

A Systematic Study of Customer Satisfaction Consisting of Transactions Using the UPI App

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Abstract:

India's digital transactions have been transformed by the Unified Payments Interface (UPI), which provides a quick and easy way to make payments. This study examines customer satisfaction with UPI transactions in a methodical manner. It looks into the main elements that affect user satisfaction, such as perceived value, speed, dependability, security, ease of use, and grievance resolution. This study uses a mixed-methods technique to examine quantitative data from a large-scale online survey of UPI users in India, including a range of transaction frequencies and demographics. In-depth interviews are used to acquire qualitative insights in order to comprehend the subtleties of the user experience and pinpoint areas in need of development.

Introduction:

Global financial transactions have seen a significant transformation with the introduction of digital payment systems, and India is leading the way in this revolution because to the Unified Payments Interface's (UPI) outstanding success. Since its 2016 launch by the National Payments Corporation of India (NPCI), UPI has been a widely used and favored payment method for the great majority of Indian customers and businesses. Its near-instantaneous transaction capabilities, convenience of usage through mobile applications, and interoperability have propelled its exponential expansion, positioning it as a key component of India's digital economy.

For any service, including UPI, to be widely adopted and succeed over time, customer satisfaction is crucial. Finding areas of strength requires an understanding of the elements that influence customer satisfaction with UPI transactions.

Conversely, dissatisfaction can lead to user attrition and hinder the continued growth and impact of UPI.

This research aims to conduct a systematic study of customer satisfaction in accordance with UPI transactions in India. It seeks to go beyond anecdotal evidence and provide a data-driven understanding of user perceptions and experiences. By investigating the key determinants of satisfaction, this study intends to offer valuable insights for stakeholders, including payment service providers (PSPs), banks, the NPCI, and policymakers, to further enhance the UPI ecosystem and ensure its continued success in empowering digital financial inclusion across India, including regions like Chhattisgarh. Overall, this study aims to present an integrated picture of customer satisfaction within the context of UPI application transactions. Using a mix of quantitative surveys and

Literature Review:

P Kumarasamy,(2024), Modern techniques for facilitating quick transaction completion include online money transfers (also known as electronic payment systems). Online money transfers via UPI have expanded significantly in recent days. This article seeks to learn about consumer satisfaction with online money transfers utilizing the Unified Payments Interface (UPI) in Thanjavur District.

MA Kuhail, N Alturki, S Alramlawi, K Alhejori,(2023), This study presents a systematic review of 36 papers to understand, compare, and reflect on recent attempts to utilize chatbots in education using seven dimensions: educational field, platform, design principles, the role of chatbots, interaction styles, evidence, and limitations. The results show that the chatbots were mainly designed on a web platform to teach computer science, language, general education, and a few other fields such as engineering and mathematics. Further, more than half of the chatbots were used as teaching agents, while more than a third were peer agents.

W Huang, KF Hew, LK Fryer ,(2022), Our findings revealed three technological affordances: timeliness, ease of use, and personalization; and five pedagogical uses: as interlocutors, as simulations, for transmission, as helplines, and for recommendations. Chatbots appeared to encourage students' social presence by affective, open, and coherent communication. Several challenges in using chatbots were identified: technological limitations, the novelty effect, and cognitive load.

S Verma, R Sharma, S Deb, D Maitra,(2021), The present study aims to offer a comprehensive review of AI in marketing using bibliometric, conceptual and intellectual network analysis of extant literature published between 1982 and 2020. A comprehensive review of one thousand five hundred and eighty papers helped to identify the scientific actors' performance like most relevant authors and most relevant sources. Furthermore, co-citation and co-occurrence analysis offered the conceptual and intellectual network.

MG Gawade, MA Marathe, (2020). The purpose of this study is also to examine and scrutinize the purpose of using PayTM as one of the UPI applications, reasons for choosing PayTM application and to find out the problems encountered by the customers. The pattern of transaction in day to day life has changed significantly, because of Smartphone the life seems to happen a bit easier where all payments & transaction are being done online now. This cemented the way for the surfacing of platform termed has a digital wallet. A group of users opined that the PayTM app is easy to use and wallet free as well. Whereas, on the other side another group expressed that PayTM app had connectivity issues.

Research Methodology:

This study employs a mixed-methods research approach, combining quantitative and qualitative data collection and analysis techniques to provide a comprehensive understanding of customer satisfaction with UPI transactions.

4.1 Quantitative Data Collection:

- **Online Survey:** A structured online questionnaire will be developed and administered to a large and diverse sample of UPI users across India. The survey will be designed to collect data on:
 - o Overall satisfaction levels with UPI transactions (using Likert scales).
 - o Perceptions and experiences related to the identified key factors (ease of use, speed, reliability, security, grievance redressal, perceived value).
 - o Demographic information (age, gender, education, income, location, including representation from states like Chhattisgarh).
 - o UPI usage patterns (frequency of transactions, types of transactions, preferred UPI apps).
- **Sampling Strategy:** A stratified random sampling technique will be employed to ensure representation across different demographic groups and geographical regions in India. Efforts will be made to include a significant number of users

4.2 Qualitative Data Collection:

- **In-depth Interviews:** Semi-structured in-depth interviews will be conducted with a smaller, purposively selected sample of UPI users. This will allow for a deeper exploration of their experiences, perceptions, and the nuances of their satisfaction or dissatisfaction. Participants will be selected to represent diverse demographics and usage patterns identified in the quantitative survey.
- **Interview Protocol:** An interview protocol with open-ended questions will be developed to guide the interviews, allowing participants to elaborate on their experiences with different aspects of UPI transactions. Topics experiences, specific pain points, suggestions for improvement, and the overall impact of UPI on their daily lives.
- **Data Analysis:** The qualitative data collected through interviews will be analyzed using thematic analysis. This involves systematically identifying, organizing, and interpreting patterns of meaning (themes) within the interview transcripts.

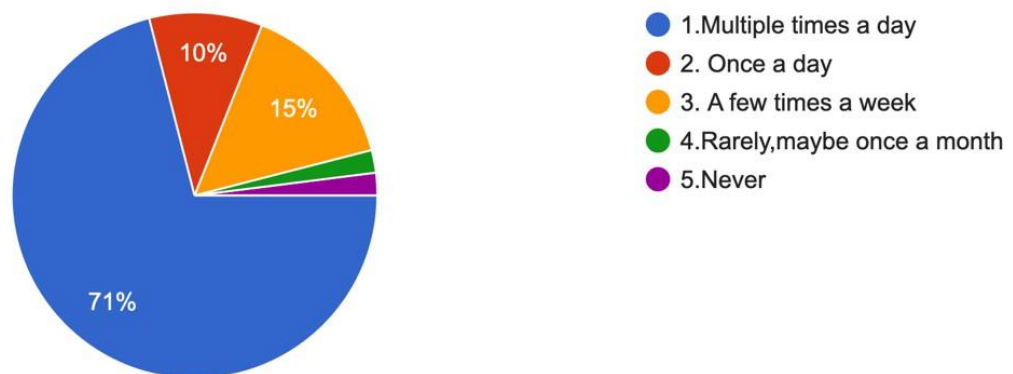
4.3 Integration of Quantitative and Qualitative Data:

The findings from the quantitative and qualitative data will be triangulated to provide a more robust and with UPI transactions. The quantitative data will provide a broad overview and relationships, while the qualitative data will offer deeper insights into the reasons behind these patterns and uncover rich contextual information.

Data Analysis:

1. How frequently do you use UPI apps for making transactions ?

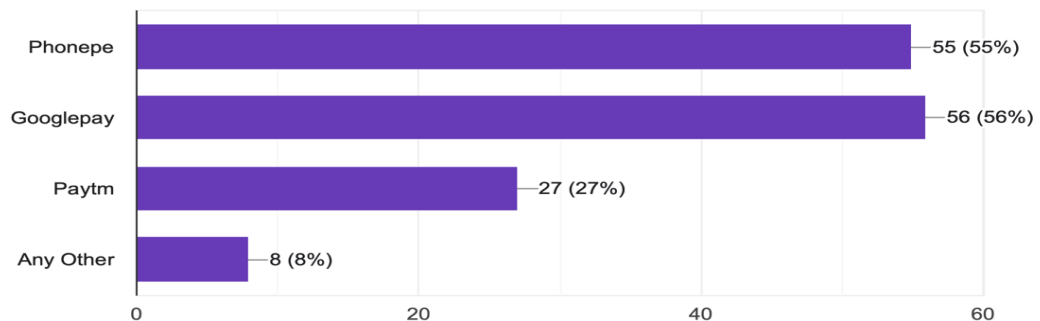
100 responses



The chart shows that the most of the respondent (71%) are using UPI transactions multiple times a day. The (10%) population use UPI only once a day. The (15%) people use UPI only few times a week. There are (2%) people who rarely, maybe once a month or Never use UPI transactions. Overall most of the people are using UPI transactions multiples times a day.

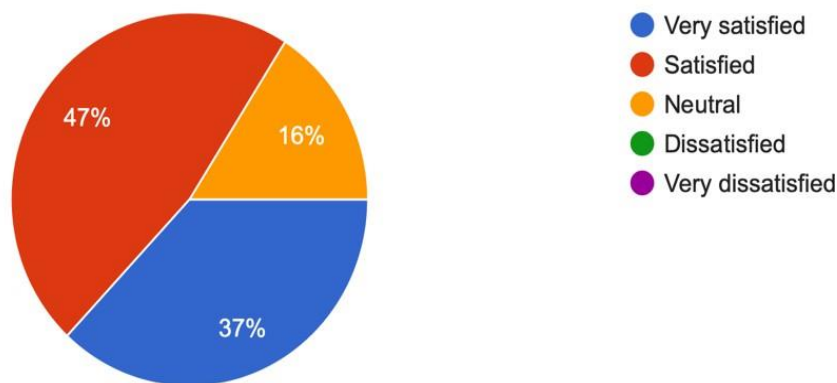
2. Which UPI app(s) do you use the most often ?

100 responses



3. How satisfied are you with the user interface of the UPI app(s) you use?

100 responses

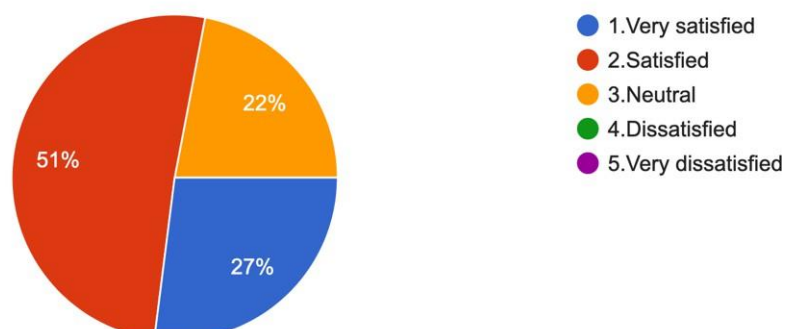


The chart shows that (47%) of the people are very satisfied with the user interface of the UPI app. The (37%) of the people are satisfied with user interface. The (16%) people belong to the neutral category.

The (51%) respondent are satisfied with the security features of UPI apps.

4. How satisfied are you with the security features of UPI apps?

100 responses



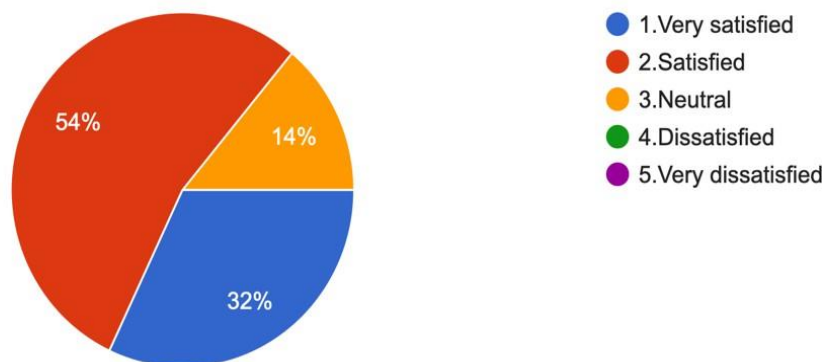
The (27%) are very satisfied with the security features of UPI apps. The rest (22%) are belong to the neutral category.

5. Have you ever encountered any technical issues while using UPI apps? If yes, please specify.

Yes, most of the people are facing technical issues while using UPI (Unified Payments Interface) apps. Users often experience transaction failures, which can occur due to various reasons such as network connectivity issues, server downtimes, or maintenance activities by banks. Delays in transaction processing are also frequent, causing uncertainty about the status of payments. Additionally, users might face difficulties in linking their bank accounts to the UPI app, often due to discrepancies in account details or restrictions from the bank's end. App crashes and glitches, especially during peak usage times, further hinder the user experience. Security concerns, including phishing attempts and unauthorized transactions, also pose significant challenges, highlighting the need for robust security measures and user education on safe practices.

6. How satisfied are you with the speed of transactions through UPI apps?

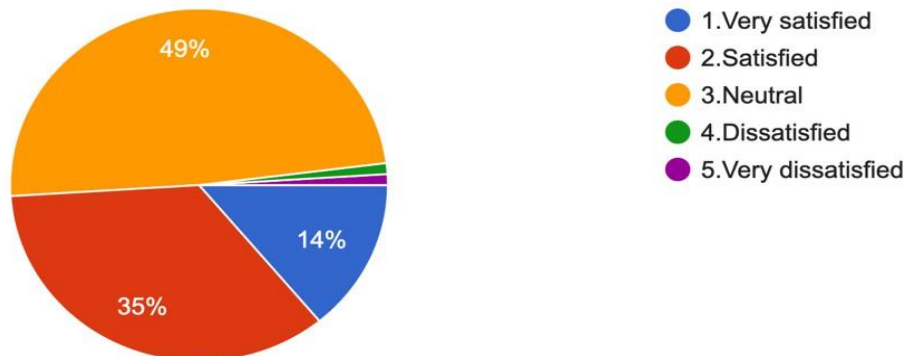
100 responses



The chart shows that (54%) of the respondent are satisfied with the speed of transactions through UPI apps. The (32%) of the people are very satisfied with the speed of UPI transaction and the (14%) are neither satisfied nor dissatisfied.

7. How satisfied are you with the customer support provided by UPI app providers?

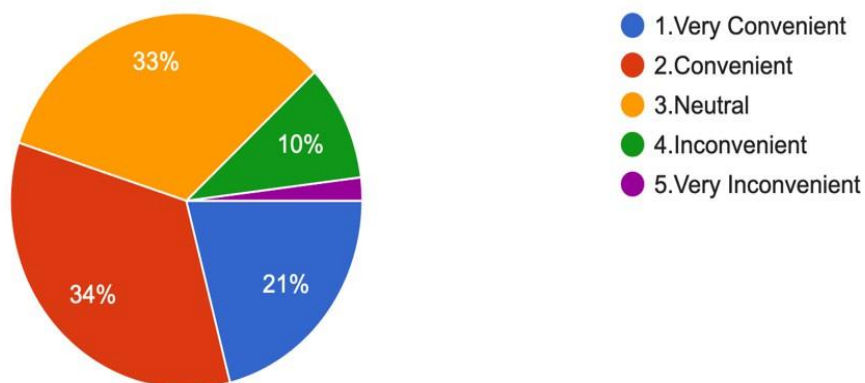
100 responses



The survey shows (49%) the respondent are neutral about the customer support provided by UPI app. The (35%) of the people are satisfied with the customer support. The (14%) are very satisfied and the rest (1%) belongs to dissatisfied and very dissatisfied category.

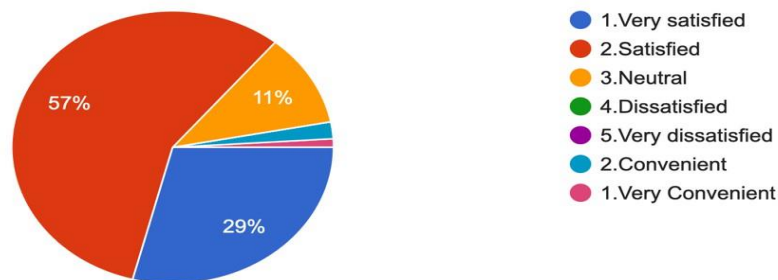
8. Do you find it convenient to link multiple bank accounts to a single UPI ID?

100 responses



9. How satisfied are you with the overall experience of using UPI apps for transactions?

100 responses

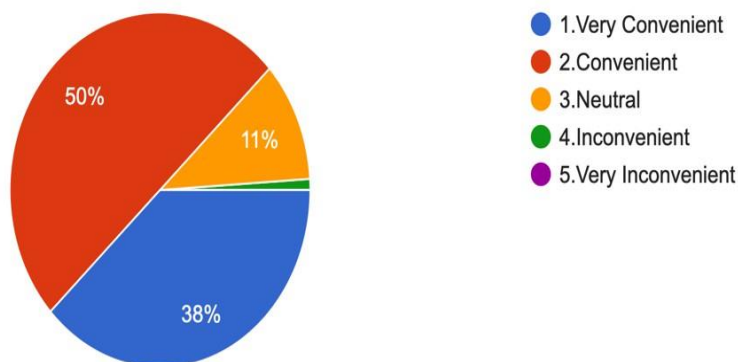


The analysis of user satisfaction with the overall experience of using UPI apps for transactions reveals a predominantly positive sentiment. Out of the respondents, 57% reported being Satisfied, and 29% indicated they are Satisfied. Meanwhile, 11% of users remained Neutral, and a smaller yet notable segment, 1%, reported it very convenient and the 2% find it convenient. However, the data suggests that while the majority of users are content, there are still areas requiring attention to address the concerns of the dissatisfied minority. Enhancing app functionality and user support could potentially elevate the overall user experience.

The above chart show percentage of respondent Very convenient : 38%, Likely convenient 50

10. How likely are you to recommend UPI apps to friends or family for making transactions?

100 responses



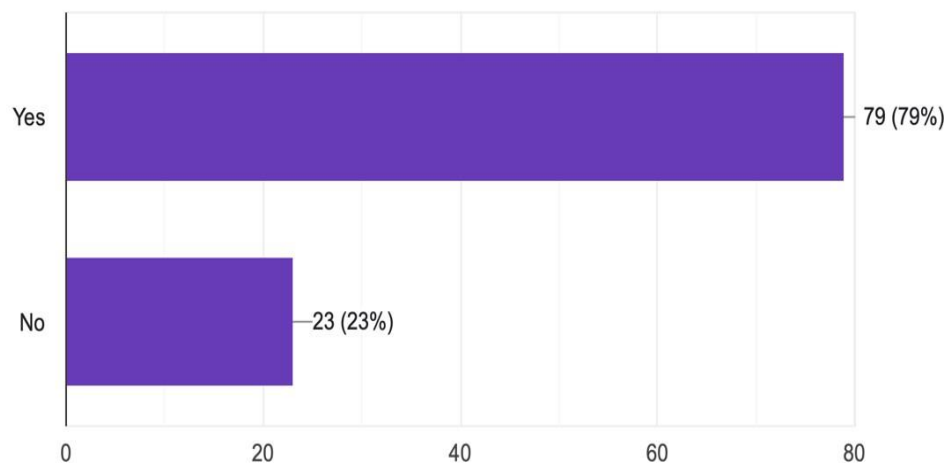
% Neutral 11% Inconvenient 1 %. The largest segment of the pie chart, indicating that 50% of respondents are very enthusiastic about recommending UPI apps. This suggests a high level of satisfaction and trust in the UPI system. Likely (38%): The second-largest segment, showing that 38% of respondents are likely to recommend UPI apps. Neutral (11%): This segment represents 11% of respondents who are neither particularly inclined nor disinclined to recommend UPI apps. This neutrality might stem from a lack of strong feelings or experiences with the apps. Unlikely (1%): Representing 1% of respondents, this segment indicates a degree of dissatisfaction or caution about recommending UPI apps. These users may have encountered issues or have concerns about

the apps. This suggests significant dissatisfaction or distrust among a small minority. Interpretation: The pie chart shows that a substantial majority (88%) are either "Very Convenient" or "Convenient" to recommend UPI apps, indicating overall positive sentiment. The presence of a smaller yet significant portion of "Neutral," "Inconvenient," responses highlights that while the general outlook is favorable, there are areas where UPI apps might need improvement to convert more users into strong advocates. This

visualization helps stakeholders understand the general sentiment towards UPI apps and identify potential areas for enhancement to boost user satisfaction and recommendations.

12. Do you find the process of adding beneficiaries to be user-friendly?

100 responses

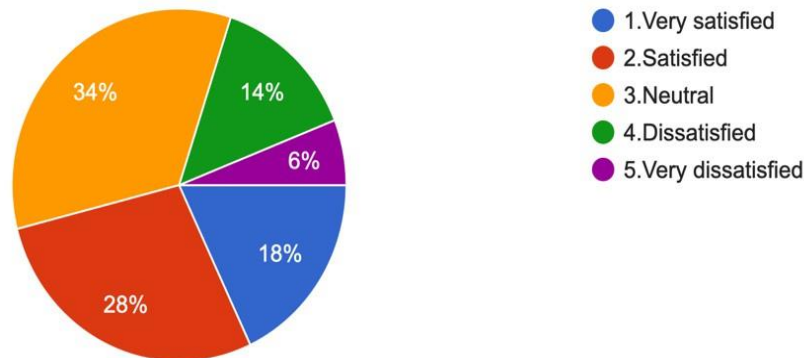


To explain the user-friendliness of the process of adding beneficiaries through a bar diagram, we would first need to categorize the responses from users regarding their experience. Bar Diagram Visualization: The bar diagram displays 2 bars, each representing the number (or percentage) of respondents in each category. User-Friendly. Bar Diagram Very User-Friendly (79%): The tallest bar, indicating that a significant of respondents find the process of adding beneficiaries to be very easy and intuitive. This suggests that the system is well-designed for user convenience. User-Friendly (23%): The second tallest bar, showing that a substantial number of users (23%) find the process straightforward, though perhaps not perfect. These users likely experience some minor issues but are generally satisfied.

Interpretation: The bar diagram shows that the majority of respondents find the process of adding beneficiaries to be either "Very User-Friendly" indicating a generally positive user experience. However, the presence "Not User-Friendly responses highlights that there is still room for improvement. By focusing on the feedback from the less satisfied users, developers can make targeted enhancements to ensure the process is user-friendly for a larger proportion of the user base.

13. How satisfied are you with the availability of offers and cashback rewards on UPI transactions?

100 responses



Interpretation: Very Satisfied (18%): A significant portion of users (one-quarter) are very happy with the offers and cashback rewards available on UPI transactions, indicating strong approval. Satisfied (28%): That segment, suggesting that while many users are pleased, they might see room for improvement. Neutral (34%): A substantial portion of users are indifferent, implying that the current offers and cashback rewards do not strongly influence their opinion. Dissatisfied (14%): A noticeable portion of users are not happy with the current offers and cashback rewards, indicating some areas might need attention. Very Dissatisfied (6%): A small segment of users are very unhappy, suggesting that a few might have had negative experiences or find the offers insufficient.

Conclusion The pie chart provides a visual representation of user satisfaction with UPI offers and cashback rewards. Most users are at least somewhat satisfied (46% combined for Very Satisfied and Satisfied), which is a positive indicator. However, the presence of Neutral and Dissatisfied responses highlights opportunities for improvement.

Expected Outcomes and Significance:

This research is expected to yield several significant outcomes:

- A comprehensive assessment of the current level of customer satisfaction with UPI transactions across India.
- Identification of the key factors that significantly drive or hinder customer satisfaction with UPI.
- Understanding of how demographic and usage patterns influence user satisfaction.
- Rich qualitative insights into the specific experiences and perceptions of UPI users.
- Identification of actionable recommendations for PSPs, banks, the NPCI, and policymakers to enhance the UPI ecosystem and improve customer satisfaction.

The findings of this study will be significant for various stakeholders:

- **Payment Service Providers (PSPs) and Banks:** The research will provide valuable insights into user preferences and pain points, enabling them to optimize their UPI applications, improve user interfaces, enhance security features, and streamline grievance redressal processes.
- **National Payments Corporation of India (NPCI):** The study will offer data-driven feedback on the overall performance of the UPI system and highlight areas requiring systemic improvements or policy adjustments.
- **Policymakers and Regulatory Bodies:** The research will contribute to a better understanding of the impact of digital payment initiatives and inform the development of policies aimed at fostering a more user-centric and efficient digital payment ecosystem in India.
- **Academic Community:** This study will contribute to the growing body of knowledge on digital payments, customer satisfaction, and FinTech adoption in emerging economies.

Future Research:

This study acknowledges certain potential limitations. The reliance on online surveys might introduce a bias towards digitally literate users. Efforts will be made to mitigate this by employing diverse recruitment strategies. The study's findings will be specific to the Indian context and the current state of UPI. Future research could explore the evolution of customer satisfaction over time, compare UPI satisfaction with other digital payment methods, and investigate the impact of specific new features and functionalities on user experience. Furthermore, cross-cultural comparisons of mobile payment satisfaction could provide valuable insights.

Conclusion:

This research paper outlines a systematic study to investigate customer satisfaction in accordance with UPI transactions in India. By employing a robust mixed-methods approach, this study aims to provide a comprehensive and nuanced understanding of user perceptions, identify key drivers of satisfaction and dissatisfaction, and offer actionable recommendations for stakeholders. The findings are expected to contribute significantly to the ongoing efforts to enhance the UPI ecosystem, ensure sustained customer satisfaction, and further solidify India's position as a leader in digital payments.

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