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Empowering Digital Payments: Usability and Trust in UPI Services among Tirupattur College Students

Abstract

This investigation examines the utilisation and perception of Unified Payments Interface (UPI) services by college students in Tamil Nadu's Tirupattur District, with a focus on customer satisfaction, security, dependability, and usability. 64.2% of the 226 participants who completed the survey were male, while 35.8% were female. The findings indicate that 58% of respondents believed UPI to be straightforward and practical, while 56.6% emphasised its efficiency in facilitating transactions. Significant security concerns were indicated by the fact that only 53.9% of respondents expressed confidence in UPI's safety safeguards. Customer service and reliability received varied reviews, with 39.9% of respondents expressing satisfaction and 35% expressing neutrality regarding service quality. These results underscore the growing popularity of UPI services and also emphasise critical areas for improvement. It will be imperative to enhance security, dependability, and customer service in order to foster trust and encourage broader adoption.

Keywords: *Real-Time Payment (RTP), Unified Payments Interface (UPI), Digital Wallets, Peer-to-Peer (P2P) Transactions*

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1. Introduction

Global financial transactions have been transformed by digital payment systems, and real-time payment platforms are now a necessity in daily life. Instantaneous peer-to-peer and commercial transactions are made possible by India's Unified Payments Interface (UPI), which has become a game-changing instrument (Ramachandran, 2018). It is crucial to comprehend usability, trust, and security issues in digital banking, particularly for college students who are among the first to use these technologies.

The acceptance and satisfaction of UPI services among college students in Tamil Nadu's Tirupattur District are investigated in this study. It emphasises customer service, dependability, transaction speed, and simplicity of use. Gained knowledge can help fintech firms and financial institutions create better user-focused services, particularly as smartphone usage keeps rising. This study seeks to address the security, transaction dependability, and customer service issues that persist despite UPI's broad use.

2. Need for the Study

One crucial group influencing the changes in digital finance is college students. Although UPI's efficiency and ease have helped it gain traction, unresolved problems with transaction dependability, security, and customer support still prevent it from being extensively adopted. Improving user satisfaction and trust requires addressing these issues. By investigating the issues and experiences of UPI users, with an emphasis on gender-based disparities, this study seeks to close the gap. Stakeholders can use the insights to enhance UPI services, which will eventually increase the use and confidence in digital payment systems.

3. Literature Review

Studies have emphasized the role of digital payment systems in fostering financial inclusion and social interactions (Ly & Ly, 2024). Perea-Khalifi et al. (2024) highlighted how user perceptions influence the redesign of peer-to-peer payment systems. Shabir, (2024) discussed the integration of AI to address security, efficiency, and user experience challenges in real-time payment systems.

Further, Chauhan & Sharma, (2024) identified common issues in digital payment systems, such as security concerns and customer support inefficiencies, while Olufemi et al., (2024) explored how biometric verification and AI-driven fraud detection could improve

reliability and trust. These insights underscore the need for continuous innovation to address user concerns and enhance digital payment experiences.

4. Methodology

4.1 Aim

To evaluate customer satisfaction with UPI services, focusing on usability, transaction speed, security, reliability, and customer service, while analyzing gender-based differences in adoption and satisfaction.

4.2 Objectives

1. Evaluate UPI services' usability and effectiveness.
2. Assess how users evaluate the security features of UPI.
3. Examine UPI's dependability for transactions free of errors.
4. Examine consumer preferences for UPI in relation to alternative payment options.
5. Look at variations in contentment by gender.
6. Determine where UPI services need to be improved.

4.3 Research Design

Using a mixed-methods approach, this study combined secondary data from scholastic publications and trustworthy government sources with primary data from a self-structured questionnaire. A 5-point Likert scale was used to survey 226 individuals who were at least 18 years old. Cronbach's Alpha reliability testing generated a score of 0.912, confirming the study's validity.

4.4 Inclusion and Exclusion Criteria

Active UPI users who were at least eighteen years old and had made at least one transaction within the previous three months were among the respondents. Those who did not use UPI or were not conversant with digital payment platforms were not included.

5. Results

Analysis revealed significant gender-based differences in satisfaction, with females reporting higher satisfaction scores than males ($M = 42.32$ vs. 37.52 , $p = .001$).

1. **Ease of Use:** 58% found UPI convenient, with 37.6% strongly agreeing.
2. **Transaction Speed:** 56.6% were satisfied with transaction efficiency.

3. **Security:** While 53.9% felt secure, 25.2% expressed concerns.
4. **Error-Free Transactions:** Only 37.1% trusted UPI's reliability, indicating room for improvement.
5. **Customer Service:** Mixed reviews, with 39.9% satisfied and 35% neutral.

6. Key Findings and Suggestions

Key Findings:

- **UPI is broadly accepted for its convenience and speed.** UPI services have gained significant acceptance among users, particularly for their ease of use and swift transaction capabilities. With 58% of respondents acknowledging the platform's convenience and 56.6% appreciating its efficiency, UPI demonstrates its ability to cater to the needs of a digitally driven audience (Jha & Kumar, 2021). This finding underscores UPI's position as a preferred digital payment method among college students in Tirupattur District.
- **Security and reliability remain areas of concern.** While UPI's functionality is appreciated, security and reliability pose challenges for users. About 53.9% of respondents feel secure using UPI, yet concerns persist, with 25.2% expressing dissatisfaction regarding security. Furthermore, only 37.1% trust UPI for error-free transactions, indicating that system reliability requires further improvements to enhance user confidence and trust.
- **Customer service satisfaction is inconsistent.** Customer service for UPI services received mixed reviews, with 39.9% of users expressing satisfaction. However, 35% remained neutral, and a significant proportion reported dissatisfaction. These findings highlight the need for UPI service providers to improve customer support systems, ensuring faster resolution of issues and more transparent communication to better serve their users (A. & Bhat, 2021).
- **Females reported higher satisfaction levels than males.** Gender-based analysis revealed that female respondents reported significantly higher satisfaction levels with UPI services compared to their male counterparts. Females recorded a mean satisfaction score of 42.32, while males scored 37.52. This difference, statistically significant at $p = .001$, suggests the need for a deeper understanding of gender-

specific preferences and experiences to ensure equitable service quality across all user groups.

Suggestions:

1. **Strengthen Security:** By using biometric verification and sophisticated fraud detection techniques, security issues can be resolved and users can feel more secure and confident when making purchases.
2. **Increase dependability:** By modernising infrastructure and reducing transaction mistakes, system dependability may be increased, which will boost user confidence and promote widespread usage of UPI services.
3. **Improve Customer Service:** Providing round-the-clock customer service with quicker response times and open communication can significantly increase consumer happiness and decrease annoyance.
4. **User Education:** Raising knowledge of UPI's security features through approachable campaigns and tutorials can cultivate greater confidence and promote ongoing use.
5. **Targeted Interventions:** By addressing gender-based differences in satisfaction with customised programs and feedback-driven enhancements, an equitable and inclusive user experience for all groups may be guaranteed.

7. Conclusion

UPI's unmatched efficiency and convenience have completely changed digital payments in India, particularly for college students. However, ongoing issues including inconsistent customer service, transaction reliability, and security problems need immediate attention. UPI service providers may increase customer satisfaction and confidence by making focused advancements in these areas, opening the door for widespread adoption (Suri, 2023). In order to guarantee UPI's longevity and relevance in India's changing digital economy, this study emphasises the significance of resolving user concerns through cutting-edge security measures, reliable infrastructure, effective customer service, and inclusive initiatives.

8. References

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Conflict of Interest

The authors declare no competing interests. This research was conducted independently for academic purposes.

Author Contributions

Jintha J. and Bertoy Roy B. designed the methodology and conducted initial analyses. Nidhin George K. and Moorthy S. provided critical insights on gender-based differences. Dr. Arockiaraj performed statistical analyses and supervised the study. All authors collaboratively prepared and revised the manuscript.

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