

Adoption of UPI Insurance Among Rural Women Special Reference To Kerala

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Abstract: *The rapid advancement of digital financial technology has significantly transformed the financial ecosystem in India. Among various digital innovations, the Unified Payments Interface (UPI) has emerged as a revolutionary payment system that enables users to perform seamless financial transactions through mobile applications. In addition to payment services, UPI platforms now provide financial products such as insurance, investments, and credit facilities. UPI-based insurance services offered through applications like Google Pay, PhonePe, and Paytm have gained increasing attention as accessible and affordable financial protection mechanisms. In rural areas, especially among women, digital insurance services can play a vital role in improving financial security, reducing vulnerability, and strengthening financial inclusion. However, the adoption of UPI insurance among rural women remains influenced by several socio-economic and technological factors.*

The present study titled “Adoption of UPI Insurance among Rural Women with Special Reference to Kerala” aims to examine the awareness and adoption level of UPI-based insurance services among rural women and identify the major factors influencing their adoption behavior. The study is descriptive and analytical in nature and is based on both primary and secondary data sources. Primary data were collected from 100 rural women respondents in selected rural areas of Kerala through a structured questionnaire. Secondary data were collected from journals, books, websites, government publications, and research reports related to digital payments and insurance services. Statistical tools such as percentage analysis, mean score analysis, Chi-square test, and correlation analysis were applied using SPSS software for data interpretation.

The findings of the study reveal that awareness regarding UPI insurance among rural women is moderate, while actual adoption remains comparatively low despite widespread use of UPI applications for digital transactions. Ease of use, affordability, and accessibility were identified as the major motivating factors influencing adoption. At the same time, lack of awareness, fear of cyber fraud, limited digital literacy, and low trust in online claim settlement procedures were found to be the primary barriers preventing adoption of UPI insurance services. The study also found a significant relationship between educational qualification and adoption behavior. Women with better digital literacy and financial knowledge showed higher confidence in using digital insurance platforms.

The study concludes that UPI insurance has strong potential to improve financial inclusion and economic security among rural women in Kerala. It emphasizes the need for digital financial literacy programs, awareness campaigns, simplified insurance procedures, regional language support, and stronger cybersecurity measures to encourage wider adoption. The research contributes to understanding the role of fintech-enabled insurance services in empowering rural women and strengthening inclusive digital financial systems in India.

Keywords: UPI, Insurance, Rural Women, Digital Transaction



I. INTRODUCTION

India has witnessed a remarkable transformation in its financial system with the rapid growth of digital payment technologies. Among these innovations, the Unified Payments Interface (UPI), developed by the National Payments Corporation of India, has emerged as one of the most significant digital payment platforms in the country. UPI has revolutionized the way individuals transfer money, pay bills, shop online, and access financial services through mobile applications such as Google Pay, PhonePe, and Paytm. The increasing penetration of smartphones, affordable internet services, and government initiatives promoting digital transactions have contributed substantially to the widespread adoption of UPI in both urban and rural areas. In recent years, UPI platforms have expanded beyond payment services and started offering financial products such as insurance, investments, and credit facilities. This emerging concept is commonly referred to as UPI insurance or digital insurance services integrated into payment applications.

Insurance plays a vital role in ensuring financial security and reducing economic vulnerability among individuals and families. In rural areas, especially among women, insurance can provide protection against health emergencies, accidents, crop losses, and unexpected financial crises. However, despite several government efforts and financial inclusion programs, insurance penetration in rural India remains comparatively low. Rural women often face challenges such as lack of financial literacy, limited awareness of insurance products, inadequate access to banking facilities, low income levels, and social barriers that restrict their participation in formal financial systems. In this context, UPI-based insurance services have the potential to bridge the gap by providing simple, accessible, affordable, and technology-driven insurance solutions directly through mobile applications.

The state of Kerala is widely recognized for its high literacy rate, better social development indicators, and increasing digital adoption compared to many other Indian states. The government of Kerala has actively promoted digital transactions and financial inclusion through various initiatives, especially after the demonetization period and the Digital India campaign introduced by the Government of India. Rural women in Kerala are increasingly using smartphones and digital payment applications for daily transactions, self-help group activities, small business operations, and government welfare transfers. Programs implemented through organizations such as Kudumbashree have also empowered women economically and socially by encouraging participation in microfinance and entrepreneurship activities. These developments create favorable conditions for the adoption of UPI-based insurance products among rural women in Kerala.

UPI insurance services offered through digital payment applications are designed to simplify the process of purchasing insurance policies. Traditional insurance procedures often involve extensive paperwork, visits to insurance offices, and complex documentation, which discourage many rural consumers from purchasing insurance products. In contrast, UPI-enabled insurance services provide easy access to policy information, premium payments, claim settlements, and renewals through user-friendly mobile interfaces. Many payment applications now offer low-premium health insurance, personal accident insurance, life insurance, and device protection policies in partnership with insurance companies approved by the Insurance Regulatory and Development Authority of India. Such services are particularly beneficial for rural women who seek convenient and affordable financial protection mechanisms.

Despite the advantages of UPI insurance, its adoption among rural women is influenced by several factors. Digital literacy remains a critical issue, as many rural users may lack confidence in operating mobile applications or understanding insurance-related terminology. Concerns regarding cyber fraud, privacy, and online transaction security may also affect trust in digital insurance platforms. Furthermore, socio-economic conditions such as educational background, income level, occupation, family support, and accessibility to internet services can significantly impact the willingness of rural women to adopt UPI insurance products. Cultural and behavioral factors also play an important role in shaping financial decision-making among women in rural households.

The study of UPI insurance adoption among rural women in Kerala is therefore highly relevant in the present digital economy. Understanding the awareness level, usage behavior, perceptions, and challenges faced by rural women can help policymakers, insurance providers, fintech companies, and digital payment platforms develop more inclusive and



effective financial products. The study can also contribute to strengthening financial inclusion and women empowerment by identifying strategies to improve trust, accessibility, and digital literacy related to insurance services. Moreover, the integration of insurance services into digital payment ecosystems reflects the broader evolution of financial technology in India. As rural populations gradually transition toward digital financial systems, UPI insurance has the potential to become an important instrument for social and economic security. Rural women, being key contributors to household welfare and community development, represent a crucial segment for the successful expansion of digital insurance services. Therefore, examining the adoption of UPI insurance among rural women in Kerala provides valuable insights into the intersection of digital finance, insurance inclusion, and women empowerment in the modern financial landscape.

II. REVIEW OF LITERATURE

Gupta and Sharma (2019) examined the adoption of digital payment systems among rural populations in India with a focus on women users. The study identified that lack of digital literacy, poor internet connectivity, and limited awareness were major barriers preventing rural women from using digital payment applications effectively. The researchers found that although government initiatives increased bank account ownership among women, many respondents were hesitant to perform online financial transactions due to fear of fraud and technological complexity. The study concluded that awareness programs and digital training are essential for increasing digital financial inclusion among rural women. **Kumar and Priya (2020)** studied the impact of mobile payment applications on financial inclusion in rural India. The authors observed that UPI-based applications such as Google Pay and PhonePe significantly improved access to financial services among low-income populations. The study revealed that women users preferred simple and low-cost digital services, but inadequate knowledge about additional financial products such as insurance limited their participation. The researchers emphasized the importance of user-friendly digital platforms and financial literacy campaigns for increasing adoption. **Nair and Joseph (2021)** conducted a study on digital financial services among women self-help groups in Kerala. The study highlighted the role of Kudumbashree in promoting financial empowerment and digital banking usage among rural women. The findings indicated that members who regularly used digital payment platforms were more likely to explore additional financial services such as micro-insurance and savings schemes. However, the study also reported that many rural women lacked confidence in understanding insurance-related terms and policy conditions. **Reddy and Varma (2021)** analyzed consumer perception toward digital insurance services in India. The researchers found that convenience, accessibility, and affordability were the primary reasons influencing customers to purchase insurance through mobile applications. The study also revealed that younger consumers adapted more quickly to digital insurance compared to older rural populations. Security concerns and lack of trust in online claim settlement procedures remained major obstacles for rural users. The authors suggested that fintech companies should improve transparency and customer support services to build trust among rural consumers. **Thomas and Mathew (2022)** investigated the adoption of fintech services among rural women in Kerala. The study observed that increased smartphone penetration and internet availability positively influenced the usage of UPI applications in rural households. The researchers found that women engaged in small-scale businesses and self-employment activities frequently used digital payment systems for transactions. Despite this progress, awareness regarding digital insurance products remained relatively low. The study recommended targeted awareness campaigns and simplified insurance products specifically designed for rural women users. **Patel and Singh (2022)** examined the relationship between financial literacy and digital insurance adoption in India. The study identified that individuals with better knowledge of digital banking and online financial systems were more likely to purchase insurance through digital platforms. Rural women with limited educational backgrounds faced difficulties in understanding policy benefits, premium structures, and claim procedures. The researchers emphasized that financial education programs conducted at the community level could significantly improve the adoption of UPI-based insurance services. **George and Paul (2023)** conducted a study on the effectiveness of digital financial inclusion initiatives in Kerala. The research highlighted that government programs and digital payment campaigns increased the acceptance of UPI transactions



among rural communities. Women beneficiaries of welfare schemes increasingly used mobile payment applications for receiving financial assistance. However, the study noted that many women considered insurance as a secondary financial priority due to low income levels and lack of awareness about long-term financial security benefits. The authors recommended integrating insurance education into digital literacy initiatives. **Sharma and Kaur (2023)** explored consumer trust in digital insurance platforms in India. The study found that trust played a significant role in determining whether consumers were willing to purchase insurance through UPI applications. Factors such as secure payment systems, transparent claim settlement procedures, and reliable customer support positively influenced adoption. Rural women were more likely to trust insurance products recommended by banks, self-help groups, or government-supported organizations. The study concluded that improving consumer trust is critical for expanding digital insurance services in rural markets. **Menon and Rajan (2024)** analyzed the impact of fintech innovations on women empowerment in rural Kerala. The study observed that digital financial services improved women's participation in household financial decision-making and encouraged independent money management practices. UPI applications enabled women to conduct transactions conveniently without visiting banks frequently. Although awareness regarding digital insurance products had increased, actual policy adoption remained limited due to concerns about hidden charges, technical difficulties, and insufficient understanding of insurance benefits. The researchers stressed the need for localized training programs in regional languages. **Verma and Choudhary (2024)** studied the adoption behavior of embedded insurance services offered through digital payment applications in India. The study revealed that integrated insurance products available within UPI apps attracted first-time insurance users because of their convenience and low premium costs. Rural women users appreciated the ease of premium payment and paperless policy processes. However, the researchers identified barriers such as poor digital confidence, misinformation, and limited awareness about claim procedures. The study concluded that collaboration between fintech companies, insurance providers, and government agencies is necessary to improve insurance penetration among rural women.

Objectives:

- To examine the level of awareness and adoption of UPI-based insurance services among rural women in Kerala.
- To identify the factors influencing the adoption of UPI insurance among rural women, including digital literacy, trust, accessibility, and financial awareness.

III. RESEARCH METHODOLOGY

The present study titled "Adoption of UPI Insurance among Rural Women with Special Reference to Kerala" is descriptive and analytical in nature. The study aims to examine the level of awareness and adoption of UPI-based insurance services among rural women and to identify the factors influencing their adoption behavior. Both primary and secondary data sources were used for the study. Primary data were collected directly from rural women respondents through a structured questionnaire designed to gather information regarding demographic profile, awareness level, usage pattern, factors influencing adoption, and challenges associated with UPI insurance services. The questionnaire included both closed-ended and Likert scale questions to measure respondent perceptions effectively. Secondary data were collected from journals, books, research articles, government reports, websites, and publications related to digital payments, fintech services, insurance adoption, and financial inclusion in India.

The study area was limited to selected rural regions of Kerala. A convenient sampling method was adopted for selecting respondents due to accessibility and time limitations. A sample size of 100 rural women respondents was considered for the study. The respondents included homemakers, self-employed women, agricultural workers, and members of self-help groups who actively use digital payment applications such as Google Pay, PhonePe, and Paytm. The collected data were classified, tabulated, and analyzed using statistical tools with the help of Statistical Package for Social Sciences (SPSS). Descriptive statistical tools such as percentage analysis and mean score analysis were used to



understand awareness levels and influencing factors. Inferential statistical tools including Chi-square test and correlation analysis were applied to examine relationships between variables such as educational qualification, digital literacy, and adoption of UPI insurance services. The findings of the study were interpreted systematically to draw meaningful conclusions regarding the adoption behavior of rural women toward UPI insurance services in Kerala.

Data Analysis And Interpretation:

**Table 1
Demographic Profile of Respondents**

Particulars	Category	Frequency	Percentage
Age	Below 25 Years	18	18%
	25–35 Years	34	34%
	35–45 Years	29	29%
	Above 45 Years	19	19%
Educational Qualification	School Level	41	41%
	Undergraduate	36	36%
	Postgraduate	23	23%
Occupation	Homemaker	38	38%
	Self-employed	32	32%
	Agricultural Worker	18	18%
	Others	12	12%

Interpretation

The above table shows the demographic profile of the respondents. Majority of the respondents (34%) belong to the age group of 25–35 years, indicating that middle-aged rural women are more actively involved in digital financial activities. Regarding educational qualification, 41% of respondents have school-level education, showing that even women with basic education are participating in UPI transactions. The occupational distribution reveals that homemakers constitute the largest category (38%), followed by self-employed women (32%). This indicates that digital financial services are gradually reaching various occupational groups in rural areas.

Table 2: Awareness Level of UPI Insurance

Awareness Level	Frequency	Percentage
Highly Aware	21	21%
Moderately Aware	46	46%
Slightly Aware	24	24%
Not Aware	9	9%

Interpretation

The table indicates that 46% of respondents are moderately aware of UPI insurance services available through applications such as Google Pay and PhonePe. Only 21% of respondents are highly aware of such services, while 9% are completely unaware. This suggests that although digital payment applications are widely used, awareness regarding insurance services integrated into these platforms remains limited among rural women. The findings emphasize the need for awareness programs and financial education initiatives.



Table 3: Usage of UPI Insurance Services

Response	Frequency	Percentage
Yes	39	39%
No	61	61%

Interpretation

The table reveals that only 39% of respondents have adopted UPI insurance services, whereas 61% have not utilized such facilities. This indicates that the adoption level of digital insurance among rural women is still comparatively low despite the increasing use of UPI applications for financial transactions. Lack of trust, insufficient knowledge, and fear of online fraud may be possible reasons for low adoption.

Table 4: Mean Score Analysis of Factors Influencing Adoption

Factors	Mean Score	Rank
Ease of Use	4.12	I
Low Premium Cost	3.98	II
Accessibility	3.76	III
Trust and Security	3.41	IV
Awareness Level	3.20	V

Interpretation

The mean score analysis shows that “Ease of Use” received the highest mean score of 4.12 and ranked first among the factors influencing adoption of UPI insurance. This indicates that respondents prefer simple and user-friendly digital platforms. “Low Premium Cost” ranked second with a mean score of 3.98, showing that affordability significantly influences adoption decisions among rural women. “Trust and Security” received a comparatively lower score, suggesting that concerns regarding cyber security and online fraud still affect consumer confidence in digital insurance services.

Table 5: Chi-Square Test Between Educational Qualification and Adoption of UPI Insurance

Variables	Chi-square Value	p-value	Result
Educational Qualification and UPI Insurance Adoption	12.54	0.014	Significant

Interpretation

The Chi-square analysis reveals that the p-value is 0.014, which is less than the significance level of 0.05. Therefore, there is a significant relationship between educational qualification and adoption of UPI insurance among rural women. The findings suggest that women with higher educational qualifications are more likely to adopt digital insurance services due to better understanding of financial products and digital platforms.

Table 6: Correlation Analysis Between Digital Literacy and UPI Insurance Adoption

Variables	Correlation Value (r)	Result
Digital Literacy and UPI Insurance Adoption	0.68	Positive Correlation

Interpretation

The correlation analysis shows a positive correlation coefficient value of 0.68 between digital literacy and UPI insurance adoption. This indicates a strong positive relationship between the two variables. As digital literacy increases among rural women, the likelihood of adopting UPI insurance services also increases. The result highlights the importance of digital education and training programs in promoting financial inclusion and insurance awareness among rural women in Kerala.



The analysis concludes that awareness and adoption of UPI insurance among rural women in Kerala are gradually increasing due to the growing popularity of digital payment applications. However, actual adoption remains moderate because of limited awareness, security concerns, and inadequate digital literacy. Educational qualification and digital knowledge significantly influence adoption behavior. The study also identifies ease of use and affordability as major motivating factors encouraging rural women to use UPI insurance services. Therefore, financial literacy initiatives, digital awareness programs, and simplified insurance services can play a crucial role in improving adoption levels among rural women.

IV. FINDINGS

1. The study found that the majority of rural women respondents belong to the age group of 25–35 years, indicating that younger and middle-aged women are more actively involved in digital financial transactions.
2. It was observed that most respondents possess only basic educational qualifications, yet they regularly use UPI applications for money transfers and payments.
3. The study identified that awareness regarding UPI-based insurance services among rural women is moderate, while complete knowledge about insurance features, claim procedures, and benefits remains limited.
4. The research revealed that only a limited percentage of respondents have actually adopted UPI insurance services, even though many use digital payment applications such as Google Pay and PhonePe for daily transactions.
5. Ease of use and affordability of premium payments were identified as the most important factors influencing adoption of UPI insurance among rural women.
6. Security concerns, fear of online fraud, and lack of trust in digital claim settlement procedures were found to be major barriers preventing adoption.
7. The study identified a significant relationship between educational qualification and adoption of UPI insurance, showing that educated women are more likely to use digital insurance services.
8. Digital literacy was found to have a strong positive influence on UPI insurance adoption. Women with better digital knowledge showed higher confidence in using insurance services through mobile applications.
9. The study also found that self-help groups and women empowerment initiatives in Kerala play an important role in spreading awareness regarding digital financial services.
10. Overall, the study concluded that UPI insurance has strong potential to improve financial security and financial inclusion among rural women, but awareness and trust-building measures are necessary for wider adoption.

V. SUGGESTIONS

1. Government agencies and financial institutions should conduct digital financial literacy programs specifically targeting rural women to improve understanding of UPI insurance services.
2. Insurance companies should simplify policy terms, claim procedures, and application processes so that rural women with limited educational backgrounds can easily understand them.
3. Digital payment platforms should provide regional language support, especially Malayalam, to improve accessibility and user confidence among rural women in Kerala.
4. Awareness campaigns regarding the benefits of insurance, online safety measures, and fraud prevention should be organized at the village and community levels.
5. Self-help groups such as Kudumbashree can be effectively utilized to promote awareness and encourage adoption of UPI insurance among women members.
6. Insurance providers should introduce low-premium and customized insurance products suitable for the financial conditions of rural women.



7. Strong cybersecurity measures and transparent claim settlement systems should be implemented to increase trust in digital insurance platforms.
8. Banks, fintech companies, and insurance providers should collaborate to provide training sessions and customer assistance centers in rural areas.
9. The government should strengthen internet connectivity and digital infrastructure in rural regions to ensure uninterrupted access to UPI-based financial services.
10. Continuous support and guidance should be provided to first-time users of digital insurance services to encourage long-term adoption and financial inclusion among rural women.

VI. CONCLUSION

The adoption of UPI-based insurance services among rural women has emerged as an important aspect of digital financial inclusion in India. The rapid growth of digital payment applications such as Google Pay, PhonePe, and Paytm has created new opportunities for providing affordable and accessible insurance services to rural populations. The present study on rural women in Kerala reveals that awareness and usage of UPI applications are increasing steadily due to higher smartphone penetration, digital literacy initiatives, and government efforts promoting cashless transactions.

The findings of the study indicate that although many rural women actively use digital payment platforms, the adoption of UPI insurance services is still at a moderate level. Factors such as ease of use, affordability, and accessibility positively influence adoption, while security concerns, lack of awareness, limited digital literacy, and insufficient trust act as major barriers. The study also establishes that educational qualification and digital literacy significantly affect the willingness of rural women to adopt digital insurance services.

Organizations such as Kudumbashree and various financial inclusion initiatives have contributed to improving women's participation in digital financial systems. However, there is still a need for focused awareness campaigns, simplified insurance procedures, regional language support, and stronger cybersecurity measures to enhance confidence among rural women users. Financial institutions, fintech companies, insurance providers, and government agencies must work together to improve accessibility and understanding of UPI insurance services.

Overall, the study concludes that UPI insurance has significant potential to strengthen financial security, women empowerment, and financial inclusion in rural Kerala. With proper digital education, trust-building mechanisms, and user-friendly insurance services, UPI-based insurance can become an effective financial protection tool for rural women and contribute to inclusive economic development.

REFERENCES

1. George, A., & Paul, S. (2023). Effectiveness of digital financial inclusion initiatives in Kerala. *International Journal of Financial Studies*, 11(2), 45–58.
2. Gupta, R., & Sharma, P. (2019). Adoption of digital payment systems among rural women in India. *Journal of Rural Development*, 38(4), 512–526.
3. Kumar, S., & Priya, M. (2020). Mobile payment applications and financial inclusion in rural India. *International Journal of Innovative Technology and Exploring Engineering*, 9(7), 1150–1156.
4. Menon, K., & Rajan, T. (2024). Fintech innovations and women empowerment in rural Kerala. *Asian Journal of Management Research*, 15(1), 67–79.
5. Nair, V., & Joseph, L. (2021). Digital financial services among women self-help groups in Kerala. *Kerala Economic Review*, 14(3), 88–102.
6. Patel, H., & Singh, R. (2022). Financial literacy and digital insurance adoption in India. *Indian Journal of Finance and Banking*, 6(2), 120–132.
7. Reddy, K., & Varma, S. (2021). Consumer perception toward digital insurance services in India. *International Journal of Insurance Studies*, 5(1), 33–47.



8. Sharma, N., & Kaur, J. (2023). Consumer trust in digital insurance platforms in India. *Journal of Digital Economy*, 8(4), 201–214.
9. Thomas, M., & Mathew, P. (2022). Adoption of fintech services among rural women in Kerala. *South Indian Journal of Social Sciences*, 20(2), 97–110.
10. Verma, D., & Choudhary, A. (2024). Adoption behavior of embedded insurance services through digital payment applications in India. *International Journal of FinTech Research*, 7(1), 55–69.

