

Consumer Perceptions and Preferences for Mobile Payment Systems

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Abstract

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This study aims to examine consumer perceptions and preferences for mobile payment systems in the Nepali market. As there is an increasing trend in the usage of digital and mobile banking payment systems in Nepal, it is crucial to understand consumer perceptions towards mobile banking systems so as to investigate how these perceptions influence the consumers' preference to adopt mobilepayment systems in their transactions. Thus, this study analyses the influence of perceived usefulness, ease of use, security, and trust (independent variables) on consumers' preferences (dependent variable) of mobile payment systems. The data for this study was collected from 251 mobile banking users selected conveniently and obtained their responses on the dependent and independent variables. The data analyzed by the means of correlation and regression tool of analysis indicates that perceived usefulness, ease of use, security, and trust significantly influence consumer preference for mobile payment systems. Thus, the results of this study could provide valuable insights to financial institutions and mobile payment service providers to enhance the quality of the services and develop strategies to cater to their consumer needs more effectively.

Keywords: perceived usefulness, perceived ease of use, perceived security, Perceived Trust, Consumer Preference, Mobile Payment System

Introduction

In recent years, the banking landscape has witnessed a significant shift from traditional banking systems to digital alternatives (Sardana & Singhania, 2018). This transition has introduced greater convenience, speed, and efficiency in financial transactions, prompting researchers and financial institutions worldwide to examine this phenomenon (Sardana & Singhania, 2018). This shift from traditional to digital mobile banking has been a topic of interest for researchers and financial institutions worldwide to develop new strategies and enhance the services to cater to consumer needs, and Nepal is no exception (Ranabhat et al., 2023). Many corporations support digital payment systems for their e-commerce development (Peha & Khamitov, 2004). Nepal Telecommunication Authority's MIS data shows more than 20 million mobile device users use 54.14% of total broadband internet service (NTA, 2018).

Meanwhile, smartphone users and mobile banking users in Nepal are significantly growing as there are more than 10 million users who use mobile banking services in Nepal (Nepal Rastra Bank, 2020). As the consumer base of mobile banking and payment systems expands, it is crucial to address the factors influencing consumer perceptions and preferences regarding them.

This widespread adoption presents an opportunity for payment service providers (PSPs) to focus on enhancing the security standards of the transactions made and the trustworthiness of these services. This is because perceived usefulness, ease of use, security, and trust have been emphasized as the most critical factors that influenced consumer behavior in adopting mobile banking and payment (Giri & Ghimire, 2020). These factors could have a significant influence on consumers' decision to use or abstain from using mobile banking and payment systems while making any transaction.

As mobile banking and services become increasingly prevalent in the Nepali financial landscape, it is essential to understand the perceptions and preferences of consumers that influence their adoption and usage. So, the road map

of the consumer journey on their decision to adopt a mobile payment system as their preferred payment mode is very important for any organization to create an effective marketing plan (Elzinga, 2020). Thus, it is crucial to examine the relationship between perceptible factors like perceived usefulness, perceived ease of use (convenience), perceived security, and perceived trust. Moreover, consumer preference between traditional and mobile banking and payment services with regards to these perceived factors can be analyzed.

Despite the growing availability and convenience of mobile banking and payment services, comprehensive research that focuses on the usage patterns, preferences, and perceptions of consumers is not sufficient in Nepal.

Therefore, this study focuses on consumer perceptions and preferences for mobile banking and payment systems. The study primarily centers on the payment process, and consumer perceptions and preferences around them and does not delve into broader aspects of mobile banking services.

Literature Review

The advent of digital technology has transformed the banking landscape, leading to a shift from traditional banking to mobile banking and payment (Sardana & Singhania, 2018). In recent years, there has been a noticeable shift from traditional banking systems to digital alternatives, revolutionizing the way financial transactions are conducted. This shift has brought forth numerous advantages, including increased convenience, efficiency, and speed in banking operations (Sardana & Singhania, 2018). As the banking landscape continues to evolve, it is essential to examine this transition and its implications for consumers. By examining a range of research studies, this review addresses the critical questions of mobile banking and payment services among consumers.

This literature review sheds light on the shift from traditional to mobile banking and payment services among consumers. Past researches on different geographic regions indicate a positive inclination toward the use of mobile banking services. Factors such as perceived usefulness, ease of use, perceived security, and perceived trust are likely to influence consumers' preference to use mobile banking and payment. By addressing these factors and challenges, banks, digital wallets, and PSPs can promote the use of mobile banking and payment services to a larger consumer base.

To determine the extent of the use and preference for mobile banking and payment among consumers, relevant research studies focusing on consumers can be examined. (Ranabhat et al., 2023) conducted a study on the use of mobile banking in Pokhara. Meanwhile, Generation Z seems to be more inclined toward using mobile banking and payment (Verma et al., 2021). Their findings indicate a positive inclination among consumers toward using mobile banking services. Therefore, it can be inferred that a considerable number of consumers are likely to prefer mobile banking and payment for making purchases.

Understanding the challenges faced by consumers concerning mobile banking and payment systems is essential to identify barriers to the use of mobile banking and payment. Sardana and Singhanian (2018) highlighted security concerns, technical difficulties, and lack of awareness of usability as challenges faced by individuals using mobile banking services, which suggest that consumers may encounter similar issues while using mobile banking and payment.

Different studies have identified the factors influencing consumers' perceptions towards mobile banking and payment. Among them, the following factors have been considered the common factors that could influence the consumers' preference for mobile payment (PMP), which are also considered as the variables for the conceptual framework of the study as depicted in the Figure 1:

Perceived ease of use (PEOU)

Previous studies have shown that there is a positive relationship between perceived ease of use and the preference for mobile payment systems (Mbama & Ezepe, 2018; Giri & Ghimire, 2020). This means that if the mobile payment system is convenient and easy to learn and use, consumers are positively influenced to prefer to use it more.

Perceived trust (PT)

Trust was found to have a significant positive influence on the use of mobile payment services (Giri & Ghimire, 2020; Montazemi & Qahri-Saremi, 2015). This suggests that users are more likely to prefer using mobile banking services if they have higher trust in the security and reliability of the service provider.

Perceived security (PS)

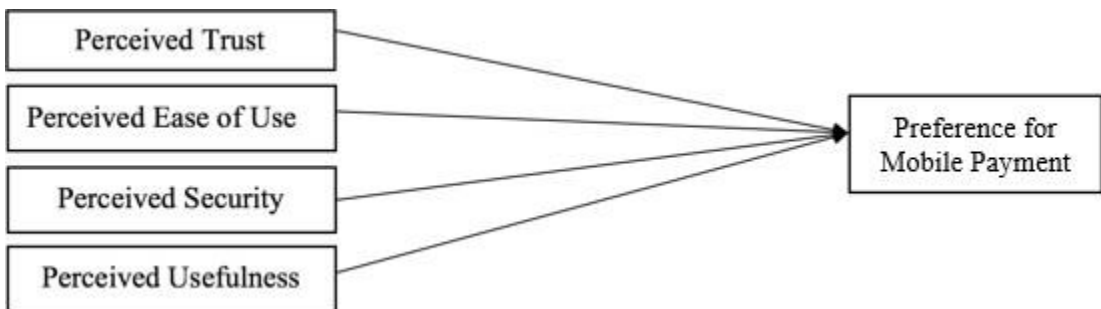
Studies conducted before have found perceived security to have a significant positive relationship with the preference for mobile payment systems regarding consumers' privacy and the risk of loss of data (Vu, 2023). It is expected that security concerns will have a significant influence on the preference for mobile banking and payment by consumers.

Perceived usefulness (PU)

The perceived usefulness of mobile banking services was found to have a significant positive effect on the use of mobile banking services (Giri & Ghimire, 2020). And, they are more likely to prefer using mobile banking services if they perceive them to be useful in fulfilling their financial needs.

Figure 1

Conceptual framework



Research Methodology

As the major objective of this study was to investigate consumers' perception and preferences in the use of mobile banking for the payment of their purchasing, it applies a validated instrument and deductive approach for the collection of data for this study.

Research Design

Quantitative data was collected through a structured survey questionnaire to gather information on consumer perceptions and preferences for mobile banking and payment systems. The survey was administered to a sample of the consumers

using mobile payment system through convenience sampling method. Altogether, though 385 questionnaires were distributed, only 251 consumers had given their responses on the questionnaire. Thus, this number of respondents has been considered as the sample size of the study. The questionnaire included items related to consumer demographics, current payment practices, perceptions and preferences with mobile banking payment system.

Variables and Measures

The independent variables that were studied in this study were perceived trust, perceived ease of use, perceived cost, perceived security, perceived usefulness, and the preference of mobile payment was dependent variable. An instrument developed previously and tested for reliability and validity was applied to collect the responses of respondents on the variables under study. A five-point Likert scale was used to record responses for the items, where: 1= strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. Five items measured the perceived usefulness, perceived ease of use, and perceived trust construct and nine items measured the perceived security and the preference for mobile payment (PMP) construct.

Administration of the Questionnaire

The questionnaire consists of 39 items including six socio-demographic variables. Five items assessed each construct for the measurement of perceived trust, perceived ease of use, and perceived usefulness and the perceived security and preference for mobile payment (PMP) were evaluated by using nine items.

Data Processing

Each completed questionnaire was thoroughly checked for missing information. Following the manual screening, SPSS 27.0 was applied to record and analyze the respondent's responses.

Result and Discussion

Correlation Analysis

The relationship between independent variables was positively significant with the dependent variable at 0.01 level of significant.

Table 1

Correlation between constructs

Constructs	PU	PMP	PEOU	PT	PS
PU	1				
PMP	.718**	1			
PEOU	.794**	.701**	1		
PT	.463**	.644**	.522**	1	
PS	0.109	.471**	0.167	.403**	1

The data in Table 1 show that the relationship between all independent variables and dependent variables was positive and significant at the 0.01 level of significance. The correlation of perceived usefulness (PU), perceived security (PS), perceived ease of use (PEOU) and perceived trust (PT) with preference for mobile payment (PMP) was 0.718, 0.471, 0.701, and 0.644 respectively. Among all, the strongest correlations was observed between PU and PMP ($r=0.718$), suggesting that perceived usefulness of mobile banking could be a major factor to define preference of consumer for mobile payment in their transactions.

Regression Analysis

The regression analysis applied to investigate the influence of independent variables on the depended variable has been depicted in the Table 2 to Table 5.

Influence of Perceived Trust on Preference for Mobile Payment

The influence (impact) of perceived trust on the preference for mobile payment has been summarized in the Table 2.

Table 2*Regression analysis between PT and PMP*

Unstandardized Coefficients			Standardized Coefficients		t	Sig.
Model	B	Std. Error	Beta			
1	(Constant)	1.868	.372		5.016	.000
	PT	.586	.100	.644	5.886	.000

The study demonstrates that the preference for mobile payment (PMP) is significantly positively impacted by perceived trust. Preference increases by 0.586 units for every unit increase in perceived trust, according to the beta coefficient (0.586). According to the R^2 value (0.414), perceived trust has a moderate explanatory power, accounting for 41.4% of the variation in choice. Both the t-value (5.886, $p < 0.000$) and the F value (34.644, $p < 0.05$) validate the statistical significance of the model and the significant influence of perceived trust on preference.

Influence of Perceived Ease of Use on Preference for Mobile Payment

The data in the Table 3 exhibits the influential role of perceived ease of use to define the extent of preference for mobile among consumer while involving in buying activities

Table 3*Regression analysis between PEOU and PMP*

Unstandardized Coefficients			Standardized Coefficients		t	Sig.
Model	B	Std. Error	Beta			
1	(Constant)	.921	.455		2.022	.049
	PEOU	.714	.104	.701	6.872	.000

According to the data, the preference for mobile payment (PMP) is significantly positively impacted by perceived ease of use. A substantial correlation is shown by the beta coefficient (0.714), which shows that for every unit increase in perceived ease of use, preference rises by 0.714 units. With a good explanatory power, the R^2 value (0.491) shows that perceived ease of use accounts for 49.1% of

the variance in choice. The statistical significance of the model and the significant impact of perceived ease of use are confirmed by the F value (47.219, $p < 0.05$) and t-value (6.872, $p < 0.000$).

Influence of Perceived Security on Preference for Mobile Payment

How far perceived trust could impact on the preference for mobile payment of customers is shown in the Table 4.

Table 4

Regression analysis between PS and PMP

Unstandardized Coefficients			Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	2.919		9.549	.000
	PS	.353	.471	3.740	.000

Perceived security has a strong favorable impact on the desire for mobile banking and payment services, according to the analysis. According to the beta coefficient (0.353), preference rises by 0.353 units for every unit increase in perceived security. With a moderate explanatory power, the R^2 value of 0.222 indicates that perceived security accounts for 22.2% of the variation in choice. The statistical significance of the model and the favorable effect of felt security on preference are indicated by the F value (13.986, $p < 0.05$) and t-value (3.740, $p < 0.000$).

Influence of Perceived Usefulness on Preference for Mobile Payment

The Table 5 indicates the impact of perceived usefulness on preference of mobile payment sytem in their transitions.

Table 5

Regression analysis between PU and PMP

Unstandardized Coefficients			Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	.938		2.176	.034
	PU	.712	.718	7.229	.000

According to the data, preference for mobile payment (PMP) is significantly positively influenced by perceived usefulness. According to the beta coefficient (0.712), preference rises by 0.712 units for every unit increase in perceived usefulness. Strong explanatory power is demonstrated by the R^2 value (0.516), which indicates that perceived usefulness accounts for 51.6% of the variance in preference. The statistical significance of the model and the significant influence of perceived usefulness on preference are indicated by the F value (52.263, $p < 0.05$) and t-value (7.229, $p < 0.000$).

Overall, results of this study indicate that enhancing perceived trust, ease of use, security, and usefulness can significantly increase consumer preference for mobile payment (PMP). The correlation analysis shows significant correlations between the independent variables (PT, PEOU, PS, and PU) and the dependent variable (PMP). The strongest correlations of preference for mobile banking services are observed with perceived usefulness and perceived ease of use, suggesting these factors may be critical areas for banks to focus on in their mobile banking strategies.

Furthermore, the regression analysis supports all the hypotheses with strong beta, F, and t-values i.e., each of the independent variables (PT, PEOU, PS, PU) significantly influences the dependent variable (PMP).

Conclusion and Implications

By this study, we came to conclude that the main determinants of user preference for mobile banking services in Nepal could be perceived usefulness, security, convenience of use, and trust. Trust is essential for promoting adoption, according to the substantial positive correlation between perceived trust and preference. Similar to this, preference is greatly increased by simplicity of use since user-friendly platforms make it easier for people to accept services. Although preference is positively impacted by perceived security, this effect is only somewhat significant. The necessity of providing value to users is further highlighted by the strong association between perceived usefulness and preference. These results imply that boosting adoption requires building trust, enhancing the user experience, and showcasing the advantages of mobile banking. The companies handling mobile payment system can boost user growth and support Nepal to shift towards a digital economy by taking care of these issues.

References

- Elzinga, D. (2020). *The consumer decision journey* | McKinsey. McKinsey & Company. <https://www.mckinsey.com/business-functions/marketing-and-sales/ourinsights/the-consumer-decision-journey>
- Giri, S. R., & Ghimire, S. K. (2020). Factors affecting the adoption of digital payment sSystems. *Journal of Innovations in Engineering Education*, 3(1), 165–174. <https://doi.org/10.3126/jiee.v3i1.34340>
- Mbama, C. I., & Ezepue, P. O. (2018). Digital banking, customer experience and bank financial performance. *International Journal of Bank Marketing*, 36(2), 230–255. <https://doi.org/10.1108/ijbm-11-2016-0181>
- Montazemi, A. R., & Qahri-Saremi, H. (2015). Factors affecting adoption of online banking: A meta-analytic structural equation modeling study. *Information & Management*, 52(2), 210–226. <https://doi.org/10.1016/j.im.2014.11.002>
- Nepal Rastra Bank. (2020). *Banking & Financial Statistics*. https://www.nrb.org.np/contents/uploads/2020/06/Monthly-Statistics--2077_01-May-2020-1.pdf
- Nepal Telecommunications Authority (NTA) (2018). *Nepal Telecommunications Authority: MIS report*, 164(116), 1–10. www.nta.gov.np
- Peha, J. M., & Khamitov, I. M. (2004). Pay cash: A secure efficient internet payment system. *Electronic Commerce Research and Applications*, 3, 381-388.
- Ranabhat, D., Poudel, H., Sapkota, P., & Ranabhat, M. (2023). Demographic factors affecting customer’s perception toward the use of internet banking in Pokhara Metropolitan City of Nepal. *Journal of Business and Management*, 7(01), 16–27. <https://doi.org/10.3126/jbm.v7i01.54564>
- Sardana, V.& Singhanian, S. (2018). Digital technology in the realm of banking: A review of literature. *International Journal of Research in Finance and Management*, 1(2), 28–32.

Verma, D., Tripathi, V., & Singh, A. P. (2021). From physical to digital: what drives generation Z for mobile commerce adoption? *Journal of Asia Business Studies*, 15(5), 732–747. <https://doi.org/10.1108/jabs-05-2020-0207>

Vu, T. A. (2023). Mobile banking adoption in Vietnam: An empirical study. *Economics, Finance and Management Review*, 1(13), 60–67. <https://doi.org/10.36690/2674-5208-2023-1-60>