Although this is the lowest mean among the factors examined, it remains above the neutral midpoint of 3.00. This indicates that security concerns and confidence in digital transactions deserve attention when promoting FinTech services among rural communities.

Table 7: Problems Faced While Using FinTech Services

Problems encountered	Frequency	Percentage
Fear of online fraud and scams	54	27.0%



Poor internet connectivity	46	23.0%
Lack of technical knowledge	38	19.0%
Failed transactions and delayed refunds	32	16.0%
Difficulty using applications	20	10.0%
Lack of customer support	10	5.0%
Total	200	100%

Statistical tool: Frequency and percentage analysis.

Interpretation: Fear of online fraud and scams is the most frequently reported problem, accounting for 27% of respondents. Poor internet connectivity ranks second at 23%, followed by lack of technical knowledge at 19%. Failed transactions and delayed refunds account for 16%, while 10% experience difficulties using applications. Lack of customer support is reported by 5% of respondents. These illustrative findings indicate that rural FinTech usage may be affected by both technological infrastructure and user confidence. Improving cybersecurity awareness, internet connectivity, transaction-recovery procedures, and accessible customer assistance could help address these difficulties.

Table 8: Association Between Gender and Regular FinTech Usage

For this illustrative analysis, regular usage is defined as using FinTech daily or several times a week.

	Gender	Regular users	Other users	Total
Male	80	24	104	
Female	58	38	96	
Total	138	62	200	

Statistical tool: Chi-square test of independence.

Hypotheses

H_0 (Null hypothesis): There is no significant association between gender and regular FinTech usage among rural people in Kerala.

H_1 (Alternative hypothesis): There is a significant association between gender and regular FinTech usage among rural people in Kerala.

Illustrative Chi-square test results

Chi-square value

6.359

Degrees of freedom

1

p-value

0.012

Significance level

5%

Interpretation: In this illustrative example, the chi-square statistic is 6.359 and the p-value is approximately 0.012, which is below the 0.05 significance level. Therefore, the null hypothesis is rejected, indicating a statistically significant association between gender and regular FinTech usage in this hypothetical sample. Regular usage is reported by 76.9% of male respondents and 60.4% of female respondents. However, this association does not establish that gender causes differences in usage. The result must be recalculated using actual survey data before any conclusion can be drawn about rural people in Kerala.



Table 9: Relationship Between Digital Literacy and FinTech Usage

Correlation analysis can be used to examine whether digital literacy is associated with the frequency of FinTech usage. Each respondent should be assigned a digital-literacy score based on questionnaire items and a usage-frequency score based on a consistent coding scheme.

Statistical component Proposed method

Independent variable	Digital literacy score
Dependent variable	FinTech usage-frequency score
Statistical tool	Pearson's correlation coefficient
Significance level	5%
Null hypothesis	There is no significant correlation between digital literacy and FinTech usage frequency.
Alternative hypothesis	There is a significant correlation between digital literacy and FinTech usage frequency.

Interpretation: Pearson's correlation coefficient can determine the direction and strength of the relationship between digital literacy and FinTech usage frequency. A positive and statistically significant coefficient would suggest that respondents with higher digital-literacy scores tend to use FinTech services more frequently. A negative coefficient would indicate an inverse relationship, while a coefficient close to zero would suggest a weak linear relationship. If the scores are ordinal or the assumptions for Pearson's correlation are not satisfied, Spearman's rank correlation may be more appropriate. The actual correlation coefficient and p-value can only be reported after analysing the respondent-level data.

V. FINDINGS

1. Demographic Profile: The largest age group in the illustrative sample is 31–45 years, accounting for 34% of respondents. Male respondents constitute 52%, while female respondents account for 48%.
2. Preferred FinTech Services: UPI and digital payment applications are the most frequently used services, accounting for 62% of respondents. Mobile banking ranks second at 18%.
3. Frequency of Usage: Approximately 41% of respondents use FinTech services daily, while 28% use them several times a week. This indicates frequent usage among a substantial proportion of the illustrative sample.
4. Purpose of Usage: Money transfers are the leading purpose of FinTech usage at 26%, followed by shopping and merchant payments at 24% and mobile recharges and utility bill payments at 20%.
5. Influence of Perceived Usefulness: Perceived usefulness records the highest weighted mean score of 3.98 out of 5, indicating that convenience and practical benefits may encourage FinTech usage.
6. Role of Accessibility: Accessibility obtains a weighted mean score of 3.88, suggesting that convenient access to digital financial services may be an important consideration for rural users.
7. Importance of Digital and Financial Literacy: Digital literacy records a mean score of 3.73, while financial literacy records 3.69. These results suggest that the ability to operate digital platforms and understand financial services may influence usage.
8. Trust and Security Concerns: Trust and security record the lowest weighted mean score among the five factors examined, at 3.38. This highlights the importance of strengthening confidence in digital transactions and improving awareness of online fraud prevention.
9. Major Problems Encountered: Fear of online fraud and scams is the most frequently reported problem, accounting for 27% of respondents. Poor internet connectivity follows at 23%, while lack of technical knowledge accounts for 19%.
10. Gender and Regular Usage: The illustrative chi-square test indicates a statistically significant association between gender and regular FinTech usage ($\chi^2 = 6.359, p = 0.012$). Regular usage is higher among male respondents than female respondents in the hypothetical sample. This result requires verification using actual data.



11. Need for Digital Financial Education: The findings suggest that targeted digital financial literacy programmes, cybersecurity awareness, user-friendly applications, reliable internet connectivity, and accessible customer support may help improve the safe and effective usage of FinTech services among rural communities.

VI. CONCLUSION

The study on the usage of FinTech services among rural people, with special reference to Kerala, highlights the growing importance of digital financial services in facilitating convenient and efficient financial transactions. The illustrative findings indicate that UPI and digital payment applications are the most preferred services, primarily used for money transfers, shopping, merchant payments, recharges, and utility bill payments. Perceived usefulness and accessibility emerge as important factors encouraging FinTech adoption, while digital and financial literacy also play a significant role in promoting effective usage. However, concerns regarding online fraud, cybersecurity, poor internet connectivity, and limited technical knowledge continue to hinder the wider adoption of these services. The illustrative results also indicate a significant association between gender and regular FinTech usage, which requires validation using actual survey data. Therefore, strengthening digital financial literacy, improving rural internet infrastructure, enhancing transaction security, and providing user-friendly applications and accessible customer support are essential to promote safe and inclusive FinTech adoption. Overall, FinTech has considerable potential to improve financial accessibility and support the financial inclusion of rural communities in Kerala, provided that the existing technological and awareness-related barriers are adequately addressed.

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