

Unified Payments Interface (UPI) as a Tool for Financial Inclusion: Analyzing Consumer Payment Preferences in Amravati City.

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Abstract

The purpose of this paper “Unified Payments Interface (UPI) as a Tool for Financial Inclusion: Analyzing Consumer Payment Preferences in Amravati City.” will look at how UPI is being used to increase the number of digital payments made in India. Digital payments are growing quickly within the digital economy but there hasn't been enough empirical research regarding the impact that UPI has had at the consumer level in semi-urban markets. The main goal of this paper will be to explore how many people have adopted UPI and the effects that would occur on Financial Inclusion in Amravati City by using UPI for Financial Inclusion purposes. The research used quantitative methodology to gather its results. To complete its study a structured questionnaire was administered to 30 respondents. Data was analysed using various statistical tools such as percentages and Chi Squares. The study found a very high rate of people adopting UPI for Financial Inclusion and therefore also found that using UPI for Financial Inclusion significantly improved access to bank services as well as decreasing reliance on cash. This research will help banks and Fintech companies and help them evaluate their marketing efforts related to the financial inclusion of customers and develop their strategy towards increasing Financial Inclusion through the usage of Digital Finance.

Keywords: Unified Payments Interface, Financial Inclusion, Digital Payments, Consumer Behavior.

1. Introduction

The Indian financial and economic climate has changed dramatically since the digital payment technology has become widely used in India. As a result of the increasing globalization of business and the growing importance of speed, efficiency and transparency in

business, cash-based payment systems are being replaced by electronic payment platforms. In India, one of the most significant developments in the digital payment space has been the Unified Payments Interface (UPI) created by National Payments Corporation of India (NPCI). It is a mobile application that allows users to make instant, low-cost, secure, peer-to-peer transfers from their bank accounts, providing consumers and businesses with a convenient way of conducting financial transactions without the need to use physical cash or navigate complex banking processes (NPCI, 2024-25). The increase in the importance of UPI has risen due to changes in the business climate as a result of the rapid adoption of digitalisation, the growth of fintech companies and changes in consumer behaviour. The demonetization of currency notes and the COVID-19 pandemic increased the adoption of new methods of payment such as contactless and digital payments which has resulted in UPI becoming the most used method of payment for daily transactions (RBI, 2023). In addition to improving transaction efficiency, UPI has the potential to help create financial inclusion by removing cost, distance and accessibility barriers.

Amravati City, situated in Maharashtra, is a semi-urban area with people from various sectors such as education, agriculture, public services and small business. Thus Amravati City makes a relevant environment to assess the recent changes in UPI from a regional perspective. Due to having different levels of digital literacy and access to banking facilities, these same factors may also influence the variation in the extent to which UPI has been adopted, along with the extent to which UPI will have a positive or negative effect on the lives of people within a specific area. In this respect, the current study's objective will be to assess how much of a UPI user base exists and evaluate the extent to which UPI has positively impacted financial inclusion.

This study was conducted for the purpose of this MBA dissertation and contained and based on primary data collected through a survey conducted on selected consumers in the Amravati area. To the best of the author's knowledge, this study has not been published in any other publication and is therefore unique to Amravati City, thus contributing to both academic research and practical application of findings.

2. Statement of the Problem

India has seen a tremendous increase in the use of Unified Payments Interface (UPI) and has become one of the most promoted methods of digital payment and financial inclusion. Although UPI is accessible to many people and is available throughout India. Therefore, it may not necessarily provide an equal level of utility across different regions (especially in semi-urban areas, such as Amravati.). Even if UPI enjoys a high national rate of adoption, there is little to no urban evidence available to show whether or not UPI users, across all sectors, have used UPI to engage with formal financial services. A successful outcome would see UPI develop into an inclusive payment platform that provides financial service access for many people without dependence on cash, facilitates access to bank account facilities, and integrates users into the traditional formal financial system. These gaps develop as a result of many factors, including income disparity, levels of digital literacy, level of knowledge about UPI, and trust in digital platforms. In order to better understand real consumer experiences and challenges with digital payment systems, it is important to study and examine this issue. The results of this research will benefit all key stakeholders, including consumers, banks, fintech companies, and policy makers who are looking to create greater access to digital payment solutions and integrate local communities into the digital economy.

3. Review of Literature

Developing nations have experienced some global financial behaviour changes as digital payment solutions have been rapidly growing. India's rapid adoption of the Unified Payments Interface (UPI) has created a new paradigm for digital payment options and allowed for instant and low-cost but interoperable transactions from bank to bank. Its effects on financial behaviour and inclusion have prompted significant interest from scholars studying the UPI; specifically, its accessibility, convenience, safety, and ability to create

more financially included people in emerging and semi-urban nations.

Karmakar (2023) measured how the UPI has affected India's financial environment. His findings indicate that UPI has improved the level of financial inclusion in India by increasing access to banking products for the majority of the population, increasing transparency in transaction processing, and creating increased interest in digital finance and financial literacy through an increase in usage. Karmakar concluded in his study that UPI has decreased cash dependence and created a larger number of low-income users participating in the formal financial system, but did report that UPI adoption varied based on education level and income. **Rastogi et al. (2021)** published an article about UPI in which they stated that UPI as a digital innovation has positively affected financial inclusion by decreasing transaction costs, improving user-friendliness and creating trust. However, the authors pointed out that both technology barriers and a lack of awareness continue to limit UPI adoption in semi-urban and rural areas.

The study of UPI's (Unified Payments Interface) organizational structure by **Cornelli et al. (2024)** was motivated by the factors of its success: the simplicity of UPI operation, the fact that there are no cost barriers to using UPI, and that it is an interoperable platform. Through their analysis of various studies of UPI at the macro level, they claim that UPI has been instrumental in bringing a number of unbanked individuals into the formal financial system, but did not investigate consumer behavior on a city level. **Kumar and Unnisa (2024)** researched UPI transaction trends and found that government assistance, security, and ease of use increased adoption of UPI hugely, but that low digital literacy in semi-urban areas was still a barrier to them using UPI. **Shrimali et al. (2024)** point out how UPI has been an instrument for bridging the gap between rural and urban areas regarding financial inclusion and discuss initiatives such as UPI Lite which are being implemented in low-connectivity areas.

From the research available to date, it is clear that UPI enhances Financial Inclusion through Increased convenience, reduced costs, and increased Formality of Banking Relationships. However, most UPI studies have examined UPI from the macro perspective or nationally, leaving an absence of local empirical evidence. In this research, we will examine how UPI

adoption affects the Financial Inclusion of residents of Amravati City in India.

4. Objectives of the Study

1. To analyze the level of UPI adoption among consumers in Amravati City.
2. To examine the impact of UPI on financial inclusion in Amravati City.

5. Research Hypotheses

- **H₀:** Unified Payments Interface (UPI) usage has no significant impact on financial inclusion among consumers in Amravati City.

6. Research Methodology

6.1 Research Design

The present study **adopts a descriptive research design**, as it seeks to describe and analyze the existing level of UPI adoption and its impact on financial inclusion among consumers in Amravati City. This design is appropriate because it helps in understanding consumer behavior, usage patterns, and perceptions related to UPI without manipulating any variables.

6.2 Sources of Data

The study **uses both primary and secondary data**. Primary data is collected directly from consumers in Amravati City through a structured questionnaire. Secondary data is obtained from reports published by the Reserve Bank of India (RBI), National Payments Corporation of India (NPCI), academic journals, research articles, and relevant websites related to UPI and financial inclusion.

6.3 Sample Design

The population of the study **consists of UPI users residing in Amravati City**. A sample of **30 respondents is selected** using the convenience sampling method to ensure easy access to participants belonging to different age groups, occupations, and income levels.

6.4 Data Collection Tools

A **structured questionnaire is used** as the primary data collection tool. It includes multiple-choice questions designed to measure UPI usage and its role in financial inclusion.

6.5 Statistical Tools Used

The collected data is analyzed using **percentage analysis and chi-square tests** to examine adoption patterns and the impact of UPI on financial inclusion.

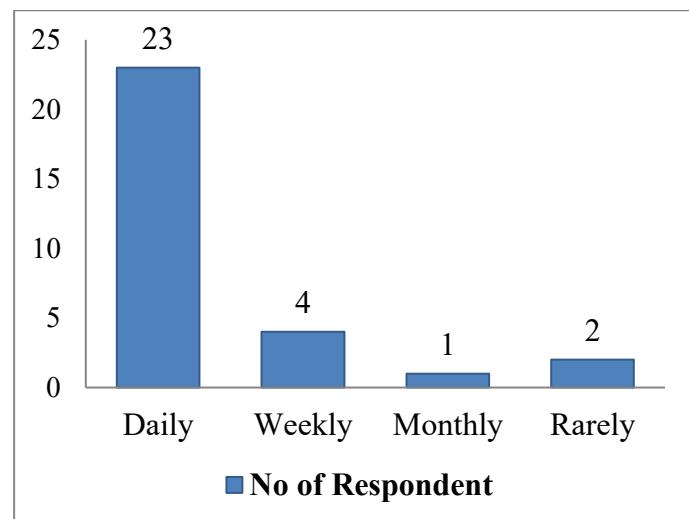
7. Data Analysis and Interpretation

Table 1: How often do you use UPI?

Option	No of Respondent	Percentage %
Daily	23	77
Weekly	4	13
Monthly	1	3
Rarely	2	7
Total	30	100%

(Source: - Primary Data)

Graph 1: How often do you use UPI?



Interpretation:-

The data demonstrates that consumers in Amravati City have adopted UPI as a means of payment. A vast majority (23 of 30, or 77%) of the survey's respondents indicated that they utilize UPI on a daily basis; this points to the fact that UPI has habitually become the primary source of payment used to complete everyday financial transactions. Additionally, an additional 13%

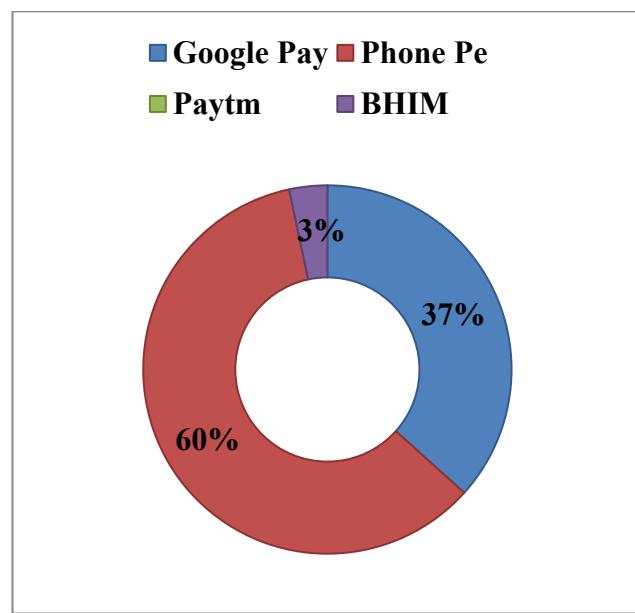
of the respondents stated they use UPI at least once a week; this reflects moderate but stable use of UPI. Conversely, only 3% of respondents reported using UPI once a month and 7% of respondents reported they use UPI very infrequently; therefore, it can be inferred very few consumers use UPI in a limited way. Based on the data gathered, the respondents demonstrate a great deal of confidence and comfort with utilizing UPI; thus, it is clear that digital payments have successfully been adopted and assimilated into consumers' everyday financial behaviours in Amravati City.

Table 2: Which UPI applications are most preferred by consumers?

Option	No of Respondent	Percentage %
Google Pay	11	37
Phone Pe	18	60
Paytm	0	0
BHIM	1	3
Total	30	100%

(Source: - Primary Data)

Graph 2: Which UPI applications are most preferred by consumers?



Interpretation:-

The user preference survey found users in Amravati City prefer to use UPI Applications (UPI) via their mobile devices. Survey results indicate that PhonePe was the highest-ranked mobile application for making digital payments. The survey found that 18 respondents prefer to use PhonePe (60% of respondents). The survey

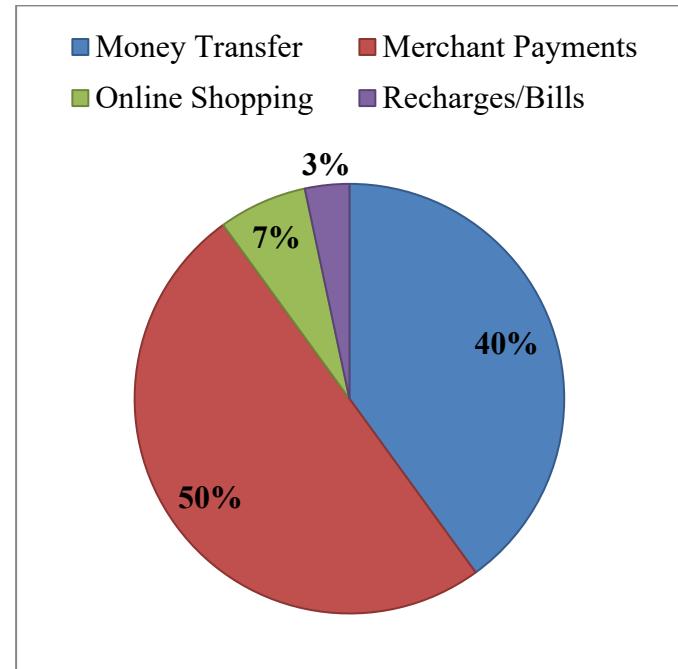
found that Google Pay was the second-highest-ranked mobile payment application by usage; 11 respondents preferred to make payments using Google Pay (37% of respondents). In addition, BHIM was ranked last in usage by only 1 (3%) of the respondents as a mobile payment application. Finally, the survey found that no respondents preferred to use Paytm for making digital payments (0% of respondents). The analysis indicates that the majority of users making UPI payments in Amravati City are using private UPI applications such as PhonePe and Google Pay.

Table 3: For what purposes do consumers mainly use UPI?

Option	No of Respondent	Percentage %
Money Transfer	12	40
Merchant Payments	15	50
Online Shopping	2	7
Recharges/Bills	1	3
Total	30	100%

(Source: - Primary Data)

Graph 3: For what purposes do consumers mainly use UPI.



Interpretation:-

Based on the results of the data collected, it can be concluded that the primary reasons people in Amravati City use UPI are: 1) to pay for their purchases from local merchants (i.e., shops, stores); 2) to send money

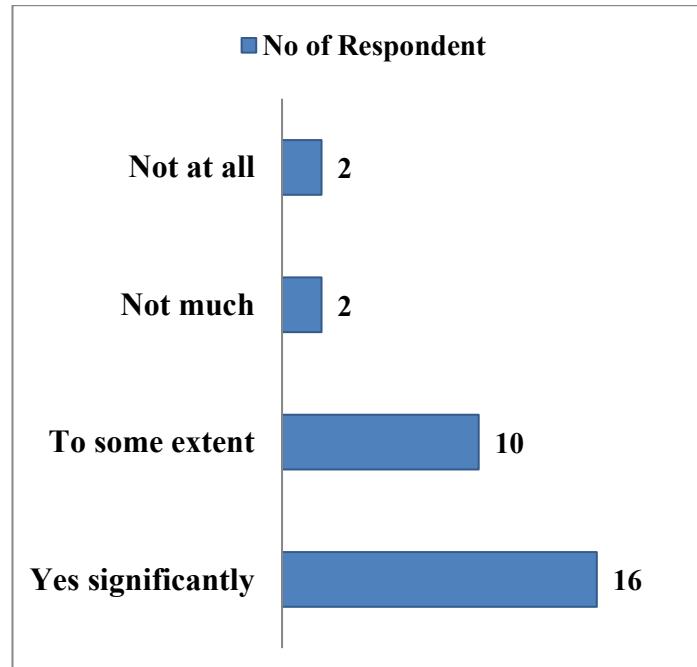
between family and friends (a peer-to-peer payment system); and finally; 3) to pay bills or make other types of online purchases, with very few people actually using UPI to pay for recharges/bill payments. In conclusion, UPI is mostly a tool used for everyday retail purchases and personal money transfer activities rather than being a service used to pay for online purchases or utility bills.

Table 4: Has UPI increased consumers' access to banking and financial services.

Option	No of Respondent	Percentage %
Yes significantly	16	53
To some extent	10	33
Not much	2	7
Not at all	2	7
Total	30	100%

(Source: - Primary Data)

Graph 4: Has UPI increased consumers' access to banking and financial services.



Interpretation:-

The emerging pattern of financial services and banking in Amravati City is becoming more visible where UPI has been used as an improvement to access. The response was overwhelmingly favourable with 16 of 30 respondents (53%) stating that they had seen an improvement in accessing financial products since using UPI with the remaining 33% (10) stating that they saw some improvement in accessing them. Hence, 86%

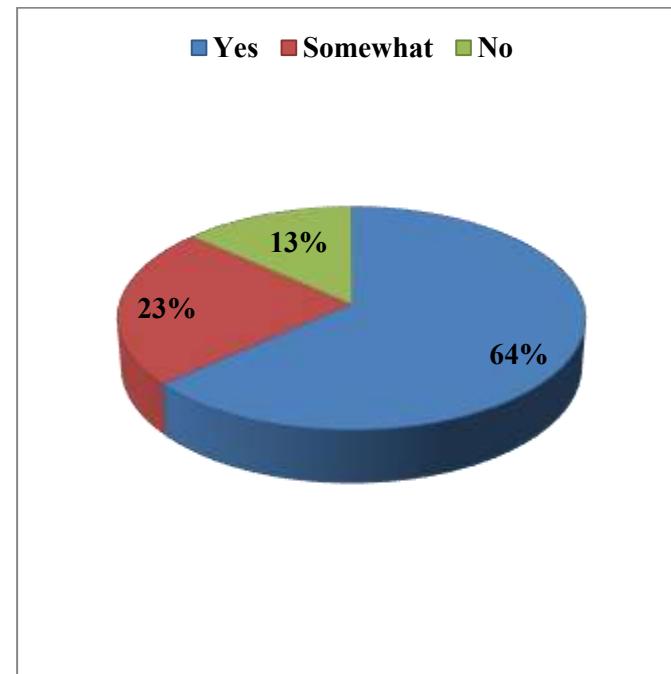
have positively stated that they saw improvement while 2 (7%) respondents indicated that the service improved hardly and another 2 (7%) said that they had not seen any improvement at all from their use of UPI. Looking at the overall conclusion will provide further clarity that UPI is a significant source of helping a large number of consumers gain access to financial products and services, as well as contributes to the financial inclusion of consumers in Amravati City.

Table 5: Has UPI reduced consumers' dependency on cash transactions?

Option	No of Respondent	Percentage %
Yes	19	64
Somewhat	7	23
No	4	13
Total	30	100%

(Source: - Primary Data)

Graph 5: Has UPI reduced consumers' dependency on cash transactions?



Interpretation:-

The data above clearly indicate that UPI has significantly reduced the consumers' reliance on cash transactions in Amravati City. A large proportion of respondents (64%) said they have reduced their cash usage as a result of using UPI, indicating a strong movement towards digital payment methods. Another

23% stated their cash dependence has been somewhat decreased due to using UPI, indicating a moderate positive impact of using UPI. Only 13% of respondents believe that UPI has not reduced their dependence on cash. In summary, the results indicate that approximately 87% of consumers have reduced their cash usage as a result of using UPI, demonstrating the importance of UPI in encouraging cashless transactions and enhancing financial inclusion in Amravati City.

Table 6: Do consumers believe that UPI has improved financial inclusion in Amravati City?

Option	No of Respondent	Percentage %
Yes	17	56
To some extent	11	37
Not sure	0	0
No	2	7
Total	30	100%

(Source: - Primary Data)

Table 6.1: Chi Square Calculation Table

Factor	Observed (O)	Expected (E)	(O - E) ² / E
Yes (UPI improves inclusion)	17	10	4.90
To some extent	11	10	0.10
No	2	10	6.40
Total	30	30	11.40

Chi-Square Value (χ^2) = 11.40

Degrees of Freedom (df) = 2

Table χ^2 value (at 5% level, df = 2) = 5.99

Result = Null Hypothesis (H_0) Rejected

Interpretation:-

The Chi-Square test was applied to examine whether UPI usage has a significant impact on financial inclusion in Amravati City. The calculated Chi-Square value (χ^2) is 11.40 with 2 degrees of freedom. At the 5% level of significance, the table value of χ^2 is 5.99. Since the calculated value (11.40) is greater than the table

value (5.99), the null hypothesis is rejected. This indicates that there is a statistically significant relationship between UPI usage and financial inclusion. Therefore, it can be concluded that UPI has a significant positive impact on improving financial inclusion among consumers in Amravati City.

8. Findings of the Study

The present study on the Unified Payments Interface (UPI) and financial inclusion in Amravati City highlights several important findings that demonstrate the growing influence of digital payment systems on consumer financial behavior. One of the major outcomes of the study is the high level of UPI adoption among consumers. A large proportion of respondents reported using UPI on a daily basis, indicating that it has become an integral part of routine financial activities such as shopping, bill payments, and fund transfers. This reflects strong acceptance of digital payment systems in a semi-urban context like Amravati.

The study further reveals that PhonePe and Google Pay are the most preferred UPI applications among consumers. This preference suggests that factors such as ease of use, reliability, and wide merchant acceptance play a crucial role in influencing consumer choice. Most respondents primarily use UPI for merchant payments and money transfers, clearly indicating that UPI has effectively replaced cash for everyday transactions.

Another significant finding of the study is that UPI has enhanced consumers' access to banking and financial services. A majority of respondents stated that UPI has significantly or moderately improved their access to formal financial systems. Additionally, most consumers reported a reduction in their dependence on cash, reflecting a shift toward a more transparent, secure, and traceable financial ecosystem. Nearly all respondents also expressed the view that UPI has contributed positively to improving financial inclusion in Amravati City.

The results of the Chi-Square test further support these findings by confirming a statistically significant relationship between UPI usage and financial inclusion. This reinforces the conclusion that UPI plays a meaningful and impactful role in increasing financial participation among consumers.

These findings are consistent with previous studies. Research conducted by Rastogi et al. (2021) and

Karmakar (2023) similarly found that UPI enhances financial inclusion by improving transaction convenience, lowering costs, and encouraging the use of formal banking channels. Likewise, Cornelli et al. (2024) emphasized that the simplicity and interoperability of UPI contribute to its widespread adoption across different income groups.

Overall, the study confirms that UPI is not merely a digital payment mechanism but a significant driver of financial inclusion in semi-urban areas such as Amravati City. However, the existence of a small segment of low users highlights the need for increased awareness initiatives and digital literacy programs to ensure broader and more inclusive participation.

9. Managerial Implications

The findings of this study offer important implications for banks, fintech companies, merchants, and policymakers involved in promoting UPI and digital financial services in Amravati City. Given the already high level of UPI adoption, managers should shift their focus from merely acquiring new users to deepening usage among existing users. Encouraging consumers to use UPI for a broader range of financial activities such as bill payments, savings, and formal transactions can enhance engagement and increase transaction volumes. Banks and UPI service providers should implement targeted promotional campaigns to communicate the extended benefits of UPI beyond basic fund transfers.

A key managerial recommendation is the need to strengthen digital literacy and awareness initiatives, particularly for low-income groups and elderly consumers who may be hesitant to adopt digital payments. Training programs conducted at bank branches, community centers, and educational institutions can help build confidence, reduce fear of fraud, and improve trust in UPI platforms. Additionally, accessible and responsive customer support systems are essential to resolve transaction-related issues promptly.

From a strategic standpoint, fintech companies should continue prioritizing simplicity, security, and user-friendly interfaces, as these factors significantly influence adoption. Features such as transaction tracking, spending analysis, and quick dispute resolution can further enhance user satisfaction. Merchants should be encouraged to adopt UPI-based QR codes and integrate them into billing systems to promote cashless transactions. Overall, aligning UPI

promotion with financial inclusion objectives can support inclusive growth and expand the digital financial ecosystem in Amravati City.

10. Limitations of the Study

- The limited duration of the study limited the scope of data collection and precluded the inclusion of a larger and more diverse array of respondents.
- The number of respondents was limited to 30, which does not adequately represent the population of UPI users in Amravati City and limits the ability to draw conclusions about the entire population of UPI users.
- There is likely to be bias associated with the use of convenience sampling due to the method of respondent selection being determined by convenience rather than an unbiased form of selection. The study relied on self-reported usage data for the majority of the data collected, which may be subject to bias due to personal factors or difficulty recalling past usage.
- There was a lack of access to detail and extensive secondary data regarding UPI usage at the City of Amravati, which limited the analysis done in this study.

11. Recommendations

The results of this research indicate that there is an opportunity for banks and fintech companies to collaborate with one another and develop enhanced digital literacy campaigns, training programs, and general awareness initiatives aimed at improving accessibility to UPI among all consumers—particularly low-income and older adults. Regularly scheduled workshops, in-branch demonstrations, and community-based outreach initiatives could go a long way toward increasing consumer digital literacy and decreasing their hesitancy about utilizing digital payments. In addition, UPI service providers could bolster customer support services to allow customers to receive assistance quickly should a transaction fail or be processed incorrectly, thereby enhancing customer trust and satisfaction.

Businesses located throughout the city of Amravati should be encouraged to implement upward of 90 percent of business transactions via UPI or QR code technology integrated into their regular invoicing processes as an incentive to promote cashless payment

methods. Banks and regulatory authorities working collaboratively to increase protections against cyber security threats and fraud will enhance the safety and security of digital transactions through UPI. Furthermore, UPI platforms should provide additional value-added services, including but not limited to: bill reminders, transaction history tracking, budgeting tools, and web-based financial calculators to help maximize consumer engagement and continue to build ways to financially integrate consumer(s).

12. Scope for Future Research

The focus of this research is UPI acceptance and financial inclusion in Amravati City. However, researchers have the opportunity to expand their efforts into many other areas in the future, such as a cross-city comparison between Urban/Semi-Urban/Rural Areas to better understand how regional differences influence the adoption of Digital Payments and financial inclusion. In addition, researchers in the future may utilize a larger sample size and implement Probability Sampling Methods to enhance and provide more reliable generalization of their findings than was accomplished with the intent of this current study.

Future research will allow for an exploration of the effects of UPI on specific populations, including Small Merchants, Women, The Elderly, and Households in Rural Areas, thus providing a Micro-Level perspective of Financial Inclusion. Furthermore, researchers may dive deeper into the influences of Digital Literacy, Cyber-Security Awareness, and Trust on UPI adoption and financial inclusion. Finally, future researchers may also conduct longitudinal studies to monitor the growth or decline of UPI adoption and Financial Inclusion as Digital Infrastructure continues to improve.

13. Conclusion

According to the present study, the Unified Payments Interface (UPI) has become an important tool for influencing digital payment behaviour and facilitating financial inclusion in Amravati City. The research objective was to ascertain the extent of UPI adoption among the population and investigate how it has affected financial inclusion in a semi-urban municipality-level setting. Based on the results of this research, a significant number of respondents adopted UPI frequently and utilized them for their normal weekly routine going to merchants and transferring money. This has helped demonstrate a movement away

from cash-based transactions toward the increased adoption of digital payment systems and increased confidence and trust by consumers in these platforms.

This research also finds evidence of significant consumer preference for platforms like PhonePe and Google Pay, which have been found to have the highest volume of users, as indicated by their usability, reliability, and merchant acceptance factors that play a crucial role in determining the user's choice when selecting a digital payment platform. This study also identifies that UPI has been instrumental in increasing consumers' access to banking and financial services and has also decreased reliance on cash as a mode of payment. Furthermore, the vast majority of respondents believed that UPI has contributed positively to financial inclusion in Amravati City. The Chi-Square Test of Independence demonstrated a statistically significant association between UPI usage and financial inclusion; thus confirming the primary research premise.

From a theoretical standpoint, this study adds to the body of knowledge in digital finance and financial inclusion through an empirical study conducted in a semi-urban area of India; one which has received limited academic scrutiny. The study reinforces the theories that technology-enabled financial services are an important driver of inclusive economic development and a significant means of overcoming financial exclusion.

The findings of this research are insightful for the banking sector, Fintech firms, and regulators alike. Strengthening digital literacy and digital awareness programs will allow lower use groups to transition into the digital financial ecosystem. Furthermore, this research demonstrates that UPI represents more than just a payments system; it is an extremely powerful mechanism to advance financial inclusion and create a transparent, efficient, and inclusive financial system in semi-urban or rural areas (Amravati City).

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