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Digital Payment and Spending Pattern: A Study among Young Consumers in Nepal

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Abstract

This study examines the relationship between digital payment system (DPS) usage and spending pattern among 179 young Nepalese consumers, using a positivist, descriptive and causal-comparative research design with a cross-sectional time horizon, a quantitative approach, and convenience sampling. Data on five constructs Ease of Transactions, Financial Tracking, Rewards and Cashback, Bill Payment, and Spending Pattern were analysed using Kendall's tau_b correlation and multiple linear regression in SPSS. Respondents were predominantly young, female, and frequent DPS users. Ease of Transactions showed the strongest positive correlation with spending pattern, while Financial Tracking and Bill Payment showed no significant association. The regression model was significant, $F(4,174) = 34.080$, $p < .001$, explaining 43.9% of variance in spending pattern. Ease of Transactions was the strongest positive predictor (Beta = .695, $p < .001$), while Financial Tracking was a significant negative predictor (Beta = -.212, $p = .003$). No multicollinearity or autocorrelation was detected. Convenience is the primary driver of spending, while tracking tools appear to restrain it.

Keywords: digital payment systems; spending pattern; ease of transactions; financial tracking; rewards and cashback; bill payment.

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Introduction

The rapid diffusion of smartphones, internet connectivity, and fintech infrastructure has fundamentally altered the way individuals make payments and manage money. Digital payment systems (DPS) including mobile wallets, mobile banking applications, QR-based payments, and internet banking have moved from being a convenience to becoming a mainstream mode of financial transaction, particularly among younger generations who have grown up with digital technology (Sivathanu, 2019). In the Nepalese context, the adoption of platforms enabling QR payments, mobile wallets, and online banking has expanded significantly over the past few years, driven by increased smartphone penetration, government promotion of a cashless economy, and the growing availability of merchant acceptance points (Dawadi, Pokhrel, & Ghimire, 2026).

As digital payments become embedded in daily life, an important question arises: does the ease and immediacy of digital transactions influence how much and how often people spend? Traditional cash-based transactions impose a natural friction physical handling of money that can act as a psychological brake on spending. Digital payments remove much of this friction, potentially altering consumers' spending patterns, budgeting behaviour, and financial discipline (Faraz & Anjum, 2025). This study investigates this relationship by examining how dimensions of digital payment system usage ease of transactions, financial tracking capability, rewards and cashback incentives, and bill payment convenience relate to and predict the spending pattern of young consumers.

While digital payment systems offer clear benefits in terms of speed, convenience, and accessibility, there is a growing concern that the reduced friction associated with digital transactions may encourage impulsive or excessive spending, particularly among younger and financially inexperienced users such as students (Khando, Islam, & Gao, 2022). At the same time, some features embedded within digital payment platforms such as transaction tracking and spending summaries are designed to promote financial awareness and potentially curb overspending. There is limited empirical evidence, particularly in the Nepalese context, on which specific dimensions of digital payment system usage most strongly influence spending pattern, and in which direction. This study addresses this gap by empirically testing the relationship between four dimensions of digital payment system usage and spending pattern among 179 young consumers.

Objectives of the Study

The general objective of this study is to examine the relationship between digital payment system usage and

- To examine the relationship between ease of transactions, financial tracking, rewards and cashback, bill payment, and spending pattern.
- To determine the extent to which ease of transactions, financial tracking, rewards and cashback, and bill payment predict spending pattern.

Significance and Limitations

The findings are expected to benefit fintech companies and banks in designing features that balance convenience with responsible spending, policymakers concerned with digital financial literacy, and researchers seeking a contextual, quantitative understanding of digital payment behaviour among young consumers in Nepal. The study is, however, based on a convenience

sample of 179 respondents and a cross-sectional design, which limits statistical generalizability and precludes causal inference; findings also rely on self-reported data that may be subject to social desirability and recall bias.

Literature Review

Digital payment systems refer to electronic modes of transferring value that eliminate or reduce the need for physical cash, encompassing mobile wallets, QR code payments, mobile and internet banking, and card-based digital transactions (Islam & Ferrer, 2025). These systems are generally characterised by speed, accessibility, and reduced transactional friction compared to cash. Spending pattern, in turn, refers to the manner, frequency, and extent to which individuals allocate their income or available funds towards consumption, shaped by psychological, social, and situational factors including the payment method used, as the perceived 'pain of paying' associated with a transaction can influence how readily an individual parts with money (Batham, Arora, & Gupta, 2025).

Ease of transactions captures the perceived convenience, speed, and simplicity of completing a payment using a digital platform; greater ease is generally associated with more frequent and habitual use of a payment method (Samuel, Ruban, Parayitam, & Cristofaro, 2026). Financial tracking refers to the extent to which a digital payment platform enables users to monitor, record, and review their transactions and spending history, which is theorised to support budgeting and financial self-control. Rewards and cashback refer to monetary or non-monetary incentives offered by digital payment providers to encourage usage, which may influence both the choice of payment method and the volume of transactions undertaken (Allen, Carbo-Valverde, Chakravorti, Rodriguez-Fernandez, & Pinar Ardic, 2022). Bill payment reflects the convenience of using a digital platform to settle recurring obligations such as utility bills, subscriptions, and other scheduled payments, which forms a substantial share of routine household and personal expenditure.

Much of the existing discussion around digital payments and consumer behaviour has emphasised adoption drivers such as perceived usefulness, trust, and security, with comparatively less quantitative attention paid to how specific functional dimensions of digital payment platforms ease, tracking, rewards, and bill payment jointly predict actual spending pattern, particularly among the youth and student population in Nepal. This study addresses this gap through a quantitative, cross-sectional investigation using correlation and multiple regression analysis.

Research Methodology

This study adopts the positivist research philosophy, which assumes that social and behavioural phenomena, such as spending pattern, can be objectively measured and analysed through observable, quantifiable data. A descriptive and causal-comparative research design was employed: the descriptive component profiles respondents' demographic characteristics and digital payment usage, while the causal-comparative component examines the extent to which digital payment dimensions are associated with, and predictive of, spending pattern. The study follows a cross-sectional time horizon, with data collected at a single point in time, and adopts a quantitative research approach relying on numerical data analysed through descriptive and inferential statistics.

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The sample comprised 179 respondents selected using the convenience sampling method, a non-probability technique in which respondents are selected based on ease of accessibility and willingness to participate. Data were collected using a structured, self-administered questionnaire covering demographic information (age, gender, employment status), frequency of digital payment system use, and Likert-scale items measuring the five study constructs: Ease of Transactions, Financial Tracking, Rewards and Cashback, Bill Payment, and Spending Pattern. Collected data were analysed using SPSS. Descriptive statistics (frequency, percentage, mean, standard deviation, skewness, and kurtosis) summarised the demographic profile and variable distributions, while inferential statistics Kendall's tau_b correlation and multiple linear regression tested the relationships and predictive influence among variables. Diagnostic tests, including the Durbin-Watson statistic, tolerance, VIF, and residual diagnostics, verified that regression assumptions were satisfied. Participation was entirely voluntary, and informed consent was obtained from all respondents; confidentiality and anonymity were assured throughout.

Results and Discussion

Demographic Profile of Respondents

Table 1: Age of Respondents

Age	Frequency	Percent
16-20	65	36.3
21-25	72	40.2
26-30	26	14.5
31-35	8	4.5
36-40	8	4.5
Total	179	100.0

Table 2: Gender of Respondents

Gender	Frequency	Percent
Male	74	41.3
Female	102	57.0
Other	3	1.7
Total	179	100.0

Table 3: Employment Status of Respondents

Employment Status	Frequency	Percent
Student	65	36.3
Student and working	72	40.2
Employed	26	14.5
Self-employed	8	4.5
Unemployed	8	4.5
Total	179	100.0

Table 4: Frequency of Use of Digital Payment Systems

Use of DPS	Frequency	Percent
Daily	58	32.4
Few times in a week	66	36.9
Few times in a month	44	24.6
Rarely	11	6.1
Never	0	0.0
Total	179	100.0

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Tables 1-4 show that the majority of respondents fall within the 21-25 (40.2%) and 16-20 (36.3%) age groups, are predominantly female (57.0%), and are mostly students or working students (76.5% combined). Digital payment use is near-universal and frequent: 69.3% of respondents use digital payment systems daily or a few times a week, and no respondent reported never using them, confirming that the sample largely reflects a young, digitally active population.

Descriptive Statistics of Study Variables

Table 5: Descriptive Statistics

Variable	Mean	Std. Dev.	Skewness	Kurtosis
Ease of Transactions	3.8849	.89439	-1.399	1.679
Financial Tracking	3.3642	.87747	-.761	.417
Rewards & Cashback	2.8045	.92042	-.246	-.803
Bill Payment	3.6302	.86127	-1.024	1.227
Spending Pattern	3.4022	1.10962	-.579	-.707

Ease of Transactions recorded the highest mean score (M = 3.88, SD = 0.89), indicating that respondents generally perceive digital payment systems as convenient and easy to use, followed by Bill Payment (M = 3.63), Spending Pattern (M = 3.40), and Financial Tracking (M = 3.36). Rewards and Cashback recorded the lowest mean (M = 2.80), suggesting incentive-based features are perceived comparatively less favourably. Negative skewness for several variables indicates responses concentrated toward the higher end of the scale; given the ordinal, Likert-scale nature of the data, the non-parametric Kendall's tau_b was used for correlation analysis.

Correlation Analysis

Table 6: Kendall's tau_b Correlation Matrix

Variable	Ease	Tracking	Rewards	Bill	Pattern
Ease of Transactions	1.000	.225**	.184**	.239**	.462**
Financial Tracking	.225**	1.000	.379**	.362**	.041
Rewards & Cashback	.184**	.379**	1.000	.355**	.142**
Bill Payment	.239**	.362**	.355**	1.000	.094
Spending Pattern	.462**	.041	.142**	.094	1.000

Note: ** Correlation is significant at the 0.01 level (2-tailed).

Ease of Transactions shows a moderate, positive, and highly significant correlation with Spending Pattern ($\tau = .462$, $p < .001$), the strongest association among all predictors. Rewards and Cashback shows a weak but significant positive correlation with Spending Pattern ($\tau = .142$, $p = .008$), while Financial Tracking ($\tau = .041$, $p = .451$) and Bill Payment ($\tau = .094$, $p = .080$) show non-significant associations. All predictors are significantly intercorrelated ($p < .01$), as expected for related dimensions of the same digital payment experience.

Multiple Regression Analysis

Table 7: Model Summary

Model	R	R Square	Adj. R Square	Std. Error	Durbin-Watson
1	.663a	.439	.426	.84039	2.088

Table 8: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	96.276	4	24.069	34.080	.000
Residual	122.888	174	.706		
Total	219.164	178			

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Table 9: Regression Coefficients

Model	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	.900	.341	-	2.640	.009	-	-
Ease of Transactions	.863	.084	.695	10.299	.000	.707	1.415
Financial Tracking	-.267	.088	-.212	-3.029	.003	.661	1.513
Rewards & Cashback	.149	.090	.124	1.667	.097	.584	1.712
Bill Payment	-.102	.098	-.079	-1.035	.302	.555	1.800

The regression model is statistically significant, $F(4, 174) = 34.080$, $p < .001$, and explains 43.9% of the variance in Spending Pattern (Adjusted $R2 = .426$). The Durbin-Watson statistic (2.088) indicates no significant autocorrelation among residuals. Ease of Transactions is the strongest positive predictor of Spending Pattern (Beta = .695, $p < .001$): greater perceived ease of use is associated with substantially higher spending pattern scores. Financial Tracking is a significant negative predictor (Beta = -.212, $p = .003$), consistent with tracking features promoting financial discipline despite showing no significant bivariate correlation with spending pattern indicative of a suppression effect once shared variance with other predictors is controlled for. Rewards and Cashback ($p = .097$) and Bill Payment ($p = .302$) are not significant independent predictors. All tolerance values exceed 0.10 and VIF values remain below 2 (Table 9), confirming the absence of problematic multicollinearity.

Table 10: Collinearity Diagnostics

Dimension	Eigenvalue	Condition Index
1	4.857	1.000
2	0.062	8.863
3	0.037	11.485
4	0.023	14.379
5	0.021	15.136

Table 11: Residual Diagnostics

Statistic	Value
Sample Size (N)	179
Standardized Residual (Min)	-3.836
Standardized Residual (Max)	2.029
Studentized Deleted Residual (Min)	-4.091
Studentized Deleted Residual (Max)	2.085
Maximum Cook's Distance	0.132
Maximum Mahalanobis Distance	16.612
Maximum Centered Leverage Value	0.093

Condition indices remain well below the critical threshold of 30, corroborating the absence of multicollinearity. The maximum Cook's Distance (0.132) is well below the threshold of 1, and centered leverage and Mahalanobis distance values are within acceptable bounds, indicating that no single case unduly influences the regression results, notwithstanding one relatively extreme standardized residual (-3.836) that may warrant case-wise inspection.

Discussion

The finding that Ease of Transactions is the strongest predictor of Spending Pattern (Beta = .695, $p < .001$) is broadly consistent with prior empirical work on digital payments and consumer behaviour. Bhoopathy and Kanagaraj (2023) similarly reported that the convenience

of digital wallets and online payments reshapes how consumers transact, while Faraz and Anjum (2025), through their "Spendception" construct, demonstrated that the reduced visibility and perceived ease of digital payments lower consumers' psychological resistance to spending and increase purchase behaviour, partly through impulse buying. Saxena (2025) likewise found a positive relationship between digital payment adoption and household spending in the Indian context. The present study's results reinforce this line of evidence: among young Nepalese consumers, the perceived ease of completing a digital transaction appears to be the single most influential factor shaping spending pattern, lending support to the broader argument that reduced transactional friction is a key mechanism linking digital payments to changes in consumption behaviour.

The significant negative relationship between Financial Tracking and Spending Pattern found in this study offers a more nuanced picture than some prior work. Bhoopathy and Kanagaraj (2023) argued that the ability to monitor transactions in real time increases financial awareness and helps reduce impulsive spending, a mechanism that aligns with the present study's finding that greater use of tracking features is associated with comparatively lower spending pattern scores once other variables are controlled for. Shah, Hassan and Khan (2026) similarly highlighted that digital financial literacy moderates the relationship between payment methods and spending behaviour, suggesting that tools and skills which increase visibility into one's finances can counteract the overspending tendencies otherwise encouraged by convenient payment methods. At the same time, this finding departs from other review-based evidence noting that budget-tracking features can paradoxically increase or decrease spending depending on the user's underlying goals, and from the impulse-buying emphasis of Faraz and Anjum (2025), which did not identify tracking as a countervailing mechanism. Taken together, the present results add weight to the view that financial tracking functions as a restraining rather than an enabling factor, at least within a young, digitally engaged population.

The non-significant contribution of Rewards and Cashback and of Bill Payment in the regression model, despite their significant bivariate correlations with Spending Pattern, is a less commonly isolated finding in the literature, which has tended to treat incentive features and payment convenience as generally positive influences on spending without disentangling their unique contribution from that of ease of use. This pattern suggests that, in the present sample, the apparent influence of rewards and routine bill payment convenience on spending is largely absorbed by their shared variance with Ease of Transactions, rather than representing independent drivers of behaviour.

Finally, the demographic profile of this study predominantly young, female, and student-oriented resonates with the systematic review evidence indicating that younger generations, particularly Millennials and Gen Z, tend to spend more due to the ease of digital transactions. However, the results contrast with Seldal and Nyhus (2022), who found in a representative Norwegian sample that mobile payment users were, if anything, less financially vulnerable than nonusers, and that this was not significantly related to digital payment use itself, with younger age and low financial literacy being the stronger predictors of vulnerability. This contrast suggests that the relationship between digital payment convenience and spending behaviour may be shaped by contextual factors such as financial literacy levels, income stability, and the maturity of a country's digital payment ecosystem, and that findings from a

young, student-dominated sample in Nepal should not be generalized uncritically to more financially experienced or older populations in other national contexts.

Conclusion and Recommendations

This study examined the relationship between digital payment system usage and spending pattern among 179 young consumers in Nepal. Digital payment use was found to be near-universal within this population, and spending pattern was significantly and substantially predicted by the ease of transactions offered by digital payment platforms. The regression model, comprising Ease of Transactions, Financial Tracking, Rewards and Cashback, and Bill Payment, explained approximately 43.9% of the variance in spending pattern, with Ease of Transactions and Financial Tracking emerging as the only significant predictors operating in opposite directions. These findings support the proposition that the convenience of digital payments can meaningfully influence consumer spending behaviour, while highlighting the potential for financial tracking features to serve as a countervailing force promoting financial discipline.

- Digital payment providers should continue investing in transaction simplicity while strengthening in-app financial tracking and spending-summary features to support responsible financial behaviour.
- Financial institutions and educators should incorporate digital financial literacy programmes targeted at students and young consumers, emphasising available budgeting and tracking tools.
- Policymakers should encourage default features such as spending alerts and periodic summaries that nudge users toward mindful spending.
- Future studies should employ probability-based sampling and longitudinal designs, and explore the suppression effect of financial tracking on spending pattern using mediation or moderation analysis.

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Declarations

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