

Factors Affecting Consumer Satisfaction of E-Sewa and Khalti in Nepal

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Abstract

The study analyzes the Factors affecting consumer satisfaction with E-Sewa and Khalti in Nepal. The dependent Variable for the study was customer satisfaction, while the independent variables were service quality, mode of delivery, Risk, price charged, and knowledge. The study was based on primary data. Primary data were collected through the online questionnaires. The descriptive and causal comparative research designs were used. The sample for this study was 384. The respondents were selected using simple random sampling. The study found that increasing knowledge of these digital payment platforms can also lead to increased customer satisfaction. The Risk of using these digital payment platforms also positively impacts customer satisfaction, and companies should be aware of the Risk and customers' perception of Risk when developing and marketing their services.

Keywords: service quality, mode of delivery service, knowledge, risk, e-sewa, khalti

Background

eSewa was founded in 2009 and is now well-known. The first digital wallet in South Asia, eSewa, is a division of F1Soft International, a top FinTech business in Nepal. It is regulated by Nepal Rastra Bank (the central bank) as a payment service provider. Similarly, started in January 2017, Khalti is an emerging mobile payment solution in Nepal, allowing users to pay for mobile balance top-up, electricity/water bills, DTH and Internet bills, movie ticketing, airline ticketing, hotel booking, and more. Currently, Khalti is the number 1 digital wallet, trusted by more than 15 million people across Nepal. The research aims to provide valuable insights that help service providers in the industry better understand the factors that influence customer satisfaction and design effective strategies to improve the adoption and use of cashless payment systems (Noor et al., 2021).

Thus, the study particularly targets examining the effects of service quality, mode of service delivery, price charged, knowledge, and Risk on customer satisfaction in the Nepalese context, as this has never been observed before. Therefore, to fill the gap, the study needs to be conducted in the Nepalese context.

Theoretical review

There are many theories regarding the benefits and drawbacks of cashless payment systems. Some benefits include increased efficiency and convenience for consumers and businesses, improved tracking and reporting for financial institutions, and reduced opportunities for criminal activity, such as money laundering and tax evasion.

Diffusion of innovations theory

The Diffusion of Innovations theory is a social science theory that examines how, why, and how quickly new ideas and technology spread across cultures. Everett Rogers presented the theory in his 1962 book, "Diffusion of Innovations."

The theory has implications for businesses and organizations looking to introduce new products or services, as well as for policymakers and educators looking to promote new ideas and technologies. By understanding the diffusion process, they can more effectively target their efforts to reach and persuade the key groups of innovators and early adopters. They can develop strategies to overcome resistance and increase adoption among later adopters (Rogers, 2003).

The purpose of the Study is to provide the state of adoption of using cashless payment systems and factors affecting customer satisfaction in digital wallet and mobile payment solutions in Nepal.

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Diffusion of Innovation theory explains the pattern of spreading an innovation (product or service) from high to low concentration in a broader society.

The LS TA model developed by Davis identifies two major factors that govern an individual's behavioral intention to accept and use the technology.

TPB, a psychological theory primarily used to predict and explain an individual's intentions and behaviours related to subjects and situations guided by subjective norms and social pressures.

The theory posits that people adopt innovations through communication channels within a social system, which is known as a Diffusion Network. The theory also states that the rate of adoption of innovations varies over time, with early adopters being followed by a bell-shaped curve of adopters.

Technology acceptance model

The model states that human behavior involves accepting any technology associated with perceived usefulness and ease of use, with the technology mediating between the two (Davis, 1989).

The model suggests that these two factors have influenced an individual's attitude towards using a technology, which, in turn, has influenced their actual use of the technology.

Theory of planned behavior

The Theory of Planned Behavior (TPB) is a psychological theory that describes the relationships among an individual's attitudes, subjective norms, and perceived behavioral control, and their intentions to engage in a specific behavior (Ajzen, 1991). An individual's attitudes towards a behavior influence their intentions to engage in that behavior. The subjective norms, or perceived social pressures, also influence an individual's intentions to engage in a behavior. The perceived ease or difficulty of performing a behavior, also known as perceived behavioral control, also influences an individual's intentions to engage in a behavior.

The TPB can be used to predict and explain an individual's intentions and behaviors. It can also be used to design interventions to change behavior by changing attitudes, subjective norms, or perceived behavioral control (Ajzen, 1991).

Empirical review

Javalgi et al. (2018) found that service quality and customer satisfaction were positively related in the context of online payment systems. The study also found that the availability of different payment methods, transaction speed, and the overall user experience were important factors influencing service quality and customer satisfaction.

Wang et al. (2018) found that service quality and customer satisfaction were positively related in the context of mobile payments. The study also found that security, convenience, and the overall user experience were important factors influencing service quality and customer satisfaction.

Li et al. (2017) found that service quality and customer satisfaction were positively related in the context of mobile wallet payments. The study also found that security, ease of use, and trust were important factors influencing service quality and customer satisfaction.

Cwynar et al. (2022) argue that the worldwide digital transition, recently hastened by the COVID-19 pandemic, necessitates that consumers have the knowledge to navigate cashless markets safely and effectively. The findings may have substantial consequences for financial institutions and authorities interested in segmenting consumers based on their financial knowledge, identifying potential risks arising from knowledge gaps, and improving financial literacy.

Almajali et al. (2022) found that the empirical study's results demonstrate a favorable relationship between PC and perceived usefulness (PU) on the BI of mobile payment systems. The results of the mediation analysis showed that the relationship between PP and the BI of mobile payment systems was partially mediated by PC. The final section presented the main findings, their implications for practice, the research's shortcomings, and potential future paths, bringing the report to a close.

Priananda (2020) noted that mobile payment and cashless payment systems have grown significantly. To determine their relationship to the continuous intention to embrace cashless payment systems, four constructs were used: optimism, innovativeness, discomfort, and insecurity. Jumba and Wepukhulu (2019) examined the financial performance of shops in Nairobi County using cashless payments. Kumar and Khanna (2017) examined various cashless payment options across nations' economies for going cashless.

Khan et al. (2017) found that the emergence of e-commerce and the expansion of the Internet facilitated the digitization of payment processes

by offering a range of online payment options, including contactless payments, credit cards, debit cards, electronic currencies, and mobile wallets. In addition, mobile payments are becoming increasingly popular, and they are transitioning in tandem with technological advancements toward a promising future of speculative opportunities.

Research gap

Even though there is a ton of research worldwide on cashless payment systems and consumer satisfaction conducted by the banking system, this study has mainly addressed the factors affecting customer satisfaction with cashless payment systems in Nepal, specifically E-Sewa and Khalti.

Theoretical framework

A research framework is proposed for this study, based on prior research and empirical reviews, that encourages a systematic analysis of the service sector by exploring the effects of service quality and customer satisfaction. A model for increasing customer satisfaction with e-wallets was presented by Tiwari and Singh (2019).

Conceptual framework

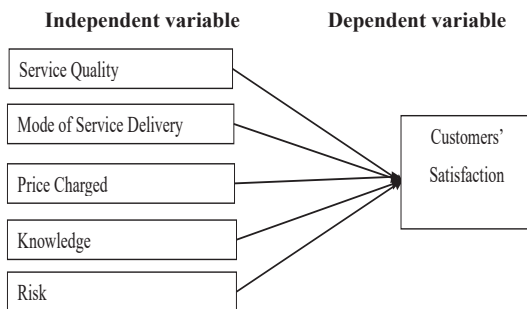


Fig: 1 Conceptual framework

Source: Tiwari and Singh (2019)

Research hypotheses

The following alternative hypothesis has been constructed and aligned with the research framework.

- H1*: There are significant effects of service quality on customer satisfaction.
- H2*: There are significant effects of service delivery on customer satisfaction.
- H3*: There are significant effects of price charged and customer satisfaction.
- H4*: There are significant effects of knowledge and customer satisfaction.

H5: There are significant effects of Risk and customer satisfaction.

Research methodology

This study uses a quantitative method to collect cross-sectional data via a questionnaire survey. Researchers have tested or validated hypotheses and established causal relationships using quantitative research methodologies. The study has employed a descriptive and causal-comparative research design. The population for this study has been clients in the Kathmandu Valley. The 384 clients were selected through a non-probability sampling method: judgmental sampling. Thus, the sample size for the research is 384 users of Esewa and Khalti in the Kathmandu Valley who are currently using Esewa and Khalti. A structured questionnaire has been prepared and distributed to the respondents.

The questionnaire contained closed-ended questions, so it took less time to complete. Most closed-ended questions are measured on a unipolar five-point Likert scale to create an easy-to-answer, unbiased questionnaire.

Results

Demographic variables are regularly used as a basis for respondents' thoughtful responses. The respondents' profile reveals their personal characteristics, including gender, age, educational status, occupation, and trading frequency. Similarly, dissimilar closed-ended questionnaires have also been considered with different understandings of 384 respondents. All 384 respondents have participated in this study.

[The source table is reserved with the author.]

The table represents the correlation analysis among independent variables such as service quality, mode of service delivery, price charged, knowledge, and Risk, and the dependent variable customer satisfaction undertaken in this study.

The correlation coefficient between service quality and customer satisfaction ($r=.583^{**}$; $p\text{-value}=.000$) indicates that there is a moderate to strong positive correlation between the two variables, meaning that as service quality increases, customer satisfaction also increases. This is supported by the low $p\text{-value}$ of .000,

The study uses a questionnaire survey to collect cross-sectional data from 384 clients of Kathmandu using Esewa and Khalti to do Causal-comparative research (ex post facto).

Study results suggest a multidimensional service quality approach to improve customer satisfaction in Esewa and Khalti.

which suggests that this correlation is statistically significant and not due to chance. This suggests that E-Sewa and Khalti should focus on providing better-quality service to their customers to improve customer satisfaction. Therefore, E-Sewa and Khalti need to focus on service quality to increase customer satisfaction. Overall, the results suggest that a multidimensional approach is needed to improve customer satisfaction in E-Sewa and Khalti.

The multiple regression analysis has been used to examine the cause-and-effect relationships among the variables. The model has been developed by considering variables such as the dependent Variable (i.e., customer satisfaction) and independent variables (e.g., service quality, mode of service delivery, price charged, knowledge, and Risk). Thus, the multiple regression equation incorporated is $CS = \alpha + \beta_1SQ + \beta_2MOSD + \beta_3PC + \beta_4 K + \beta_5R + e_j$.

Table 4 Model summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	.788a	.621	.616	.34655

Predictors: (Constant), service quality, mode of service delivery, price charged, knowledge, and Risk, and dependent variables: customer satisfaction

The R (multiple correlation coefficient) value of .788 indicates a strong positive correlation between the predictor variables and the dependent Variable. The R-squared value of .621 represents the proportion of the variance in the dependent Variable explained by the predictor variables. The adjusted R-squared value of .616 indicates that the predictor variables account for 61.6 percent of the variation in customer satisfaction, after accounting for the number of predictor variables in the model. The coefficient a in the R value indicates a significant correlation.

In conclusion, these results suggest that service quality, mode of service delivery, price charged, knowledge, and Risk have a strong and positive relationship with customer satisfaction, and

together they can explain 61.6% of the variation in customer satisfaction.

Table 5 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	74.452	5	14.890	123.989	.000
Residual	45.396	378	.120		
Total	119.847	383			

Dependent Variable: customer satisfaction

Predictors: (Constant), service quality, mode of service delivery, price charged, knowledge, and Risk

Table 5 indicates that the model is statistically significant. This implies that the research model is a good fit for explaining the effects of service quality, mode of service delivery, price charged, knowledge, and Risk on customers' satisfaction.

Table 6 Coefficients Analysis

	Unstandardized Coefficients	t	Sig.
	B		
(Constant)	0.691	5.023	0.000
Service Quality	0.090	2.317	0.021
Modes of Delivery Service	0.089	2.757	0.006
Price Charged	0.128	4.172	0.000
Knowledge	0.129	3.511	0.000
Risk	0.335	12.179	0.000

Dependent Variable: Customer Satisfaction

The positive regression coefficient for service quality is .090, indicating a positive impact of service quality on customer satisfaction. If service quality increases by 1 unit, the average increase in customer satisfaction is .090, holding other independent variables constant. The corresponding p-value for service quality is .021, which is less than .05. Thus, there is a significant impact of service quality on customer satisfaction

The study shows a strong positive relationship between the predictors and the dependent variable, with factors like service quality, delivery mode, price, knowledge, and risk all positively influencing customer satisfaction.

when using cashless payment methods such as E-sewa and Khalti.

Table 7 Hypothesis Test

Hypotheses	P-Value	Results
H1: Service quality has a significant impact on customer satisfaction.	0.021	Accept H1
H2: Mode of service delivery has an impact on customer satisfaction.	0.006	Accept H2
H3: Knowledge has a significant impact on customer satisfaction.	0.000	Accept H3
H4: Knowledge has a significant impact on customer satisfaction.	0.000	Accept H4
H5: Risk has a significant impact on customer satisfaction.	0.0	Accept H5

These hypothesis test results show that all proposed hypotheses were statistically significant ($p < .05$) and therefore acceptable. Hypothesis H1 is used to analyze the effect of Service Quality on Customer Satisfaction, yielding a $p = .021$; thus demonstrating that service quality does affect customer happiness. Hypothesis H2 is used to determine if the Method of Service Delivery impacts Customer Satisfaction, and was also shown to have a statistical relationship, producing a $p = .006$. Thus, it was demonstrated that the way services are delivered greatly affects customer satisfaction. Hypotheses H3 & H4 tested the effects of Consumer Knowledge on Customer Satisfaction and produced extremely high positive relationships ($p = .000$). Therefore, it was concluded that consumers' knowledge and understanding directly correlate with their overall satisfaction with the service. The consistent results between H3 & H4 reinforce the importance of knowledge as a major influencer of customer satisfaction.

Hypothesis H5 assessed how Risk impacts Customer Satisfaction, and with $p = .000$, it was demonstrated that there is an extremely high relationship between customer-perceived Risk and customer satisfaction. As such, it was demonstrated that improving risk management and reducing uncertainty will increase total customer satisfaction.

Thus, the results of the hypothesis tests demonstrate that service quality, the mode of service delivery, knowledge, and Risk are major factors in determining customer satisfaction. Therefore, service providers need to develop strategies that address each of these areas to improve customer satisfaction and ultimately create a better customer experience.

Discussion

The main aim of this study is to examine the interplay among factors such as service quality, mode of service delivery, price, knowledge, Risk, and customer satisfaction in the context of cashless payment systems. The research was conducted by reviewing multiple studies by various authors on cashless payments. The studies' findings are varied and provide a nuanced picture of the impact of cashless payments on customer satisfaction and behavior. Some studies (such as Tiwari and Singh, 2019) suggest that factors like service quality, delivery mode, price, knowledge, and Risk have a positive impact on customer satisfaction. On the other hand, other studies (such as Almajali et al., 2022, and Chang et al., 2021) indicate that perceived usefulness and privacy/performance risks significantly influence users' adoption and behavior. In addition to customer satisfaction and behavior, other studies (such as Jumba and Wepukhulu, 2019) have investigated the impact of cashless payments on financial performance, while others (such as Lu, 2018) have looked at its impact on the legal profession. Finally, studies (such as Kumari and Khanna, 2017) have explored the relationship between cashless payments and economic growth and development.

Thus, the findings of these studies provide further evidence of the importance of various factors in shaping the adoption and usage of cashless payment systems, including security, speed,

Service delivery is the cornerstone of customer satisfaction, with research (specifically hypotheses H3 and H4) confirming that a consumer's knowledge and understanding of a service are primary drivers of their overall experience.

Paper highlights the need for service providers to develop strategies to support and improve each service area, thereby improving customer satisfaction.

The relationship between service quality, delivery methods, pricing, consumer knowledge, and perceived risk forms the foundational framework for understanding customer satisfaction within the evolving landscape of cashless payment systems.

Research indicates a robust correlation between service quality and customer satisfaction, yet even when users trust the security of digital payment systems, concerns regarding specific threats to transaction integrity persist.

Service providers need to take security, privacy, and fraud protection seriously, as Risk affects customer satisfaction and behavior.

perceived usefulness, and demographic variables.

The findings of this study align with those of Cwynar et al. (2022) and Almajali et al. (2022) in highlighting the significance of perceived usefulness and demographic factors in determining the behavior intention of mobile payment system users. These studies provide further insight into the various aspects of cashless payment systems, including the impact of demonetization, financial performance, legal and regulatory considerations, central bank digital currencies, tax evasion, economic growth and development, and consumer behavior. The findings of this study align with the conclusions of Thirupathi et al. (2019), Jumba and Wepukhulu (2019), Immordino and Russo (2018), Mancini-Griffoli et al. (2018), Lu (2018), Kumari and Khanna (2017), and Khan et al. (2017) in highlighting the importance of various factors in shaping the use and adoption of cashless payment systems.

Conclusion

This study investigated the primary determinants of consumers' satisfaction with cashless payments. E-Sewa and Khalti are the two main forms of cashless payments in Nepal that we mainly examined. The study discovered that several factors, including (1) service quality, (2) service delivery mode, (3) pricing, (4) consumer understanding, and (5) perceived Risk, affect how satisfied customers are with using these cashless payments. Customer satisfaction and service quality were found to have a very positive and significant relationship. This suggests that higher customer satisfaction will result from service providers providing high-quality services that are quick, successful, and easy to use.

The survey also underlined how important it is for consumers to understand how to use these cashless payments, and that providing customers with technical support, training, and recommendations raises their satisfaction with these services. Nonetheless, the study found a positive correlation between customer satisfaction and service costs. According to the study, consumers believe they get better value from higher-priced services than from lower-priced ones. Lastly, the survey found that perceived Risk—which includes hacking,

privacy violations, fraud, and technological failure—is another significant factor affecting how satisfied users are with digital payment services. Consumers believe digital payment systems are secure, but there are still concerns about potential threats that could compromise transaction integrity. The research supported the need for a holistic approach to creating and delivering these services by confirming that several interrelated factors affect customer satisfaction with digital payment systems.

Implications

This study improves customer satisfaction among E-Sewa, Khalti, and other cashless payment providers. Technology and training are needed to trust digital payments. Companies should price fairly and clearly to increase consumer value.

Companies should improve security, privacy, and fraud protection, as Risk affects customer satisfaction. Reliable tech fosters consumer trust and satisfaction, especially in areas with poor Internet. Financial literacy and digital payment infrastructure need government funding. Data, rights, and dispute resolution reduce Risk and enhance confidence in the cashless payment system. Further research should examine how pricing and perceived Risk affect customer satisfaction and behavior.

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