

**“Behavioural Intention of Postgraduate Students towards Mobile Banking in Butwal Sub Metropolitan City, Nepal”**

*Himanchali Singh\**

***Abstract***

*This study seeks to examine the correlation between the quality of mobile banking services and students' attitudes. It aims to ascertain the impact of various dimensions of mobile banking service quality on students' attitudes. A quantitative methodology was employed, gathering responses from 571 management college students in Butwal Sub-Metropolitan City through a structured questionnaire and convenience sampling. The data were analyzed using PLS-SEM software, which included tools like measurement item assessment, model fit evaluation, Importance-Performance Map Analysis (IPMA), and bootstrapping techniques for testing hypotheses. The results revealed that Perceived Usefulness of Mobile banking service quality are the key predictors of Students Attitude. The analysis indicates that perceived usefulness is a major contributor to students' attitudes toward mobile banking. Therefore, researchers and banking institutions should focus on enhancing perceived usefulness to positively influence students' attitudes. By understanding and reformulating policies based on these factors, there is a greater likelihood of improving students' attitudes toward mobile banking services.*

**Keywords:** *Perceived usefulness, mobile banking, services quality, student's attitude and consumer engagement.*

***Himanchali Singh\****

*MBA-BF Scholar of Lumbini Banijya Campus  
Tribhuvan University, Butwal, Nepal*

*\*Corresponding author*

---

**I. Introduction**

In today's digital era, the financial services industry is undergoing a significant transformation, with mobile banking emerging as a vital tool for financial inclusion and convenience. Across the globe, mobile banking has redefined how customers interact with their financial institutions making banking services more accessible, faster, and user centric. However, in developing economies like Nepal, where infrastructure and digital literacy remain inconsistent, the adoption of mobile banking services presents unique challenges. Despite rapid digital growth, a considerable segment of the population, particularly in rural areas such as Rupandehi district, remains hesitant or unable to embrace these technologies (Gautam & Panta, 2021).

The operational definition of the dependent variable in this study is behavioral intention towards mobile banking, which refers to the likelihood that individuals will use mobile banking services. This intention is primarily influenced by several independent variables, including perceived

usefulness, perceived ease of use, perceived risk, and social influence, based on the Technology Acceptance Model (TAM) introduced by Davis (1989). These variables shape consumer attitudes and play a crucial role in technology adoption.

The history of internet usage in Nepal dates to the early 1990s, but public accessibility surged only in the early 2000s. Over the years, internet penetration has grown steadily, yet gaps persist in both availability and affordability. According to Sharma (2018), despite the presence of 21 commercial banks regulated by Nepal Rastra Bank, many individuals, especially in rural regions, still prefer cash-based transactions due to trust issues, frequent fraud cases, and cybersecurity threats. These challenges have led to low formal banking engagement, indicating a potential disconnect between the availability of mobile banking services and their actual use by the public.

In regions like Rupandehi, characterized by distinct urban-rural divides, the uptake of mobile banking remains comparatively low. A study conducted by Gautam and Panta (2021) emphasized that while commercial banks offer mobile banking services in this area, customer adoption is impeded by insufficient digital infrastructure, a lack of awareness, and concerns about transaction security.

The evolution of mobile banking as a preferred financial delivery channel cannot be overlooked. As defined by Gopalakrishnan et al. (2003), mobile banking is the utilization of the internet or mobile networks as a medium for providing banking services. This includes services such as checking balances, transferring funds, and making payments all of which enhance customer convenience. The global impact is evident; as per Statista (2021), the number of online banking users is expected to reach 3.6 billion by 2024. Fernando and Nilakshi (2021)

highlighted that the appeal of mobile banking lies in its accessibility and reduced need for physical visits to banks a significant advantage in geographically dispersed and underserved regions. From a business standpoint, offering mobile banking services has become essential for banks to maintain competitive advantage, cut operational costs, and retain customers. Institutions that fail to embrace digital transformation risk losing a substantial share of their clientele (Tower Group, 2005). By enabling efficient service delivery and fostering higher customer satisfaction, mobile banking supports both business sustainability and financial inclusion (Mols et al., 2021; Khalfan et al., 2006).

However, in the context of Nepal, the diffusion of mobile banking is not solely driven by technological availability but is significantly influenced by user perception and readiness. Uzoma (2013) emphasized the crucial role of Information and Communication Technology (ICT) in the banking sector, noting that its effective application determines banks' ability to remain competitive. Likewise, Laudon and Laudon (2001) suggested that the survival and growth of banks in the 21st century increasingly depend on their technological adaptability and customer-centric innovation.

Mobile banking, as per Arunachalam and Sivasubramanian (2007), allows customers to perform banking activities via mobile phones or computers. Scholars have also defined it through multiple interfaces such as PC, telephone, GSM, and internet (Kolodinsky, Hogarth, & Hilgert, 2004). In Nepal's context, this multi-platform accessibility is crucial to reach populations with varying degrees of digital literacy.

Despite its advantages, mobile banking adoption remains low in several developing countries due to perceived risks, lack of trust, and technical limitations (Mobaraks, 2007; Polasik & Wisniewski, 2009). For instance, Mobarek highlighted that while e-banking is recognized for its efficiency, its utility varies depending on user experience and trust. Given these challenges, the present study addresses critical research gap insufficient empirical evidence on what influences user intention to adopt mobile banking, especially among educated youth in semi-urban and rural districts of Nepal.

This study is particularly relevant as postgraduate students represent a segment of the population with higher exposure to technology and the potential to influence broader behavioral trends. Understanding their behavioral intention can provide key insights into how mobile banking can be tailored, marketed, and improved for wider acceptance. Furthermore, the findings will be valuable for financial institutions in developing user-focused strategies that address specific deterrents and enhance customer engagement.

While the benefits of mobile banking are evident, its adoption in Nepal remains uneven due to infrastructural, psychological, and informational barriers. By focusing on behavioral intention and its determinants in Rupandehi, this research seeks to fill a notable void in academic literature and contribute to more inclusive banking practices. The study not only aligns with the broader goal of

digital financial inclusion but also supports policy formulation and operational reforms aimed at boosting mobile banking usage in underserved regions.

**The Objective of Study are as follows:**

- To determine the relationship between perceived usefulness, perceived ease of use, perceived risk, social norms on student attitude to use mobile banking.
- To examine the effect of perceived usefulness, perceived ease of use, perceived risk, social norms on student attitude to use mobile banking.

## **II. Literature review**

This section presents a literature review, focusing on the theoretical and empirical aspects relevant to the current research being pursued. The theoretical review examines related theories that support the link between the variables mentioned in the framework. Moreover, the empirical review incorporates the findings of previous research conducted on the same topic. The following theoretical and empirical reviews support the conceptual framework of the study and form the basis for the development of hypotheses.

### **Perceived Usefulness and Students Attitude**

The exploration of behavioral intention in relation to mobile banking among postgraduate students can be effectively framed within the Technology Acceptance Model (TAM), initially proposed by Davis (1989). This model highlights two main ideas: perceived usefulness and perceived ease of use. Simply put, perceived usefulness is about how much someone believes a certain technology will actually help them in their daily tasks or improve their performance. In the case of mobile banking, it's about whether students feel that using these apps makes handling their money like paying bills, transferring funds, or checking balances easier and more convenient in their busy lives.

Research has consistently shown that when students find mobile banking genuinely useful, they're more likely to have a positive attitude toward using it. For instance, a study by Thapa and colleagues in 2021, focusing on postgraduate students in Nepal, found that the more students felt mobile banking helped them manage their finances, the more open and positive they were about using it. In short, if students see real benefits like saving time or making transactions easier, they're

much more likely to embrace mobile banking in their daily lives. Based on these studies, the following hypothesis can be performance.

**H 1:** There is a significant effect of perceived usefulness on student attitude to use mobile banking.

### **Perceived Ease of Use and Students Attitude**

The Unified Theory of Acceptance and Use of Technology (UTAUT) take things a step further by adding more layers to what affects whether people choose to use a certain technology. It includes ideas like how much support is available (facilitating conditions) and how much influence friends, family, or peers have (social influence). One key takeaway from this theory is that the easier technology is to use, the more likely people are to use it. So, when it comes to mobile banking, if students find it simple and straightforward, they're more inclined to develop a positive attitude and stick with it (Venkatesh et al., 2003).

There's plenty of research showing that how easy a technology is to use really matters especially for postgraduate students using mobile banking. For example, a study by Maheshwari and colleagues in 2017 found that when students felt mobile banking apps were easy to learn and use, they were more likely to have a positive attitude toward them. Basically, if students believe they won't struggle with the app, they're more open to using it regularly and are more likely to adopt it as part of their financial routine. Based on these studies, the following hypothesis can be performance.

**H 2:** There is a significant effect of perceived ease of use on student attitude to use mobile banking.

### **Perceived Risk and Students Attitude**

The Risk Technology Acceptance Model (RTAM) adds another important perspective by focusing on the role of perceived risk in shaping people's attitudes toward new technology. In the case of mobile banking, this means that if students feel there are risks like losing money, security breaches, privacy concerns, or even just the stress of using something unfamiliar they might hesitate to use it. As Featherman and Pavlou (2003) explain, when the potential downsides feel bigger than the benefits, students are much less likely to adopt the technology, no matter how useful or easy it might seem.

Research has shown time and again that when students feel mobile banking might put them at risk, their attitude toward using it tends to drop. One notable study by Kim, Park, and Choi in 2012 found that concerns around things like privacy and financial security had a clear negative impact on users' willingness to adopt mobile banking. In other words, if postgraduate students think there's a chance their personal information or money could be compromised, they're much less likely to feel comfortable using these services. Based on these studies, the following hypothesis can be performance.

**H 3:** There is a significant effect of perceived risk on student attitude to use mobile banking.

### **Social Norms and Students Attitude**

The Theory of Planned Behavior, introduced by Ajzen in 1991, helps explain why people choose to do certain things like using mobile banking. According to this theory, our intentions are shaped by three main things: our attitude toward the behavior, what we think others expect of us (called subjective norms), and how much control we feel we have over doing it. In this case, if postgraduate students feel that the people who matter to them like friends, family, or professors think using mobile banking is a good idea, they're more likely to view it positively themselves. That social encouragement can go a long way in influencing whether they decide to actually use it.

Empirical research supports the notion that social norms significantly impact students' attitudes toward mobile banking. When it comes to mobile banking, who you surround yourself with really matters. A study by Khanal and colleagues in 2021, focusing on postgraduate students in Nepal, found that social influence plays a big role in whether students decide to use mobile banking. The research showed that when students noticed their friends or classmates using and supporting mobile banking, they were more likely to view it positively and consider using it themselves. It's a great example of how much our social circles can shape the way we think about and adopt new financial tools. Based on these studies, the following hypothesis can be performance.

**H 4:** There is a significant effect of social norms on student attitudes to use mobile banking.

### **III. Research Methodology**

This section deals with the research methods adopted by the researcher in conducting the research. It looks at the various methods and procedures of the research study adopted in conducting the study in order to address and answer the research problems and questions stipulated by the researcher. In this regard, it deals with different components of research design which guides researchers to decide the population and sample from the desired research area, techniques of approaching the sample respondent, sources of data collection, research instrument used for data collection and different types of tools used to analyze the collected data. Thus, this section is organized in the following structure: research design, population, sample size, sampling technique, sources of data collection, data collection methods, tools used for data analysis.

#### **Research design:**

A research design is a structured plan that guides data collection and analysis, shaping the study (Cooper & Schindler, 2003). This study adopts Descriptive Research Design and Explanatory Research Design to achieve its objectives.

Descriptive Research Design systematically presents characteristics, behaviors, or phenomena without altering variables. It identifies trends, patterns, and relationships within a population (Creswell, 2014). Explanatory Research Design examines cause-and-effect relationships by comparing groups with existing differences, analyzing the impact of independent variables on dependent variables without direct manipulation (Fraenkel & Wallen, 2009). Likewise, Kerlinger (1986) highlights ex post facto research, where past independent variables are analyzed to assess their effects on dependent variables (Kerlinger, 1986; Pant, 2012, p. 117). Common statistical methods include the Spearman Rank Order Coefficient, Phi Correlation Coefficient, Regression, t-test, Chi-square, and Analysis of Variance (Isaac, 1978; Pant, 2012, p. 118).

By combining Descriptive and Explanatory Research designs, this study effectively examines variable relationships and their impact (Kerlinger, 1986), ensuring a structured and systematic approach.

#### **Population and sample**

The population of this research study comprises all respondents within the research area. In this study, the chosen research area is Butwal Sub-Metropolitan City, and the population consists of

all students in different management college located in Butwal. The total number of students in these colleges is 571. Therefore, the population of the study is identified as 235. The details of the college and their respective number of students are presented in Table 1.

**Table 1 - Total Management students of Masters in Butwal**

S. No	Name of College	Number of Students
1	Lumbini Baniya Campus	358
2	Butwal multiple Campus	67
3	Kshitiz International College	93
4	Western Mega college	53
Total Students		571

Sample is a part of a population or subset of population and denoted by n. The total sample size for this study has been obtained using the formulae developed by Yamane (1967). In case of population size is known, the Yamane formula for determining the sample size is given by:

$n = \frac{N}{1 + Ne^2}$  Where, n= sample size, N= Population size, and e= Margin of error (MOE), e=0.05 based on research condition. Thus, the sample size of the study is n = 235

### **Sampling method**

The sampling method is chosen to select sample respondents from the overall population for data collection. In this context, the simple random sampling method is specifically employed to approach the sample respondents. Given that the study focuses on the work-life balance of female employees in commercial banks in Butwal Sub-metropolitan city, the simple random sampling technique is deemed appropriate. This choice is made because the number of female employees is relatively low, allowing for the identification and random selection of individuals from the list of female employees to mitigate bias among respondents.

### **Nature and Sources of Data Collection**

This study primarily relies on **quantitative data**, which were collected from **primary sources**. A structured questionnaire was designed to gather first-hand information directly from respondents.

### **Survey Instrument**



A self-structured questionnaire was used as the survey instrument for data collection. It was developed based on operational definitions from previous literature. The questionnaire employs a seven-point Likert scale (7 = Strongly Agree, 6 = Agree, 5 = Somewhat Agree, 4 = Neutral, 3 = Somewhat Disagree, 2 = Disagree, and 1 = Strongly Disagree) to gather responses from participants.

A set of questions was designed to measure each **independent and dependent** totaling **25 items**. To ensure clarity and accuracy, a **pilot test** was conducted by distributing the questionnaire to a sample of **30 respondents**. Out of **250** distributed questionnaires, 202 were fully completed, yielding a **response rate of 80%**.

### **Statistical Tools**

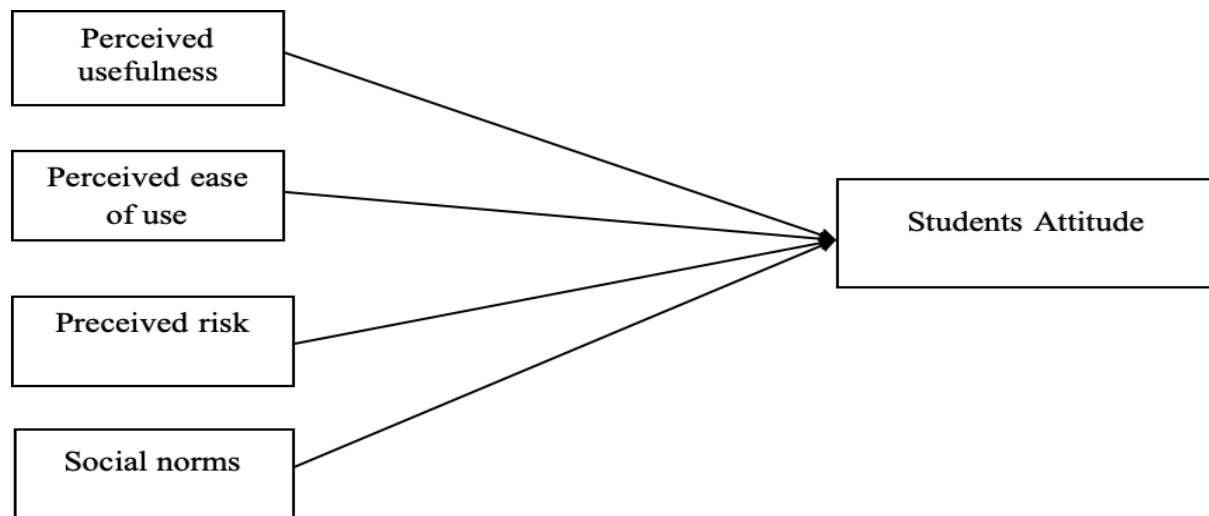
The study utilized various statistical tools based on the nature of the data. Descriptive statistics, including mean and standard deviation (SD), were computed to analyze and interpret customer responses. Additionally, a reliability test was conducted to assess the consistency of the research instrument. A normality test, specifically the Kolmogorov-Smirnov (K-S) test, was performed to evaluate the data's distribution.

After assessing normality, parametric and non-parametric tests were applied inferential statistics. Furthermore, correlation analysis was used to measure the relationship between variables, while regression analysis examined the effect of independent variables on the dependent variable.

### **Research Framework**

The research framework represents the structure that illustrates the relationship among various variables. In this context, Mobile banking services quality is employed as the independent variable, measured through four key dimensions: Perceived usefulness, Perceived ease of use, Perceived risk and social norms. Students' attitude serves as the dependent variable. This framework explores how effective mobile banking service quality influence students' attitude, ensuring a stable and committed workforce.

### **Figure No. 1** *Research Framework*



*Note:* The above-mentioned variables have been adopted from (Davis, 1989; Ajzen & Fishbein, 1977; Sadeghi & Farokhian, 2011)

#### IV. Measurement Items Assessment

**Table 1** - *Assessment of measurement scale items*

Constructs	Items	Outer Loading	VIF	Mean	Standard Deviation
Perceived Ease of Use	PEOU1	0.919	3.772	4.807	1.949
	PEOU2	0.908	4.259	4.436	2.002
	PEOU3	0.83	2.452	4.455	2.104
	PEOU4	0.831	2.439	3.99	2.022
	PEOU5	0.922	4.596	4.322	2.034
Perceived Risk	PR1	0.899	3.183	5.733	1.431
	PR2	0.901	3.698	5.228	1.703
	PR3	0.747	2.463	5.045	1.792
	PR4	0.867	2.936	5.178	1.858
	PR5	0.847	2.373	5.619	1.502
Perceived Usefulness	PU1	0.697	1.492	5.168	1.431
	PU2	0.886	3.223	5.163	1.703
	PU3	0.779	2.199	4.787	1.792
	PU4	0.889	3.11	5.158	1.858
	PU5	0.876	2.629	5.144	1.502
Students Attitude	SA1	0.853	2.242	5.149	1.714
	SA2	0.808	2.047	5.208	1.839
	SA3	0.843	2.355	5.5	1.533
	SA4	0.785	1.947	5.812	1.53
	SA5	0.78	1.792	5.277	1.605
Social Norms	SN1	0.874	3.135	5.906	1.451

<b>SN2</b>	0.922	4.545	5.827	1.54
<b>SN3</b>	0.902	4.25	5.683	1.726
<b>SN4</b>	0.744	1.863	5.099	1.777
<b>SN5</b>	0.779	1.723	5.559	1.723

Table 1 presents the standardized outer loading and Variance Inflation Factor (VIF) of the scale items employed to measure the variables pertinent to this investigation. In accordance to Sarstedt et al. (2017), the outer loading of an item must exceed 0.708 to signify a substantial contribution of that item in assessing the associated variable. Nonetheless, an outer loading value surpassing 0.70 may also be deemed acceptable, provided that the Average Variance Extracted (AVE) value of the related variable exceeds 0.50. Within Table 1, one item, specifically PU1, exhibit values below 0.70; however, the variable linked to these items demonstrates AVE values greater than 0.50. Therefore, all 25 scale items are preserved for subsequent analysis. Furthermore, the VIF values for each item are less than 5, thereby indicating no multicollinearity within the scale items (Sarstedt et al., 2014). The meaning of all items is more on the higher side of the scale which reflects most of the responses toward agreeable side. The standard values are small, which indicates less deviation in the responses. This indicated the data are suitable for further analysis.

### Quality Criteria Assessment

**Table 2 - Construct Reliability and Validity**

<b>Variables</b>	<b>Alpha</b>	<b>CR (rho_a)</b>	<b>CR(rho_c)</b>	<b>(AVE)</b>
<b>Perceived Ease of Use</b>	0.929	0.948	0.946	0.78
<b>Perceived Risk</b>	0.909	0.934	0.931	0.729
<b>Perceived Usefulness</b>	0.884	0.898	0.916	0.687
<b>Social Norms</b>	0.9	0.907	0.926	0.717
<b>Students Attitude</b>	0.873	0.88	0.908	0.663

The values of Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) in Table 2 assess the convergent validity of the variables used in this work. All item Cronbach's Alpha coefficients surpass the 0.705 criterion, indicating the sufficient contribution of every scale item in the evaluation of linked constructs (Bland & Altman, 1997). Moreover, the CR values for rho\_A and rho\_C exceed the minimum requirement of 0.70, indicating a strong degree of internal consistency (Saari et al., 2021; Hair et al., 2022). The AVE values likewise surpass the critical threshold of 0.50, implying that every variable contributes more than 50 percent of the explained variance. This finding confirms the establishment of convergent validity (Hair et al.,

2022). Subsequently, the outcomes depicted in the table as mentioned above satisfy all requisite of quality criteria measures.

#### Discriminant Analysis

**Table 3 - Heterotrait-Monotrait (HTMT) ratio matrix**

Variables	Perceived Ease of Use	Perceived Risk	Perceived Usefulness	Social Norms	Students Attitude
<b>Perceived Ease of Use</b>					
<b>Perceived Risk</b>	0.475				
<b>Perceived Usefulness</b>	0.451	0.749			
<b>Social Norms</b>	0.55	0.812	0.754		
<b>Students Attitude</b>	0.533	0.732	0.704	0.818	

The HTMT ratio of the correlation matrix, which assesses the latent variables' discriminant validity, is shown in Table 3. The HTMT ratio ranges from 0.451 to 0.818. The HTMT ratio readings must be below the crucial value of 0.85; however, Henseler et al. (2015) suggest that a range of up to 0.90 is acceptable. As a result, the reflective constructs' discriminant validity is validated (Hair & Alamer, 2022).

**Table 4 - Fornell Larcker Criteria**

Variables	Perceived Ease of Use	Perceived Risk	Perceived Usefulness	Social Norms	Students Attitude
<b>Perceived Ease of Use</b>	<b>0.883</b>				
<b>Perceived Risk</b>	0.474	<b>0.854</b>			
<b>Perceived Usefulness</b>	0.417	0.685	<b>0.829</b>		
<b>Social Norms</b>	0.523	0.765	0.675	<b>0.847</b>	
<b>Students Attitude</b>	0.492	0.685	0.461	0.734	<b>0.814</b>

Table 4 displays the Fornell-Larcker Criterion, an important discriminant validity assessment in a structural equation model (SEM) (Fornell & Larcker, 1981). This criterion is satisfied when the average variance extracted (AVE) for every construct is higher than the squared correlation between that construct and any other construct in the model. The diagonal entries, the square root of AVE of every construct, are to be higher than the off-diagonal values for their corresponding columns and rows. As evident in Table 4, diagonal values (in bold) of Perceived Ease of Use (0.883), Perceived Risk (0.854), Perceived Usefulness (0.829), Social Norms (0.847) and Students

Attitude (0.814) are all higher than their inter-construct correlations. This means the measurement model's discriminant validity is assured, implying that each construct is unique and taps into a distinct segment of variance (Hair et al., 2010). This ensures that the constructs do not overlap and that the measures are measuring what they should measure.

## Model Fit Assessment

The SRMR fit indices evaluate the model's explanatory efficacy. The model's SRMR value is 0.86, below the acceptable threshold of 0.10 (Bollen & Stine, 1992). Consequently, this finding suggests that the model exhibits adequate explanatory capability. Moreover, the effect sizes of Perceived Ease of Use on Students Attitude are (0.027) weak effect, Perceived Risk on Students Attitude is (0.024) weak effect, Perceived Usefulness on Students Attitude is (0.977) strong effect and Social Norms on Students Attitude is (0.09) weak effect. (Cohen, 1988). Finally, the r-square values correspond to Students Attitude is 0.786. This signifies that Students Attitude possess substantial predictive power (Hair et al., 2013).

**Figure 1: Path Relationship model**



**Table 5 - Hypothesis Testing using Bootstrapping**

Hypothesis	$\beta$	Sample means (M)	SD	Confidence level		T statistic s	P values	Decision
				2.50%	97.50%			
<b>H1: Perceived Usefulness -&gt; Students Attitude</b>	0.657	0.658	0.052	0.556	0.759	12.678	0	Accepted
<b>H2: Perceived Ease of Use -&gt; Students Attitude</b>	0.089	0.087	0.031	0.027	0.15	2.842	0.004	Accepted
<b>H3: Perceived Risk -&gt; Students Attitude</b>	0.013	0.012	0.062	-0.11	0.136	0.218	0.828	Rejected
<b>H4: Social Norms -&gt; Students Attitude</b>	0.233	0.236	0.067	0.111	0.377	3.479	0.001	Accepted

Figure 1 and Table 5 report the results of a bootstrapping analysis performed with 10,000 subsamples, which examines decisions regarding the proposed hypotheses. Hypotheses H1, H2, and H4 have achieved acceptance at a significance threshold 0.05. However, H3 is rejected as their p-value is above 0.05. There is a positive and significant impact of Perceived Usefulness, Perceived Ease of Use, and Social Norms on Students' Attitude. However, there is a positive insignificant impact of Perceived Risk on Students Attitude.

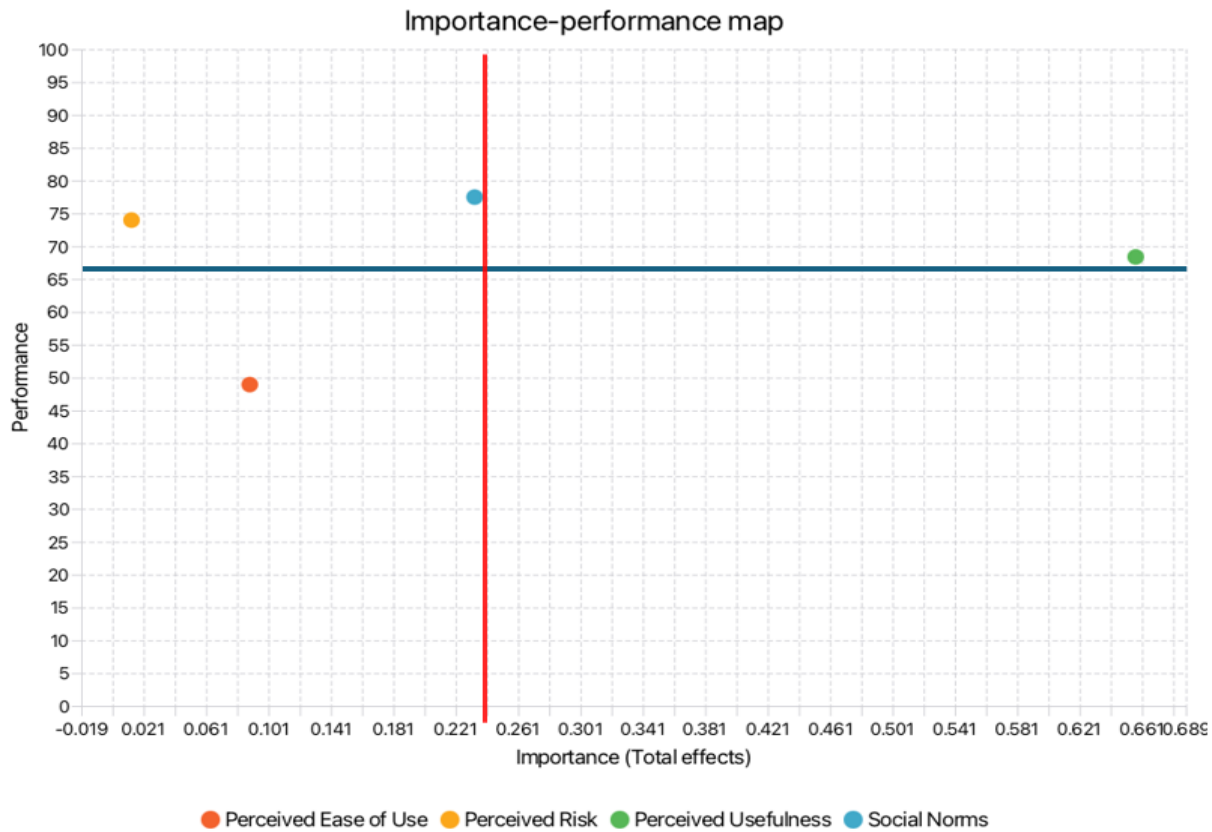
**Table 6 - Importance Performance Map Analysis**

	LV performance	Importance
<b>Perceived Ease of Use</b>	48.933	0.067
<b>Perceived Risk</b>	73.972	0.013
<b>Perceived Usefulness</b>	68.366	0.635
<b>Social Norms</b>	77.477	0.226
<b>Mean</b>	67.187	0.23525

Table 6 shows the total effects of bank image Perceived Ease of Use, Perceived Risk, Perceived Usefulness and Social Norms on Students' Attitude for the unstandardized effects. These effects are the same as the unstandardized weights of ordinary least square regression modelling (Hair et al. 2010). Furthermore, the performance of Students Attitude was calculated as 73.161. Notably, we derived the four quadrants successfully based on the mean values of the constructs' importance

and performance value. As per Fig. 2, if we increase 1 unit in Perceived Ease of Use from 68.366 to 69.366, Student attitude increases from 73.161 to 73.796. Similarly, if we increased 1 unit in performance of Perceived Risk from 73.972 to 74.972, then Student attitude grew to increase from 73.161 to 73.174. Therefore, out of the four determinants of Students Attitude, the most critical factor was noted to be Perceived usefulness.

**Figure 2 - Importance Performance Map Analysis**



**Table 7 - Necessary condition analysis (NCA)- Bottleneck value**

	LV scores - Students Attitude	LV scores - Perceived Ease of Use	LV scores - Perceived Risk	LV scores - Perceived Usefulness	LV scores - Social Norms
<b>0.00%</b>	23%	NA	NA	NA	NA
<b>10.00%</b>	30%	NA	NA	23%	NA
<b>20.00%</b>	38%	NA	NA	23%	26%
<b>30.00%</b>	46%	NA	NA	29%	26%
<b>40.00%</b>	54%	NA	34%	30%	33%
<b>50.00%</b>	61%	NA	34%	30%	33%
<b>60.00%</b>	69%	NA	34%	30%	33%
<b>70.00%</b>	77%	NA	34%	52%	33%
<b>80.00%</b>	85%	NA	34%	52%	33%

<b>90.00%</b>	92%	NA	66%	77%	33%
<b>100.00%</b>	100%	NA	66%	77%	67%

Table no 7 represents Bottleneck values using necessary condition analysis. To achieve 23% of Student's Attitude no factors are required. Further, to achieve 30% of Student's Attitude it required 23% of LV Score of Perceived Usefulness. Similarly, to gain 46% of Student Attitude, it needs 29% of LV score of Perceived Usefulness, 26% of LV Score Social Norms. Furthermore, to achieve 100% of Student's Attitude, it required 66% of LV Score of Perceived Risk, 77% of LV Score of Perceived Usefulness, 67% of LV score of Social Norms.

### Findings of the Study

The study's results show that Perceived Usefulness, Perceived Ease of Use, and Social Norms have a positive effect on and a big effect on Student's Attitude. On the other hand, Perceived Risk has a positive but small effect on Student's Attitude.

### Discussion

The findings of this study reveal that Perceived Usefulness (PU), Perceived Ease of Use (PEOU), and Social Norms (SN) play important positive roles in the attitudes of postgraduate students towards mobile banking in Butwal Sub- Metropolitan, Nepal. This aligns with the Technology Acceptance Model (TAM), which states that PU and PEOU are primary determinants of user attitudes and behavioral intentions towards adopting technology (Davis, 1989). Contemporary studies validate these findings. For instance, paramita and Hidayat (2023) found that PU directly affects attitudes towards mobile banking, while PEOU affects PU and therefore indirectly attitudes. Similarly, social influence in terms of subjective norms and peer pressure has been found as significant predictor of adaptation of mobile banking among students (Danurdoro and Wulandari, 2016).

Conversely, the study identifies that Perceived risk (PR) insignificantly but positively influences student's attitudes toward mobile banking. It, therefore, signifies that students identify potential risks associated with mobile banking, and such risks fail to significantly lower their positive attitudes. This evidence supports prior research. For example, Rabbani (2020) has claimed that PR has an insignificantly positive impact on student's behavioral intentions in utilizing mobile banking. Furthermore, Apaua and Lallie (2022) found that PR was not a primary driver of mobile



banking adoption, showing the complex relationship between perceived security, trust, and user behaviour.

Overall, these findings highlight the importance of building the perceived ease of use and usefulness of mobile banking platforms and leveraging social norms to establish positive attitudes among postgraduate students. While there are perceived risks, the minimal impacts on attitudes suggest that efforts to enhance user experience and social support may be more effective in enabling the adoption of mobile banking among this population.

### **Implication**

The findings of this research hold considerable importance for various stakeholders who seek to improve the uptake of mobile banking services among young individuals in semi-urban regions such as Butwal Sub-Metropolitan, Nepal. The outcomes indicate that financial institutions should prioritize the creation of mobile banking platforms that are not only functionally beneficial but also user-friendly, as the perceived usefulness and ease of use significantly affect students' willingness to adopt these technologies. Moreover, the influence of perceived risk as a moderating element suggests that building trust and implementing strong security measures are crucial for promoting adoption. This conclusion further underscores the necessity for banks to inform users about digital safety. The impact of social norms and infrastructural support on behavioral intentions indicates that awareness initiatives and enhancements in digital infrastructure-such as dependable internet access and device availability-can encourage broader usage. For policymakers, the research suggests the importance of incorporating mobile banking awareness into educational and financial literacy initiatives. Conversely, technology developers should ensure that applications are inclusive, accessible, and adaptable to different levels of digital literacy. Furthermore, by integrating various theoretical frameworks-TAM, UTAUT, RTAM, and TPB-the study enriches academic literature by providing a comprehensive model that can be replicated in analogous contexts. In summary, this research offers practical recommendations for crafting effective mobile banking strategies that meet user expectations, ultimately advancing digital financial inclusion.

### **Conclusion**

This study concludes that aim to explore Butwal Sub-Metropolitan, Nepal postgraduate students' behaviour intention of adoption and usage of mobile banking

services. Based on Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), Risk technology Acceptance Model (RTAM), and Theory of Planned Behaviour empirical study has identified and explore significant determinants influencing the attitudes and intentions of students.

The findings suggest that perceived usefulness, ease of use, perceived risk, social influence, and control over behaviour have considerable impacts on student's behavioural intention to use mobile banking. Notably, perceived risk was a moderating variable to emphasize the role of trust and security in online financial services. In addition, the effect of subjective norms and facilitating conditions suggests that both social and infrastructural elements play important roles in enhancing technology acceptance in the setting.

Overall, this study contributes to literature a deeper understanding of the way in which theoretical factors interact to influence technology adoption among young, education consumers in a semi-urban setting. The implications can inform banks, policymakers, and system developers in the design of user-friendly mobile banking services and awareness campaigns that are sensitive to user's needs, problems, and behavioral tendencies.

## References

- Gautam, D., & Panta, B. (2021). Factors influencing the adoption of e-banking services among postgraduate students in Nepal. *Journal of Global Business Insights*, 6(1), 19-29.
- Gautam, N., & Panta, R. (2021). Behavioral intention of postgraduate students towards Mobile banking in Nepal: A study. *International Journal of Research in Management & Business Studies*, 8(2), 16-25.
- Gautam, P., & Panta, B. (2021). Behavioral intention of postgraduate students towards mobile banking in Nepal. *Journal of Financial Services Marketing*, 26(2), 51-62. <https://doi.org/10.1057/s41264-021-00105-6>
- Gautam, R. K., & Panta, S. B. (2021). A study on factors affecting the adoption of mobile banking: A case of commercial banks in Rupandehi district, Nepal. *Journal of Management and Development*, 39(1), 71-85.
- Davis, F.D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319-340.
- Gopalakrishnan, S., Wischnevsky, J. & Damanpour, F. (2003) A multilevel analysis of factors influencing the adoption of internet banking. *IEEE Transactions on Engineering Management*, 50, 413-426
- Sharma, K. (2018). Challenges of electronic banking adoption in developing countries: Lessons from Nepal. *Journal of Mobile Banking and Commerce*, 23(2), 1-11.

- Statista. (2021). *Online banking users worldwide*. Retrieved from <https://www.statista.com/statistics/792321/number-of-digital-banking-users-worldwide/>
- Fernando, T. M. K. D., & Nilakshi, G. (2021). Factors affecting the usage of internet banking: A study among customers of commercial banks in Sri Lanka. *Journal of Mobile Banking and Commerce*, 26(1), 1-21.
- Mols, N. (1998). The Behavioural Consequences of PC Banking. *International Journal of Bank Marketing*, 195 – 201.
- Mols, N. (1999). The Internet and the Banks. *International Journal of Bank Marketing*, 17: 295-300.
- Laudon, D.P., & Laudon, J.P. (2001). *MIS. Organization and Technology in the Network*. Enterprises, USA.
- Uzoma, C. (2013). *The Analysis of Consumer Attitudes towards Online and Mobile Banking in Nigeria*. Institute of Graduate Studies and Research.
- Arunachalam, L., & Sivasubramanian, M. (2007). The future of Internet Banking in India. *Academic Open Internet Journal*, 20.
- Kolodinsky, J.M., Hogarth, J.M., & Hilgert, M. (2004). The Adoption of Electronic Banking Technologies by US Consumers. *The International Journal of Bank Marketing*, 238-259.
- Mobarek, A. (2007). *Mobile-Banking practices and customer satisfaction - A Case Study in Botswana*. 20th Australasian Finance & Banking Conference.
- Thapa, P., Poudel, B., & Pradhan, J. (2021). Factors Influencing the Adoption of Internet Banking Among Postgraduate Students: Evidence from Nepal. *Asian Journal of Business and Management*, 9(2), 112-120.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50, 179-211.
- Venkatesh, V., Morris, M.G., Davis, G.B., & Davis, F.D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425-478.
- Maheshwari, B., Kumari, A., & Sharma, R. (2017). The Acceptance of Mobile Banking: An Empirical Analysis Among Indian Postgraduate Students. *Journal of Banking and Financial Services*, 3(2), 14-20.
- Featherman, M.S., & Pavlou, P.A. (2003). Predicting E-Services Adoption: A Perceived Risk Facets Perspective. *International Journal of Human-Computer Studies*, 59(4), 451-474.
- Kim, D.J., Park, H., & Choi, H. (2012). A Study on the Impact of Perceived Risk on the Intention to Use Mobile Banking. *Journal of Theoretical and Applied Electronic Commerce Research*, 7(1), 30-50.
- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Khanal, R., Sharma, S., & Hunjan, A. (2021). Behavioral Intention Among Postgraduate Students Towards Mobile Banking in Nepal. *International Journal of Economics and Finance*, 13(2), 45-55.