Bridging the Digital Payment Divide: A Study of India's Ride-hailing Services

Shivani Arora
Professor
Shaheed Bhagat Singh College
Delhi University, Delhi, India.

Akshat Sharma
Mohammad Areeb
Research Scholar
Shaheed Bhagat Singh College
Delhi University, Delhi, India.

Arun Julka
Associate Professor
Maharaja Agrasen College
Delhi University, Delhi, India.

Abstract

The purpose of this paper is to shed light on the barriers faced in the digital payment adoption by customers concerning digital ride-hailing platforms. The research focuses on the respondents using digital payments (mainly UPI) for the ride-hailing platforms through an online survey. The research mainly focuses on the Delhi NCR region, which is considered technologically advanced and also marked by early adoption of technology. The ride-sharing sector (viz., Uber) plays a last-mile connectivity option for the urban population and is heavily dependent on the digital payment system, especially the UPI. The 238 respondents of the study are all aged 18 years and above; they are students, working professionals, and daily commuters. The sample is representative of finding out the spectrum of experiences and preferences when it comes to UPI usage in the context of technology-enabled transportation services. The study explored key factors influencing UPI adoption in the ride-hailing sector, such as perceived usefulness, ease of use, and trust in the digital payment system. Based on the findings from the respondents, this study provides various recommendations to enhance UPI adoption and its promotion.

Keywords

Unified Payment Interface (UPI), Digital payment, Ride-hailing services, Uber, and Barriers to adoption.

1. Introduction

India is high on the mount of digital adoption, pushed primarily by the young and tech-savvy populace and government initiatives. Government initiatives began back in 2014, with the Digital India initiative promising an investment of Rs. 1,000 crores. The digital surge is, in addition, fuelled by the Start-up

ecosystem, with Paytm, Zomato and the like disrupting the existing models of business and paving the way for others to take similar defining initiatives. Smart phone affordability coupled with economical data packages are additional drivers of digital adoption in India. With the Unified Payment Interface (UPI) becoming the favoured payment method, India has seen a notable shift toward digital payments. The effect of the same is enhanced financial inclusion and an economy that is less reliant on cash transactions.

Demonetisation gave a rare opportunity to the newly established digital wallets to make their way into the screens of the smart phones of most of the Indian customers. Introduced in the 1980s, digital payments are growing exponentially due to the advancements in technologies. The research paper (Srivastava, 2022) tries to explain the factors influencing consumer's adoption of digital payments in India, focusing on penetration of UPI, usage data, and barriers attached to it. The report states that digital payments are preferred for their ease of accessibility and availability, which decreases reliance on cash and minimizes risks associated with it. The decline in cash dependence has been the focus to root out corruption in India.

RBI, along with its partnerships with NPCI, brought a boom to the Indian payment ecosystem with UPI, resulting in financial inclusion nationwide. Its availability on feature phones is its highlighting feature. Also, RBI is exploring a Central Bank Digital Currency (CBDC) to enhance financial stability. (Reserve Bank of India, 2023). Financial inclusion in the diverse population in India got its push from the Jan Dhan Yogna of the government and has been propelled by UPI adoption.

Another interesting study (Kaur, 2023) explores the growth in adoption of digital payments among Indian youth after key events like demonetisation, and Covid 19. The findings show that UPI, online wallets, are popular among the younger generation, though cash still holds great relevance. This implies that there is a scope for the adoption of digital payments in this demographic as well.

The research paper (Aggarwal, 2021) examines consumer adoption of digital payments in India, focusing on the users perspective, motivation, and barriers. It also reveals a preference towards digital payments for low to medium-value transactions and net banking for high-volume payments. Thus, the usage of digital payments is an upward-sloping curve.

The research done in the field is in agreement that the adoption of digital payments (mainly UPI) is high, but at the same time, there is a provision to expand the adoption further, but the focus on the specific segment of ride-hailing services is minuscule. The technology-driven ride-hailing services like Uber, Ola, and BluSmart are the lifelines in the Tier 1 cities and are making

their way into the tier 2 and tier 3 cities. The next section of the paper highlights the need for the study.

2. Need of the Study and Its Objectives

Despite the increasing popularity of the ride-hailing sector in India and a recorded widespread adoption of UPI by the locals, there remains a notable disconnect between the potential digital transactions and the actual payments done online in the ride-hailing sector. Though Digital India has connected the dots in many ways, the divide remains a critical challenge in most of the aspects of business in India, including the ride-hailing sector. When analysed, the picture of the payment preference is not inclined towards digital payments for the rides, and the cash dependence is highlighted. The concerns raised by the users are around the digital payment failures, cancellation charges, transaction security, and infrastructure challenges in the smaller cities, which are also deterrents in digital adoption.

3. Objectives of the Study

The objectives of the study are:-

3.1. To find out the major obstacles in the ride-hailing sector in India.

3.2. To suggest ways to promote the digital payment option in the ride-hailing sector in India.

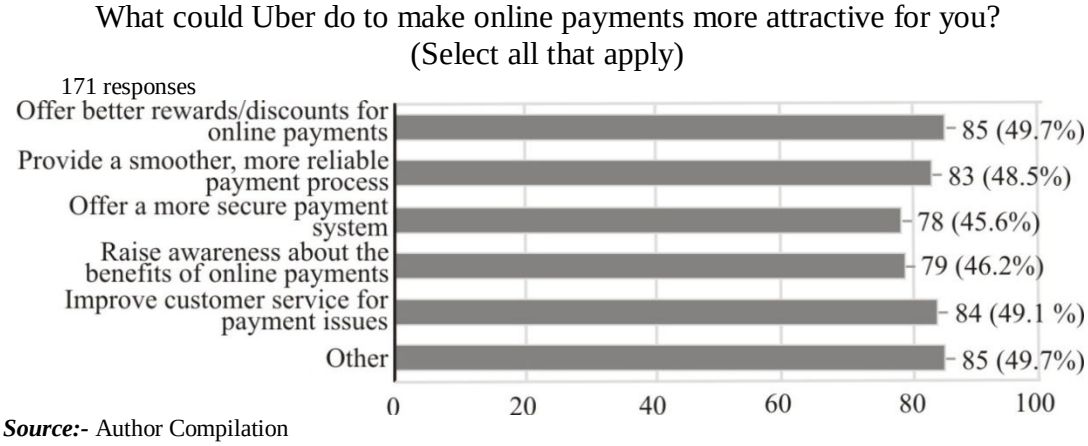
4. Research Methodology/Data Collection

To achieve the above-mentioned research objectives, primary research was conducted. A questionnaire was prepared based on these parameters. A structured "questionnaire with closed-ended questions and open-ended follow-ups"(Singer & Couper, 2017) was developed. The questionnaire aims to collect responses pertaining to the security features of the vendor website, privacy policy, and awareness about risks associated with such transactions. The sample selected for this study were mainly students or young professionals in between the age group of 18-40, this age group was particularly chosen because this generation is considered to be more digitally aware and dependent on digital transactions. This work aims to assess how this age group perceives digital transactions as a medium of payment, the risks associated with digital transactions, the adoption of new technology, trust in app providers, and security of payments. After finalising the questionnaire, it was administered to 230+ respondents through a snowball sampling technique via Google Forms. The Snowball sampling technique was used because it involves initiating a sample process by people known in our contact list, and they further asked people known to them (Naderifar, 2017). This generates more assurance that the questionnaire will be accurately filled since respondents are connected to

someone known to them. Social Media and Google forms are a more appreciated way of reaching out to respondents, especially in the age group selected. The forms were open for 10 days, giving respondents enough time to respond to the questionnaire. There were a total of 238 responses which were considered for this study. The target population for this study included both males and females above 18 years of age. The majority of the respondents were students and a few working professionals. All the respondents had experience of using apps like Uber, Ola, Rapido, etc before responding to the questionnaires. The data obtained was analysed using descriptive analysis, as explained in the next section.

5. Findings

After the primary research (by circulating Google forms), significant insights were noted, which were widely common among the masses. These insights highlighted several key gaps in the ride-hailing sector's digital payment adoption in India, focusing on issues like user trust, convenience, and the overall payment experience. Most of the users denoted that they feel there is a lack of incentives for online payments (Fig. 1) on the ride-hailing sector app. As 49.7 percent of users indicated that rewards and discounts could motivate them to switch to digital payments, many expressed their frustration over the "twisted terms and conditions" attached to making them “lucrative”. Because of such T&C, people feel demotivated and sometimes “scammed” too. By simplifying the reward structures and making them more transparent, it could encourage more users to adopt online payments. (The number of respondents for this particular question is 171, as the question was not mandatory.)

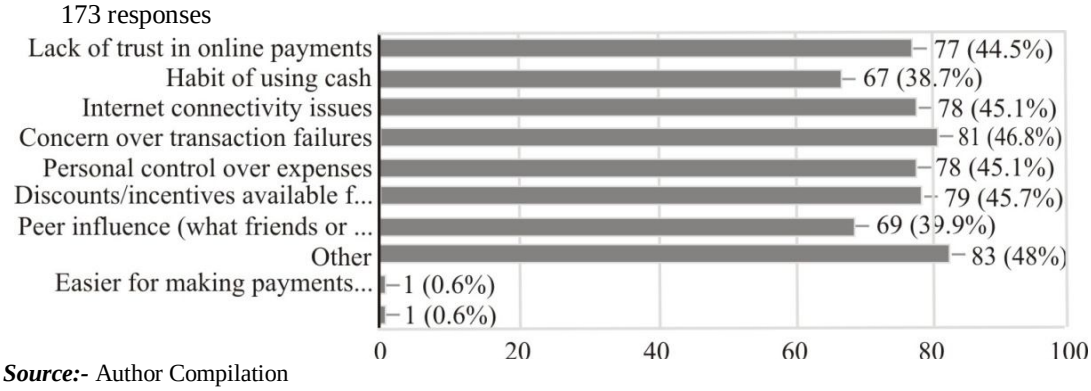


Source:- Author Compilation

Figure 1:- Making Online Payments Attractive

Additionally, trust and security issues (Fig 2) are one of the reasons which has created a divide between cash payments and online methods. With 47.4 percent of users having concerns about digital payments and 45.6 percent stating that a more secure system would make them more likely to make online payments, there arises a need to solve the discrepancy and gain the trust of the public. Unstable internet connectivity also fuels these concerns, highlighting the need for educating users on the security of their payment systems and improving overall reliability.

What are the factors influencing your decision to use cash or online payments? (Select all that apply)

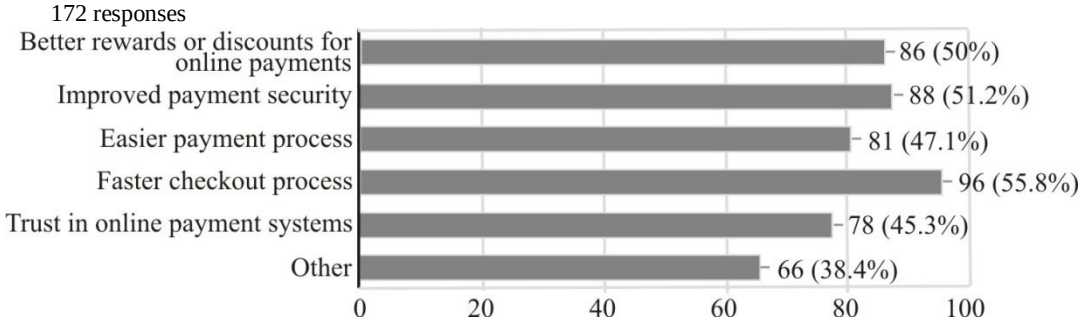


Source:- Author Compilation

Figure 2:- Trust Issues

Another key gap identified is the lack of reliability in the payment process (Figure 3). A significant percentage of users 48.5 percent believe the ride-hailing sector's current payment system could be made more reliable and smoother. With 55.8 percent stating they would switch to digital payments if the checkout process was faster, more streamlined, and easier to comprehend, it will represent a huge clutter of people doing digital transactions. Also, many users have experienced issues with the digital wallet service, leading them to rely on UPI payments outside the app or, in majority of the cases, Cash. This disconnects the driver and the rider and creates friction, contributing to a preference for cash over digital payments, which remains a dominant choice.

If you prefer cash, what would encourage you to shift to online payment? (Select all that apply)

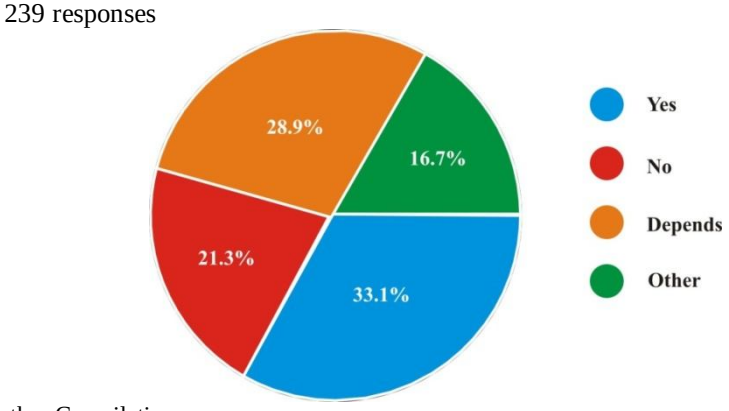


Source:- Author Compilation

Figure 3:- Cash Preference

Driver inclination towards cash also plays a role in influencing payment preferences. Several users reported that drivers often request UPI transfers outside the app by passing the official payment system of such apps. In many cases, the driver asks the rider to cancel the ride and go off-app for the ride. This behaviour undermines trust in the platform's payment options and fosters a continued reliance on cash. The ride-hailing sector could mitigate this by incentivising drivers to adhere to in-app payments and penalizing requests for off-platform payments, ensuring a uniform and trusted experience for users.

Would you prefer to use online payment methods over cash?



Source:- Author Compilation

Figure 4:- Cash Preference Over Online Payment

As shown in Figure 4, 33.1 percent of the respondents agreed that they would prefer to make an online payment over a cash payment. At the same time, 21.3 percent of the respondents do not prefer online payment over cash. The difference in the number is not too large, indicating that online payment methods are not as pervasive as businesses or the government would like.

Customer service related to payment issues is another crucial area to focus on, which 40.1 percent of users mentioned as an obstacle to using digital payments. Many users who face transaction failures report there is a lack of prompt support, which leads to feelings of frustration and hesitation in adopting digital payment methods. Improving customer service, especially one that focuses on resolving payment issues and improving payment efficiency, could increase confidence in using online payments.

Lastly, gaps were noted in the awareness and communication part, with 46.2 percent of users believing that the ride-hailing sector needs to put in more effort to raise awareness about the benefits of online payments. People believe in the importance of effective communication around the various advantages of going cashless, such as smoother rides, hassle-free payment experience and financial incentives, and this could shift more users toward digital payments from the cash-based payment options. Personalised rewards, which can be based on user behaviour and targeted offers for different age groups, particularly younger users who are more open to digital payments, could further drive adoption.

6. Conclusion

The findings of this study highlight key challenges that impede the adoption of digital payments in the Indian ride-hailing sector, particularly the use of UPI. Users frequently encounter issues such as inconsistent payment processing times and unreliable transaction experiences, deterring many from adopting digital methods. Additionally, a significant driver-customer mismatch exists regarding payment preferences, with drivers often favouring cash transactions over digital payments. This disparity contributes to a reliance on cash, further limiting the growth of digital payments within the sector.

Since the complexity of the reward system is a deterrent, according to the research findings, simplified, clear, and transparent rewards could encourage more users to adopt online payments. The respondents' concerns about the safety of digital payments are not unfounded, and measures need to be upped to gain their confidence. Though internet connectivity is widespread, the instability, especially while making payments, is a problem that needs to be rectified by educating people on the gravity of the matter and bettering the connectivity in all regions. Cash becomes the “go-to” method for users when sometimes the checkout process gets tedious, or the issues with digital wallets erupt. Cash reliance is further boosted when the cancellation fee (especially in the case of Uber/Ola) can be charged easily if payments are made via digital mode. The ride-hailing sector could incentivise the drivers who stick to digital

payments, ensuring a smooth experience for the users. The businesses with strong support in payment-related discrepancies would be the winners in the end.

Moreover, the lack of sufficient financial incentives for both customers and drivers discourages widespread digital payment adoption. Many users feel that the rewards and discounts offered by ride-hailing apps are not compelling enough, often obscured by complex terms and conditions. Tax avoidance and commission concerns also play a role, with drivers possibly opting for cash payments to circumvent fees. Addressing these gaps requires concerted efforts to streamline the payment process, increase transparency in incentive programs, and better align the preferences of both customers and drivers to foster a more seamless digital payment ecosystem in the ride-hailing sector.

7. Limitation of the Study

This research has seen various limitations which impacted the depth of the findings and insights drawn. This short period limited the ability to collect a wider and more diverse dataset, resulting in a sample size of fewer than 250 respondents, which affects the generalizability of the results. Some questions were not mandatory, so they were responded to by a lesser number of people. (but the number was still substantial to be included in the findings)

Furthermore, due to various logistical challenges, the study was not able to interact directly with drivers in the ride-hailing sector, leaving a gap for a better understanding of their perspectives on UPI adoption and usage. Such lack of insights from drivers, who are key stakeholders in the payment process, creates a partial view of the payment ecosystem in ride-hailing services, which results in a study that mainly reflects the consumer side of the experience without capturing the challenges or preferences from the drivers /service providers' side.

The study also follows a cross-sectional design, meaning data was collected at a single point in time. While this approach provides a snapshot of current attitudes and behaviours, it does not account for changes over time, which could have provided more dynamic insights into evolving digital payment trends. Additionally, the research faced a lack of existing literature on the specific topic of UPI adoption in the Indian ride-hailing sector, making it difficult to benchmark findings or build upon previous research. This limitation highlights the novelty of the research area but also presents challenges in developing a more robust theoretical framework.

These constraints, though limiting, provide a foundation for future research to build upon, with the hope of conducting longitudinal studies and incorporating a

wider range of perspectives, especially from drivers and other key players in the ride-hailing ecosystem.

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