

Choice of Payment Methods and Consumer Behaviour: Insights from Behavioural Economics

Dr. Gajendra Sahu

Assistant Professor, Department of Economics Banaras Hindu University (BHU), Varanasi, UP Email: <u>gajendra2025@gmail.com</u>

Abstract

This study examines the behavioural dynamics of payment method choices and their influence on consumer spending, with a focus on Indian university students in the context of digital financial transformation. Drawing from behavioural economics, the research explores how digital tools such as the Unified Payments Interface (UPI) alter consumer perceptions, emotional engagement, and impulse control. Using primary data from 238 students at Banaras Hindu University (BHU), the study applies descriptive statistics, t-tests, and logistic regression to evaluate behavioural responses across various expenditure categories. Results reveal a strong preference for UPI, with digital payments linked to reduced pain of paying, greater impulsivity, and weaker financial self-regulation compared to cash. Despite recognising these behavioural risks, students overwhelmingly trust UPI, suggesting cognitive dissonance between perceived ease and financial caution. The findings highlight the need for behavioural literacy in digital finance and provide empirical evidence to inform policy and educational strategies aimed at promoting responsible payment choices.

Keywords: Digital Payments, Consumer Behaviour, Behavioural Economics, UPI, Impulsive Spending, and Pain of Paying.

Introduction

In the context of rapid technological advancements, understanding consumer adoption of various payment methods and the behavioural implications of these choices on spending patterns has become increasingly important. The transition from barter systems and physical currency to credit cards and digital transactions represents not merely a technological evolution but also a significant shift in how individuals cognitively process and manage money (Maital, 1978; Thaler, 1985). Throughout the twentieth and early twenty-first centuries, financial systems have undergone substantial transformation. The emergence of credit and debit cards, followed by the growth of online banking and mobile payment technologies, has redefined the landscape of consumer transactions. In India, a pivotal moment in this trajectory occurred in 2016 with the launch of the Unified Payments Interface (UPI) by the National Payments Corporation of India. UPI facilitated instant money transfers through smartphones, thereby democratizing access to digital payments. By 2023, UPI had processed over 100 billion transactions, illustrating its widespread acceptance and sparking



international interest from countries such as France, Singapore, and the United Arab Emirates (Trivedi & Patel, 2020). These advancements have fundamentally altered the experiential aspect of spending. While cash payments involve a tangible exchange that reinforces awareness of expenditure, digital modes of payment often obscure this sensation. The diminished psychological salience of spending in cashless transactions tends to reduce spending inhibition, leading to increased impulsivity and a weaker perception of financial depletion (Thaler, 1985; Loewenstein & Prelec, 1992; Ariely, 2008). Empirical research supports this notion, showing that consumers are generally more inclined to spend higher amounts when using cards or mobile wallets compared to cash, owing to the abstract nature of digital payments (Prelec & Simester, 2001).

However, it is important to recognize that payment preferences and associated spending behaviours are heterogeneous and influenced by a range of demographic and socioeconomic variables. Age, education level, and digital proficiency play significant roles in determining an individual's likelihood to adopt digital payment methods. Younger individuals, for instance, who are generally more adept with smartphone technologies, tend to favor mobile-based payment systems. At the same time, this demographic may also display lower levels of financial self-discipline and budgeting practices (Jonker, 2007; Kumar, 2022). These behavioural tendencies have broader implications, potentially affecting household financial stability, savings patterns, debt accumulation, and overall macroeconomic dynamics (Turel & Serenko, 2010).

This paper explores the behavioural underpinnings of digital payment adoption and consumer spending, with a particular focus on India's rapidly evolving digital financial ecosystem. Integrating insights from behavioural economics, psychology, and marketing, the study seeks to understand how payment mechanisms influence consumption decisions, and why this knowledge is essential for policymakers, financial institutions, and educators striving to foster responsible financial behaviour.

Review of Literature

Understanding consumer spending behaviour in the digital age requires a departure from classical economic assumptions of rational decision-making. Behavioural economics provides a more nuanced framework by incorporating cognitive, emotional, and contextual factors into economic choices. As digital payment methods become increasingly embedded in everyday life, particularly through platforms such as India's Unified Payments Interface (UPI), it is critical to explore how these technologies interact with behavioural tendencies to shape consumer behaviour.

The theoretical foundation lies in Prospect Theory (Kahneman & Tversky, 1979), which explains why individuals experience losses more intensely than gains-a concept known as loss aversion. This has direct implications for payment behaviour, as cash transactions are perceived as more painful due to their tangible nature, whereas digital payments, such as



UPI, reduce this psychological barrier. Thaler's (1985) concept of mental accounting further explains how consumers mentally allocate funds into categories, which leads to inconsistent spending patterns. For instance, students may spend freely on entertainment while being frugal with necessities, depending on how their budgets are mentally framed.

The emotional salience of payment methods is also critical. Prelec and Simester (2001) demonstrated that digital and card-based payments reduce the psychological 'pain of paying,' often resulting in higher spending. Soman (2003) introduced the notion of payment transparency, highlighting that visible outflows of money (as with cash) restrain spending, while less transparent methods (such as digital payments) reduce self-control. Ariely (2008) emphasized that digital payments, by diminishing transaction salience, foster impulsive and irrational consumer choices.

Moreover, individual characteristics and environmental factors modulate these behavioural effects. Jonker (2007) and Kumar (2022) found that younger, tech-savvy consumers are more likely to adopt digital payment methods, but they may also exhibit lower financial self-regulation. Turel and Serenko (2010) associated the compulsive use of mobile technologies with impulsive financial decisions, indicating that ease of access may erode traditional behavioural checks.

Empirical studies on UPI adoption in India have largely focused on factors such as convenience, awareness, and satisfaction. However, most lack integration of behavioural constructs. For example, Trivedi and Patel (2020) observed increased digital spending post-demonetisation but did not analyse underlying psychological mechanisms. Similarly, Kumar (2022) and Malhotra (2023) reported a rise in impulsive buying among youth, yet empirical validation of behavioural drivers was limited. Other studies, such as those by Lalchhanhimi and Dev et al., noted changes in consumption patterns following UPI adoption but provided only anecdotal reference to behavioural concepts like emotional decoupling or mental accounting.

This review highlights a substantial research gap. Despite a growing body of work on digital payments in India, few studies empirically examine behavioural variables such as loss aversion, present bias, or payment salience. Additionally, little research has focused on semiurban or student populations, which are increasingly engaged in digital transactions. This study seeks to bridge this gap by applying behavioural economic theories to primary data from university students, thereby providing statistically grounded insights into the psychological dimensions of digital financial behaviour.

Methodology of the Study

This study employs a quantitative, descriptive research design to examine the impact of payment methods on consumer behaviour through a behavioural economics lens. Data were collected using a structured questionnaire distributed among 238 undergraduate and postgraduate students at Banaras Hindu University (BHU). The questionnaire covered three



areas: demographics, spending behaviour across 16 expenditure categories, and preferred payment methods (UPI, cash, card, or others), along with motivations behind these choices. Behavioural dimensions such as impulsivity, pain of paying, and mental accounting were measured using Likert-scale items inspired by established theories. Data were analysed using descriptive statistics, one-sample t-tests, Wilcoxon signed-rank tests, and binary logistic regression. This approach enabled an in-depth understanding of how psychological and contextual factors shape student preferences for digital versus traditional payment modes.

Results and Discussion

This study aimed to investigate how the choice of payment methods influences consumer spending behaviour through the lens of behavioural economics. Based on data from 238 students at Banaras Hindu University (BHU), the findings offer strong evidence that payment modalities-particularly digital systems like the Unified Payments Interface (UPI)-play a critical role in shaping not only how much students spend, but also how they perceive, evaluate, and regulate their financial decisions.

A central finding is the overwhelming preference for UPI across nearly all expenditure categories. Over 90% of students reported using UPI as their primary payment method, a figure that far exceeded the use of cash, cards, or other methods. This adoption is not merely technological-it reflects a behavioural transition. UPI's speed, convenience, and ubiquity in student life have rendered it not just a payment tool but a behavioural default. According to behavioural economics, when a choice becomes habitual and cognitively effortless, individuals tend to stick with it-a phenomenon known as status quo bias (Samuelson & Zeckhauser, 1988).

The analysis of average monthly expenditures reveals that students spend the most on essentials like mess food (₹2067.57), snacks (₹653.15), and groceries (₹623.27). Strikingly, even in these day-to-day, necessary expenses, UPI was the most frequently used payment method. This signals a deep behavioural anchoring in digital convenience. In discretionary categories such as clothing (₹718.46) and online shopping (₹705.61), UPI also led significantly, reinforcing its role not just in routine spending but also in spontaneous, emotion-driven purchases. From a behavioural economics standpoint, these patterns can be explained through several frameworks. One such concept is mental accounting (Thaler, 1985), which suggests that individuals mentally allocate money into specific categories-rent, food, entertainment-and treat these "accounts" differently. UPI apps, which provide spending summaries and digital receipts, may reinforce this mental categorization by making spending more trackable. However, this benefit is counteracted by another behavioural principle: the pain of paying (Prelec & Loewenstein, 1998). Digital payments, particularly UPI, reduce this pain because they decouple the physical act of payment from consumption.



With cash, the loss is felt immediately; with UPI, the payment feels almost frictionless, reducing emotional resistance to spending.

This was empirically supported by the Wilcoxon signed-rank test, which showed that students were significantly more impulsive when using UPI than when using cash (z = 4.119, p < 0.001). While only 20% of respondents admitted to impulsive buying when using cash, over 40% reported doing so with UPI. These findings validate the proposition that digital payment systems can exacerbate present bias-the tendency to favour immediate rewards over long-term benefits (Loewenstein & Prelec, 1992).

Likert-scale analysis further reinforced this interpretation. Students agreed with statements like "I often make impulsive purchases when using UPI" (mean = 3.76, p < 0.001) and "I am more aware of my spending when I pay in cash" (mean = 3.85, p < 0.001). The data show that the digital interface not only simplifies payment but also subtly alters cognitive control and financial awareness. A key behavioural mechanism here is decoupling, where the psychological cost of spending is detached from the consumption experience. Respondents strongly agreed (mean = 3.91, p < 0.001) that digital payments feel less painful than cash. Additionally, the statement "Using UPI doesn't feel like real money leaving the wallet" received a mean of 3.44, confirming a perceptual dissociation that encourages more relaxed spending behaviour. This aligns with Ariely's (2008) findings that reduced transaction salience can diminish self-regulation and increase the likelihood of indulgent spending.

Interestingly, despite awareness of these behavioural traps, students reported high levels of trust in digital platforms. Over 90% agreed that UPI is reliable for transactions, although some concerns over security and data privacy persisted (mean = 3.70, p < 0.001). This coexistence of trust and caution points to cognitive dissonance-a psychological state in which conflicting beliefs (trust vs. concern) exist simultaneously. Contrary to social proof theory, which posits that people adopt behaviours based on peer influence, this study found low peer pressure in payment adoption. Statements like "I use UPI because my friends do" had a low mean agreement score (2.38, p < 0.001). This suggests that UPI use is driven more by functional advantages (speed, ease, and habit) than by social conformity.

Finally, a binary logistic regression was employed to predict UPI preference based on behavioural scores, including impulsivity, pain of paying, trust, and convenience. The model did not produce statistically significant results, indicating that while behavioural traits strongly influence spending habits, they may not solely explain payment choice-especially when one method is near-universal. This finding underscores the role of default effects, where environmental and infrastructural factors dominate individual differences in shaping routine behaviours. In summary, this study confirms that the choice of payment method significantly impacts consumer behaviour, particularly through mechanisms such as reduced transaction salience, mental accounting, impulsivity, and decoupling. While UPI facilitates ease and tracking, it also encourages higher spending by diminishing the emotional impact



of transactions. These findings have critical implications for financial education, suggesting that users-especially students-need tools to enhance digital spending awareness and reinforce budgeting discipline in an increasingly cashless economy.

Conclusion

This study demonstrates that the method of payment is not a neutral medium of exchange but a powerful behavioural trigger that influences how consumers perceive, control, and execute spending decisions. Among students, the dominant use of UPI illustrates a behavioural shift toward convenience, habit, and speed-but at the cost of increased impulsivity and reduced financial salience. Behavioural economics concepts such as mental accounting, pain of paying, present bias, and decoupling offer clear explanatory value for these patterns. Although students are aware of potential overspending, digital payments continue to shape their routines, often without full cognitive engagement. These findings suggest that financial behaviour is shaped less by rational calculation and more by the design of the payment environment. As India advances toward a cashless economy, interventionssuch as educational tools, in-app nudges, and budgeting aids-must address the behavioural tendencies that digital systems both enable and exploit. A deeper understanding of these mechanisms is essential for promoting long-term financial well-being.

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