



Factors Affecting Customers' Motivation to Online Payment Systems in Bharatpur Metropolitan City

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Abstract

Understanding the factors influencing online payment practices among undergraduate students in Nepal is imperative due to the country's dependence on digital transactions and the changing financial technology landscape. This study aims to elucidate these factors in Bharatpur Metropolitan City, Chitwan District. This study seeks to comprehensively understand the opinions and experiences of undergraduate students regarding online payment practices by utilizing a quantitative approach. The sample population will consist of Two Hundred and Ten (N = 210) undergraduate students enrolled in BMC. The random sampling method is used to select the sample population. The ethical issues of this study were carefully considered during this research process.

This study highlights mixed opinions on the usability and security of online payment platforms. Respondents expressed disbelief about users' experience with payment systems' transparency and security measures. Factors such as trust, service quality, and transaction fees shape online payment adoption, with some respondents voicing concerns about platform security and the adequacy of customer service. The findings of this study are expected to show associations between two factors and their impact on online payment practices. Key factors under examination include user experience, transaction fees, and user experiences in online payment systems.

The implications of this study are far-reaching and extend to educational institutions, higher level students, researchers, organizational leaders, educators, new researchers, managers and young researchers alike. Insights gleaned from the study can inform policy decisions, academic interventions, and industry practices aimed at enhancing online payment practices and promoting financial literacy among undergraduate students in Nepal.

Keywords: *Bharatpur Metropolitan City, factors influencing, implications, online payment practices, online payment, undergraduate students.*

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Introduction

New technologies have introduced various financial innovations, expanding and enhancing the financial system's reach, speed, and convenience. Mobile banking, also known as m-payment, m-transfer, and m-finance, encompasses applications that enable individuals to manage their bank accounts, link their accounts to mobile devices, transfer funds, and access credit and financial products electronically (Yang & Wu, 2013, Zhang & Wang, 2011). Mobile banking is a crucial platform for developing nations to stimulate economic growth and foster economic integration (Gunanto & Widyaputri, 2023; Dias et al., 2022). Furthermore, online payment stands as a potential competitive edge for companies operating in the retail industry. This is because it offers many advantages for both customers and sellers. In this research, it provides many advantages for both students and different organizations during their financial transactions. From the customer's perspective, online payment in retail outlets streamlines the payment process, furthers services, and diminishes the necessity of carrying physical currency. For merchants, online payment facilitates automation, allowing for swift collection of data and generation of reports, encompassing aspects such as daily revenues and expenditures, average customer expenditure per Transaction, and more (Asian Development Bank, 2023). Given these benefits mentioned above, businesses are increasingly motivated to strengthen their operations by integrating online payment services within their institutions.

The payment system is crucial for economic development, as recognized by the NRB Act, 2002 in Nepal. Establishing the Payment System Department at Nepal Rastra Bank (NRB) and formulating the Nepal Payment System Development Strategy (NPSDS) marked significant progress in ensuring a secure and efficient payment system. Regulatory measures such as the Licensing Policy, Payment and Settlement Act, and Bylaw have further enhanced the regulatory framework, facilitating the licensing of various institutions like PSPs, PSOs, commercial banks, development banks, and finance companies (Davis, 2023, Lee & Kim, 2018, Nepal Rastra Bank, 2023).

The payment system has expanded consumer options for electronic payments, promoting digital payments in the country (Nepal Rastra Bank, 2021). The emergence of ICT and Fintech has revolutionized payment systems globally, including in Nepal. The transition to digital payments has led to faster, more efficient, and cost-effective payment methods for individuals and organizations (Agarwal Malik & Gautam, 2022; Li & Zhang, 2012). In Nepal, the adoption of digital payment systems has witnessed significant growth, evidenced by data from Nepal Rastra Bank (Nepal Rastra Bank, 2021). Platforms such as PSOs, IPS, connectIPS, Mobile Banking, Internet Banking, Wallets, and QR Codes have facilitated quick and secure consumer payments. The significant rise in digital transactions, soaring from NPR 712 billion in 2018 to NPR 1,559 billion in 2019, underscores the growing preference for digital payments, as noted by Shrestha (2021).

Companies like e-Sewa and IME Pay have contributed significantly to this trend by simplifying digital transactions and enhancing accessibility. The surge in platform usage during the COVID-19 pandemic demonstrates the growth potential of digital payment platforms in Nepal (Shrestha, 2021; Tuladhar, 2023; European Central Bank, 2019). Information technology advancements have greatly influenced the banking and financial sectors, leading to new products and services aimed at meeting customer needs (Gunanto & Widyaputri, 2023). Consequently, many banking institutions now provide technology-driven services to stay well-informed of these developments. An illustration of this trend is the adoption of mobile banking, which, despite necessitating a significant initial investment, has gained widespread popularity in recent years. (Elhajjar & Ouaida, 2019).

Every bank has introduced digital applications, including mobile banking, reflecting a shift towards technologically driven payment methods. Mobile banking exemplifies how individuals have enhanced their transactional processes through technology, facilitating more efficient and convenient financial interactions. Technological advancements, particularly in mobile banking

applications, have allowed customers to securely conduct financial transactions from any location with internet connectivity at any time (Elhajjar & Ouaida, 2019). Paraphrase this paragraph. : A holistic interpretation of the seed terms included in each aspect allowed to label them based on the preferences expressed by paytech app users in their reviews. Six latent aspects were identified: ease of use, usefulness, perceived value, performance expectancy, perceived quality, and user experience. In addition, the analysis results suggest a positivity bias in the online reviews of fintech P2P app users (Perea-Khalifi et al., 2024).

In Bharatpur Metropolitan City, Chitwan, the Nepalese financial sector has recently been actively promoting Electronic Payment Services (EPS). Despite these efforts, the utilization of such services has not witnessed a proportional increase. It is crucial to comprehend the factors influencing the adoption of digital payment systems within the Nepalese context to understand the financial technology behaviours that could shape the country's future financial system and contribute to its economic advancement. In this regard, a study focusing on the youth population in Bharatpur Metropolitan City (BMC), Chitwan, who have shown a preference towards digital payment systems, can offer valuable insights into the determinants of their adoption intentions. This study's primary objective is to examine undergraduate students' opinions, ideas, and experiences on the impact of motivational factors of online payment practices in educational institutions, Bharatpur Metropolitan City and Gaidakot Municipality. The specific objectives are to examine the impact of user experience and transactional fees on online payment intentions among undergraduates in Bharatpur Metropolitan City, Chitwan (Financialnotics, 2081).

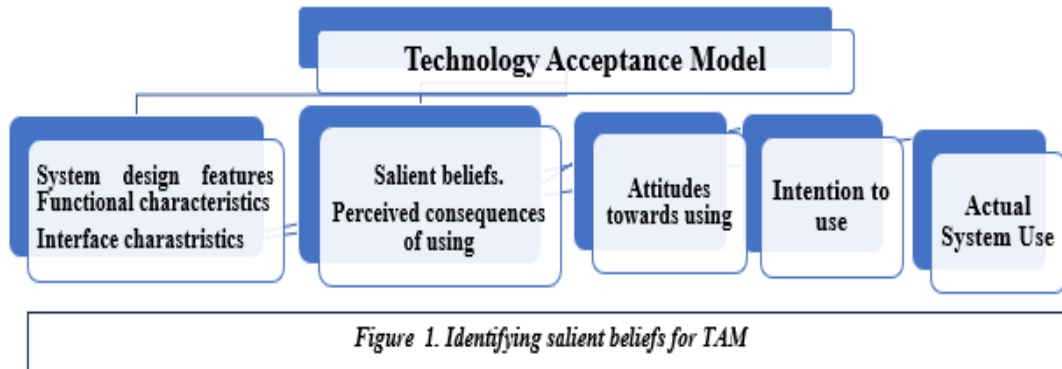
Theoretical foundation of the study

Understanding the intention of online payment among undergraduate students can be approached through various theoretical frameworks. One commonly employed framework is the Technology Acceptance Model (TAM), proposed by Davis in 1989. TAM suggests that perceived usefulness

and perceived ease of use are key determinants of individuals' intention to use technology, in this case, online payment systems. Another relevant framework is the Unified Theory of Acceptance and Use of Technology (UTAUT), which incorporates elements from several existing models and suggests that performance expectancy, effort expectancy, social influence, and facilitating conditions influence users' behavioural intentions and actual usage behavior. Additionally, the Theory of Planned Behavior (TPB) proposed by Phillips (2019) can be applied, which suggests that attitudes, subjective norms, and perceived behavioral control shape individuals' intentions and subsequent behavior regarding online payment. These frameworks provide a theoretical foundation for studying the purpose of online payment among undergraduate students, offering insights into the factors driving their adoption and usage behavior.

The primary purpose of the Technology Acceptance Model (TAM) is to provide a theoretical framework for understanding and predicting individuals' acceptance and usage of new information technologies (Davis, 1987). TAM helps researchers and practitioners understand why people adopt or reject certain technologies by focusing on two key factors: perceived usefulness and perceived ease of use. Perceived usefulness refers to the extent to which a person believes that using a particular technology would enhance their job performance or make tasks easier to accomplish, which is a crucial determinant of its adoption, according to TAM. On the other hand, perceived ease of use refers to the degree to which a person believes that using a particular technology would be free from effort, indicating that individuals are more likely to adopt a technology if they perceive it to be easy to use. By examining these two factors (Davis, 1987), TAM helps researchers and practitioners understand users' attitudes and intentions toward adopting new technologies, and it has been widely applied in various contexts, including e-commerce, mobile apps, social media platforms, and online payment systems, to evaluate and improve user acceptance and usage behavior. Overall, the purpose of TAM is to provide insights into the

factors influencing technology adoption, thereby informing the design, implementation, and marketing strategies of new technologies.



Source: Davis, Bagozzi and Warshaw (1989)

Theoretical underpinnings involve exploring theories from related fields that could be adapted and customized to offer a robust theoretical basis for the Technology Acceptance Model (TAM) to introduce fresh insights. These fields encompass attitude theory, management’s work motivation theory, psychology’s self-efficacy theory, behavioral decision theory, and diffusion of innovations. TAM integrates and adapts principles from these disciplines to enhance its explanatory power and contribute novel perspectives to understanding technology acceptance (see Figure 1).

Anchors refer to principal beliefs about computers and their usage, often rooted in past experiences. Conversely, adjustments relate to beliefs shaped through direct interaction with the specific system. Different factors have been suggested within these categories, primarily derived from previous research on identifying precursors to perceived ease of use (Davis, Bagozzi & Warshaw, 1989). Specifically, control is divided into perceptions of internal control, reflected in computer self-efficacy, and perceptions of external control, represented by facilitating conditions. Intrinsic motivation is conceptualized as computer playfulness, while emotion is described as computer anxiety (Davis, 1987). These concepts of computer self-efficacy, facilitating conditions, computer playfulness, and computer anxiety form system-independent foundational constructs and significantly impact the development of perceived ease of use, especially during initial user interactions with a system. As users gain experience with the system, certain adjustments become apparent. Objective usability, perceptions of external control (specifically related to the system at hand), and the perceived enjoyment derived from system usage emerge as adjustments resulting from the user-system interaction, which additionally influence the system-specific perception of ease of use (Davis, 1987).

The conceptual framework of this study

Understanding undergraduate students’ intention to use online payment involves examining several interconnected factors within a conceptual framework. This framework integrates Security Measures, User Experience, Transaction Fees, and Costs to provide insights into students’ attitudes and behaviors toward online payment systems.

Security Measures

This component evaluates the perceived security features of online payment platforms, including measures such as encryption, authentication protocols, and protection against fraud. Students’ trust in

the security of these systems significantly influences their willingness to engage in online transactions (Lu et al, 2011).

User Experience:

User experience encompasses the overall satisfaction and ease of use of online payment interfaces. Factors such as website design, navigation, and transaction speed impact students' perceptions of convenience and usability, thereby affecting their intention to use online payment services (Venkatesh et al., 2003).

Transaction Fees

The cost associated with online transactions, including transaction fees and additional charges, can influence students' decisions to adopt online payment methods. High fees may deter students from using these platforms, especially if they perceive alternative payment methods as more cost-effective (Cai & Zhu, 2015).

Costs

Beyond transaction fees, students also consider other costs associated with online payments, such as time spent on transactions and potential risks of unauthorized charges. These perceived costs affect students' overall utility assessment and intention to continue using online payment services (Kim & Peterson, 2017).

The conceptual framework integrates the above-mentioned factors to comprehensively understand undergraduate students' intention to use online payment. It highlights the interplay between security, user experience, transaction fees, and costs in shaping students' attitudes and behaviors toward online payment adoption. The conceptual framework of this study has been presented (see Figure 2).

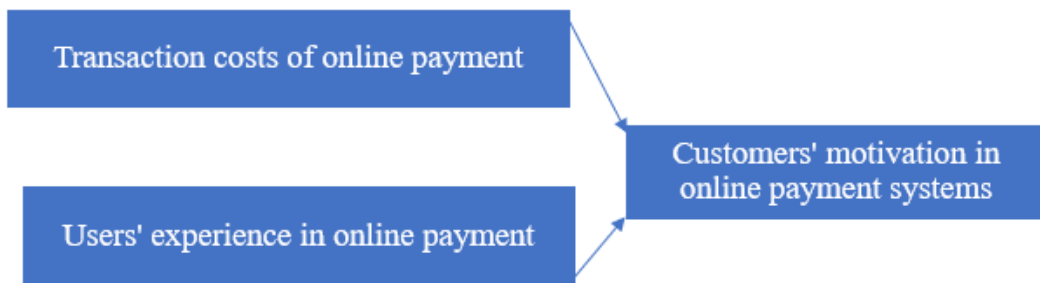


Figure 2. Intention to use online payment

Literature review of the previous studies

The financial industry now incorporates a broad spectrum of digital payment methods termed “Playtech,” a fintech segment focused on payments and transactions (Polasik et al., 2020; AEFI, 2022). Playtech includes entities providing electronic payment means ranging from digital applications to contactless wearables (Capgemini, 2021), serving diverse consumer needs such as peer-to-peer transfers, online purchases, and point-of-sale transactions across traditional and e-commerce markets (Palmié et al., 2020). From a consumer standpoint, Playtech represents fintech’s largest and fastest-growing sector, evolving from basic transactions (payments 1.0) to integrated solutions that enhance the customer experience within a collaborative ecosystem (payment 4x) (Capgemini, 2021). By addressing regulatory

and cost challenges through digitization, paytech solutions have markedly boosted profitability and operational efficiency (Capgemini, 2021). The COVID-19 pandemic enhanced this transformation by heightening demand for convenient, omnichannel payment services amidst lockdowns and economic uncertainty, prompting rapid innovation among Playtech providers that focused on improving user experience, disrupting traditional intermediaries, and reshaping the profitability landscape for payment service providers (Patel & Brown, 2016; Capgemini, 2021).

Different factors influence the adoption of online payment methods among users. Perceived usefulness and ease of use are key determinants, with users more inclined to adopt platforms they find beneficial and easy to navigate (Smith & Johnson, 2018). Trust in the security of online payment systems is essential, as concerns about security act as significant barriers to adoption (Johnson et al., 2017; Garcia & Patel, 2020). Social influence also plays a role, with recommendations from peers and social networks impacting individuals' decisions to adopt online payment methods (Wang & Li, 2017; Jung, Kwon & Kim, 2020).

Additionally, demographic factors such as age, income, and education level affect adoption rates, with younger, higher-income individuals more likely to adopt (Wu et al., 2022; Lynch et al., 2022). Prior experience with technology and online transactions positively correlates with adoption rates (Nguyen et al., 2024; Choi & Park, 2020). Concerns about the risk of fraud or privacy breaches can deter users from adopting online payment methods (Gupta & Sharma, 2009; Tan et al., 2019). Convenient payment options, such as mobile payments and user-friendly interfaces, drive adoption (Wang & Li, 2013; Zhang & Patel, 2023). Finally, cultural norms, regulatory environments, and technological infrastructure influence adoption patterns across different regions and contexts (Martinez & McAndrews, 2022; Yu & Chen, 2022)

Table 1. Summary of the previous studies

Author and years	Objective of the study	Methods applied	Findings
Khando et al. (2022)	To understand the adoption of digital payment systems, offering insights to economists, policymakers, and payment service providers	Review method	The results highlight that most empirical studies focused on card payments in India, particularly during the demonetization period.
Asian Development BHank (2023); Chen and Nath (2008)	To identify and understand the factors that influence mobile payment adoption.	Survey method	The results highlight that consumers have become more adaptive to easy online payment using the device, and the likelihood of adoption will rise.
Sivathan (2019)	To examine the real-world utilization (AU) of digital payment systems by consumers in India during the demonetization period (from November 9, 2016, to December 30, 2016).	Survey method	The results highlight that the study found that people's willingness to use digital payment systems and their resistance to change affect how much they use them. A preference for cash payments influences the link between intention and usage. Top of Form
Hameed, Akram, and Ashraf (2023).	To enhance the lifestyle, standard of living, and quality of life for Indians while promoting techno-premiership in the country.	Survey method	The results highlight the potential factors contributing to the success and obstacles faced by the Digital India campaign, helping estimate the program's overall success level.

Arango, Nicoals and Suarez. (2019)	To grow in both developed and developing economies across the world.	Survey method	The results highlight only partial explanations in the previous empirical literature.
Kolodiziev et al (2020)	To develop effective fraud detection models for digital payment systems using automated machine learning and Big Data analysis algorithms.	Survey method	The results highlight the effectiveness of using automatic machine-learning algorithms to synthesize fraud detection models in digital payment systems.
Akanfe, alecha & Rao (2020); Goodell et al. (2021)	To propose a solution to the growing concern over the loss of cash as a public retail payment option and the associated rights for retail consumers.	System review method	The results highlight that the increasing replacement of cash with electronic retail payment mechanisms results in the loss of a critical public retail payment option and important rights for retail consumers.
Akanfe, Ijeoma, & Fola (2020)	Analyzing the privacy policies of mobile wallets and remittance (MWR) apps, which are a component of DPS, will be done to assess their compliance with the General Data Protection Regulation (GDPR).	Online review method	The results highlight the increasing privacy risks in the digital age, particularly those related to cyberattacks and data misuse, which negatively impact consumer confidence, entity reputation, and international consumerism.
Seethamraju and Diatha (2018)	To highlight the challenges small retail convenience stores face in India due to the entry of large supermarkets and online retailers and the increasing adoption of digital technologies.	Qualitative method	The results highlight a comprehensive understanding of the challenges small retail and convenience stores face in India due to the entry of large supermarkets and online retailers and the increasing adoption of digital technologies.
Dostov and Shust (2014)	To look closely at the phenomenon of cryptocurrencies such as bitcoin to identify their potential vulnerabilities to money laundering and financing of terrorism	Case study method	The results highlight that cryptocurrencies' features may not make them appealing to consumers, as the desire for anonymity appears to be exaggerated.
Gautam and Sah (2023)	To analyze the mediating role of e-satisfaction to online banking service practices and e-loyalty	Survey method	The study highlighted the importance of website efficiency and electronic customer service in online banking operations. Factors like user-friendliness, security, privacy measures, and website structure were also significant considerations.
Hameed, Zainab & Khan (2023)	To investigate the green banking practices of Islamic banks in a developing Islamic country.	Survey method	The study reveals that practices concerning employees, daily operations, customers, and policies significantly impact a bank's reputation. Furthermore, it suggests that environmental awareness moderates the relationships between these practices and the bank's reputation.
Ngo et al. (2023).	To identify the primary factors influencing the adoption of digital banking services among the Vietnamese population during the Covid-19 pandemic.	Survey method	The research identifies five factors affecting the realization of digital banking services in Vietnam during the COVID-19 pandemic: safety of banking services, preference for online shopping, recommendations, bank marketing, and acceptance of perceived risks.

Chan and Liu (2015), Gulzar et al, (2024).	To examine the profound impact of green banking practices on the environmental performance of banks.	Survey method	The results emphasize different facets of green banking, including practices involving employees, operational procedures, customer involvement, and policy adherence. These findings substantially contribute to the advancement of green finance, leading to significant positive outcomes.
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The empirical studies predominantly focused on card payments in India, notably during the demonetization period, shedding light on consumers’ increasing comfort with digital devices and their subsequent adoption likelihood. Additionally, they underscored the impact of consumers’ resistance to change and their preference for cash on the actual usage of digital payment systems. Moreover, insights into the Digital India campaign’s success factors, challenges, and concerns regarding privacy risks in the digital realm and the evolving retail landscape in India were highlighted. Furthermore, the research highlighted the less appealing aspects of cryptocurrencies to consumers and the critical role of website efficiency, electronic customer service, and various factors in online banking operations and a bank’s reputation. The studies also underscored the significant influence of practices related to employees, daily operations, customers, and policies on a bank’s reputation, further moderated by environmental awareness. Moreover, identifying factors affecting the realization of digital banking services in Vietnam during the COVID-19 pandemic, along with insights into green banking practices, significantly contributes to advancements in sustainable finance (see Table 1).

Research methods and materials

Quantitative research focuses on quantifiable variables and statistical, mathematical, or computational techniques. This emphasis on measurable data allows for objective analysis and replication of findings by other researchers, thereby enhancing the credibility and reliability of the study. The importance of quantitative research lies in its ability to provide systematic, objective, and replicable evidence that supports informed decision-making, theory development, and the advancement of knowledge in numerous academic and practical domains (Creswell & Plano Clark, 2018) (see Figure 3).

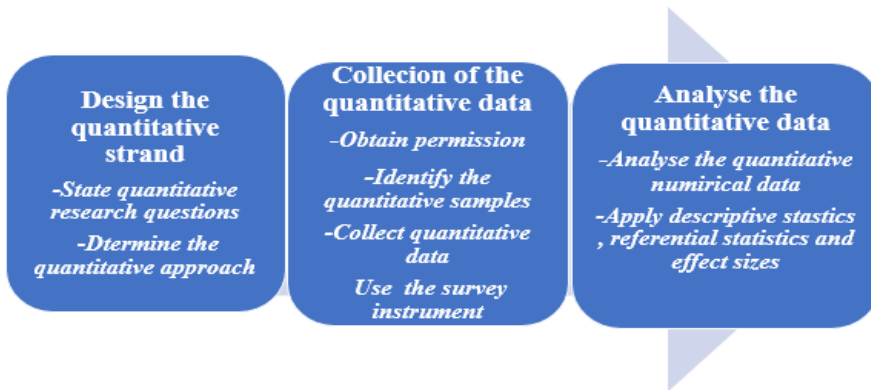


Figure 3. The research design of this study

The survey research method

The survey method is suitable in social sciences and management research to understand undergraduate students’ opinions, ideas, and experiences on the role of factors affecting online payment. A cross-sectional quantitative research design was applied to examine the intention of online payment among a cohort of two hundred and fifteen (N = 260) undergraduate students. This design allows data collection at a single point, providing insights into online payment intention among the target

population. Stratified random sampling will be utilized to ensure representation across different demographic strata, such as age, gender, and academic major. This sampling method helps to mitigate biases and ensures that findings are generalizable to the broader undergraduate student population (Hennessy & Patterson, 2019).

The survey instrument was developed based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model, which posits that performance expectancy, effort expectancy, social influence, and facilitating conditions influence individuals' intention to use technology (Venkatesh et al., 2003). The survey scales in the questionnaire will measure these constructs, along with demographic variables such as age, gender, and previous experience with online payment. The questionnaire will be adapted from validated scales in earlier research on technology acceptance and online payment behaviour (Cheung et al., 2008).

Before the primary data collection, the questionnaire underwent pilot testing with a small group of undergraduate students ($n = 10$). This pilot testing phase aims to assess questionnaire items' clarity, comprehensibility, and relevance. Feedback from pilot testing will inform revisions to the questionnaire, ensuring that it effectively captures the constructs of interest and is suitable for the target population. This iterative process enhances the validity and reliability of the survey instrument (Pentang, 2023).

Data collection will be conducted online or paper-based, depending on participant preference and accessibility. Participants will be recruited from undergraduate student populations through university mailing lists, social media platforms, and in-person recruitment efforts. Informed consent will be obtained from all participants, emphasizing voluntary participation and confidentiality of responses. Ethical considerations will be followed throughout the research process, ensuring the protection of participants' rights and privacy (Adhikari, 2022; Kazak, 2018).

After data collection, quantitative data analysis was conducted using statistical software (e.g., SPSS). Descriptive statistics will summarize demographic

characteristics and online payment intention scores. In contrast, inferential statistics, such as regression analysis, examine the relationship between predictor variables and online payment intention. Findings from the analysis contribute to understanding the factors influencing online payment intention among undergraduate students, providing valuable insights for policymakers, financial institutions, and researchers (AEFI, 2022; Field, 2013).

Critical analysis of the resources and research design

We have critically evaluated the resources used in this article to discover their strengths and weaknesses, as well as to estimate the usefulness and validity of the research findings. Key aspects of this calculation include the suitability of the study strategy for the research question, a thorough assessment of significant methodological landscapes, the competence of the statistical methods applied and the interpretations, possible struggles of interest, and the significance of the research to societal observations and its scientific influence. This critical review of resources and research design helps connect high-quality studies that can advise sound academic study practices while observing ethical and evidence-based reflections.

In our study, we applied different online resources, including books, articles, journals, videos, speeches, and interview data, to deliver a comprehensive understanding of the phenomenon studied, titled "Examining the Intention of Online Payment among Undergraduate Students in Bharatpur Metropolitan City and Gaiindakot Municipality." Key literature sources for further analysis were Khando et al. (2022), Seethamraju and Diatha (2018), Dostov and Shust (2014), Gautam and Sah (2023), Hameed et al. (2023), Ngo et al. (2022), Gulzar et al. (2024), Chen and Nath (2008), Sivathan (2019), Akanfe, Ijeoma, & Fola (2020); Arango et al. (2019), Kolodiziev et al. (2020), Asian Development Bank (2023), Goodell et al. (2021), and Akanfe et al. (2020). These resources are all closely related to our theme research. Resources were collected from

platforms of SpringerLink, Science Direct, ISI Web of Science, Electronic Liberty, BASE, Google Scholar, other open online resources of Google Scholar and CNKI, as well as other online links.

Our critical analysis encompasses investigating and explaining scientific research studies and their findings, assessing the methods, collected data, and conclusions drawn while assessing their reliability and validity. Our review indicated that previous studies employed various methods, including review, survey, systematic review, online review, and case study methods, with the survey method being the most commonly used. This study also utilized a survey design to gather data, ensuring the reliability and validity of its results. All the resources cited are relevant and up-to-date, contributing to the overall reliability and validity of the findings (see Table 1).

Results

This section has focused on interpreting the survey data based on background information, descriptive analysis, and Binary Logistic Regression (BLR). The BLR was used to find the association between dependent and independent variables. This section focuses on results interpretation based on the two subsections and covers discussion,

Transaction fees and costs

The literature on online payment fees and costs explores various financial implications for businesses and consumers, typically involving fees charged by payment service providers (PSPs) for Internet transactions. These fees vary based on transaction volume, payment method (credit card, debit card, e-wallet), and geographical location (Nirmala & Kumar, 2024; Venkatesh et al., 2003). Generally, online payment fees include interchange, assessment, and processing fees. Interchange fees, set by card networks like Visa and Mastercard, are a percentage of the transaction amount plus a flat fee. In contrast, assessment fees are usually a fixed percentage of the transaction amount. PSPs charge processing fees for transaction management, including authorization, clearing, and settlement (Nirmala & Kumar, 2024; Palmie et al., 2019). High transaction costs can

impact profit margins for businesses, particularly SMEs, which may also face additional expenses for fraud prevention and chargeback fees. Strategies discussed in the literature to mitigate these costs include negotiating lower fees with PSPs, optimizing payment processes, and diversifying payment methods (Karim et al., 2024).

Table 2. Factors loading of the variables of transaction fees and cost (N = 260)

Preferences for online payment methods	
Online transaction fees influence my choice of payment methods.	.698
I am willing to pay higher transaction fees for the convenience of online payments.	.689
I consider transaction fees as an important factor when making online purchases.	.612
I am more likely to use online payment methods with lower transaction fees.	
Improved digital customer service	
The effective digitization payment process has necessitated financial institutions extending their services across... Transaction costs significantly influence my frequency of using online payment services.	.739
The continuous improvement of online banking can satisfy customers.	.451
Customer motivation to online payment platforms	
The transaction fees charged by online payment platforms are reasonable, considering725
Online payment platforms offer transparent information about transaction fees and associated costs.	-.675

The results indicate that the highest factor loading is the effective digitization of the payment process, which has necessitated the need for financial institutions to extend their services across multiple digital channels to ensure business (.739). The lowest factor loading is Transaction costs, which significantly influence my frequency of using online payment services (.451) (see Table 2).

Table 3. Mean, SD, Alpha, and KMO value (N = 260)

Scales	M	SD	Alpha	KMO
Preferences for online payment methods	2.6888	.82070	.702	.657
Improved digital customer service	2.8429	.82915	.645	
Customer motivation to online payment platforms	2.8615	.77488	.634	

The results indicate that the customer motivation to online payment platforms has the highest mean value (2.861), signifying that respondents were undecided on the transaction fees charged by online payment platforms are reasonable considering the services provided and online payment platforms offer transparent information about transaction fees and associated costs. Similarly, digitization extends services, and customer satisfaction has the highest mean value (2.843), indicating that respondents were undecided on effective digitization payment process has necessitated the need for financial institutions to extend their services across multiple digital channels to ensure business transaction costs significantly influence my frequency of using online payment services, and the continuous improvement of online banking can satisfy customers. Finally, online payment method preferences have the lowest mean value (2.688) (see Table 3).

Table 4. Results of independent sample t-test (N = 260)

Sales	Variances	F	Sig	t	df	Sig (2 tates)
Preferences for online payment methods	Equal variance assumed	.588	.444	-2.347	257	.020
	Equal variance not assumed	-2.442	146.701	.016	-2.442	146.701
Improved digital customer service	Equal variance assumed	086	.770	-1.083	257	.280
	Equal variance not assumed	-1.109	141.584	.269	-1.109	141.584
Customer motivation to online payment platforms	Equal variance assumed	2.573	.110	-.513	257	.608
	Equal variance not assumed	2.573	.110	-.537	148.615	.592

The results show that the mean score for male respondents for the first subscale preferences for online payment methods (M = 2.620, SD = 0.828) was statistically significantly lower [$t(146.701) = -2.242, p = .020$] than that of the female respondents (M = 1.94, SD = 0.60). Cohen's d was 0.39, a small effect size (Cohen's d = 0.238). However, the results show that the other two subscales (improved digital customer service and customer motivation to online payment platforms) did not show a statistically significant difference between the two subscales (see Table 4).

Table 5. Values of Block 1 (Binary Logistic Regression) (N = 260).

Table Variables	Chi-square	Sig	-2Log likelihood	Cox & Snell R Square	Nagelkerke R Square
Omnibus Tests of Model Coefficients	8.452	0.038			
Model summary			121.825	.032	.081
Hosmer and Lemeshow Test	11.666	.167			

The dependent variable, intention to use online payment, was coded as 1 for those intending to use online payment (Yes) and 0 for those not intending to use online payment (No). The results highlight that the computed model fits significantly better than the base model, $\chi^2 = 8.452, df = 3, p = 0.038$. The Hosmer and Lemeshow test indicated a non-significant result, $p = 0.167 > 0.05$, supporting the adequacy of the regression model (see Table 5). The model's prediction accuracy improved from 92.43 % to 93.1 % upon adding explanatory variables in Block 1. Specifically, the model correctly predicted that 241 undergraduate students (93 %) intended to use online payment, and the model correctly predicted that 18 undergraduate students (7 %) intended not to use online payment. Overall, the model completed a prediction accuracy of 93.1 % (see Table 5).

Table 6. Binary model to predict undergraduate students' intention to make online payments based on transaction fees and costs (N = 260)

Independent variables	B	S. E	Wald	df	Sig.	Exp(B)	95% C.I for EXP(B)	
							Lower	Upper
Prefer access to online payment methods	-.610	.247	6.121	1	.013	.543	.335	.881
Improved digital customer services	-.119	.246	.232	1	.630	.888	.548	1.439
Customer motivation to online payment platforms	-.375	.256	2.251	1	.142	.687	.416	1.135
Constant	2.805	.293	91.365	1	.000	.061		

The findings also indicate a significant association between the use preference of online payment methods and the undergraduate students' intention to use online ($p < 0.013$, odds ratio = $.543 < 1$, $B = -.610 < 0$), indicating a negative impact on using online payment method during their payments. However, the results indicate no significant association between improved digital customer services, customer motivation to online payment platforms, and undergraduate students' intention to use online payment methods during their payment ($p > 0.05$).

User experiences

User experience (UX) encompasses all the emotions and perceptions associated with using a product or service, as Karim et al. (2023) outlined. It is described as a user's evaluative response (positive or negative) during their interaction with the product or service. For instance, when using applications like "bizum" for money transactions, users might experience positive feelings such as satisfaction and efficiency, especially when making payments through their bank. This highlights the importance of ensuring a seamless and pleasant user experience to foster consumer satisfaction and usability (Karim et al., 2023). The results indicate that the highest factor loading is the growing desire for comfort, which has played a role in the rapid transformation of banking (.773), following the lowest factor loading is online payment platforms adequately authenticate users to prevent unauthorized access (4.33) (see Table 7).

The results indicate that the customer motivation to online payment platforms has the highest mean value (2.890), signifying that respondents were very closely undecided on growing desires for comfort have played a role in the rapid transformation of the banking, the online banking industry has changed tremendously over the years, evidenced by diverse experiences, many banks have invested in digital platforms and online banking worldwide to increase their profitability, and online payment platforms adequately authenticate users to prevent unauthorized access (see Table 8). Similarly, customer motivation to online payment platforms has a mean value of (2.678), indicating that respondents were undecided on whether they trust online payment platforms to handle their transactions efficiently. I feel confident that online payment platforms promptly respond to security threats, provide sufficient information for resolving disagreements in transactions, and that online payment platforms promptly detect security threats (see Table 8).

The results indicate that four principal components were derived by the factor reduction method where the survey variable growing desires for comfort have played a role in the rapid transformation of the banking has the highest loading factors and Online payment platforms adequately authenticate users to prevent unauthorized access has the lowest factors loading (.773 & .433) (see Table 7).

Table 7. Factors loading of the variables of users' experience (N = 260)

Survey variables	Factors loading
Rapid transformation in online payment and financial services	
	.773
The online banking industry has changed tremendously over the years, evidenced by diverse experiences.	.650
Many banks have invested in digital platforms and online banking worldwide to increase profitability.	.637
Online payment platforms adequately authenticate users to prevent unauthorized access.	
Customer's confidence in online payment platforms	
	.667
I trust online payment platforms to handle my transactions efficiently.	.637
Online payment platforms promptly respond to security threats.	.575
Online payment platforms promptly detect security threats.	.486
Online payment platforms provide sufficient information for resolving disagreements in transactions.	
Customer satisfaction on online payment platforms	
	.677
I am satisfied with the level of transparency online payment platforms provide regarding their security654
I believe online payment platforms regularly update security measures to adapt to new threats."	.521
I trust online payment platforms to handle my transactions securely.	.455
Online payment platforms effectively communicate their security measures to users.	

Custer's confidence to online payment platforms	
	.765
I trust that online payment platforms use encryption methods to protect my financial information.	.759
I trust that online payment platforms use encryption methods to protect my personal information.	

Table 8. Mean, SD, Alpha, and KMO value (N = 260)

Scales	M	SD	Alpha	KMO
Customer motivation to online payment platforms	2.687	.935	.645	.876
Customer's confidence in online payment platform	2.937	.865	.645	
Rapid transformation in online payment and financial services	2.829	.737	.609	
Customer's confidence in online payment platforms	2.853	.9001	.678	

The results show that the value of KMO was .876 which signifies further result analysis. The results indicate that customer motivation to online payment platforms(2.687), customer's confidence in online payment platforms (2.937), rapid transformation in online payment and financial services(2.829), and customer's confidence in online payment platforms (2.953) were used subscales whose mean values are recorded in the corresponding lines of the subscales (see Table 8). The results further indicate that the mean values are lower than the average value (3), indicating that respondents expressed their disagreement with the statements of the customer motivation to online payment platforms and customer's confidence in online payment platforms. The results further show that the respondents disagreed with the statement that online payment platforms provide clear and understandable terms and conditions, platforms

they feel confident that their personal and financial information is secure when using online payment platforms, and online payment platforms offer a wide range of payment options to cater to different user preferences.

Furthermore, they disagreed with the statements that they found the user interface of online payment any technical issues or errors encountered during transactions, they believe that online payment platforms prioritize customer satisfaction in their services, online payment platforms provide sufficient information and assistance for resolving disputes or discrepancies in transactions, they were satisfied with the level of transparency regarding fees associated with online payments, online payment platforms offer reliable and timely customer support services, and overall, they trust online payment platforms to handle their transactions securely and efficiently.

Table 9. Block 1 summary of the regression analysis

Table Variables	Chi-square	Sig	-2Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Overall correctness
Omnibus Tests of Model Coefficients	3.910	0.0142				93.4 %
Model summary			126.82	.015	.038	
Hosmer and Lemeshow Test	4.742	.785				

The results highlight that the computed model fits significantly better than the base model, $\chi^2 = 3.910$, $df = 4$, $p = 0.0412$. The Hosmer and Lemeshow test indicated a non-significant result, $p = .063 > 0.05$, supporting the adequacy of the regression model (see Table 9). The model's prediction accuracy improved from 93.0 % to 93.4 % upon adding explanatory variables in Block 1. Specifically, the model correctly predicted that 238 undergraduate students (91.53 %) intended to use online payment, and the model correctly predicted that 22 undergraduate students (8.46 %) were not designed to use online payment. Overall, the model completed a prediction accuracy of 93.4 % (see Table 9).

Independent variables	B	SE.	Wald	df	Sig.	Exp (B)	95% C.I.for EXP(B)	
							Lower	Upper
Customer motivation to online payment platforms	.244	.248	.963	1	.934	1.277	.784	.2079
Customer's confidence in online payment platform	.04	.247	.031	1	.589	1.045	.6344	1.695
Rapid transformation in online payment and financial	.020	.252	.006	1	.936	1.021	.623	1.673
Customer's confidence in online payment platforms	-.477	.223	4.578	1	.032	.621	.401	.961
Constant	-2.708	.266	103.66	1	<.001	.067		

The findings also indicate a significant association between customer's confidence in online payment platforms and undergraduate students' intention to use online ($p < 0.032$, odds ratio = $.621 < 1$, $B = -.477 < 0$), indicating a negative impact on using online payment methods during their payments. However, the results indicate no significant association between customer motivation to online payment platforms, customer confidence in online payment platform's rapid transformation in online payment, and financial and undergraduate students' intention to use online payment methods during their payment ($p > 0.05$).

Discussion and conclusion

Overview of the study

The purpose of the discussion section is to explore the complex factors that influence the adoption of digital payment systems, particularly in the context of mobile banking and online payment methods. As new technologies continue to transform the financial sector, they significantly enhance the efficiency, accessibility, and convenience of financial services, especially in developing regions. Mobile banking platforms like e-Sewa and IME Pay in Nepal, for example, have contributed to the rapid growth of digital payments, particularly during the COVID-19 pandemic, supported by regulatory frameworks such as the NRB Act (2002) and the Nepal Payment System Development Strategy (NPSDS). This highlights how technological advancements can foster economic growth by providing users with convenient tools to manage finances, while also creating new opportunities for businesses to streamline operations and improve services (McAndrews & Stefanadis, 2020, Shy & Tarkka, 2002, Sing & Mudang, 2020).

However, as different studies have shown, the adoption of digital payments is not solely driven by the availability of new technologies. A range of factors—such as security concerns, transaction fees, user experience, and network connectivity—play a critical role in shaping consumers' decisions to adopt these services. The Technology Acceptance Model (TAM), along with other frameworks like the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Theory of Planned Behavior (TPB), helps explain these adoption behaviors. For instance, factors like perceived usefulness and ease of use are crucial in determining whether consumers, especially younger and wealthier individuals, embrace digital payment methods. Studies have highlighted that while mobile payment systems offer convenience, security and privacy concerns, particularly data misuse, remain significant barriers to adoption.

In addition to these technological and individual factors, broader cultural and regulatory contexts also influence adoption. For example, in regions

like India, consumer resistance to digital payments—shaped by cultural preferences for cash and concerns over privacy—has slowed adoption despite government efforts to promote digital payment usage. Similarly, effective government campaigns and reliable customer service can play an essential role in overcoming these barriers. Research in Nepal and other countries underscores that consumer trust, especially in the security of mobile wallets and the transparency of transaction fees, significantly affects adoption rates. Moreover, the continuous improvement of digital services and the customer experience, including features like faster transactions and efficient customer support, can help to alleviate some of these concerns and encourage wider usage.

Overall, this discussion integrates the findings of various empirical studies highlighting the multifaceted nature of digital payment adoption, emphasizing the importance of security measures, user experience, transaction costs, and external factors like regulatory support and cultural norms. As digital payment systems evolve, addressing these challenges will be key to increasing adoption rates and ensuring the widespread success of mobile banking and online payment platforms.

The previous studies have highlighted different motivational factors of using online payment systems during the purchasing goods and services; however, the Nepalese context is different from the international context because there is just a growing concern about online payment systems. Several factors influence the adoption and use of online payment systems in Nepal. One of the key determinants is security; concerns regarding fraud and data privacy significantly impact user trust and adoption rates (Shrestha, 2021). The lack of a secure digital payment infrastructure, including reliable encryption and fraud prevention mechanisms, makes many users hesitant to embrace online transactions (Akanfe et al., 2020). Additionally, transaction costs play a crucial role; high fees for digital transactions, especially for lower-income groups, limit the attractiveness of these systems (Gunanto & Widyaputri, 2023). Digital literacy also remains a challenge, as many users, particularly in rural areas, are not familiar

with online payment systems, making them less likely to adopt such technologies (Tuladhar, 2023). Moreover, cultural preferences for cash transactions and limited internet connectivity in rural regions further impede widespread adoption (Nepal Rastra Bank, 2021). Finally, regulatory challenges such as inconsistent policies and inadequate legal frameworks for protecting digital transactions contribute to uncertainty among users and service providers alike (Asian Development Bank, 2023). These factors collectively shape the trajectory of digital payment systems in Nepal, emphasizing the need for security, infrastructure, and awareness improvements to enhance their adoption.

Conclusion

This study examined undergraduate students' opinions and experiences regarding their motivation to use an online payment system during the purchase. A quantitative research approach was used to collect data from the respondents. The results of this study have supported the previous study by Sivathan (2019), Ngo et al. (2022), Kolodiziev et al. (2020), Goodell et al. (2021), and Gautam and Sah (2023), who found that Transaction fees have a significant impact on online payment preferences, with respondents preferring lower fees. The factor loading for transaction fees is high (ranging from .698 to .612), indicating their importance in payment method choices. However, transaction costs have a lower influence on the frequency of online payment usage (factor loading of .451). Customer motivation to use online payment platforms and improvements in digital customer service show higher mean scores (2.861 and 2.843), reflecting mixed or undecided opinions about transaction fees and satisfaction with services. T-test results reveal that male respondents have significantly lower preferences for online payment methods than females, although no significant differences were observed regarding customer service or motivation to use online platforms.

The logistic regression model predicting the intention to use online payments showed high accuracy (93.1%) and identified a significant

relationship between preferences for online payment methods and the likelihood of usage. Customer confidence in payment platforms plays a crucial role in adoption, with a negative relationship between confidence in security and the intention to use online payments. The regression model demonstrated a notable improvement over the base model, achieving a prediction accuracy of 93.4% after incorporating explanatory variables.

The study also highlights mixed opinions on the usability and security of online payment platforms, with respondents expressing skepticism about transparency and security measures. Factors such as trust, service quality, and transaction fees shape online payment adoption, with some respondents voicing concerns about platform security and the adequacy of customer service.

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