Impact of UPI Cashback and Rewards on the Spending Behaviour of Consumers

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Abstract

With the popularity of the Unified Payments Interface (UPI) has come a slew of cashback offers, reward points, discount coupons, scratch cards and referral rewards. This research investigates how consumers react to these incentives in terms of their spending behaviour. Primary data was gathered from the users of UPI by using a structured questionnaire with profile variables and statements on the Likert scale. Chi-square test of independence, one-way ANOVA with Tukey post hoc comparison and simple and multiple linear regression were used to analyse the data. The results indicate that cashback and reward features are positively and strongly related to spending behaviour, buying frequency and unplanned or impulsive purchases. Discounts/coupons, cashback attractiveness and the perception of cashback as a savings were significant factors in predicting spending behaviour in addition to the other individual features, with cashback attractiveness and discounts/coupons being the bigger of their impact, only cashback attractiveness remaining significant after direct control of the other individual features, while reward points and scratch cards were not significant after direct control of the other individual features. There were no significant differences among respondents based on age, gender, income or occupation, but there were significant differences on education and UPI usage frequency. Overall, the study finds that UPI incentives are significant behavioural factors to motivate consumption and recommends a prudent approach towards using such incentives by consumers, payment platforms, and policy makers.

Keywords: UPI, cashback, rewards, spending behaviour, impulse buying, digital payments, purchase frequency, consumer behaviour

1. Introduction

Digital payments have revolutionized the mode of payment for Indian consumers. Of them, the Unified Payments Interface (UPI), a brainchild of the National Payments Corporation of India (NPCI), has emerged as the top instant payment tool, as most users do not charge any fee for using it, and it is available 24×7 via mobile apps. Since UPI's evolution, payment apps and merchants have been vying for user base with various tie-ups, such as cashback, scratch cards, rewards, discounts, coupons, and referral or loyalty benefits. Such incentives influence the way consumers perceive the price they pay. It might be a little more appealing when there is a little bit of cashback offer or when there is a time-limited offer or scratch card. Previous studies of credit-card and digital payment rewards have found that they increase transaction volume, drive additional spending, spur impulse buying and, in some instances, decrease savings or increase debt. In parallel, incentives can aid the price-conscious consumer to shop around and achieve authentic value, even in inflationary times. With this background, the present study aims to examine the relationship between UPI cashback and rewards with consumers' spending behaviours, whether this will promote consumers to increase the frequency of their purchases and purchase behaviours, which reward features is more important, and whether the response of the consumers is influenced by their age, gender, marital status, and income level. The research method used

in this study is the primary data method, which is obtained from users of the UPI with a number of 120 people and tested using the Chi-square test and one-way ANOVA and linear regression.

2. Conceptual Framework

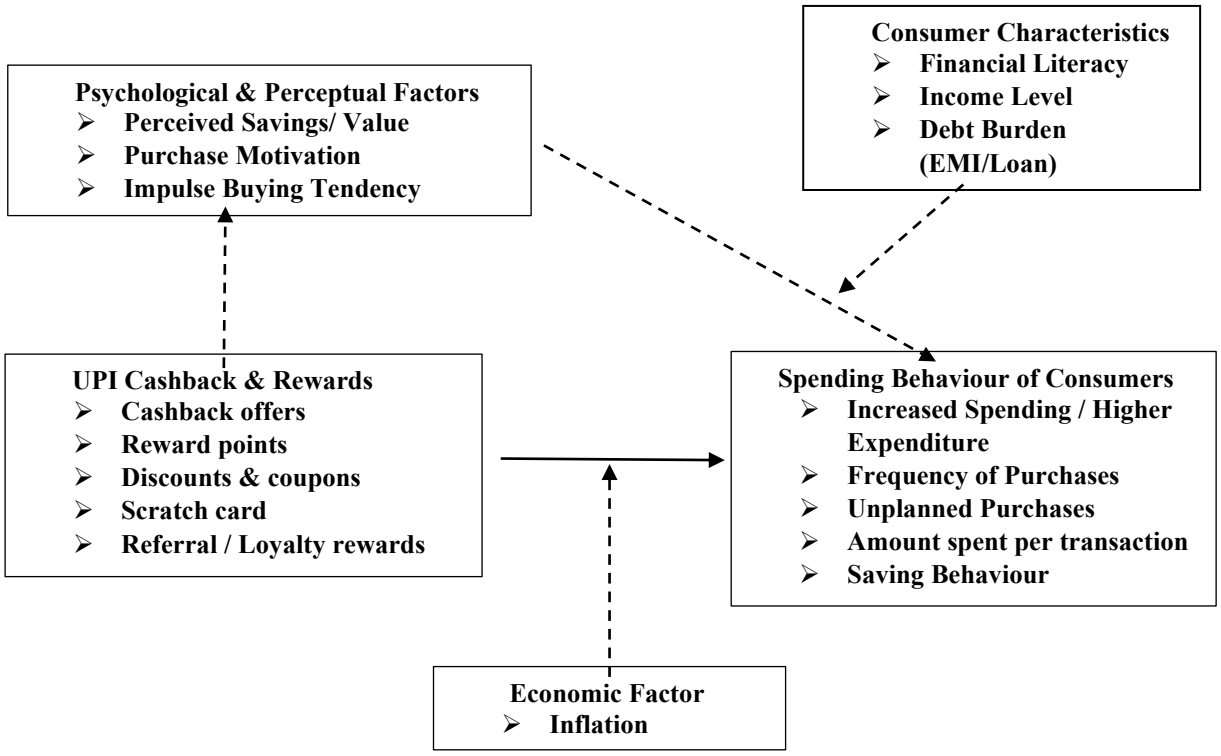


Figure 1. Conceptual framework of the study

3. Research Objectives

1. To understand how UPI cashback and rewards are related to the spending habits of consumers.
2. To examine if UPI cashback inspires consumers to make purchases more often.
3. To determine the effect of UPI rewards on consumers' decision to make unplanned or impulsive purchases.
4. To identify key cashback and reward elements influencing consumers' spending options.
5. To determine if there is any difference in the way consumers spend in response to UPI cashback and rewards based on factors like age, income, occupation and education.

4. Research Hypotheses

Null Hypothesis (H0-1): there is no significant relationship between UPI cashback and rewards and the spending habits of consumers.

Alternative Hypothesis (H1-1): In relation to the spending habits of consumers, there is a significant relationship between UPI cashback and the rewards.

Null Hypothesis (H0-2): UPI cashback does not significantly encourage consumers to make purchases more frequently.

Alternative Hypothesis (H1-2): UPI cashback is a significant factor promoting frequent customer buying.

Null Hypothesis (H0-3): UPI rewards do not significantly influence consumers to make unplanned or impulse purchases.

Alternative Hypothesis (H1-3): When UPI rewards are used more heavily, they have a significant effect on consumers' behavior of making unplanned/impulse purchases.

Null Hypothesis (H0-4): Main cashback and reward features have little to no impact on consumers' spending decisions

Alternative Hypothesis (H1-4): The major features of the cashback and rewards, have substantial influence over consumer spending actions.

Null Hypothesis (H0-5): The variables of age, income, occupation and education are not significant factors in determining the effect of UPI cashback and rewards on the consumers in the spending process.

Alternative Hypothesis (H1-5): Age, income, occupation and education have significant influence on the response of the consumers in their spending on UPI cashback and rewards.

5. Research Gap

Literature already points towards the fact that for cashback, rewards and digital payments, spending and purchase frequency are the factors which have been found to be influenced by the model.Existing literature indicates that cashback/rewards/digital payments tend to affect spending and purchase frequency, as well as impulse buying. Yet, there remains a lack of empirical Indian-specific research that isolates the effects of cashback and rewards as standalone variables and their direct effect on spending behaviour, in the current UPI and digital-payment context. This study thus tries to fill this gap by exploring the link between cashback/rewards and consumers' saving, spending and purchasing behaviour.

6. Review of Literature

Agarwal et al. (2026) studied the impact of cashback on credit card usage and debt. The study revealed that cashback led to higher spending and debt, especially for liquidity constrained and less financially literate consumers.

Han (2026) examined the effects of specific credit-card rewards on consumers' spending and attitudes. The results indicated that rewards generated higher amount of total spending, consumers underestimated their total spending, and they incurred more debt.

Kharbanda and Chawla (2025) examined the impact of digital-payment incentives on consumer spending, price sensitivity, and other aspects. The study showed that cashback drove more transactions and spending, with immediate more effective in driving behaviour.

Vana et al. (2018) investigated the impact of cashback following a purchase on subsequent spending. The study revealed that the delay of cashback led to both higher likelihood and total amount of subsequent purchases.

MacDonald and Evans (2020) theorized about the association between a cashback credit card and consumer spending. The study proposed that these cashback and minimum-spend motivational programs may stimulate further purchases, especially for those with “elastic demand.”

Rupwate (2026) examined the role of cashback and discounts on the consumer purchasing decision using digital-payment platforms. The report revealed that cashback had a significant impact on consumers' spending, choice of app, comparison of offers, and switching behaviour.

Patel (2026) examined the effect of cash-back on online buying behavior. The results showed that cashback influenced the decision to purchase, led to increased trial and repeat purchases, and was used more often than traditional discounts.

Lalwani (2026) studied the effect of digital payments on consumer spending behaviour. The research found that more speedy digital transactions and cashback bonuses can lead to increased spending habits and impulse buying.

Shakya (2022) studied the effect of cashback and reward programmes on the use of e-wallets. The study revealed that incentives facilitated the trial and short-term use, while trust, convenience and service quality affected long-term loyalty.

Ballestar et al. (2016) investigated consumer behaviour in cashback Web sites and the part of network strategies. The study identified the factors that impact consumers' engagement: transaction size, network structure and website navigation.

Shanker and Suri (2026) provide a review of behavioural mechanisms through which the digital-payment systems can affect consumer spending. They found that frictionless payments, cashback and loyalty programs can boost transaction volume and spending.

Maladkar and Shyam (2025) investigated the effect of digital-payment methods on consumer spending habits. The research revealed a link between digital payments and promotional offers with an easier spending and impulse buying, especially for younger and wealthier users.

Qiu and Rao (2020) explored the effect of cashback rebate websites on the loyalty of retailers and consumers. The study revealed that, with cashback, retailers get more loyal customers and fewer search costs, but sometimes more willing to pay.

Ching & Hayashi (2008) looked at how payment-card rewards affect consumers' payment decisions. Rewards were found to positively influence the use of reward-based payment methods, but had no significant impact on actual spending.

Kumar and colleagues (2026) explored the impact of digital payments on purchasing and consumer decision-making in India. The study revealed that frictionless payments and rewards can motivate consumers to make impulse purchases and affect their loyalty and ongoing usage.

Yoganandham and Elanchezhian (2024) reviewed the economic effects of cashback and discount credit card frauds. The study pointed out that practices which involve fraudulent cashback can lead to financial loss and loss of trust in digital-payment systems.

Ho et al. (2017) discussed online cashback shopping implications on consumers and e-business. The study found that there is a cashback paradox: sometimes the consumers pay more because they get a cashback.

Verma and Balasubramanian (2020) investigated the effect of digital payments on consumer spending behaviour. The results indicated that lower transaction friction would boost transaction frequency and impulse buying, and that the impact would differ by demographic segment and by self-control.

Vishwakarma et al. (2019) conducted an examination of cashback usage restrictions in online travel booking based on the goal-directed approach. The study revealed that cashback incentives had a significant impact on consumers' decision to use a travel application.

Ajaz and Jishamudheen (2026) studied the effect of UPI on the consumer spending behaviour and financial inclusion. The research revealed that UPI positively impacted the spending behaviour and cashback and rewards also had an impact on consumers' spending decisions

7. Research Methodology

7.1 Research design and data source

The study follows a descriptive and analytical research design based on primary data. Data were collected from 120 UPI users using a structured questionnaire. The sample was drawn through convenience sampling, and all 120 responses were complete and usable (no missing values).

7.2 Questionnaire and measurement

The questionnaire has two parts. Part A captures six profile variables: age group, gender, education, occupation, monthly income and UPI usage frequency. Part B contains twenty statements (Q1–Q20) measured on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). For analysis, the statements were grouped into four composite indices by taking the mean of the relevant items:

- **Cashback and Reward Index (CR):** Q1–Q7 (cashback attractiveness, rewards encouraging use, cashback as savings, reward points, discounts and coupons, scratch cards, loyalty/referral rewards).
- **Purchase Frequency Index (PF):** Q8 and Q9 (shopping more frequently due to offers; cashback encouraging additional purchases).
- **Unplanned/Impulse Buying Index (IMP):** Q10, Q11 and Q13 (unplanned purchases due to rewards; impulse purchases under time-limited offers; buying items not initially planned).
- **Spending Behaviour Index (SP):** Q12, Q14, Q15 and Q20 (higher spending per transaction, reduced perceived cost, rewards affecting spending decisions, overall increase in spending).

Items Q16 (comparing offers), Q17 (reduced saving), Q18 (inflation) and Q19 (financial literacy) were analysed as supporting items.

7.3 Statistical tools

The analysis was carried out in Microsoft Excel and verified with equivalent SPSS procedures (Crosstabs for the Chi-square test, One-Way ANOVA with Tukey post hoc and Levene's test, and Linear Regression). The following tools were used: (i) Cronbach's alpha for reliability; (ii) descriptive statistics and Pearson correlation; (iii) Pearson Chi-square test of independence with Cramér's V, using composite indices categorised as Low (≤ 3.00), Moderate (3.01–3.99) and High (≥ 4.00); (iv) one-way ANOVA with eta-squared and Tukey HSD; and (v) simple and multiple linear regression. A significance level of 5% ($\alpha = 0.05$) was used throughout.

8. Data Analysis and Interpretation

8.1 Demographic profile of respondents

Table 1: Demographic profile of respondents (N = 120)

Variable	Category	Frequency	Percentage
Age group	18–22	49	40.8%
	23–27	25	20.8%
	28–32	19	15.8%
	33–37	15	12.5%
	38+	12	10.0%
Gender	Male	67	55.8%

Variable	Category	Frequency	Percentage
	Female	50	41.7%
	Other	3	2.5%
Education	Diploma	15	12.5%
	Undergraduate	63	52.5%
	Postgraduate	34	28.3%
	Other	8	6.7%
Occupation	Student	55	45.8%
	Private Employee	27	22.5%
	Government Employee	6	5.0%
	Business/Self-employed	19	15.8%
	Other	13	10.8%
Monthly income	Below ₹20,000	25	20.8%
	₹20,001–₹40,000	33	27.5%
	₹40,001–₹60,000	24	20.0%
	₹60,001–₹1,00,000	28	23.3%
	Above ₹1,00,000	10	8.3%
UPI usage frequency	Daily	53	44.2%
	Several times a week	39	32.5%
	Weekly	18	15.0%
	Occasionally	10	8.3%

Source: Primary data.

Of the 120 respondents, 40.8% were aged 18–22 years and 55.8% were male. Undergraduates (52.5%) and students (45.8%) formed the largest groups. The largest income band was ₹20,001–₹40,000 (27.5%), and 44.2% of respondents used UPI daily, which indicates that the sample consists largely of young, frequent UPI users.

8.2 Reliability and descriptive statistics

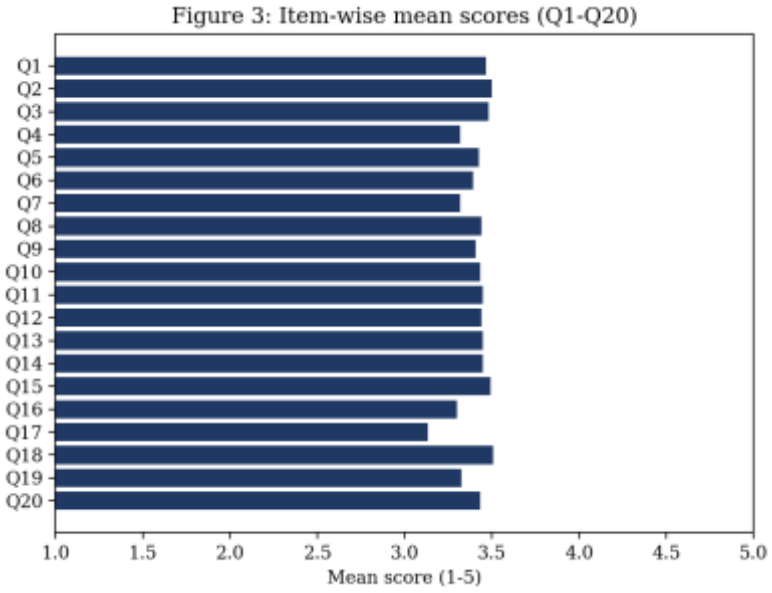
Table 2: Reliability and descriptive statistics of composite indices

Index	Items	Mean	SD	Min	Max	Cronbach's α
Cashback & reward index (CR)	7	3.41	0.72	1.43	4.71	0.824
Purchase frequency (PF)	2	3.42	0.80	1.00	5.00	0.480
Impulse buying (IMP)	3	3.44	0.86	1.00	5.00	0.779
Spending behaviour (SP)	4	3.45	0.72	1.00	5.00	0.706

Source: Primary data (SPSS/Excel). Cronbach's α for all 20 items = 0.927.

The overall 20-item scale is highly reliable (α = 0.927). The CR (α = 0.824), IMP (α = 0.779) and SP (α = 0.706) indices exceed the commonly used 0.70 threshold. The PF index has only two items and a lower alpha (0.480); its results should therefore be interpreted with caution. All four indices have means between 3.41 and 3.45, indicating a moderately

positive (agreeing) response to the influence of UPI incentives. Item-wise means ranged from 3.13 (Q17: cashback has reduced my saving) to 3.51 (Q18: inflation makes cashback more valuable), as shown in Figure 3.



Source: Primary data.

The Shapiro–Wilk test indicated that the composite indices depart from strict normality ($p < .05$), which is usual for Likert-type data; however, with $N = 120$ the parametric tests are reasonably robust, and the significant ANOVA results were confirmed with the non-parametric Kruskal–Wallis test (Section 8.4).

8.3 Chi-square test of independence

The Chi-square test was used to test whether the level (Low/Moderate/High) of the cashback and reward index is independent of the level of spending behaviour, purchase frequency and impulse buying (Hypotheses 1–3), and whether demographic variables are associated with high spending behaviour and high response to rewards (Hypothesis 5).

Table 3: Cross-tabulation of cashback & reward level and spending behaviour level

CR level \ SP level	Low	Moderate	High	Total
Low	23	11	3	37
Moderate	10	28	16	54
High	3	8	18	29
Total	36	47	37	120

Source: Primary data (SPSS Crosstabs).

Table 4: Chi-square tests (Hypotheses 1–3)

Cross-tabulation	χ^2	df	p-value	Cramér's V	Result
CR level × Spending level (H1)	38.32	4	< .001	0.40	H0 rejected
CR level × Purchase frequency level (H2)	35.32	4	< .001	0.38	H0 rejected
CR level × Impulse buying level (H3)	35.38	4	< .001	0.38	H0 rejected

Source: Primary data. No cell had an expected count below 5 in these tables.

Hypothesis 1: The association between cashback/reward level and spending behaviour level is statistically significant ($\chi^2(4) = 38.32$, $p < .001$), with a strong effect size (Cramér's $V = 0.40$). Respondents with a high response to cashback

and rewards were far more likely to report high spending: 18 of the 37 respondents in the high-spending category also had a high CR level, compared with only 3 of the 36 low-CR respondents. The null hypothesis H0-1 is rejected.

Hypothesis 2: Cashback/reward level is also significantly associated with purchase frequency ($\chi^2(4) = 35.32$, $p < .001$, $V = 0.38$), so H0-2 is rejected. Hypothesis 3: A significant association exists between reward level and unplanned/impulse buying ($\chi^2(4) = 35.38$, $p < .001$, $V = 0.38$), so H0-3 is rejected.

Table 5: Chi-square tests of demographic variables (Hypothesis 5)

Demographic variable	Spending (High vs Low/Mod): χ^2 (df)	p	V	Reward response (High vs Low/Mod): χ^2 (df)	p	V
Age group	3.06 (4)	.548	0.16	2.77 (4)	.596	0.15
Gender	0.03 (2)	.984	0.02	1.90 (2)	.388	0.13
Education	9.33 (3)	.025	0.28	5.02 (3)	.170	0.20
Occupation	1.33 (4)	.856	0.11	6.10 (4)	.192	0.23
Monthly income	2.08 (4)	.722	0.13	1.17 (4)	.884	0.10
UPI usage frequency	8.65 (3)	.034	0.27	1.01 (3)	.798	0.09

Source: Primary data. In several demographic cross-tabulations some expected cell counts were below 5 (up to 40% of cells), so these Chi-square results should be treated as indicative; the ANOVA in Section 8.4 provides a more robust test.

Education ($\chi^2(3) = 9.33$, $p = .025$, $V = .28$) and UPI usage frequency ($\chi^2(3) = 8.65$, $p = .034$, $V = .27$) were significantly associated with the proportion of respondents reporting high spending behaviour. Age, gender, occupation and monthly income showed no significant association with spending behaviour, and none of the demographic variables was significantly associated with a high response to cashback and rewards (all $p > .05$).

8.4 One-way ANOVA

One-way ANOVA was applied to test whether the mean scores of the four composite indices differ across the demographic groups (Hypothesis 5). Levene's test showed that the assumption of homogeneity of variance was satisfied in every case ($p > .05$).

Table 6: One-way ANOVA – F-values (p-values) by demographic factor

Factor	CR	PF	IMP	SP
Age group	1.00 (.412)	1.81 (.133)	0.58 (.675)	2.11 (.084)
Gender	0.33 (.723)	0.54 (.584)	0.71 (.495)	0.09 (.913)
Education	2.61 (.055)	1.36 (.258)	1.05 (.375)	2.78 (.044) *
Occupation	0.44 (.776)	1.11 (.354)	0.78 (.540)	0.24 (.918)
Monthly income	0.25 (.907)	0.46 (.764)	1.35 (.257)	0.60 (.662)
UPI usage frequency	2.68 (.050)	1.22 (.305)	4.74 (.004) *	4.27 (.007) *

*Source: Primary data (SPSS One-Way ANOVA). * significant at 5% level. CR = cashback & reward index; PF = purchase frequency; IMP = impulse buying; SP = spending behaviour.*

Table 7: Detailed ANOVA for significant effects

Dependent index	Factor	SS between	SS within	df	F	p	η^2
Impulse buying	UPI usage frequency	9.567	78.063	3, 116	4.74	.004	0.109
Spending behaviour	UPI usage frequency	6.139	55.609	3, 116	4.27	.007	0.099
Spending behaviour	Education	4.144	57.604	3, 116	2.78	.044	0.067

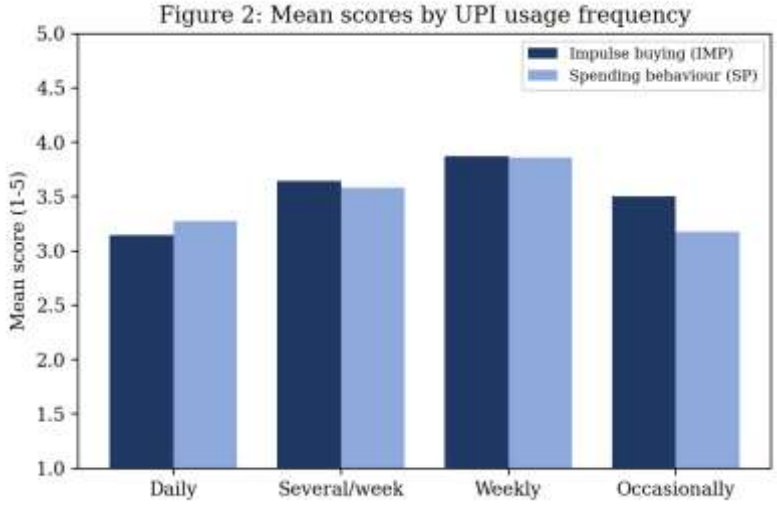
Source: Primary data.

Table 8: Group means (SD) for significant effects

Factor	Group	n	Impulse buying (IMP)	Spending (SP)
UPI usage frequency	Daily	53	3.14 (0.90)	3.27 (0.72)
	Several times a week	39	3.64 (0.70)	3.58 (0.62)
	Weekly	18	3.87 (0.79)	3.86 (0.52)
	Occasionally	10	3.50 (0.85)	3.17 (1.02)
Education	Diploma	15	–	3.38 (0.58)
	Undergraduate	63	–	3.33 (0.78)
	Postgraduate	34	–	3.57 (0.66)
	Other	8	–	4.03 (0.28)

Source: Primary data.

Figure 2: Mean scores by UPI usage frequency



Source: Primary data.

UPI usage frequency: Usage frequency had a significant effect on impulse buying ($F(3, 116) = 4.74$, $p = .004$, $\eta^2 = 0.109$) and on spending behaviour ($F(3, 116) = 4.27$, $p = .007$, $\eta^2 = 0.099$). Tukey HSD comparisons showed that weekly users (IMP M = 3.87) and users who use UPI several times a week (M = 3.64) scored significantly higher on impulse buying than daily users (M = 3.14; $p = .008$ and $p = .025$ respectively). For spending behaviour, weekly users scored significantly higher than daily users ($p = .012$). Thus, the most frequent users were not the most responsive to incentives; moderately frequent users appear more strongly influenced, possibly because daily users make many routine, need-based payments for which rewards play a smaller role.

Education: Education had a significant effect on spending behaviour ($F(3, 116) = 2.78$, $p = .044$, $\eta^2 = 0.067$). The Tukey test showed a significant difference only between respondents in the "Other" education category ($M = 4.03$, $n = 8$) and undergraduates ($M = 3.33$; $p = .046$). Because the "Other" group is very small, this result should be interpreted cautiously. The effect of education on the cashback and reward index was borderline ($F = 2.61$, $p = .055$).

Age (SP: $F = 2.11$, $p = .084$), gender, occupation and monthly income did not significantly differentiate any of the four indices. Age showed a weak tendency for respondents aged 33 years and above to report lower spending influence ($M = 3.10$–3.12) than those aged 18–32 ($M = 3.51$–3.61), but this difference did not reach significance. The non-parametric Kruskal–Wallis test supported the significant findings: impulse buying by usage frequency ($H(3) = 11.85$, $p = .008$), spending by usage frequency ($H(3) = 11.26$, $p = .010$) and spending by education ($H(3) = 8.74$, $p = .033$).

8.5 Linear regression analysis

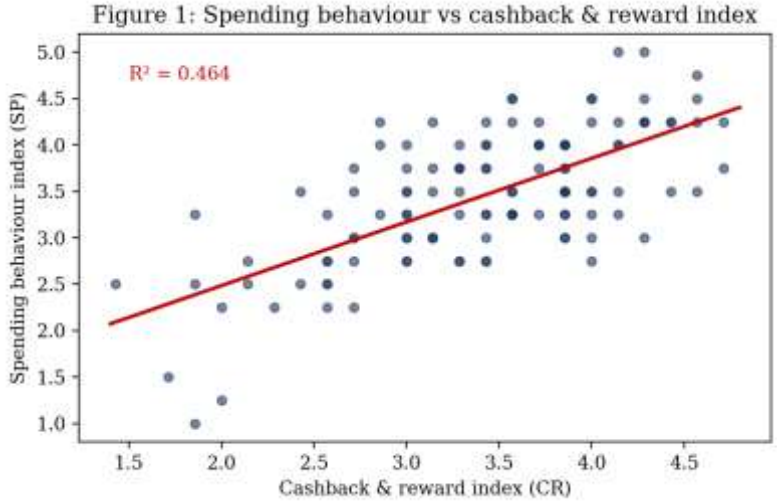
Simple linear regression was used to measure the effect of the cashback and reward index on spending behaviour, purchase frequency and impulse buying (Hypotheses 1–3), and multiple regression was used to identify which cashback and reward features (Q1–Q7) most strongly influence spending behaviour (Hypothesis 4).

Table 9: Simple linear regression with the cashback & reward index (CR) as predictor

Dependent variable	R	R^2	Adj. R^2	B	Beta	t	F (1, 118)	p
Spending behaviour (SP)	0.681	0.464	0.460	0.686	0.681	10.11	102.24	< .001
Purchase frequency (PF)	0.690	0.476	0.472	0.770	0.690	10.36	107.39	< .001
Impulse buying (IMP)	0.673	0.453	0.448	0.806	0.673	9.88	97.60	< .001

Source: Primary data (SPSS Linear Regression). Durbin–Watson = 1.77, 2.05 and 1.66 respectively, indicating no serious autocorrelation.

Figure 1: Spending behaviour vs cashback & reward index



Source: Primary data.

H1: The regression of spending behaviour on the cashback and reward index is significant ($F(1, 118) = 102.24$, $p < .001$). The index explains 46.4% of the variation in spending behaviour; each one-point increase in CR is associated with a 0.686-point increase in SP ($\beta = 0.681$). H0-1 is rejected.

H2: The index significantly predicts purchase frequency ($B = 0.770$, $\beta = 0.690$, $R^2 = 0.476$, $p < .001$), so H0-2 is rejected.
H3: The index significantly predicts unplanned or impulse purchases ($B = 0.806$, $\beta = 0.673$, $R^2 = 0.453$, $p < .001$), so

H0-3 is rejected. The correlation matrix (Table 10) also shows strong positive inter-relationships among all four indices (r = .62 to .70, all p < .001).

Table 10: Pearson correlation matrix of composite indices

	CR	PF	IMP	SP
CR	1	0.690	0.673	0.681
PF	0.690	1	0.677	0.622
IMP	0.673	0.677	1	0.699
SP	0.681	0.622	0.699	1

Source: Primary data. All correlations significant at p < .001.

Table 11: Multiple regression – effect of cashback/reward features on spending behaviour (SP)

Predictor	B	Std. error	Beta	t	p	VIF
(Constant)	0.995	0.242	–	4.11	< .001	–
Q1 Cashback attractive	0.169	0.060	0.231	2.84	.005 *	1.48
Q2 Rewards encourage use	0.053	0.057	0.080	0.94	.351	1.65
Q3 Cashback = savings	0.040	0.059	0.055	0.67	.503	1.50
Q4 Reward points	0.012	0.061	0.017	0.19	.850	1.84
Q5 Discounts/coupons	0.163	0.058	0.239	2.82	.006 *	1.60
Q6 Scratch cards	0.091	0.059	0.135	1.55	.124	1.69
Q7 Loyalty/referral	0.194	0.066	0.242	2.93	.004 *	1.52

*Source: Primary data. $R = 0.705$, $R^2 = 0.498$, Adjusted $R^2 = 0.466$, $F(7, 112) = 15.84$, $p < .001$; Durbin–Watson = 1.84. * significant at 5%.*

H4: The multiple regression model is significant ($F(7, 112) = 15.84$, $p < .001$) and explains 49.8% of the variance in spending behaviour (adjusted $R^2 = 0.466$). All VIF values are below 2, so multicollinearity is not a concern. Three features are significant predictors: loyalty/referral rewards (Q7, $\beta = 0.242$, $p = .004$), discounts and coupons (Q5, $\beta = 0.239$, $p = .006$) and the general attractiveness of cashback (Q1, $\beta = 0.231$, $p = .005$). Rewards encouraging UPI use (Q2), the perception of cashback as savings (Q3), reward points (Q4) and scratch cards (Q6) were not significant after controlling for the other features. H0-4 is therefore rejected: the main features affecting spending decisions are loyalty/referral rewards, discounts and coupons, and cashback attractiveness.

As a robustness check, the same model was run with the single overall statement Q20 ("Overall UPI rewards have increased my spending") as the dependent variable. The model was significant but weaker ($R^2 = 0.176$, $p = .002$) and no individual feature was significant, which is expected for a single-item outcome with greater measurement noise.

8.6 Supporting observations

Among the supporting items, the statement that inflation makes cashback more valuable obtained the highest mean (3.51), while the statement that cashback has reduced saving obtained the lowest (3.13), although it is still above the neutral mid-point. Comparing offers before payment (Q16, mean 3.30), inflation (Q18) and financial literacy (Q19) were all positively correlated with the spending behaviour index (r = .56, .49 and .40 respectively), suggesting that offer-conscious consumers are also those who report being influenced to spend more.

9. Summary of Hypothesis Testing

Table 12: Summary of hypotheses

Hypothesis	Tests applied	Key statistics	Decision
H0-1: No relationship between UPI cashback/rewards and spending habits	Chi-square; simple regression	$\chi^2(4) = 38.32$, $p < .001$; $R^2 = 0.464$, $\beta = 0.681$	Rejected
H0-2: Cashback does not encourage more frequent purchases	Chi-square; simple regression	$\chi^2(4) = 35.32$, $p < .001$; $R^2 = 0.476$	Rejected
H0-3: Rewards do not influence unplanned/impulse purchases	Chi-square; simple regression	$\chi^2(4) = 35.38$, $p < .001$; $R^2 = 0.453$	Rejected
H0-4: Cashback/reward features do not affect spending decisions	Multiple regression	$R^2 = 0.498$, $F = 15.84$, $p < .001$; Q1, Q5, Q7 significant	Rejected
H0-5: Age, income, occupation and education do not affect response	Chi-square; one-way ANOVA; Kruskal–Wallis	Education significant (SP: $F = 2.78$, $p = .044$); age, income, occupation not significant ($p > .05$)	Partially rejected (education only)

Source: Primary data analysis.

10. Major Findings

1. UPI cashback and rewards have a strong, positive and statistically significant relationship with consumer spending behaviour; the cashback and reward index alone explains about 46% of the variance in spending behaviour.

2. Cashback and rewards greatly promote more frequent purchases ($R^2 = 0.476$) and unplanned or impulse purchases ($R^2 = 0.453$); the higher the reward response, the higher the tendency for respondents to purchase more frequently and unplanned or impulsively.

3. Reward points and scratch cards did not have an independent significant effect, whilst loyalty/referral rewards, discounts and coupons were the most influential.

4. Education and frequency of use of UPI are important factors that impact respondents' answer to the questions of rewards, whereas age, gender, income and occupation are not. Those who use the device several times per week or weekly are more prone to being 'impulsive' than those who use it daily.

5. On average, consumers believe that cashback is more valuable during periods of inflation, and think it lowers the cost of their purchases; they report a mild belief that cashback lowers their saving.

11. Discussion

The positive relationship between cashback, rewards and higher spending, higher purchase frequencies and impulse buying is in line with previous researches on digital-payment incentives (Kharbanda and Chawla, 2025; Lalwani, 2026; Kumar et al., 2026) and cashback in card and online contexts (Agarwal et al., 2026; Vana et al., 2018). Discounts, coupons and loyalty/referral rewards are important as it has been found that tangible incentives that can be easily understood affect the likelihood of trial, repurchase, and platform choice (Patel, 2026; Rupwate, 2026). The lack of significant differences in the age and income and occupation groups imply the effects of incentives are not limited to any particular group of consumers in this sample, as has been found in some studies which found that younger and higher

income consumers scored higher (Maladkar and Shyam, 2025). Directionally, the lower scores among older consumers here indicate a weaker pattern, although it was not significant.

Due to the cross-sectional nature of the data and the self-reported nature of the items, results showed association but cannot be interpreted as cause-and-effect, and the high correlation between the indices may have been partly due to the fact that the items were all reported by the same subjects at the same time.

12. Suggestions and Implications

As a consumer: regard cashback as a bonus and not a mechanism to purchase; shop around for the best overall price, budget the purchase and don't purchase just to hit a target.

Payment platforms and merchants: loyalty/referral rewards, discounts and coupons are the most effective levers; platforms should have offers that can foster long-term trust and avoid offers that can lead to overspending.

For policy makers and teachers: financial-literacy programmes should also include behavioural considerations of digital incentives, and terms of offers should be clearly disclosed.

13. Limitations and Scope for Future Research

Convenience sampling was used which restricts generalisability and limited the study to 120 respondents. It is largely composed of young students and undergraduates, and some groups of students (such as “Other” education and “Other” gender) are very small, with the purchase-frequency index based on just two items. Responses are subjective perceptions and not actual transaction data. Future studies may utilize a larger, probability-based sample, transaction level data, structural equation modelling, and investigate moderating effects of financial literacy and inflation and debt burden.

14. Conclusion

The aim of this study was to investigate the effect of UPI cashback and rewards on consumer spending behaviour. The Chi-Square tests and ANOVA and regression analyses combined indicate that cashback and rewards are significantly and strongly related to increased spending, increased frequency of purchase and unplanned/impulse buying. There are some attributes that account for most of the spending, such as the loyalty/referral rewards, discounts, coupons, and cashback attractiveness, while the differences in demographic spending are mostly about education and the frequency of using UPI. This means that UPI incentives can be considered a very effective behavioural nudge that would benefit platforms and merchants as well as create real value for consumers, but would also have the downside of potentially resulting in excess spending and/or lesser saving. Responsible offer design is crucial for offer providers and informed and disciplined usage of rewards is crucial for consumers.

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