Customer Perception towards E-Banking Adoption

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Abstract

This study investigates customer perceptions of e-banking in the Kathmandu valley. Employing a descriptive research design complemented by a qualitative strategy, the research utilizes a Likert scale to quantify user perceptions. The target population includes active e-banking users across 20 commercial banks in Kathmandu as of July 2024, with a sample size of 350 respondents selected through convenience sampling based on availability, willingness, and location. Data were collected via self-administered questionnaires distributed through email, social media, and physical copies, encompassing demographic information and survey questions aligned with six variable subcategories rated on a 5-point Likert scale. Analysis using SPSS revealed that the majority of respondents were male (61.18%) and aged between 20-30 years (75.3%), predominantly unmarried (83.06%) and well-educated, with 40.71% holding bachelor's degrees and 21.18% possessing master's degrees or higher. Income levels were primarily in the middle brackets, indicating e-banking's appeal to middle-income individuals. Descriptive statistics showed general agreement on e-banking's utility, with an average perception score of 3.58. Users particularly valued quick and convenient access to account information, though highlighted the need for improved security measures. The study concludes that e-banking is perceived as highly useful, efficient, and cost-effective, with opportunities for enhancing security and user experience to foster greater trust and broader adoption.

Keywords: *Customer perception, e-banking, Kathmandu valley, Cost-effective, Convenient*

1.Introduction

The initiation of internet communication marks a recent milestone in the evolution of communication, with the inaugural email sent in 1972 in a groundbreaking moment. This form of communication enables the transfer of vast amounts of information globally (Poster, 2001). The utilization of information and communications technologies (ICTs) has brought about transformative changes in how businesses conduct transactions and meet the increasing demands of their customers. One noteworthy domain where ICTs have gained considerable importance is the banking sector, where financial institutions strive to enhance competitiveness, expand customer bases, reduce transaction costs, improve response quality and timeliness, boost opportunities for advertising and branding, enable self-service and service customization, and refine customer communication and relationship management.

The constant evolution of technology poses both threats to established business models and opportunities for innovative service offerings. Leading companies often aim to influence the trajectory of technological applications to their advantage. The rapid and dynamic growth of technologies underscores the speed at which consumers embrace these innovations, contingent on factors such as technology availability, convenience, consumer needs, and security. Numerous researchers have delved into the adoption of new technologies by consumers. Hence, this paper presents a literature review of technology acceptance models and theories, culminating in the development of the novel technology single platform E-payment theoretical framework (Lai, 2017).In light of the increasingly globalized banking environment, there is a growing imperative to leverage information technology for enhanced efficiency, coordination, and communication (Yu & Fang, 2008). The landscape of banking has evolved dramatically since the advent of the Internet, with banks providing an array of online services that offer unparalleled convenience to customers. Electronic banking, which has a history dating back to the late 1960s with the introduction of automatic teller machines (ATMs) has expanded to encompass phone and online banking services (Broderick & Vachirapornpuk, 2002).

In Nepal, several studies have explored customer perceptions regarding the adoption of e-banking. While electronic banking has become a vital aspect of the global banking sector, enhancing accessibility and efficiency, its adoption and usage remain low in Kathmandu. This raises questions about the factors affecting customer attitudes towards e-banking in this context. Despite its advantages, Nepal faces distinct challenges in adopting e-banking. Although banks and financial

institutions have expanded internet banking services, customer acceptance has been limited. This reluctance is often linked to issues such as trust, limited technological literacy, and perceived risks. A notable feature of e-banking is the lack of face-to-face interactions, requiring customers to perform transactions independently. Some customers, valuing personal service, are hesitant to use e-banking. Additionally, concerns about security and transaction accuracy persist. Given these circumstances, it is crucial to assess customer perceptions and experiences with e-banking services in Nepal.

2.Objectives of the Study

The objective of the study is to investigate customer perception towards e-banking adoption in Kathmandu valley.

3. Literature Review

Tarhin et.al. (2015) highlight the enduring significance of understanding the decision-making process behind the adoption or rejection of specific technologies, emphasizing its prominence in information systems (IS), marketing, and social science research over the past three decades. Over the last two decades, the proliferation and advancement of information technology (IT) have been remarkable, witnessing computer-based information systems actively supporting key business processes. This has substantially heightened both the operational effectiveness and strategic orientation of organizations across diverse sectors (Sapkota et.al., 2018). The adoption of new and trendy products with the latest IT-enabled systems is naturally more prevalent among the youth, especially Generation Z (Post-Millennials or iGeneration) and Millennial, who are considered more IT-savvy but may exhibit less emotional intelligence than their predecessors. E-banking, utilizing the internet and telecommunication services for various transactions, provides easier access to financial services and time-saving benefits for customers, including those belonging to Generation Z, Millennial, and their predecessors in Nepal. Despite the global revolution in e-banking, its proportional adoption in Nepal has not matched the widespread popularity of electronic communication and the internet. In Nepal, where the youth, particularly Generation Z, are primary adopters of innovation and new technology, understanding their perceptions toward e-banking is relevant (Sthapit & Bajracharya, 2019).

Sharma and Joshi (2020) found that the increasing smartphone penetration and internet accessibility in Kathmandu have significantly boosted e-banking adoption. Customers who are technologically literate and have access to stable internet connections are more inclined to prefer e-banking services, particularly for routine transactions and bill payments. The researchers emphasized the role of digital

literacy campaigns in further promoting e-banking. Trust in e-banking platforms continues to influence adoption rates. Karki et al. (2021), banks in the Kathmandu Valley have increasingly implemented advanced encryption technologies and multi-factor authentication to alleviate customers' security concerns. Their study revealed that 78% of respondents considered security features a primary factor in their decision to use e-banking services.

The convenience of mobile banking applications was explored by Adhikari and Shrestha (2022), who noted that user-friendly interfaces and the integration of multiple services, such as fund transfers, utility payments, and investment options, significantly impact customer preferences. The study highlighted that e-banking apps offering seamless navigation and 24/7 availability were favored by urban users in Kathmandu. Singh et al. (2023) examined the role of perceived risk in e-banking adoption. They found that concerns about phishing scams and unauthorized transactions deterred some customers from fully embracing e-banking services. However, regular updates on security measures and customer education initiatives by banks have mitigated these risks to some extent. Socio-demographic factors remain a critical determinant of e-banking adoption. Gurung and Bista (2023), younger individuals with higher education levels and stable incomes are more likely to adopt e-banking. This trend aligns with Kathmandu's growing population of tech-savvy professionals who prefer digital solutions over traditional banking. Service quality in e-banking has also been a significant focus. Thapa (2024), the responsiveness and reliability of online banking platforms are essential in shaping customer satisfaction. The research highlighted that customers in Kathmandu prefer banks that provide quick issue resolution and consistent performance across digital platforms. Rai and Shakya (2024) emphasized the impact of personalized services on e-banking adoption. The ability of banks to tailor services, such as offering customized loan products and personalized investment advice through digital platforms, has been found to enhance customer engagement and loyalty.

4. Research Methodology

The study employs a descriptive research design complemented by a qualitative research strategy, utilizing a Likert scale to quantify e-banking user perceptions. The target population includes active e-banking users across 20 commercial banks in Kathmandu as of mid-July 2024, with a sample size of 350 respondents Convenience sampling, a non-probability method, was used to select respondents based on availability, willingness, and location. Primary qualitative data were collected through a

self-administered questionnaire, distributed via email, social media, and physical copies, consisting of demographic details and survey-specific questions aligned with six variable subcategories, each rated on a 5-point Likert scale. Data analysis was performed using SPSS software, employing descriptive statistics (mean and standard deviation) to evaluate central tendencies and variability in user perceptions.

5. Results and Discussion

5.1 Demographic Profile of Respondents

Table 1 : Demographic Profile of the Respondents

		Respondents	Percent
Gender			
	Females	136	38.82
	Male	214	61.18
Age			
	15-20	21	5.88
	20-30	263	75.3
	30-40	45	12.94
	Above 40	21	5.88
Marital Status			
	Married	57	16.5
	Unmarried	291	83.06
	Others	2	0.47
Level of Education			
	School Level	26	7.53
	Intermediate/ +2	107	30.59
	Bachelor Degree	142	40.71
	Master's Degree or higher	75	21.18
Income Level			
	Below 10000	56	16.00
	10000-20000	98	28.00
	20000-40000	127	36.28
	Above 40000	69	19.71

(Source: Respondent Survey,2024)

Table 1 presents the demographic information of the respondents, based on 350 responses collected via online surveys and physically distributed forms. The demographic breakdown shows that the majority of respondents were male, making up 61.18% of the total sample, while females represented

38.82%. This highlights a higher proportion of male participants in the survey. Age-wise, the majority of respondents (75.3%) were in the 20-30 age range, suggesting that this age group is most engaged with the subject matter of the survey. The next largest group was the 30-40 age range, with 12.94% of respondents, followed by 5.88% from both the 15-20 and above 40 age categories. This distribution suggests that younger adults (20-30) are the primary users or participants in the area being surveyed, with fewer respondents in the older or younger age brackets.

In terms of marital status, a significant 83.06% of the participants were unmarried, which could indicate that single individuals are more likely to participate in or use the services or technology under investigation. Married individuals made up 16.5% of the sample, and a small portion (0.47%) selected "other" as their marital status, which might reflect various unique situations or preferences outside the typical categories provided. The educational background of the respondents shows that 40.71% had obtained a Bachelor's degree, making it the largest group in terms of educational attainment. The second-largest group, at 30.59%, had completed their Intermediate/ +2 level of education. In addition, 21.18% held a Master's degree or higher, indicating that a sizable portion of respondents had advanced education. Lastly, 7.53% had only completed their schooling level, marking them as the smallest educational category. This pattern suggests a highly educated respondent base, with a significant proportion possessing at least some form of higher education.
Regarding income levels, the largest proportion of respondents (36.28%) earned between 20,000-40,000, which may reflect the middle-income segment. Close behind, 28% of respondents earned between 10,000-20,000, indicating a relatively lower-income group. A smaller proportion (19.71%) earned above 40,000, suggesting that fewer respondents were in the higher income bracket. Finally, 16% of the respondents earned below 10,000, representing the lowest income range within the sample. This income distribution reflects a diverse economic background, with most respondents falling within the middle-income categories. Overall, the sample exhibits a young, predominantly unmarried, well-educated demographic with a mix of income levels, providing a broad cross-section of individuals who likely represent active users of the services or products being studied.

5.2 Descriptive Statistics of Independent and Dependent Variables

i) Perceived Usefulness

Table 2: Perceived Usefulness

Statements	N	Mean	Std. Deviation
E-banking provides me a convenient electronic financial operation interface	350	3.73	1.130
E-banking provides me convenient electronic safety certification	350	3.51	1.020
I think that using the e-banking services would enable me to accomplish my tasks more quickly	350	3.79	1.160
Using E-banking allows me to use banking services quickly	350	3.86	1.102
Average perceived usefulness	350	3.72	1.103

(Source: Respondent Survey,2024)

Table 2 presents the descriptive statistics for perceived usefulness, measured through four statements. The data in the table indicates that the items have means ranging from 3.51 to 3.86. This suggests that a majority of e-banking users feel that utilizing e-banking enables them to access banking services quickly. The users generally agree that e-banking provides convenient electronic safety certification, as reflected in the mean of 3.51. While agreement is observed across most statements, the highest mean is associated with the perception that using e-banking allows for swift access to banking services, with a mean of 3.86. Hence, users express a perception that e-banking facilitates quick access to banking services. Examining the response deviations, the statement e-banking provides me convenient electronic safety certification has the least deviation at only 1.020. In contrast, the statement expressing that using e-banking services would enable accomplishing daily tasks more quickly shows the highest deviation. On average, the perceived usefulness is 3.72, with a deviation of 1.103 around the mean.

ii) Perceived Ease of Use

Table 3: Perceived Ease of Use

Statements	N	Mean	Std. Deviation
I think it is easy to use e-banking services to accomplish my banking task	350	3.68	1.081
Learning to use e-banking is easy	350	3.60	1.060
These days I prefer e-banking for shopping	350	3.50	1.144
Using e-banking does not require a lot of mental effort	350	3.42	1.117
Average Perceived ease of use	350	3.55	1.100

(Source: Respondent Survey,2024)

Table 3 presents a summary of the perceived ease of use, utilizing four statements as indicators. The data within the table reveals mean values ranging from 3.42 to 3.68. It indicates that a majority of e-banking users find it convenient to utilize e-banking services for their banking tasks. Specifically, users generally agree that using e-banking involves minimal mental effort, as evidenced by a mean of 3.42. While agreement is observed across various statements, the highest mean 3.86 is associated with the perception that it is easy to use e-banking services for banking tasks. Consequently, users express a prevailing sentiment that e-banking services are user-friendly for accomplishing banking tasks. Analyzing response deviations, the statement asserting the ease of learning to use e-banking exhibits the least deviation at 1.060. Conversely, the statement indicating a preference for e-banking in shopping demonstrates the highest deviation at 1.144. On average, the perceived ease of use is quantified at 3.55, with a deviation of 1.100 characterizing the variability around this average perception.

iii) Perceived risk

Table 4: Perceived risk

Statements	N	Mean	Std. Deviation
E-banking services may not perform well and process payment correctly	350	2.79	1.020
When transaction error occurs, I worry that I cannot get compensation from bank	350	3.04	1.160
I am worried to use e-banking services because other peoples may be able to access my account	350	2.83	1.167
It would take me lots of time to learn how to use e-banking services	350	2.44	1.145
Average Perceived risk	350	2.78	1.123

(Source: Respondent Survey,2024)

Table 4 outlines the perceived risk among e-banking users, employing four statements as evaluative measures. Mean values across items range from 2.44 to 3.04. Notably, a predominant concern among users is the apprehension about compensation from the bank in the event of a transaction error, reflected by the highest mean of 3.04. Furthermore, agreement is notable on the perception that learning to use e-banking would be time-consuming, as indicated by a mean of 2.44. In essence, users express heightened worry regarding compensation in the face of transaction errors. Examining response deviations, the statement expressing doubts about e-banking services' performance and payment processing exhibits the least deviation at 1.020. Conversely, the statement reflecting worry about potential unauthorized access to one's account records the highest deviation at 1.167. On

average, the overall perceived risk is gauged at 2.78, with a deviation of 1.123 characterizing the variability around this average perceived risk level.

iv) Cost

Table 5: Cost

Statements	N	Mean	Std. Deviation
I found that using e-banking services is very costly	350	2.72	1.096
I think in comparison using e-banking services is less costly when I see in comparison with time consumed	350	3.37	1.103
I think the cost we bear for the use of e-banking services is not much in comparison to its services and comfort	350	3.34	1.075
I think it's cheaper in many ways	350	3.33	1.106
Average Cost	350	3.19	1.095

(Source: Respondent Survey,2024)

Table 5 provides a descriptive overview of cost perceptions, utilizing four statements as evaluative criteria. Mean values across items range from 2.72 to 3.37. Notably, a prevailing sentiment among e-banking users is that the cost of utilizing e-banking services is relatively lower when compared to the time saved, as reflected by the highest mean of 3.37. Conversely, users generally agree that e-banking services entail a cost, with a mean of 2.72. While consensus is observed across various statements, the highest mean underscores the perception that e-banking services are not excessively costly when weighed against the time-saving benefits. Examining response deviations, the statement expressing that e-banking is cheaper in many ways exhibits the least deviation at 1.075, while the statement indicating cost is most variable is the one stating that e-banking is cheaper in many ways, with a deviation of 1.106. On average, the perceived cost is quantified at 3.19, with a deviation of 1.095 characterizing the variability around this average cost perception.

v) Perceived Behavioral Control

Table 6:Perceived Behavioral Controls

Statements	N	Mean	Std. Deviation
I have the resources to use e-banking services	350	3.55	1.076
I have the knowledge to use e-banking services	350	3.72	1.068
I have the ability to use e-banking services	350	3.78	1.084
Using e-banking helps me to avoid being seen as obsolete	350	3.45	1.038
Average perceived behavioral control	350	3.62	1.067

(Source: Respondent Survey,2024)

Table 6 outlines the descriptive statistics of perceived behavioral control, featuring four statements as indicators, with mean values ranging from 3.45 to 3.78, it indicates that the majority of e-banking users believe they possess the capability to use e-banking services, particularly emphasizing their ability to use such services as the highest mean of 3.78 suggests, revealing an overall perception of self-efficacy in utilizing e-banking services. The least deviation is observed in the statement that using e-banking helps to avoid being seen as obsolete, with a deviation of only 1.038, while the statement expressing confidence in the ability to use e-banking services exhibits the highest deviation at 1.084, the average perceived behavioral control is 3.62, with a deviation of 1.067 characterizing the variability around this average.

vi) Customer's Perception towards e-banking Adoption

Table 7: Customer's Perception towards e-banking Adoption

Statements	N	Mean	Std. Deviation
I will use e-banking instead to bank transaction	350	3.54	1.073
I will regular use e-banking to perform banking transactions	350	3.53	1.049
I will use the e-banking to access information on bank accounts in a quick and convenient way	350	3.64	1.08
I will introduce to friends, colleagues and relatives to use e-banking	350	3.6	1.066
Average Customer's perception towards e-banking Adoption	350	3.58	1.067

(Source: Respondent Survey,2024)

Table 7 presents the descriptive statistics of customers' perceptions toward e-banking adoption, utilizing four statements for measurement, with mean values ranging from 3.53 to 3.64. The data reveals a general agreement among e-banking users on various statements influencing their perception of e-banking adoption. Particularly, user’s express strong agreement with the statement that they will use e-banking to access information on bank accounts quickly and conveniently, as evidenced by the highest mean of 3.64. Analyzing response deviations, the statement indicating regular use of e-banking for banking transactions has the least deviation at 1.049, while the statement expressing intent to use e-banking for quick and convenient access to bank account information has the highest deviation at 1.080. On average, the customer's perception toward e-banking is quantified at 3.58, suggesting an inclination among e-banking users to adopt e-banking services due to the identified independent variables. The deviation of the average customer's perception toward e-banking is just 1.067.

6. Conclusion

In conclusion, the study reveals that respondents generally perceive e-banking as a highly useful, efficient, and cost-effective tool, particularly valued for its quick accessibility and convenience. The ability to accomplish banking tasks with ease and save time is a key driver of satisfaction among users. However, certain areas warrant improvement to enhance the overall user experience and trust in e-banking systems. Safety certification emerged as a notable concern, highlighting the need for strengthened security measures and clearer communication about protections in place. Addressing risks, such as transaction errors and unauthorized account access, can significantly bolster user confidence and trust. The findings also indicate that users find e-banking relatively easy to use, reflecting confidence in their knowledge, resources, and abilities to engage with the system. While users appreciate the simplicity of accomplishing banking tasks, there is room to further streamline processes to minimize mental effort and enhance overall usability. Efforts to simplify the interface and functionality can ensure e-banking remains accessible to a wider audience, including less tech-savvy users. Moreover, respondents perceive the costs associated with e-banking as reasonable, particularly when compared to the time and convenience it offers. The affordability of e-banking services relative to their benefits contributes to the positive perception of their value. This indicates that e-banking services are well-positioned to appeal to a broad demographic, provided costs remain manageable. Overall, while e-banking is widely appreciated for its utility, cost-effectiveness, and ease of use, targeted improvements in security, risk mitigation, and user experience will be critical in fostering greater trust, satisfaction, and adoption. These efforts can ensure that e-banking continues to evolve as a reliable and user-friendly service.

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