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Trust as a mediator between perceived usefulness and customer satisfaction in digital payment services: Empirical evidence from Nepal

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Abstract: The rapid growth of digital payment services has transformed the banking sector by providing customers with greater convenience, efficiency, and accessibility. However, limited attention has been given to the psychological mechanism through which Perceived Usefulness influences Customer Satisfaction, particularly the mediating role of Trust in the Nepalese context. This study examines the mediating role of Trust in the relationship between Perceived Usefulness and Customer Satisfaction in digital payment services. A total of 480 questionnaires were distributed to users of digital payment services across 20 commercial banks within the Kathmandu Valley, yielding 400 valid responses that were included in the analysis. The study utilized a quantitative cross-sectional research design to examine the relationships between Perceived Usefulness, Trust, and Customer Satisfaction through Partial Least Squares Structural Equation Modeling (PLS-SEM). The results reveal that Perceived Usefulness has a positive effect on both Trust and Customer Satisfaction, while Trust also positively influences Customer Satisfaction. Furthermore, Trust significantly mediates the relationship between Perceived Usefulness and Customer Satisfaction, indicating that Perceived Usefulness enhances Customer Satisfaction both directly and indirectly through Trust. The study emphasizes the importance of reliable and trustworthy digital payment services, providing practical insights for enhancing customer satisfaction in Nepal's banking sector.

Keywords: *Customer satisfaction, Digital payment services, Perceived usefulness, PLS-SEM, Trust.*

1. Introduction

The rapid advancement of digital technologies has transformed the banking sector, reshaping how financial services are designed, delivered, and experienced. Digital banking has increasingly become a primary channel connecting banks with their customers, offering greater convenience, efficiency, and accessibility. Digital payment services in the banking industry have had a significant impact on consumer behaviour in Nepal, increasing the need for expert and individualized services. Research indicates that 93% of consumers believe e-banking is more affordable than traditional banking, and 68% of consumers are "a little satisfied" with it [1]. Digital bank acceptance is influenced by effort anticipation, habit, and enabling conditions, but habit is the best measure of acceptability [2]. In order to establish their reputation in digital banking products, banks should focus on consumer trust and service excellence [3]. Therefore, e-banking solutions, such as internet and mobile banking, have significantly altered retail and commercial bank transactions in Nepal [4]. Due to technological advancements and digitization, the current situation has completely changed, requiring customers to automate their financial services [5]. Putting services in clients' hands is now seen as an essential component of business strategy [6]. The landscape of consumer financial transactions is being drastically altered by the quick adoption of digital technology. More people can be contacted in person

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since more people than ever before use cellphones and the internet [7]. However, service quality improved and expenses decreased as the pandemic pushed organizations into digital platforms in ways that consumers would have initially opposed [8]. Public digital payments have become more convenient and secure due to the widespread use of smartphones and the ease of access to online networks [9]. When utilizing digital payment methods, many users still have concerns about security and trust. Despite the benefits of digital payment services, their information-based nature might result in bugs, login problems, and changes in service providers [10]. Rapid technological advances are reshaping consumer behaviour and expectations, giving rise to digital-savvy customers and transforming the bank–customer relationship [11].

Nepal's digital banking sector has expanded rapidly. According to Nepal Rastra Bank, mobile banking users increased by 15.4% to 24.65 million, while internet banking users reached 1.92 million by mid-July 2024. During the same period, the country had 12.89 million debit cards and 289,239 credit cards. QR-based payments also recorded strong growth, with transaction volume increasing by 117.03% in FY 2023/24 [12]. Although previous studies have mainly examined the direct relationships between digital service attributes and customer satisfaction, limited attention has been given to the psychological mechanisms, particularly the mediating role of trust, through which these relationships occur [13-15]. In the Nepalese banking context, despite the rapid growth of digital payment services, empirical research examining how perceived usefulness influences customer satisfaction through trust remains limited. This study therefore addresses this gap by examining trust as a mediator between perceived usefulness and customer satisfaction in digital payment services in Nepal.

2. Objective

To examine the mediating role of trust in the relationship between perceived usefulness and customer satisfaction in digital payment services in Nepal.

3. Literature Review

The Technology Acceptance Model (TAM) proposed by Davis [16] provides a theoretical foundation for understanding technology acceptance, particularly through perceived usefulness and perceived ease of use. Building on several established acceptance theories, Venkatesh, et al. [17] developed UTAUT to provide a broader explanation of technology adoption and usage. These theoretical perspectives are relevant to digital payment services because they help explain how users' perceptions of usefulness and technology-related factors influence their acceptance and use of digital banking services.

Digital payment services have emerged as a key element of modern financial systems, providing greater speed, convenience, and efficiency than traditional cash-based transactions. As digital transformation rapidly expands, understanding the factors that influence user adoption has become increasingly important. Customer satisfaction with digital payment platforms depends on various factors, including technological readiness, perceived value, and system performance. Examining these factors is particularly important in emerging economies, where digital literacy and trust in digital financial services continue to develop. Sthapit and Bajracharya [18] examined students' perceptions of business schools in Kathmandu and found that marketing strategies and Internet-related factors influence undergraduate students' willingness to support local educational institutions. The study further indicated that younger consumers tend to adopt e-banking services when they perceive lower risks and greater benefits associated with these services. Singh [19] examined the potential of digital transformation to enhance consumer convenience and create value through experiential engagement. Drawing on data from the 2017 Global Findex, the study found that perceived usefulness is a key factor motivating customers to adopt digital technologies.

Perceived Usefulness refers to the extent to which the user believes that using online banking services would enhance their banking experience [20]. In TAM, perceived usefulness is a major factor that drives trust, as noted by Choung, et al. [21], and satisfaction with the acceptance and adoption of

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online banking. Users' perception of usefulness indicates that technologies have the potential to enhance job performance and quality of life [22]. Users are reassured about efficiency if they believe that application systems can be useful in this regard, and they may expect efficient and accurate transaction processing. Digital banking users view usefulness as an indication that the service is accessible and personalized through a single interface, and perceived capability can raise their confidence in service efficiency and the reliable flow of information [22]. It is about outcomes and value at the end of the day, and users will assess whether an application makes things work better and faster rather than merely being simple [23]. In addition to perceiving high usefulness, people can view the application as a practical means of performing a task in a shorter time and achieving better results. This means that a user believes that a particular service system can enhance their productivity [24]. Consumers perceive applications as useful or beneficial and can use them to complete their tasks and realize their benefits. Similarly, when online banking payment services are perceived as useful by users, they are less likely to make errors and can complete their transactions in a short time, as reported by Panyahuti, et al. [25]. Ru-Zhue, et al. [26] found that perceived usefulness significantly and positively influences customer satisfaction, meaning that users who perceive electronic banking services as useful and beneficial for their financial situations are more satisfied. Trust is a basic factor in clients' willingness to use FinTech platforms. A growing body of research has established that perceived trustworthiness is a significant factor in adoption decisions [27, 28].

Alkhwaldi, et al. [29] show that trust is a key factor for user satisfaction and loyalty in FinTech. Trust lessens users' concerns about security and system functionality, thus enabling users to adopt the system. Trust is often viewed as one of the first factors in user satisfaction. Sangadji, et al. [30] showed that user trust is a key factor for satisfaction in online services and that higher trust is associated with satisfaction. Similarly, Maqableh, et al. [31] showed that trust leads to user satisfaction and, therefore, to the intention to reuse services. In agreement with these findings, Choudhury and Shamszare [32] found that trust in AI systems was positive, and they believed that trust in digital technology is important for user satisfaction. Customer satisfaction is a positive psychological feeling that is formed when consumer feedback is used to assess how well a product or service works for consumers [33]. The concept of pleasure is consumption pleasure, which is a measure of how good one expects something to be compared with its actual performance. Satisfaction does not follow a trend and is not predictable; consumer perceptions change with changing social conditions and personal preferences. Customer satisfaction is closely linked with customer trust. Satisfied customers show positive feelings about a service, and confidence develops as service delivery meets their expectations and functional needs [34]. In the electronic banking industry, satisfied users are more likely to use internet banking apps for financial transactions [35]. Positive experiences can raise customer confidence in the reliability of a service and trust in its quality and can build trust in digital banking services. Researchers have shown the positive impact of perceived usefulness on trust and satisfaction in the acceptance and adoption of technology services in general and online banking in particular [36, 37]. If customers believe online banking is useful, in most cases they will trust and enjoy it, which will build a higher level of confidence and lead to a positive view of the usefulness of the service; thus, customers will adopt and use digital banking services. From the review of previous literature, the following hypotheses are suggested:

H_1: Perceived usefulness positively influences customer satisfaction with digital payment services.

H_2: Perceived usefulness positively influences customers' trust in digital payment services.

H_3: Trust positively influences customer satisfaction with digital payment services.

H_4: Trust mediates the relationship between perceived usefulness and customer satisfaction with digital payment services.

4. Research Methodology

4.1. Research Design and Approach

This study used a quantitative, cross-sectional research design to investigate the relationship between perceived usefulness, trust, and customer satisfaction in digital payment services within the

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banking industry. It investigated the mediating role of trust in the relationship between perceived usefulness and customer satisfaction. The proposed research model is characterized by the independent variable of perceived usefulness, the mediating variable of trust, and the dependent variable of customer satisfaction. A quantitative method was applied to examine these relationships empirically through statistical analysis. The focus was on a cross-sectional study based on data collected from bank customers at one point in time, allowing the data to provide a picture of their attitudes and perceptions of digital payment services in Kathmandu Valley.

4.2. Population and Sampling

The study population consisted of users of digital payment services provided by the 20 commercial banks in Nepal, and the study focused on customers in the Kathmandu Valley. Because the number of users of digital payment services was unknown, we used the sample size formula for an unknown population: n = Z^2p(1-p)/E^2. Assuming a 95% confidence level, a 5% margin of error, and a population proportion of 0.50, the minimum required sample size was 385 respondents. However, the study had 400 valid responses, exceeding the minimum sample size requirement, so the sample size was sufficient for statistical analysis. Of the total number of respondents, 211 (52.8%) were female, and 189 (47.3%) were male.

4.3. Data Collection

Primary data were collected using a structured questionnaire designed to measure respondents' perceptions of usefulness, trust, and customer satisfaction with digital payment services. All three constructs were measured by five indicators, resulting in 15 different measurement items. A five-point Likert scale was used to measure respondents' level of agreement with each statement (1 = Strongly Disagree, 5 = Strongly Agree). A standardized response format allowed the researchers to systematically look at responses in terms of respondents' perceptions and attitudes toward digital payment services. The study consisted of two stages: measurement model assessment and structural model assessment. The measurement model was examined to assess the reliability and validity of the constructs using Cronbach's alpha, composite reliability, Average Variance Extracted (AVE), Heterotrait–Monotrait Ratio (HTMT), the Fornell–Larcker criterion, and cross-loadings. The assessment criteria were used to verify the internal consistency, convergent validity, and discriminant validity of the measurement model.

4.4. Ethical Aspects

The study was conducted in accordance with the ethical guidelines, and the data collection and research process were conducted to the best of our ability. The participants were informed about the purpose and nature of the study before answering. The respondents' privacy and confidentiality were respected, and the information gathered was handled responsibly and used only for academic and research purposes.

5. Results

5.1. Demographic Information

The demographic characteristics of the 400 respondents are presented in terms of gender, age, ethnicity/caste group, educational qualification, and occupation. The gender distribution shows that 211 respondents (52.8%) were female, while 189 respondents (47.3%) were male. Thus, female respondents constituted a slightly larger proportion of the sample than male respondents. The distribution indicates a relatively balanced representation of both genders. The age distribution indicates that the sample was predominantly composed of younger respondents. Specifically, 238 respondents (59.5%) were aged 16–24 years, followed by 121 respondents (30.3%) aged 25–34 years. In comparison, 29 respondents (7.3%) were aged 35–44 years, 11 respondents (2.8%) were aged 45–54 years, and only 1 respondent (0.3%) was

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aged 55 years or above. Overall, respondents aged 16–34 years accounted for 89.8% of the total sample, highlighting the strong representation of younger participants in the study.

Regarding ethnicity/caste, the respondents represented a diverse range of groups. Brahmin respondents constituted the largest proportion, with 109 respondents (27.3%), followed by 107 Chhetri respondents (26.8%) and 102 Newar respondents (25.5%). In addition, 74 respondents (18.5%) belonged to other ethnic/caste groups, while 8 respondents (2.0%) belonged to the Magar group. Overall, Brahmin, Chhetri, and Newar respondents together accounted for 79.6% of the total sample, while the remaining respondents represented other ethnic/caste groups, indicating a reasonably diverse composition of the study sample. In terms of educational qualifications, 281 respondents (70.3%) held a bachelor's degree, followed by 98 (24.5%) with a master's-level qualification. Only a small proportion had other qualifications (3.3%), a Ph.D. (1.3%), or an M.Phil. (0.8%). Overall, the sample was predominantly educated at the bachelor's level. Regarding occupation, 250 respondents (62.5%) were students, followed by 103 (25.8%) who worked in the private sector. The remaining respondents were self-employed (6.8%), employed in government service (3.0%), or unemployed (2.0%). The predominance of students is consistent with the sample's young age and educational profile.

5.2. Measurement of Model Evaluation

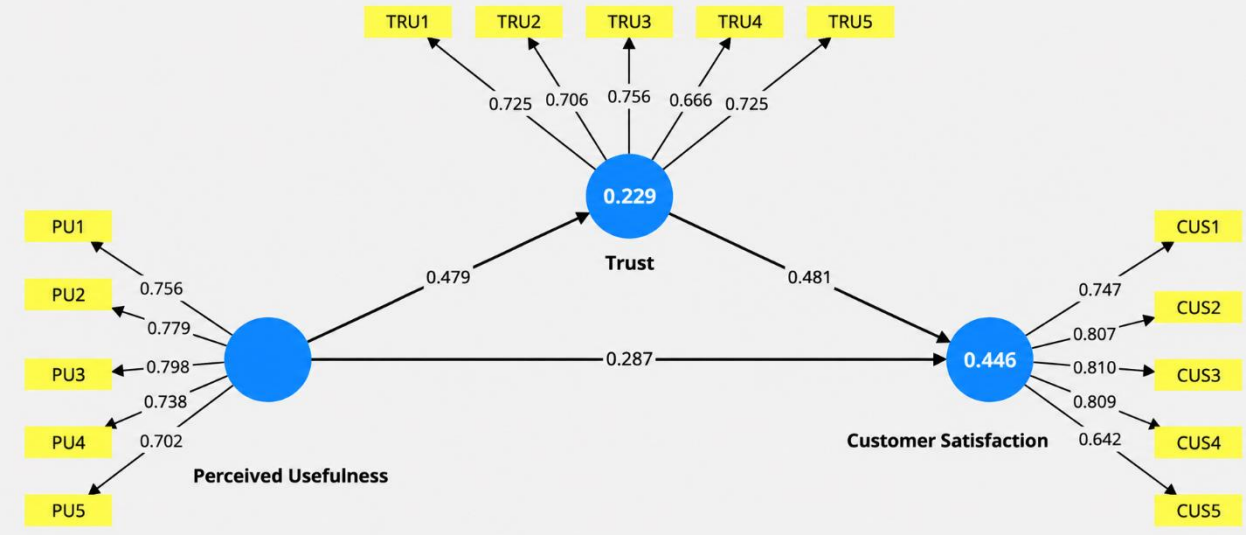


Figure 1.
Measurement model from Smart PLS.

Figure 1 presents the measurement model of the study, showing three latent constructs: perceived usefulness, trust, and customer satisfaction. Each construct is measured using five observed indicators. The values shown next to the indicators represent their outer loadings, which indicate how strongly each item represents its respective construct.

Table 1.
Convergent validity results.

Construct	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Customer Satisfaction	0.823	0.835	0.876	0.586
Perceived Usefulness	0.811	0.810	0.869	0.571
Trust	0.764	0.770	0.840	0.513

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Table 1 presents convergent validity results for Customer Satisfaction, Perceived Usefulness, and Trust. Cronbach's alpha values range from 0.764 to 0.823, while composite reliability (rho_a) ranges from 0.770 to 0.835 and composite reliability (rho_c) ranges from 0.840 to 0.876, all exceeding the recommended threshold of 0.70, indicating satisfactory internal consistency. Similarly, the AVE values range from 0.513 to 0.586, exceeding the recommended threshold of 0.50 and confirming satisfactory convergent validity. As a result, the concept of "convergent validity" was developed [38].

Table 2.
Model fit summary.

Endogenous Construct	R-square	R-square adjusted
Customer satisfaction	0.446	0.443
Trust	0.229	0.227

Table 2: The model fit summary presents the R-squared (R^2) and adjusted R-squared values for the endogenous constructs, Customer Satisfaction and Trust. The R^2 value for Customer Satisfaction is 0.446, indicating that 44.6% of its variance is explained by the predictor variables in the model, while the remaining 55.4% is explained by factors outside the model. Similarly, the R^2 value for Trust is 0.229, indicating that 22.9% of its variance is explained by the model, with the remaining 77.1% attributable to other factors. The adjusted R^2 values of 0.443 for Customer Satisfaction and 0.227 for Trust are very close to the respective R^2 values, indicating that the explanatory power remains stable after adjusting for the number of predictors.

Table 3.
Discriminant validity.

Heterotrait-Monotrait Ratio (HTMT)			
Construct	**Customer Satisfaction**	**Perceived Usefulness**	**Trust**
Customer Satisfaction			
Perceived Usefulness	0.624		
Trust	0.754	0.597	
Fornell-Larcker Criterion			
	Customer Satisfaction	Perceived Usefulness	Trust
Customer Satisfaction	0.766		
Perceived Usefulness	0.517	0.755	
Trust	0.619	0.479	0.716

Table 3 presents the discriminant validity results using the Heterotrait–Monotrait Ratio (HTMT) and Fornell–Larcker criterion. The HTMT values range from 0.597 to 0.754, which are below the commonly recommended threshold of 0.85, indicating that the constructs are sufficiently distinct from one another. Specifically, the HTMT values are 0.624 between Customer Satisfaction and Perceived Usefulness, 0.754 between Customer Satisfaction and Trust, and 0.597 between Perceived Usefulness and Trust. The Fornell–Larcker criterion also supports discriminant validity, as the square roots of the AVE shown on the diagonal (0.766, 0.755, and 0.716) are higher than the corresponding correlations with other constructs. Therefore, the results confirm that Customer Satisfaction, Perceived Usefulness, and Trust are empirically distinct constructs, supporting the discriminant validity of the measurement model.

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Table 4.
Discriminant validity – cross-loading.

Measurement Items	Customer Satisfaction	Perceived Usefulness	Trust	VIF
CUS_1	0.747	0.404	0.517	1.505
CUS_2	0.807	0.393	0.476	1.881
CUS_3	0.810	0.409	0.488	1.884
CUS_4	0.809	0.461	0.523	1.783
CUS_5	0.642	0.289	0.330	1.371
PERUSE_1	0.404	0.756	0.313	1.636
PERUSE_2	0.362	0.779	0.360	1.848
PERUSE_3	0.363	0.798	0.364	1.933
PERUSE_4	0.393	0.738	0.402	1.496
PERUSE_5	0.425	0.702	0.359	1.371
TRU_1	0.433	0.345	0.725	1.471
TRU_2	0.320	0.286	0.706	1.515
TRU_3	0.509	0.401	0.756	1.452
TRU_4	0.405	0.311	0.666	1.311
TRU_5	0.507	0.350	0.725	1.375

Table 4 presents the cross-loading results for assessing discriminant validity among Customer Satisfaction (e.g., CUS_1 to CUS_5), Perceived Usefulness (e.g., PERUSE_1 to PERUSE_5), and Trust (e.g., TRU_1 to TRU_5). The results indicate that all indicators have their highest loading on their respective constructs compared with the other constructs, supporting adequate discriminant validity. The loadings for Customer Satisfaction range from 0.642 to 0.810, Perceived Usefulness from 0.702 to 0.798, and Trust from 0.666 to 0.756. Although CUS_5 (0.642) and TRU_4 (0.666) have loadings slightly below 0.70, they remain above 0.60 and load more strongly on their intended constructs than on the other constructs. Furthermore, the VIF values range from 1.311 to 1.933, which are well below the commonly accepted threshold of 5.0, indicating that multicollinearity is not a concern. Overall, the findings provide satisfactory evidence of discriminant validity and acceptable indicator-level collinearity, supporting the adequacy of the measurement model for further analysis.

5.3. Structural Model Analysis

Table 5.
Direct effect.

Path Relationship	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Perceived Usefulness -> Customer Satisfaction	0.287	0.292	0.058	4.934	0.000
Perceived Usefulness -> Trust	0.479	0.484	0.065	7.337	0.000
Trust -> Customer Satisfaction	0.481	0.478	0.05	9.635	0.000

Table 5 presents the effect estimates for Perceived Usefulness, Trust, and Customer Satisfaction, including the original sample coefficient, sample mean, standard deviation, t-statistic, and p-value. The results indicate that Perceived Usefulness has a positive and statistically significant relationship with Customer Satisfaction, with a coefficient of 0.287, a t-statistic of 4.934, and a p-value of 0.000 ($p < 0.001$). Similarly, the relationship between Perceived Usefulness and Trust is positive and significant, with a coefficient of 0.479, a t-statistic of 7.337, and a p-value of 0.000 ($p < 0.001$). Likewise, Trust demonstrates a positive and statistically significant relationship with Customer Satisfaction, with a coefficient of 0.481, a t-statistic of 9.635, and a p-value of 0.000 ($p < 0.001$). Overall, all three reported

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relationships are positive and statistically significant, as their t-statistics exceed 1.96 and p-values are below 0.05, indicating meaningful relationships among the study constructs.

5.4. Mediating Analysis Results

Table 6.
Indirect effect.

Specific Indirect Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	p-value
Perceived Usefulness -> Trust -> Customer Satisfaction	0.23	0.231	0.033	6.891	0.000

Table 6 presents the mediation analysis examining the role of Trust in the relationship between Perceived Usefulness and Customer Satisfaction. In this model, Perceived Usefulness is the independent variable, Customer Satisfaction is the dependent variable, and Trust serves as the mediating variable. The indirect path, Perceived Usefulness → Trust → Customer Satisfaction, shows a positive effect with an original sample coefficient of 0.230. The t-statistic of 6.891 is well above the critical value of 1.96, while the p-value of 0.000 ($p < 0.001$) is below the 0.05 significance level, confirming that the indirect effect is statistically significant. The sample mean of 0.231 is very close to the original sample estimate, while the standard deviation of 0.033 indicates relatively low variability in the estimated effect. These findings demonstrate that Trust plays a significant mediating role, suggesting that greater perceived usefulness of digital payment services contributes to higher customer satisfaction partly by strengthening customers' trust in those services. Based on the direct effect of 0.287 and the indirect effect of 0.230, the total effect is 0.517. Since this value falls within the 20%–80% range, the relationship is characterized by partial mediation. Overall, the findings provide empirical support for the partial mediating role of Trust, indicating that Perceived Usefulness influences Customer Satisfaction both directly and indirectly through Trust.

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5.5. Structural Equation Model

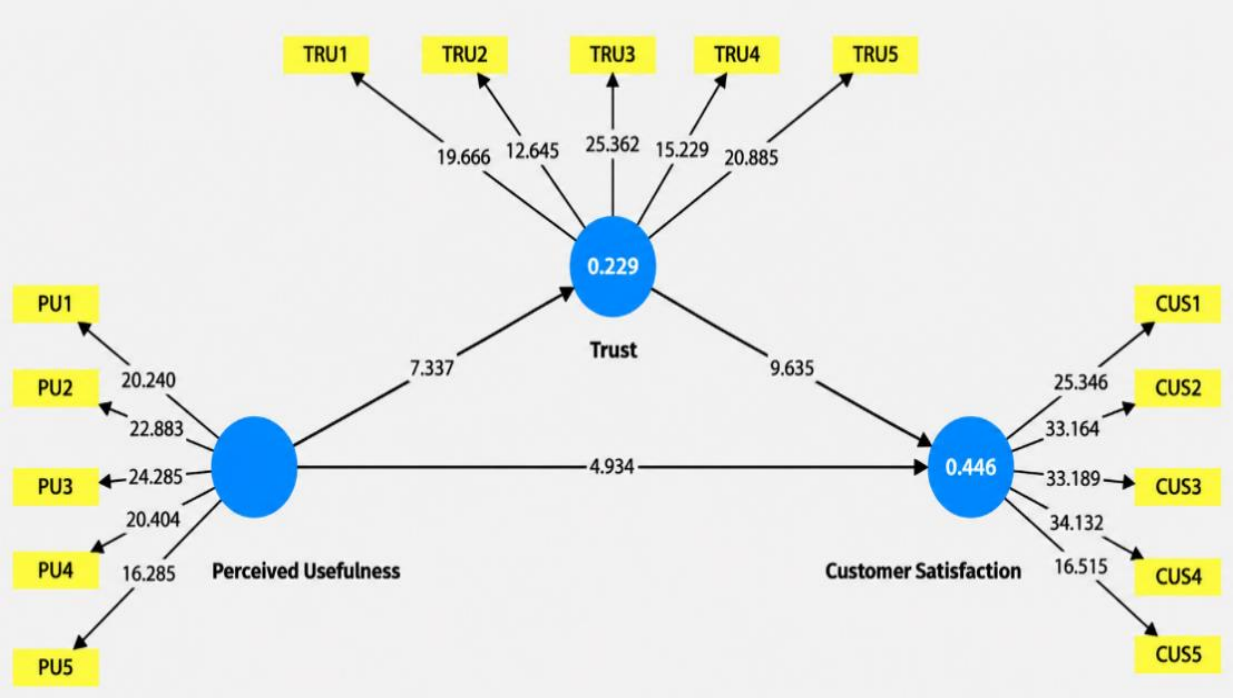


Figure 2.
Structural equation model.

Table 7.
Direct and indirect effects and hypothesis testing.

Hypothesis	Relationship	βeta	t-value	p-value	Decision
H_1	Perceived Usefulness → Customer Satisfaction	0.287	4.934	< .001	Supported
H_2	Perceived Usefulness → Trust	0.479	7.337	< .001	Supported
H_3	Trust → Customer Satisfaction	0.481	9.635	< .001	Supported
H_4	Perceived Usefulness → Trust → Customer Satisfaction	0.23	6.891	< .001	Supported

Table 7 presents the direct effects of Perceived Usefulness, Trust, and Customer Satisfaction. Perceived Usefulness has a positive and significant effect on Customer Satisfaction ($\beta = 0.287$, $t = 4.934$, $p < .001$), supporting H1. Similarly, the results indicate that Perceived Usefulness positively and significantly influences Trust ($\beta = 0.479$, $t = 7.337$, $p < .001$), supporting H2. In addition, Trust positively and significantly influences Customer Satisfaction ($\beta = 0.481$, $t = 9.635$, $p < .001$), providing support for H3. These findings suggest that customers who perceive digital payment services as useful are more likely to develop trust and experience greater satisfaction. The mediation analysis further demonstrates that Trust significantly mediates the relationship between Perceived Usefulness and Customer Satisfaction ($\beta = 0.230$, $t = 6.891$, $p < .001$), supporting H4. The results indicate that Perceived Usefulness affects Customer Satisfaction both directly ($\beta = 0.287$) and indirectly through Trust ($\beta = 0.230$). This suggests that when customers perceive digital payment services as useful, their trust in these services increases, which subsequently enhances their overall satisfaction. Thus, the findings highlight the important role of Trust as a mediating mechanism between Perceived Usefulness and Customer Satisfaction.

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6. Discussion

The findings confirm that Perceived Usefulness positively influences both Trust and Customer Satisfaction, while Trust also has a significant positive effect on Customer Satisfaction. Furthermore, the mediation analysis shows that Trust plays an important mediating role in the relationship between Perceived Usefulness and Customer Satisfaction, highlighting the importance of customer trust in digital payment services. The results revealed that perceived usefulness was significant and positively affected customer satisfaction, supporting H1. This indicates that customers are more satisfied with the digital payment service because they think that it is useful, efficient, and helpful for completing their financial transactions. This is in line with Ru-Zhue, et al. [26], who found that perceived usefulness is associated with customer satisfaction in electronic banking. Similarly, ElSayad [22] stated that customers' perceptions of the benefits and efficiency of digital financial services are related to perceived usefulness. The results indicate that perceived usefulness influences trust, which supports H2. This finding indicates that customers trust digital payment services when they perceive them as useful, efficient, and convenient. The results are in line with ElSayad [22], who found that perceived usefulness was important in enhancing people's trust in digital banking. It also supports Choung, et al. [21], Islam, et al. [36], and Rahman, et al. [37], who found that perceived usefulness, trust, and technology adoption were positively related. The findings also show that trust positively influences customer satisfaction, supporting H3; thus, customers will feel more satisfied when they trust the reliability, security, and performance of digital payment services. This is in line with Alkhwaldi, et al. [29], who found that trust is an important factor in satisfaction and loyalty in the FinTech context. It is also consistent with Sangadji, et al. [30] and Maqableh, et al. [31], who found that trust is favorable for satisfaction in online and digital service environments. Similarly, Choudhury and Shamszare [32] found that trust in digital technologies led to user satisfaction. The mediation results show that trust is strongly associated with perceived usefulness and customer satisfaction ($\beta = 0.230$, $t = 6.891$, $p < 0.001$), which supports H4. The direct effect is also significant ($\beta = 0.287$), so the mediation is partial. This indicates that perceived usefulness can increase customer satisfaction directly as well as indirectly by building customers' trust in digital payment services.

7. Conclusion

This study examined the mediating role of Trust in the relationship between Perceived Usefulness and Customer Satisfaction in digital payment services within the banking sector. Based on data from 400 respondents and PLS-SEM, all four proposed hypotheses were supported. The findings show that Perceived Usefulness positively influences both Trust and Customer Satisfaction, while Trust also significantly enhances Customer Satisfaction. Furthermore, Trust significantly mediates the relationship between Perceived Usefulness and Customer Satisfaction, indicating that usefulness contributes to satisfaction both directly and through trust. The findings suggest that customers are more satisfied when digital payment services are perceived as useful, efficient, convenient, and beneficial. Therefore, banks and digital payment providers should focus not only on improving service functionality but also on strengthening customer trust through secure transactions, reliable systems, transparent information, and responsive services. Overall, the study highlights Perceived Usefulness and Trust as important determinants of Customer Satisfaction and provides empirical support for applying the Technology Acceptance Model (TAM) to understand customer responses to digital payment services in the banking sector.

Institutional Review Board Statement:

This study was approved by the Institutional Review Board of Kathmandu BernHardt College, Bafal, Kathmandu, Nepal, under protocol number IRB 470, dated 30 September 30, 2026. Informed verbal consent was obtained from all participants, and all data were anonymize to protect participant confidentiality.

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Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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