



A study regarding the consumer experience of UPI transactions with regards to its safety and security, consumer satisfaction levels and usage behaviour

Nikhil Choudhary A026

Paarth Bansal A027

Parnikaa Rai A028

Piyaa Valiyaparambil A029

Pratham Goenka A030

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I. OBJECTIVES

- To examine the various factors that contribute to consumers sense of safety and security while making UPI payments.
- To analyse the relationships between the independent variables and the consumers perceived level of safety and security in UPI payments.

II. INTRODUCTION

In recent years, the adoption of digital payment methods like Unified Payments Interface (UPI) has grown exponentially in India. UPI has emerged as a convenient and seamless way for consumers to make financial transactions. However, with the increasing reliance on digital payments, concerns around the safety and security of UPI transactions have also come to the forefront.

It is crucial for consumers to feel confident about the security of UPI payments, as this can directly impact its widespread acceptance and usage. Factors such as the number of transactions conducted, the amount spent, the duration of UPI usage, and the level of UPI adoption within the family can all potentially influence an individual perception of UPI safety and reliability.

This study aims to examine the various factors that contribute to consumers sense of safety and security while making UPI payments.

- To provide insights into the key drivers of UPI's perceived safety and security from the consumer perspective.
- To draw meaningful conclusions and recommendations based on the analysis of the survey data collected from UPI users.

The independent variables include:

- Frequency of UPI transactions
- Number of family members using UPI
- Duration of UPI usage
- Additional features desired in UPI apps
- UPI apps used
- Average UPI transaction amount
- Primary use cases of UPI
- Percentage of monthly expenses covered by UPI
- Positive features of UPI payments
- Changes in spending habits after UPI adoption
- Problems faced with UPI payments

The dependent variable is the consumers self-reported level of safety and security while making UPI payments, measured on a 5-point scale.

By analysing the relationships between these factors, this research aims to provide insights into the key drivers of UPI's perceived safety and security from the consumer's perspective. The findings can help UPI providers, banks, and policymakers better understand consumer concerns and implement appropriate measures to enhance the

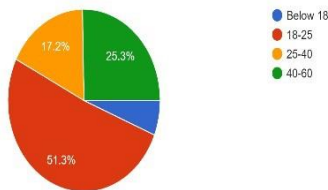


trust and confidence in UPI as a secure digital payment method.

III. Factors and Statistics

• Age

What's your Age?
308 responses

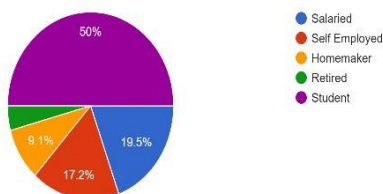


Intriguing insights on the user demographics of digital finance can be gained from the age range of respondents in a study on the safety and security of UPI transactions. With 158 responses, or more than half of the sample, the 18–25 age group was the most prevalent among the 304 participants. Based on broader societal trends favouring digital financial solutions within this group, this research underlines the significant presence of young adults as early adopters of digital payment systems.

Additionally, middle-aged, and elder groups are well-represented, despite the fact that younger users predominate. With 53 replies, the age group of 25–40 and the age group of 40–60 with 78 responses each make up over 42% of the sample. This shows that a variety of users, including individuals, are using UPI to transactions comprising people with different degrees of comfort and experience with digital finance. In order to provide comprehensive security measures that meet the interests and preferences of all users, regardless of age, and promote trust and confidence in UPI transactions overall, it is imperative to understand this demographic variety.

• What's your Occupation?

What's your Occupation?
308 responses

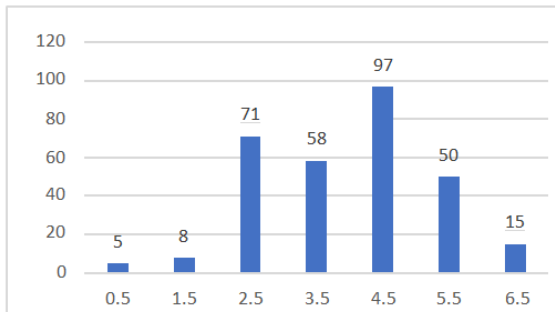


Notably, students make up a sizable portion of responses (i.e., 50%), suggesting that younger people are heavily involved in digital finance. Salaried staff come in second, at 19.5%, highlighting the critical significance that UPI transactions play in working professionals' daily financial lives. In addition, albeit in smaller percentages, pensioners, homemakers, and independent contractors make up the user population, illustrating the wide variety of people using UPI transactions across different life stages and professions.

The results emphasize how important it is to have respondents: a significant portion of them customized security measures in the UPI participate in fractional transactions, ranging from ecosystem that address the unique needs and 0.5 to 1.5 each day. This suggests that users may concerns of every professional group. As heavy split payments or perform partial transactions. To users, students might give priority to instructional protect users' financial information and reduce the programs and user-friendly interfaces in order to dangers associated with partial transactions, raise awareness. Salaried workers may require security solutions that can handle such complex strict security measures like multi-factor transaction patterns are essential. These systems authentication since they depend on UPI for must also guarantee the integrity of both full and financial transactions. While homemakers and fractional transactions. retirees could be looking for simpler yet secure Additionally, the data shows that a large fraction management solutions, self-employed people of users report transaction counts of 2.5, 3.5, and might benefit from features that increase the 4.5. This indicates a pervasive tendency of protection of their invoices. Through completely consumers making numerous transactions daily. attending to these varied needs, stakeholders can These results are in line with the increasing use of foster confidence and trust among users, UPI as the main payment method for a range of guaranteeing the integrity and expansion of digital daily financial transactions. Because so many financial services for years to come. users rely on UPI for numerous transactions, it is

4. How many transactions do you in a day by

UPI? critical to put strong safety and security measures in place to guard against potential threats and weaknesses and maintain users' faith and confidence in the UPI ecosystem.



5. How many members use UPI in your family?

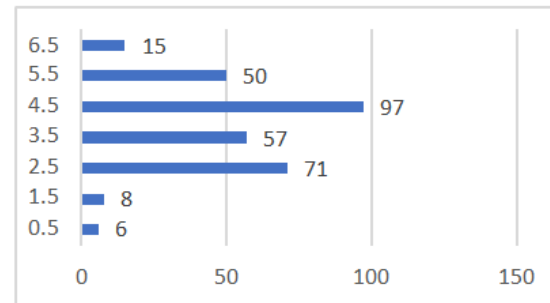
The data has been converted to class mark for the ease in calculation.

The examination of the frequency of daily UPI transactions provides important insights for improving safety and security protocols by The examination of the quantity of family illuminating the diverse behaviours of users within members utilizing UPI transactions offers the UPI ecosystem. There is a pattern among the valuable information on the uptake and utilization trends in residential settings. Four family members utilize UPI, according to a sizable fraction of respondents (96 people in all), suggesting that the digital payment platform is widely used in these families. Moreover, according to 84 respondents, three family members use UPI, indicating that UPI transactions are getting more and more ingrained in home financial routines and that numerous family members are actively using the platform. These results highlight the platform's adaptability and attractiveness in meeting the financial requirements of various family configurations, demonstrating its increasing popularity as a favoured digital payment method among households.

Furthermore, even though fewer respondents stated that their family members used UPI, the data nevertheless shows how accessible and widely used the platform is across different household sizes. For example, 56 respondents said that five members of their family use UPI, suggesting a significant presence of the platform in bigger homes. On the other hand, just a small percentage of participants stated that their family members use UPI, with three respondents saying their family members never use the platform. In order to promote wider adoption and usage of UPI transactions across a range of household

compositions and, ultimately, improved financial inclusion and accessibility for all parts of society, stakeholders must have a thorough understanding of these usage dynamics.

6. Since how many years have you been using UPI payments?



Data has been changed for the ease in calculation.

The examination of respondents' UPI usage duration provides insight into the acceptance and durability of the platform among its user base. Ninety-seven respondents, or a sizable percentage, stated they had been utilizing UPI payments for four and a half years. This suggests that consumers have been integrating UPI into their financial habits for a significant amount of time, since it displays a high level of knowledge and experience with the platform. In addition, it was noted that 57 participants had been using UPI for 3.5 years, which supports the idea of consistent use and ongoing reliance on the platform for electronic transactions over a prolonged period of time. These results highlight the platform's durability and dependability as customers persist in using UPI payments over an extended period of time, which speaks well of its safety and security protocols and adds to its well-established reputation as a trusted digital payment solution.

A smaller but significant percentage of respondents, the research also shows, reported using UPI for comparatively shorter periods of time. For example, 6.5 years of UPI use was reported by 15 respondents, but 5.5 years of use was reported by 50 respondents. These durations ahead of emerging threats and vulnerabilities and show a considerable degree of knowledge and emphasizes the crucial role that security familiarity with the platform, even though they are advancements play in creating trust and shorter than those of the majority of responders. confidence among UPI users.

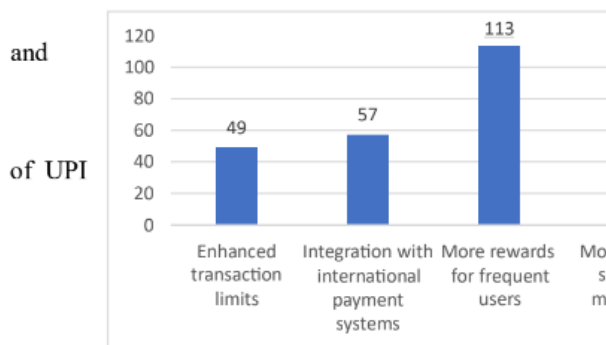
This suggests a slow but consistent uptake of UPI payments over time. It is imperative for Additionally, improvements targeted at improving stakeholders to comprehend the disparities in the user experience and encouraging interaction with



duration of UPI usage among participants, in order the UPI platform were also of relevance to the to customize their safety and security protocols to respondents. For example, indicating a need for suit users with varying degrees of experience and loyalty programs or incentive schemes to promote guarantee secure and confident transactions for all

ongoing usage and devotion to UPI applications, users, irrespective of their length of platform 113 people expressed a desire for greater benefits usage. for frequent users. Furthermore, 57 respondents indicated that they would be interested in

7. What additional features would you like to integrating with foreign payment systems, have in your UPI app?



demand for more accessibility, indicating a rising interoperability in digital financial services.

Stakeholders may improve the safety and security transactions as well as the overall user

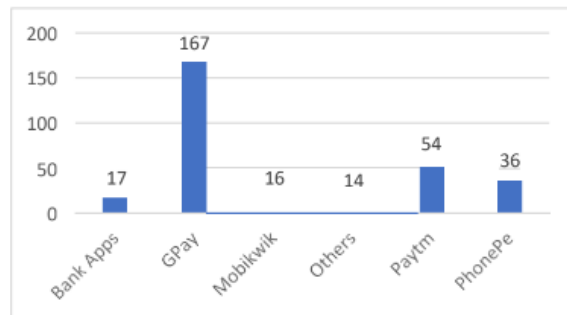
experience by considering the varied interests and priorities of users. This will encourage a wider

acceptance and usage of UPI applications in the

dynamic world of digital banking.

Forty-nine respondents, or a significant fraction of
8. Which app do you use for UPI transactions?
 the population, said that they would prefer higher transaction limits. This shows that the UPI platform needs to be more adaptable and scalable in order to handle bigger transactions and possibly meet the changing financial needs of its customers.

Moreover, 84 participants expressed the necessity



of implementing stronger security protocols,

highlighting the criticality that users attach to 167 respondents chose Google Pay, making it the protecting their financial data and transactions. clear leader in the market. The notable adoption This highlights the need for constant innovation and development in security measures to remain

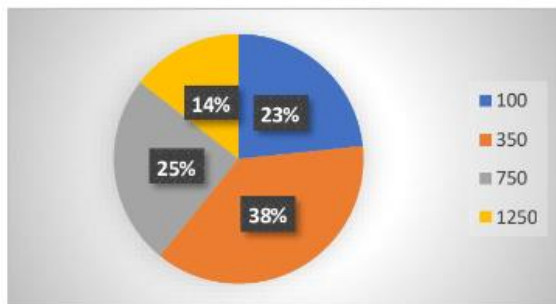


rate of Google Pay can be attributed to its intuitive user interface, ample functionalities, and broad accessibility, all of which enhance its appeal to UPI users. It also emphasizes Google's obligation to uphold strong safety and security protocols in order to safeguard the large volume of transactions made possible by its platform, highlighting the significance of ongoing attention to detail and innovation in order to secure user data and transactions.

Furthermore, even if just 17 respondents utilize bank applications, they are still a reliable source for UPI transactions because of their close ties to financial institutions. Because bank applications are associated with well-known institutions, users may believe that they provide a higher level of security, which is why they choose to use these platforms for UPI transactions. However, the respondents' varied app usage patterns highlight the necessity for all UPI service providers, irrespective of their market share, to give priority to safety and security measures in order to preserve user confidence and trust in the quickly changing digital financial ecosystem.

9. What is the average amount you spend in a day by UPI

A wide range of purchasing patterns among users



are

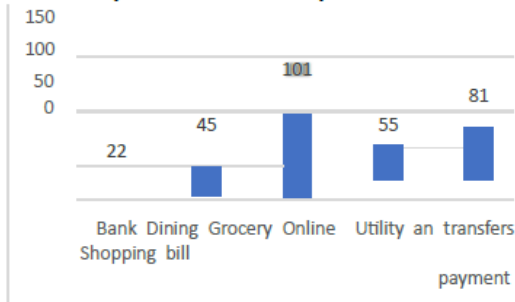
revealed by the examination of average daily

spending via UPI transactions, each of which intersects with security and safety problems. According to the data, 38% of respondents reported spending 350 units, suggesting that most respondents choose to spend comparatively less. This may indicate utilization for regular spending and purchases, suggesting a tendency among consumers for smaller, more frequent transactions. Given the frequency of transactions at this level, these lesser spending amounts may lessen the financial effect of potential security breaches, but they also highlight how crucial it is to have strong security measures in place to protect against fraudulent transactions and unauthorized access.

On the other hand, 14% of the sample, or a significant fraction of the respondents, indicated greater daily spending amounts of 1250 units. Even while they make up a smaller percentage of users, their greater spending patterns highlight the possible financial ramifications of security breaches inside the UPI ecosystem. It emphasizes how important it is to have strict security procedures in place to safeguard sensitive financial data and larger transactions, so that users can make purchases with confidence and security no matter how much they spend. The analysis, taken as a whole, emphasizes how crucial it is to strike a balance between security and ease in order to preserve user confidence and trust in UPI transactions.



10. What do you use UPI mostly for?

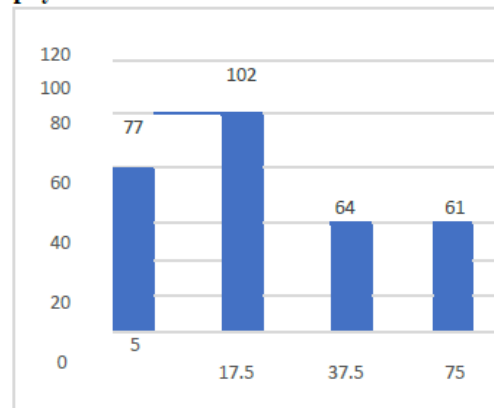


The segmentation of respondents' main UPI transaction usage offers insightful information about the variety of ways people interact with digital finance and indicates possible areas where safety and security measures should be prioritized. According to the report, 101 respondents said they used the platform for food buying, making it the most popular usage for UPI transactions. This highlights how easy and useful UPI is for regular expenses, since consumers can easily incorporate digital payments into their regular food buying habits. However, considering the regularity and broad acceptance of UPI transactions in this arena, it also underscores the significance of strong security measures to protect sensitive financial information.

Furthermore, 81 respondents indicated that paying bills and utilities is how they mostly use the UPI network for transactions. This demonstrates the expanding trend of financial transactions—which were formerly carried out through offline channels like bill payment centers or bank branches—becoming increasingly digital. As more and more people depend on UPI for basic financial functions like paying bills, it is critical to guarantee the

priority to putting safety measures in place and improving them in order to safeguard users' financial information and transactions across a variety of UPI use cases.

11. What percentage of your monthly expenses do you typically cover through UPI payments?



The percentage of monthly expenses paid for via UPI payments is analyzed, demonstrating the platform's important contribution to helping a sizable portion of users complete financial transactions. 61 respondents, or a significant fraction of the sample, reported using UPI payments to pay for 75% of their monthly expenses. This highlights the platform's ease of use and adaptability in handling monthly expenses by showing a high degree of reliance on UPI as the primary method of payment for the bulk of financial transactions. However, considering the substantial financial consequences of potential security breaches, such great reliance also highlights the vital significance of strong safety and security measures to protect users' financial data and transactions.

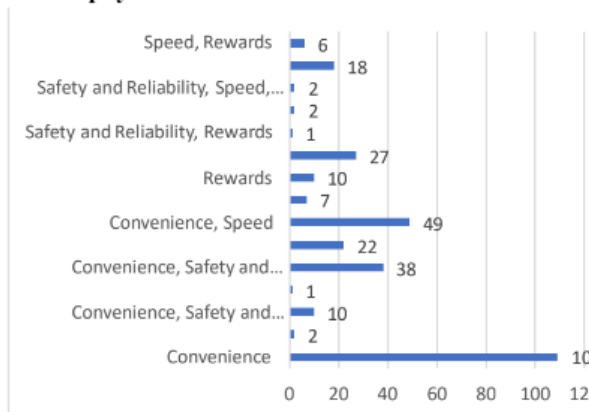
Additionally, 102 respondents, or a significant portion of the sample, stated that 17.5% of their



security and integrity of transactions. In order to maintain trust and confidence in the platform's safety and security, stakeholders must give top

Even while they might not rely as much on UPI for financial transactions, these users nevertheless make up a sizable section of the user base and add to the overall usage of the network. The need for comprehensive safety and security measures that address the different needs and preferences of users across a range of UPI transaction reliance levels is highlighted by the diversity of usage patterns. These measures should guarantee that users can conduct transactions securely, irrespective of the proportion of expenses facilitated by the platform.

12. What feature(s) do you like about UPI payments?



Based on the data, Convenience is a highly valued quality in UPI payments, as indicated by the study of respondents' preferred features, with 109 selecting it as their top choice. This highlights how

monthly expenses were paid for with UPI, indicating a somewhat moderate usage pattern.

addition to understanding the value of security and dependability in financial transactions. The desire for these combined features highlights how important safety and security measures are in building confidence and trust in UPI transactions, allowing customers to take advantage of the ease of digital payments without sacrificing the integrity of their financial transactions.

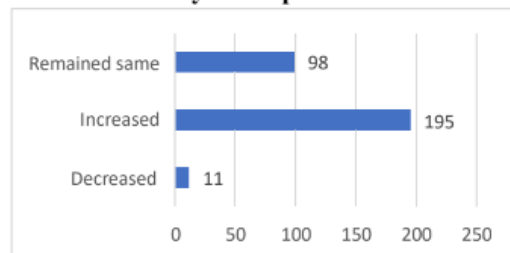
Furthermore, although ease is still the most preferred benefit, respondents also found rewards and quickness to be noteworthy features. A smaller but significant percentage of respondents indicated gratitude for the benefits connected to UPI transactions, underscoring the possibility of incentive schemes to encourage adoption and foster user involvement. Similarly, 49 respondents acknowledge the significance of speed in transaction processing, demonstrating a desire for quick and easy transactions. Even more so than other appealing aspects like rewards or quickness,



the platform's easy-to-use interface and seamless transaction process make financial transactions simpler and increase users' overall convenience. Furthermore, a noteworthy proportion of participants, consisting of 38 individuals, value the amalgamation of ease, security, dependability, and - velocity provided by UPI transactions. This shows that people want quick and easy processing in

users may prioritize security measures to safeguard their financial information and transactions, as indicated by the focus on safety and dependability expressed by 27 respondents. In summary, the analysis emphasizes how crucial it is to strike a balance between ease and security, dependability, and speed in order to provide a great and safe user - experience in UPI.

13. Are there any changes in your spending habits since you adopted UPI?



The answers to the question on how users' spending patterns have changed since implementing UPI transactions reveal a common pattern of rising user spending. Out of the 195 respondents, a sizable percentage stated that their purchasing patterns have changed as a result of using UPI. This implies that consumers may be persuaded to engage in more frequent or larger transactions due to the ease, accessibility, and efficiency that UPI transactions offer, which may have an impact on their total spending behaviour. It's important to remember, though, that 11

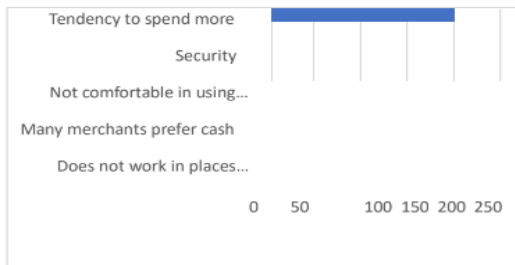
Furthermore, a sizable portion of respondents (98 people in all) said that their spending patterns stayed same following the adoption of UPI transactions, suggesting that not all users see meaningful shifts in their spending patterns. Even though UPI makes financial transactions more convenient and efficient, a number of variables outside of the platform itself, such as individual financial objectives, income levels, and prevailing economic conditions, may have an impact on users' spending patterns. In order to ensure that safety and security measures are in place to protect users' financial interests regardless of changes in spending habits, stakeholders must acknowledge and accommodate the diversity of user behaviors and preferences, even though UPI transactions may expedite the payment process and offer incentives for increased usage.



respondents said they had cut back on their expenditures. Even though this group of users is smaller than the others, their comments might indicate a change in priorities for money after using UPI transactions or a more frugal approach

to spending. These results highlight the necessity

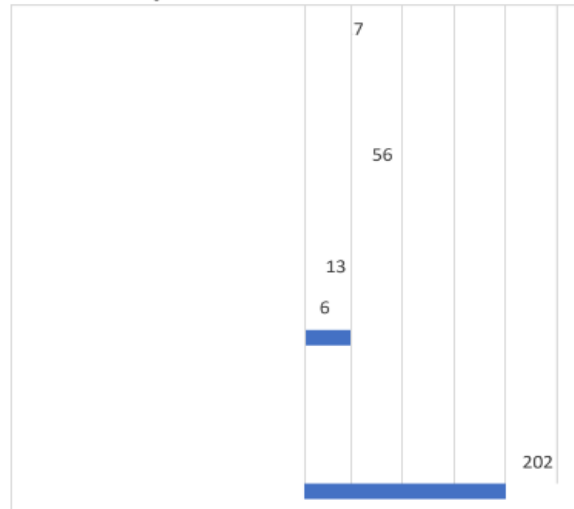
of ongoing observation and evaluation of consumers' financial habits in reaction to digital payment systems such as UPI, highlighting the significance of putting strong safety and security controls in place to safeguard consumers' financial security in the rapidly changing digital finance environment.



The examination of the issues respondents had with UPI payments highlights a number of significant obstacles that have an impact on user experience and adoption. The most often mentioned problem—which was chosen by 202 respondents—is that UPI cannot be used in places with inadequate internet access. The accessibility and dependability of UPI transactions are hampered by this restriction, especially in rural or isolated locations with potentially insufficient internet connections. To overcome this obstacle, more work needs to be done on internet infrastructure and connection as well as offline transaction methods that will guarantee continuous access to UPI services and increase accessibility and usability for all users.

56 respondents raised issues about merchants' preference for cash payments, which is another area of worry raised by respondents. The seamless integration of UPI into regular

14. What problems do you face with UPI Payments?



fewer respondents expressed concerns about security and discomfort with technology, these issues still need to be taken into consideration in order to guarantee that users feel comfortable and secure when completing UPI transactions. This emphasizes the significance of strong safety and security measures in the UPI ecosystem.

15. How safe and secure do you feel while making UPI payments? (On scale of 5)

Scale	Number of Respondents
5	94
4	120



transactions may be hampered by a wider problem with business acceptance and usage of digital payment methods. This obstacle can be addressed by supporting the usage of digital payments and addressing merchant resistance. This will promote wider acceptance of UPI payments and enable a more seamless shift to a cashless economy. Furthermore, even though