

Digital Banking Adoption among Households in Nepal: An Empirical Analysis

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Abstract

This study analyzes the determinants of Digital Banking Adoption in Nepal, focusing on households in the Patan area of Lalitpur. Utilizing the Technology Acceptance Model (TAM), the research investigates the roles of perceived risk, performance expectancy, belief, and social influence in shaping user behavior. Data were collected through structured questionnaires from 355 respondents and analyzed using descriptive and inferential statistics, including correlation and regression analysis. The findings highlight that belief is the most significant predictor of Digital Banking Adoption, emphasizing the critical role of trust in fostering user confidence. Performance expectancy also plays a vital role, demonstrating that efficiency and functionality significantly influence adoption decisions. Social influence, particularly in Nepal's collectivist culture, further enhances adoption through peer and familial recommendations. Perceived risk, while a lesser factor, underscores the importance of addressing security concerns to encourage broader adoption. The study provides invaluable insights for financial institutions and policymakers to improve digital

banking services, enhance user trust, and leverage community dynamics to drive digital financial inclusion. The findings contribute to the broader discourse on the intersection of technology adoption and financial inclusion in developing economies like Nepal.

Keywords: *Digital Financial Inclusion, Developing Economies, Financial Technology (FinTech), Technology Acceptance Model (TAM), Nepal*

Introduction

The advancements in telecommunications and information technology have revolutionized financial services globally, offering unparalleled convenience and accessibility to consumers (Alnemer, 2022; Gautam & Sah, 2023; Thottoil et al., 2024). Among these innovations, digital banking has emerged as a transformative tool, enabling users to conduct diverse financial transactions—such as fund transfers, bill payments, and account management—via mobile devices (Alalwan et al., 2016; Farah, 2018). This paradigm shift has not only reshaped banking operations but also expanded access to financial services, particularly in developing economies including Nepal, where digital financial inclusion is pivotal for economic growth (Pokhrel, 2022; Adhikari et al., 2024).

The number of digital banking users reached 17.6 million in May 2022, reflecting a 1.66% year-on-year increase (Pokhrel, 2022; Chaudhary et al., 2024). These trends highlight a growing preference for contactless financial solutions, accelerated by the COVID-19 pandemic. The adoption of digital payment systems among Nepalese households has seen a notable increase, particularly during the COVID-19 pandemic. As of March 2023, the number of digital wallet users in Nepal surpassed 16.1 million, reflecting a 46% year-on-year growth from the previous year's 11 million users. This surge is attributed to increased smartphone penetration and more affordable data services. Nepal's digital payment ecosystem has experienced significant growth over the past decade, driven by technological innovations and policy interventions by the Nepal Rastra Bank (NRB). Data from the Payment Oversight Report 2022/23 reveals that digital payment systems such as connect IPS, QR-based payments, and mobile wallets have seen exponential growth, with wallet users increasing from 6.27 million in mid-2020 to 18.94 million by mid-2023 (NRB, 2023).

Despite the progress, several barriers to widespread Digital Banking Adoption persist. Key challenges include perceived security risks, usability issues, limited digital literacy, and a lack of trust in technology (Alsheikh & Bojei, 2012; Merhi, 2020). The NRB has introduced multiple initiatives, including the Cyber Resilience Guidelines 2023 and the Financial Literacy Framework 2022, to address these challenges and foster trust and security in digital financial services. These regulatory efforts align with the findings of the Technology

Acceptance Model (TAM), which underscores the importance of perceived ease of use, performance expectancy, and trust in shaping technology adoption behaviors (Davis, 1989; Venkatesh et al., 2003).

The study investigates about the determinants of Digital Banking Adoption in Nepal with a focus on households in the Patan area of Lalitpur. By integrating empirical data from NRB's oversight report with the TAM framework, this research examines the roles of perceived risk, performance expectancy, belief (trust), and social influence in shaping user behavior. In doing so, it seeks to provide actionable insights for banking institutions to enhance digital banking services, address user needs, and contribute to the broader discourse on digital financial inclusion. The findings of this study hold significant implications for policymakers, financial institutions, and other stakeholders in Nepal's digital payment ecosystem. By addressing barriers and leveraging opportunities for technological innovation, this research aspires to foster sustainable growth in Digital Banking Adoption and advance financial inclusion in Nepal. The subsequent sections provide a detailed review of the literature, research methodology, empirical findings, and policy recommendations aimed at enhancing the adoption of digital banking services in Nepal.

Literature Review and Hypothesis Development

The Technology Acceptance Model (TAM) is widely recognized as a foundational framework for understanding technology adoption, particularly in contexts like Nepal, where digital financial inclusion is crucial for economic development. TAM's relevance is heightened in Nepal due to the increasing shift towards digital banking, driven by efforts to integrate underbanked populations into formal financial systems (Chin et al., 2021). By addressing barriers such as limited digital literacy and trust deficits, TAM provides a robust basis for examining how perceived ease of use and perceived utility influence Digital Banking Adoption behaviors in this unique socio-economic landscape. Developed by Davis (1989), TAM posits that perceived ease of use and perceived utility are the two primary factors influencing an individual's intention to use a technology. Perceived ease of use refers to the degree to which a person believes that using a system would be free of effort, while perceived utility relates to the extent to which a person believes that a system enhances their performance (Davis, 1989; Charness, 2016). For instance, older adults who find digital platforms challenging may avoid adopting them, while those who perceive them as mentally stimulating and easy to navigate are more likely to engage (Merhi, 2020). Although TAM has faced criticisms for oversimplifying complex adoption behaviors, it remains a robust

and frequently applied model in understanding technology adoption across diverse contexts (Braun, 2013; Venkatesh & Bala, 2008).

Digital banking is a transformative technology that has significantly reshaped banking operations globally (Son et al., 2019; Thottoil et al., 2024). It provides users with the ability to access financial and non-financial services, such as account management, balance inquiries, fund transfers, bill payments, PIN changes, and checkbook requests, directly through their mobile devices (Tan, 2016). Tuli, (2024) stated that the convenience has made digital banking an essential tool in modern financial services. However, its adoption varies significantly across regions, influenced by factors such as technological infrastructure, user awareness, and trust in digital platforms (Allen et al, 2021; Farah, 2018). By addressing these factors, financial institutions can enhance user experiences and promote widespread adoption (Alsheikh & Bojei, 2012).

Perceived Risk and Digital Banking Adoption

Perceived risk is a critical factor affecting Digital Banking Adoption, particularly in Nepal where users often face heightened concerns about security and privacy. Studies have highlighted that issues such as fears of data breaches, financial fraud, and hacking are particularly prevalent in the Nepalese context, as evidenced by findings in the Kathmandu Valley, where numerous users expressed low confidence in the security measures of digital platforms. Additionally, factors like the risk of mobile device theft and cyber threats further exacerbate these concerns, underscoring the need for robust security measures and consumer education. It refers to the uncertainty surrounding the outcomes of digital banking transactions and encompasses economic, functional, psychological, and social threats (Adhikari et al, 2024; Priya, 2018). High perceived risks, such as fears of data breaches, hacking, and financial fraud, often deter potential users from adopting digital banking services (Arcand, 2017; Farah, 2018). Additionally, the loss of mobile devices and the increasing prevalence of cyber threats exacerbate these concerns (Priya, 2018). Studies have consistently shown that heightened perceived risks negatively impact user trust and reduce the perceived value of digital banking services, leading to lower adoption rates (Tan, 2016; Merhi, 2020).

H1: There is a significant relationship between Perceived Risk and Digital Banking Adoption.

Performance Expectancy and Digital Banking Adoption

Performance expectancy reflects a user's perception of how a technology improves their performance. In the context of Nepal, digital banking systems enhance performance expectancy through features like real-time fund transfers, simplified bill payments, and seamless account management. These functionalities not only reduce the time and effort required for financial transactions but also address geographical barriers, making banking services accessible to underbanked regions. By aligning digital banking features with user expectations for efficiency and convenience, financial institutions can significantly drive adoption rates. This construct is closely linked to perceived usefulness, which suggests that users are more likely to adopt a technology if it simplifies and accelerates their tasks (Farah, 2018; Venkatesh et al., 2003). Digital banking systems provide consumers with seamless and constant access to financial services, enabling faster and more efficient transactions (Merhi, 2020). Research indicates that perceived usefulness significantly influences users' behavioral intentions to adopt digital banking (Tan, 2016; Foroughi, 2019). By improving functionality and accessibility of these systems, financial institutions can enhance user satisfaction and drive adoption.

H2: There is a significant relationship between Performance Expectancy and Digital Banking Adoption.

Belief and Digital Banking Adoption

Belief, often conceptualized as trust in the context of digital banking, is pivotal in shaping user behavior (Davinson & Sillence, 2014). In Nepal, banks have implemented several trust-building measures to address users' concerns. These include enhanced security protocols, such as two-factor authentication and encryption, to protect sensitive financial data. Besides, banks are conducting user education initiatives, like digital literacy campaigns and workshops, to build confidence among customers about the safety and reliability of digital banking platforms. These efforts play a critical role in fostering trust and driving the adoption of digital banking services. Trust refers to a user's confidence in the reliability and security of a system to meet their expectations (Alalwan, 2016; Merhi, 2020; Ghimire & Adhikari, 2023). Given the sensitive nature of financial transactions, issues such as fraud, privacy concerns, and data breaches significantly impact users' belief in digital banking platforms (Farah, 2018; Sahoo & Pillai, 2017). Positive beliefs in a platform's security and reliability not only enhance user confidence but also foster satisfaction and continued usage (Tan, 2016).

H3: There is a significant relationship between Belief and Digital Banking Adoption.

Social Influence and Digital Banking Adoption

Social influence refers to the degree to which individuals perceive that important people in their lives, such as family, friends, or colleagues, believe they should adopt a particular technology (Farah, 2018; Venkatesh et al., 2003). In Nepal's collectivist culture, social networks play a crucial role in shaping technology adoption decisions. For instance, family recommendations often guide financial behavior, while peer discussions in community settings encourage trust in digital banking platforms. Anecdotal evidence from local adoption trends highlights the impact of endorsement by influential community leaders or early adopters within social groups, further reinforcing collective decision-making dynamics. Normative pressures and the opinions of social networks play a significant role in shaping users' intentions, especially in collectivist cultures where interpersonal relationships strongly influence decision-making (Merhi, 2020). Older adults, in particular, may rely heavily on the recommendations of trusted individuals when deciding whether to adopt digital banking services (Tan, 2016). Reference reviews and shared experiences within social circles further reinforce adoption intentions (Farah, 2018).

H4: There is a significant relationship between Social Influence and Digital Banking Adoption.

Therefore, the Technology Acceptance Model (TAM) was chosen as the guiding framework due to its widespread application in studies of technology adoption (Davis, 1989; Venkatesh & Davis, 2000). TAM posits that perceived ease of use and perceived usefulness are critical drivers of behavioral intention, which aligns well with the objectives of this study. By incorporating additional variables—belief, perceived risk, and social influence—the study provides a nuanced understanding of the behavioral drivers influencing Digital Banking Adoption in Nepal.

The study incorporates the TAM Model which is related with the variables that is perceived risk performance expectancy, belief and social influence. The conceptual framework shows the relationship between independent variables (perceived risk, performance expectancy, belief, social influence) and dependent variables (preference of Digital Banking Adoption). The figure illustrates all the developed hypotheses (H1 to H4) between each of the variables that is perceived risk performance expectancy, belief, social influence and Digital Banking Adoption. The research adhered to ethical guidelines throughout the study. Participants were informed about the purpose and scope of the research and provided consent before participation. Anonymity and confidentiality were strictly maintained, ensuring that data were used solely for academic purposes.

Methods

Research Design

This study employs a quantitative methodology to explore behavioral factors influencing Digital Banking Adoption in Lalitpur district, specifically in the Patan area. A causal research design has been adopted. The descriptive design interprets patterns and variability in the data using statistical measures such as mean and standard deviation, enabling a comprehensive understanding of central tendencies and relationships between the dependent variable (Digital Banking Adoption) and key determinants: belief, perceived risk, performance expectancy, and social influence. The causal design focuses on testing hypotheses to assess the impact of these determinants, offering a robust framework for understanding causal relationships.

Population and Sampling

The study targets people directly involved in digital banking transactions in Lalitpur Metropolitan City, ward no. sixteen. The area of the study was chosen for its cultural and socioeconomic diversity, which enhances the generalizability of findings to the broader Kathmandu Valley. A convenience sampling technique was employed to align the sample with the research objectives, while convenience sampling was used for practicality. Structured questionnaires were distributed to 400 respondents, of which 355 valid responses were returned, resulting in a response rate of 88.75%. Participants were aged 18 years and above, and inclusion criteria required that respondents had prior experience using digital banking services for financial transactions.

Instruments and Data Collection

A structured questionnaire was developed to collect primary data, leveraging established scales from prior research to ensure conceptual alignment and measurement accuracy (Alnemer, 2022; Farah, 2018; Pokhrel, 2022). Items were designed using a 5-point Likert scale to assess perceptions, attitudes, and behaviors toward Digital Banking Adoption. The questionnaire was pre-tested to refine clarity and reliability, incorporating feedback from experts and pilot respondents. The data collection process prioritized ethical considerations, including informed consent, anonymity, and the voluntary nature of participation.

Validity and Reliability

To ensure the rigor of the research instrument, both validity and reliability were rigorously tested. Construct validity was confirmed through alignment with theoretical frameworks,

particularly the Technology Acceptance Model (TAM), and a thorough review of the literature (Davis, 1989; Venkatesh & Bala, 2008). Reliability was assessed using Cronbach's Alpha, with values for perceived risk ($\alpha = 0.931$), performance expectancy ($\alpha = 0.853$), belief ($\alpha = 0.918$), and social influence ($\alpha = 0.745$) all exceeding the recommended threshold of 0.7 for exploratory studies (Nunnally, 1978). These results demonstrate high internal consistency among questionnaire items.

Data Analysis

Descriptive and inferential statistical techniques were applied to analyze the data. Descriptive statistics, including mean, standard deviation, and coefficient of variation, summarized the dataset and highlighted patterns. Inferential techniques included correlation analysis to examine the strength and direction of relationships among variables and regression analysis to assess the causal effects of the independent variables—belief, perceived risk, performance expectancy, and social influence—on Digital Banking Adoption (Farah, 2018; Merhi, 2020). Statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS) software.

The research model forms an equation that is

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

Where,

β_0 = Constant

$\beta_1, \beta_2, \beta_3$ and β_4 = Estimated slope coefficient

Y = Digital Banking Adoption

X_1 = Perceived Risk

X_2 = Performance Expectancy

X_3 = Belief

X_4 = Social Influence

Results and Discussion

The socio-demographic profile (Table 1) highlights that the majority of respondents are female (68.5%) and predominantly aged 18–22 years (35.8%), indicating a younger, female-dominated sample engaging with digital banking in Lalitpur district. Most participants are unmarried (65.1%), with a significant proportion holding postgraduate qualifications (42.5%), followed by bachelor's degrees (31.8%), reflecting the role of higher education in technology adoption. Students form the largest occupational group (42%), suggesting that digital banking is particularly popular among younger, educated individuals. These findings emphasize the importance of targeting technologically literate younger users while

addressing adoption barriers for older, less-educated, and lower-income groups to promote financial inclusion.

Table 1

Socio-Demographic Profile

Characteristics	Categories	Frequency	Percent
Gender	Male	112	31.5
	Female	243	68.5
Age Group	18-22	127	35.8
	23-27	46	13.0
	28-32	59	16.6
	33-37	50	14.1
	38-42	15	4.2
	43 and above	58	16.3
Marital Status	Married	124	34.9
	Unmarried	231	65.1
Education Level	Up to S.L.C	38	10.7
	Intermediate	53	14.9
	Bachelor	113	31.8
	Post graduate and above	151	42.5
Occupation	Student	149	42.0
	Business	41	11.5
	Government Sector	72	20.3
	Public Sector	37	10.4
	Private Sector	56	15.8

Table 2

Reliability Analysis and Descriptive Statistics of Independent and Dependent Variables

Variable	No. of Items	Cronbach's Alpha	Mean	Standard Deviation
Perceived Risk	5	.931	2.75	.952
Performance Expectancy	8	.853	3.94	.632

Belief	7	.918	3.54	.807
Social Influence	5	.745	3.67	.704
Digital Banking Adoption	6	.684	3.37	.763

The reliability analysis and descriptive statistics (Table 2) indicate high internal consistency across most constructs, with Cronbach's Alpha values exceeding the recommended threshold of 0.7 for perceived risk (0.931), performance expectancy (0.853), belief (0.918), and social influence (0.745). Digital Banking Adoption shows moderate reliability (0.684), still acceptable for exploratory research. The mean scores reveal that performance expectancy (3.94) and social influence (3.67) are rated higher than belief (3.54) and Digital Banking Adoption (3.37), while perceived risk has the lowest mean (2.75), reflecting mixed attitudes toward its impact. The standard deviations indicate moderate variability, with perceived risk (0.952) and belief (0.807) showing greater spread compared to performance expectancy (0.632) and social influence (0.704), suggesting differing perceptions among respondents for these variables. These findings validate the robustness of the constructs and provide meaningful insights into the factors influencing Digital Banking Adoption.

Table 3

Correlation between Independent Variables and Dependent Variable

	Digital Banking Adoption	Perceived Risk	Performance Expectancy	Belief	Social Influence
Digital Banking Adoption	1				
Perceived Risk	-.594**	1			
Performance Expectancy	.816**	-.694**	1		
Belief	.833**	-.774**	.889**	1	
Social Influence	.764**	-.571**	.790**	.799**	1

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

Table 3 presents the Pearson correlation coefficients between Digital Banking Adoption and the independent variables: Perceived Risk, Performance Expectancy, Belief, and Social Influence. The results indicate that Belief (Trust) exhibits the strongest positive correlation with Digital Banking Adoption ($r = 0.833$, $p < 0.01$), followed by Performance Expectancy ($r = 0.816$, $p < 0.01$) and Social Influence ($r = 0.764$, $p < 0.01$). These findings suggest that trust, perceived usefulness, and societal influence play crucial roles in influencing digital banking adoption among households in Nepal. Conversely, Perceived Risk shows a significant negative correlation ($r = -0.594$, $p < 0.01$), indicating that security concerns, privacy issues, and the fear of fraud discourage users from adopting digital banking services. However, this correlation is weaker than the positive associations of other factors, implying that building trust and improving awareness can mitigate risk concerns. Among the independent variables, Belief and Performance Expectancy exhibit the highest inter-correlation ($r = 0.889$, $p < 0.01$), reinforcing that users who perceive digital banking as beneficial are also more likely to trust it. Similarly, Social Influence is strongly correlated with both Belief ($r = 0.799$, $p < 0.01$) and Performance Expectancy ($r = 0.790$, $p < 0.01$), highlighting the role of peer recommendations and family influence in shaping adoption behavior.

These findings emphasize that trust (belief) is the most critical determinant of digital banking adoption, aligning with existing research that underscores the importance of security and reliability in financial technology adoption. Performance expectancy also plays a significant role, suggesting that users prioritize efficiency, ease of use, and convenience when considering digital banking services. The strong correlation of social influence further reflects Nepal's collectivist culture, where peer recommendations and familial opinions significantly impact financial decisions. Although perceived risk negatively affects adoption, its influence appears to be less dominant, suggesting that financial institutions can improve digital banking uptake by enhancing cybersecurity measures, strengthening regulatory frameworks, and conducting user awareness programs. Thus, the correlation analysis highlights the combined influence of trust, perceived usefulness, and social influence as key drivers of digital banking adoption, while also stressing the need to address risk perceptions to foster greater digital financial inclusion in Nepal.

Table 4*Regression Analysis*

	B	Std. Error	T	Sig.
(Constant)	-0.705	0.253	-2.719	0.006
Perceived Risk	0.085	0.040	2.451	0.015
Performance Expectancy	0.348	0.289	4.638	0.000
Belief	0.474	0.501	6.920	0.000
Social Influence	0.213	0.197	4.120	0.000
Adjusted R square		0.737	R	0.860
F		249.012	Sig.(F)	0.000

The results of the regression analysis in Table 4 provide insights into the determinants of Digital Banking Adoption in Patan, Lalitpur. The constant term (-0.705, $p = 0.006$) is statistically significant, indicating that when all independent variables are excluded, there is a baseline influence on Digital Banking Adoption that is not accounted for by the predictors included in the model.

Among the independent variables, perceived risk has a positive and statistically significant effect ($B = 0.085$, $p = 0.015$), suggesting that while perceived risk may introduce hesitation, it also prompts users to adopt safeguards, potentially encouraging Digital Banking Adoption. This implies that addressing security concerns effectively can positively influence adoption rates. Performance expectancy demonstrates a strong positive relationship with Digital Banking Adoption ($B = 0.348$, $p < 0.001$), highlighting that users' perceptions of the utility and efficiency of digital banking significantly influence their decision to adopt the technology. This result underscores the importance of enhancing the functional benefits of digital banking systems to meet user expectations for convenience and effectiveness.

The variable belief exhibits the highest coefficient among the predictors ($B = 0.474$, $p < 0.001$), establishing trust as the most influential factor in this study. This finding emphasizes the critical role of trust in shaping users' confidence in the reliability and security of digital banking platforms, which significantly drives adoption. Similarly, social influence also has a positive and significant effect ($B = 0.213$, $p < 0.001$), indicating that societal dynamics, such as recommendations and encouragement from peers and family, play an important role in influencing individuals' decisions to adopt digital banking. This highlights the relevance

of leveraging community dynamics and social networks to promote adoption in culturally collectivist settings like Nepal.

The overall model fit is robust, as indicated by an adjusted R-squared value of 0.737, which means that 73.7% of the variance in Digital Banking Adoption is explained by the predictors in the model. Furthermore, the F-statistic (249.012, $p < 0.001$) confirms the model's overall statistical significance, validating its predictive power. Therefore, the regression analysis highlights belief (trust), performance expectancy, social influence, and perceived risk as significant predictors of Digital Banking Adoption. Among these, belief emerges as the most critical factor, while performance expectancy also has a substantial impact. These findings provide critical insights for financial institutions aiming to enhance Digital Banking Adoption through targeted strategies that build trust, emphasize performance benefits, and address security concerns.

Discussion

This paper findings reveals that the key determinants influencing the adoption of digital banking among households in Patan, Lalitpur, with several critical predictors identified: belief (trust), performance expectancy, perceived risk, and social influence. The findings reveal that trust (belief) is the most significant determinant, a result that aligns with prior research on technology adoption. Trust has been widely recognized as a central factor in Digital Banking Adoption (Alalwan et al., 2016; Farah, 2018), and this study reaffirms its critical role in the Nepalese context. In Nepal, where digital literacy is still evolving, users' trust in digital banking platforms is paramount for encouraging their engagement in financial transactions. This finding resonates with Gautam and Sah (2023), who argue that trust is essential for fostering e-customer satisfaction and loyalty in the country. These studies suggest that in developing markets like Nepal, where users may be more cautious with new financial technologies, building trust is crucial for successful Digital Banking Adoption.

When compared to the studies from technologically advanced regions, the significance of trust remains consistent, but the maturity of digital ecosystems appears to influence the strength of this factor. For instance, in Saudi Arabia, Alnemer (2022) found that trust had a high effect size on Digital Banking Adoption, but with a more established digital infrastructure and higher digital literacy levels, users were more likely to trust mobile platforms. In contrast, the Nepalese context presents unique challenges, where trust-building may require a more gradual approach, especially given the digital divide and uneven internet accessibility across rural areas (Pokhrel, 2022).

Besides trust, performance expectancy emerges as a strong predictor of Digital Banking Adoption. This aligns with the Technology Acceptance Model (TAM), which asserts that perceived usefulness (or performance expectancy) is a primary motivator for technology adoption (Venkatesh et al., 2003). The positive relationship observed between performance expectancy and adoption in this study mirrors findings in other markets, including those in Bangladesh (Islam et al., 2019) and India (Bhatt & Bhatt, 2016). Both studies suggest that users are more likely to adopt digital banking when they believe it improves their financial management efficiency. This is particularly relevant for Nepalese users, where access to physical banking infrastructure can be limited, and digital banking offers a convenient alternative for time- and cost-sensitive consumers.

However, perceived risk presents a more nuanced picture. While perceived risk is often seen as a deterrent to technology adoption, our study reveals a moderate positive relationship ($B = 0.085$), suggesting that moderate risk awareness might encourage users to take protective measures, such as using secure passwords or verifying transactions. This finding contrasts with the dominant view in earlier studies, such as Laforet and Li (2005), which classified perceived risk as a major barrier to adoption, particularly in developing countries. In Nepal, however, the relationship between perceived risk and adoption may be changing as digital literacy improves and users become more adept at navigating potential risks (Chaudhary et al., 2024). Pokhrel (2022) notes that as internet literacy and digital security awareness increase, users in Nepal may be becoming more comfortable with digital banking platforms, thereby mitigating some of the perceived risks traditionally associated with e-banking.

The role of social influence also plays a significant role in the adoption of digital banking, particularly in the context of Nepal's collectivist culture. Social influence—such as recommendations from family, peers, and social networks—emerges as a strong predictor of Digital Banking Adoption (Senou et al., 2019). This finding mirrors the work of Tan (2016), who notes that decision-making in collectivist societies like Nepal is heavily influenced by social networks. In contrast, studies in individualistic societies, such as those by Cheah et al. (2011) imply that the influence of social networks tends to be weaker. This cultural distinction may explain why social influence has a stronger effect on Digital Banking Adoption in Nepal than in individualistic societies.

Thus, the comparative analysis with regional studies from Bangladesh (Islam et al., 2019) and India (Bhatt & Bhatt, 2016) reveals important insights. While trust and performance expectancy remain crucial determinants in all three countries, the perceived risk factor shows regional variability. In Bangladesh and India, security concerns are more

pronounced, suggesting that these markets face more significant challenges related to digital security, perhaps due to lower levels of digital literacy or more frequent incidents of cybercrime. In contrast, Nepal's evolving digital literacy landscape (Pokhrel, 2022) and increasing government and private sector investments in digital security infrastructure might explain the more moderate role of perceived risk in this study. Furthermore, in these neighboring countries, social influence and cultural norms similarly shape adoption behavior, reinforcing the cultural importance of collective decision-making (Islam et al., 2019). In summary, this study contributes to the growing body of literature on Digital Banking Adoption, highlighting the critical role of trust, performance expectancy, perceived risk, and social influence in the Nepalese context. The findings underscore the importance of a nuanced understanding of how these factors interact, particularly as digital literacy and infrastructure evolve. While many of the determinants identified here are consistent with regional studies, the unique cultural and technological context of Nepal requires tailored strategies to address the specific barriers and opportunities present. As Nepal continues to embrace digital financial services, future research could explore the changing dynamics of these factors as the country's digital ecosystem matures, particularly focusing on longitudinal studies to capture evolving trends in Digital Banking Adoption.

Conclusion

The paper has explored that belief (trust), performance expectancy, perceived risk, and social influence significantly influence the adoption of digital banking in Patan, Lalitpur. Among these factors, trust stands out as the most critical determinant, highlighting the necessity for financial institutions to prioritize system reliability, security, and transparency in their digital banking platforms. This aligns with previous research, which underscores trust as a fundamental factor for adoption, particularly in developing markets like Nepal. Performance expectancy plays a key role, emphasizing the importance of providing efficient, accessible, and user-friendly services to enhance the perceived usefulness of digital banking as well. Social influence, driven by Nepal's collectivist culture, further underscores the importance of community and social networks in shaping user behavior. This implies that peer recommendations and familial influence play a crucial role in encouraging Digital Banking Adoption.

Although perceived risk showed a smaller yet positive effect, it remains a crucial factor in shaping users' perceptions and decisions, particularly in the context of digital security. Addressing security concerns through education and enhanced security features could help mitigate these risks and bolster user confidence.

The findings impart valuable insights for banking institutions seeking to expand Digital Banking Adoption in Nepal. To optimize adoption rates, institutions should focus on building trust, improving service efficiency, and leveraging social influence. Future research could investigate the moderating effects of demographic factors, such as age, income, and education, to offer a more granular understanding of user behavior. Additionally, longitudinal studies could provide insights into how these dynamics evolve over time, offering a deeper understanding of changing attitudes and behaviors as Nepal's digital ecosystem matures.

By addressing these critical determinants, financial institutions can not only increase Digital Banking Adoption but also contribute significantly to advancing financial inclusion in Nepal, bridging the digital divide and offering greater access to financial services for underserved populations.

Implications

The findings offer significant theoretical contributions and managerial implications for the digital banking ecosystem in Nepal. From a theoretical perspective, the research extends the Technology Acceptance Model (TAM) by integrating belief (trust), social influence, and perceived risk, providing a context-specific understanding of digital banking adoption in a developing economy. The strong influence of belief (trust) on adoption behavior reinforces the need to further explore trust-building mechanisms in fintech adoption research.

From a practical standpoint, the study provides actionable insights for financial institutions, policymakers, and fintech service providers. Given that belief (trust) emerged as the strongest predictor, banks and digital payment providers should prioritize enhancing cybersecurity measures, increasing transparency in digital transactions, and educating users on fraud prevention to strengthen consumer confidence. The significant role of performance expectancy suggests that banks should focus on improving the usability, efficiency, and reliability of digital banking services. Additionally, the influence of social factors highlights the importance of leveraging word-of-mouth marketing, digital literacy programs, and community engagement initiatives to drive broader digital banking adoption. Policymakers can use these insights to develop regulatory frameworks that support consumer protection, cybersecurity, and digital financial literacy initiatives to foster financial inclusion.

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