

*Original Research*

# Influence of Online Banking on Bank Performance in Nepal: Mediating Role of Training and Development

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Received 26 August 2023 Revised 7 September 2023 Accepted 7 October 2023

## Abstract

Since the internet became freely accessible everywhere in recent years. As banking transactions changed and shifted to online banking, banks paid more attention to how to make the best use of it, reduce operating expenses, and boost profitability. Online banking is a method of doing business that has frameworks that are properly connected with various customer-oriented services offered while also lowering costs and raising profits. The current study sought to investigate the impact of internet banking on Nepali banks' performance in terms of the mediating effect of training and development. It focuses mostly on how training and development affect bank performance in Nepal. Additionally, it emphasizes how crucial online banking can be for improving bank financial performance. The data were selected from 150 respondents of commercial banks located at Kathmandu, Bhaktapur, and Lalitpur. As the primary source of quantitative data for the present research, participants completed a self-administered questionnaire. Additionally, partial least squares structural equation modeling (PLS-SEM) was used to examine the data obtained through the use of questionnaires. The findings suggest a favorable association between online banking and bank performance. According to the findings, training and development significantly impact bank performance. The findings also indicate that the association between online banking and bank performance is mediated by training and development. To meet the intended profitability ratio from online banking, increase customer satisfaction, and produce strong financial performance, management should work to put focus on training and development process.

**Keywords:** Bank performance, commercial banks, internet banking, online banking, training and development.

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## Introduction

There are huge regional differences in the accessibility to the Internet. The global expansion of internet access is being aided by several initiatives. It supports various uses and methods of Internet commerce. Online banking is a component of that system that is expanding quickly. Because people have been forced to stay at home and use online banking, the COVID-19 pandemic has expedited this tendency.

A system that enables customers of a bank or other financial institution to execute a variety of financial activities through the financial organization's website or mobile app is known as online banking, also known as internet banking, virtual banking, web banking, or home banking. The management of your accounts can be done easily and safely through online banking. It offers a variety of features that can help you save time and money, and it can be accessed from anywhere with an internet connection.

Online banking is a terrific choice if you're seeking for a quick and safe way to handle your money. It has a wide range of features that can help you save time and money, and it is accessible at most banks and financial institutions. Checking account balances, examining recent transactions, transferring money between accounts, paying bills, depositing checks, applying for loans, opening new accounts, managing investments, and setting up notifications are a few of the frequently used aspects of online banking.

For a variety of reasons, online banking is crucial. It is a practical, safe, and effective way to handle your money. Online banking is available around-the-clock from any location with an Internet connection. This means you can perform tasks like paying bills, transferring money, and checking your balance online without going to a bank branch. Online banking is a secure method of handling your money. Banks utilize a range of security measures, including firewalls and encryption, to safeguard your data. By choosing strong passwords and keeping your login information private, you may further protect your account. You can save time and money by using online banking. You may take use of online-only benefits, like free bill payments that can save you money without having to stand in line at a bank branch. Anyone can use online banking, regardless of where they are physically located or their level of mobility. For persons with impairments or those who live in rural areas, this is especially crucial. You can adjust your online banking experience to suit your particular requirements. You may make budgets, set up alarms, and keep tabs on your spending. Overall, managing your accounts through online banking is practical, safe, and effective.

Various studies have already been conducted on online banking. Some of the most important studies and research papers that have been published and pertinent to the current situation. According to (Jahangir & Begum, 2008), the security and privacy concerns related to online banking are covered in this study. The authors list several concerns, including identity theft and phishing attempts, and they suggest several security methods that can be used to reduce these risks. As per (Gao, Rohm, Sultan, & Huang, 2012), research on comparative study of youth markets in the United States and China, This research contrasts how mobile banking is used in China versus the US. According to the authors, mobile banking is more commonly utilized in China and the country's

citizens are more inclined to use it for a wider variety of transactions. (Bradley & Stewart, 2003), research explores the potential of online banking. According to the author, online banking will gain more and more traction until it overtakes traditional banking as the preferred method of managing personal affairs. Study of (Olsen & Johnson, 2003), investigates how online banking affects patron happiness and loyalty. Online banking, according to the authors, can increase client happiness and loyalty, however, the impact is not always predictable.

A theory called the Diffusion of Innovation Theory (DIT) describes how novel concepts and innovations spread among people. It was created by Everett Rogers and originally appeared in his 1962 book *Diffusion of Innovations* (Miller, 2015). The DIT theory categorizes innovative adopters into five groups. They are innovators, early Adopters, early majority, late majority and Laggards. An innovation is typically adopted by innovators initially. They frequently hold influential positions and are usually risk-takers. The next group to adopt a new idea is the early adopters. They frequently have respect and are regarded as being progressive. The first group to adopt a new idea is the early majority. They tend to be more conservative than innovators and early adopters but are nonetheless open to trying new things. The fourth group to accept an invention is the late majority. They are frequently the most reluctant to change, but when they observe the innovation become the standard, they gradually adopt it. The last group to accept new technology. They frequently have strong traditional values and are averse to change.

According to the Diffusion of Innovation Theory (DIT), several factors can affect how quickly an idea is adopted. They are observability of the benefits of the invention, compatibility, complexity, perceived relative advantage of the innovation, and trial ability of the innovation. Numerous researches have used the DIT theory to analyze the uptake of online banking. According to this research, the adoption of internet banking has taken the same track as the adoption of other cutting-edge technology. Online banking was first adopted by innovators and early adopters, then by the early majority, the late majority, and eventually by the laggards. This idea also affects how quickly new facilities are adapted and how their benefits are seen. This might be evaluated with the outdated system in terms of potential advantages, risks, utilization, accessibility, and level of trust.

The Diffusion of Innovation Theory (DIT) can be used to examine how various people adopt this new technology in the context of online banking. For instance, because they are risk-takers and frequent early adopters of new technology, innovators and early adopters are more likely to utilize Internet banking. When the early majority realizes that Internet banking is becoming more common and that it has several advantages over conventional banking techniques, they are more inclined to use it. Laggards and the late majority are more inclined to use online banking if they realize that it is commonplace and less unsafe than they originally believed. It is also possible to create plans to encourage the usage of online banking using the Diffusion of Innovation Theory (DIT). For instance, banks might use marketing efforts that emphasize the advantages of Internet banking to attract innovators and early adopters. By providing free trials or making the account-setting process simpler, they can also make it simpler for customers to test out Internet banking. Banks can create tactics that are more likely to succeed in encouraging the adoption of online banking by having a better understanding of the DIT theory.

The deceased of research on the connection between Internet banking and bank performance is expanding. Research on the mediating position of training and development in this relationship is still lacking, though. Giving employees the knowledge, skills, and talents they need to do their jobs well can be referred to as training and development. Employees can learn how to utilize the online banking platform, spot and stop fraud, and offer customer care to online banking consumers with the aid of training and development in the online banking environment. By undertaking studies that look into the following issues, the knowledge gap on the mediating role of training and development in the relationship between online banking and bank performance can be filled. What effect does training and development have on how employees feel about Internet banking? How can training and development programs affect the social pressure on staff to utilize Internet banking? Whether perceived barriers to using online banking have changed as a result of training and development? How does training and development affect online banking's effectiveness, level of customer service, and costs? How knowledge management and knowledge generation in online banking are affected by training and development? We can better understand how training and development can be used to strengthen the link between online banking and bank performance by filling in these research gaps.

### *Explanation of hypothesis*

This study has four hypothesis developments. Online banking can improve a bank's efficiency. The performance of banks and online banking are positively correlated. Banks may lower risk while increasing efficiency, providing better customer service, and generating more income via online banking. Banks can increase efficiency and cut expenses by using online banking. Online banking makes it simpler for consumers to complete transactions and gives them access to their accounts around the clock, which can help banks provide better customer care. The bottom line of the bank may benefit from greater client satisfaction and loyalty as a result of this.

Online banking can aid banks in generating new sources of income. For online purchases and financial counseling, banks may impose fees. On their websites or mobile applications, they can also charge for advertising space. By making it simpler for banks to detect and stop fraud, online banking can help banks lower risk. Banks have the option of requiring consumers to use two-factor authentication and secure passwords, as well as using fraud detection tools to monitor online transactions. According to a (Onay & Ozsoz, 2013), banks that provided online banking services had fewer non-performing loans overall than banks that did not. According to a study by (Malhotra & Singh, 2009), banks that offered online banking services had more satisfied and devoted customers than banks that did not. Same as banks that offered online banking services had higher profits and lower costs than banks that did not.

Training and development are positively correlated with bank performance. The skills and knowledge of bank personnel can be improved through training and development, which could result in better productivity, client satisfaction, and revenue production. Here are a few ways that training and development can affect how well a bank performs. Improved customer service, additional revenue opportunities, and reduced risk. Training and development can assist banks in enhancing their risk management procedures and

lowering the possibility of financial crises, according to a study by the International Monetary Fund. According to this research, training, and development could be a useful strategy for banks to boost productivity. It is crucial to keep in mind that the effects of training and development will differ depending on several variables. Before adopting training and development programs, banks should carefully assess their unique situation. In total, four hypotheses were connected and had a favorable influence on the outcome, both directly and indirectly.

## Literature Review

### *Online banking and bank performance*

The term "bank performance" describes a bank's capacity to make money and expand its customer base. Profits, Return on Equity (ROE), Return on Assets (ROA), Non-Performing Loans (NPLs), and Customer Satisfaction are just a few examples of the metrics used to measure it. The economy, interest rates, and risk management were found to be the three main variables influencing bank performance, according to a study by (Schneider, 2017). The study also discovered that while competition and technology are significant, their effects on bank performance are less significant. According to a study by the Bank for International Settlements, competition, interest rates, and the state of the economy are what have the biggest effects on bank performance. Technology and risk management are crucial, but they have a less significant effect on bank performance, according to the study. An increasing quantity of research has been done on the connection between online banking and bank performance. Online banking has been shown in some research to improve bank performance.

According to a (Malhotra & Singh, 2009), study, institutions that provided online banking services had more loyal and satisfied customers than banks that did not. The study by (Bhatt, Ahmed, Iqbal, & Ullah, 2023), adds substantially to the pool of research on CRM practices and how they influence bank performance. The study makes use of a sizable and detailed sample of Nepali commercial banks current status and gives direction, if bank want to improve profitability ratio they have to work on credit risk management and simultaneously launch new product on market which help to optimize profit. So bank can broaden different online banking facility encourage customer to use of higher amount of frequency which is trouble-free. The study's recommendations aimed to enhance the performance of Nepal's commercial banks. According to a (Onay & Ozsoz, 2013), banks that provided online banking services had fewer non-performing loans overall than banks that did not apply them. According to this research, internet banking can aid banks in increasing their productivity, providing better customer service, and managing risks. Profits may rise and expenses may drop as a result of this. As a result, the first hypothesis is formulated.

**H<sub>1</sub>:** The performance of banks and online banking are positively correlated.

### *Online banking and training and development*

Giving people the information and skills they need to do their jobs well is known as training and development (T&D). It can be formal or informal, and it can occur in a

variety of places, such as an online job, a classroom setting, or the workplace. T&D's objective is to raise staff performance, which can result in greater output, effectiveness, and client satisfaction. Additionally, it can help to lower expenses, boost employee morale, and develop a more competitive workforce. The improvement in employee performance, the decrease in expenditures, or the rise in employee happiness can all be used to gauge how effective T&D programs are. Any firm that wishes to increase performance and build a more competitive workforce must make a significant investment in T&D. T&D can assist firms in achieving their goals and objectives by supplying people with the skills and information they need.

(Sitzmann & Weinhardt, 2018) research discover that utilization of technology, the emphasis on learning outcomes, and the necessity of continual learning are some of the future trends in training and development. According to (Simmons, 2006) banks that provided online banking services were more likely to offer their staff member's opportunities for training and development. The survey also discovered that employees were more willing to take part in training and development initiatives when they had access to Internet banking. The study discovered also that banks using online banking services were more likely to have a continuous learning culture. The survey exposed that workers in banks with a continuous learning culture were more likely to be content with their positions and have a good outlook on their work.

According to (Zarzour, Jararweh, Hammad, & Al-Smadi, 2020), study discovered that banks may foster a culture of continual learning through online banking. Results indicate that by making it simpler for staff members to access information and training materials, internet banking can contribute to the development of a culture of continuous learning in banks. Online banking can also promote information sharing among staff members and facilitate the dismantling of departmental silos. Banks may find it simpler to provide training to staff members thanks to online banking. Banks can leverage online platforms to provide self-paced training courses or live webinars, for instance. By doing this, banks can save time and money while also increasing the accessibility of training for staff members who might not be able to attend in-person training sessions (Uddin et al., 2022). Banks can track the development of employees in training programs with the use of online banking. This can assist banks in making sure that staff members are completing the necessary training and understand the subject. Banks can evaluate the efficiency of training programs with the aid of online banking. This can aid banks in gradually enhancing their training initiatives. Hypothesis number two is formed.

**H<sub>2</sub>:** Training and development are positively impacted by online banking.

### *Training and development and bank performance*

Training and development are positively correlated with bank performance. Increased employee productivity, improved customer service, lower costs, enhanced creativity, and higher employee satisfaction are just a few of the ways that training and development can help banks function better. Overall, banks may find that investing in training and development is a wise move. Banks can increase performance and accomplish their objectives by giving staff the skills and knowledge they require.

For its workers, Bank of America provides a range of training opportunities, including as courses in financial literacy, sales, and customer service. Through these initiatives, Bank of America has been able to expand its market share and raise customer happiness. With the help of its "Wells Fargo University" program, Wells Fargo trains its staff in a range of areas, like technology, sales, and customer service. Wells Fargo has been able to lower costs and increase customer satisfaction because of this approach. According to (Lin et al., 2022), training and development improve bank performance. The study also discovered that the long-term rather than the short-term effects of training and development on bank performance are stronger.

(Eren, 2021), discovered that training and development can help banks innovate. The survey also discovered that training and development may support bank innovation by fostering a culture of innovation, encouraging employees to think creatively, and equipping staff with the knowledge and skills they need to innovate.

According to (Alsafadi & Altahat, 2021), training and development can significantly improve bank performance. The study also discovered that training and development can improve bank performance by raising customer happiness, lowering employee turnover, boosting employee skills and knowledge, and improving the bank's image. As a result, hypothesis three is created.

**H<sub>3</sub>:** The performance of banks is positively impacted by training and development.

### *Online banking, training and development, and bank performance*

Customers can conduct financial transactions and access their bank accounts using online banking from any location with an Internet connection. Lowering operating costs, raising customer happiness, extending their market, and investing in training and development, can assist banks in doing better. Enhancing staff knowledge and abilities, lowering employee turnover, and encouraging creativity. The mediating function of growth and training: Online banking performance and bank performance may be mediated by training and development. Therefore, training and development can assist in illuminating how Internet banking can enhance bank performance.

Employees can learn how to use online banking systems efficiently with the aid of training and development. Customers may be more satisfied as a result of being able to access their accounts and complete transactions more quickly. As banks can reduce the number of branches and employees they require, it may also result in lower operational expenses. Overall, by mediating the relationship between online banking and bank performance, training and development can play a significant role in aiding banks in enhancing their performance. A bank may be able to increase customer satisfaction and lower operational expenses if it trains and develops its staff on using online banking technologies. A bank may be able to create new products and services that are in demand by consumers if it offers training and development for its staff on how to produce new products and services. A bank that fosters an innovative culture through training and development may be more likely to generate fresh concepts that can boost the bank's performance.

(Pea-Assounga & Wu, 2022), discovered that the relationship between online banking and bank performance might be mediated by training and development. The study also discovered that the effectiveness of the training and development program, the level of employee participation in the program, and management support for training and development can all affect how well online banking performs. This study discovered that staff innovation can moderate the favorable impact that online banking can have on bank performance. Study discloses that the effectiveness of training and development on online banking performance can be influenced by the amount of staff training and development, organizational culture, and resource availability. As a result, a fourth hypothesis emerged.

**H4:** The relationship between online banking and bank performance is mediated through training and development.

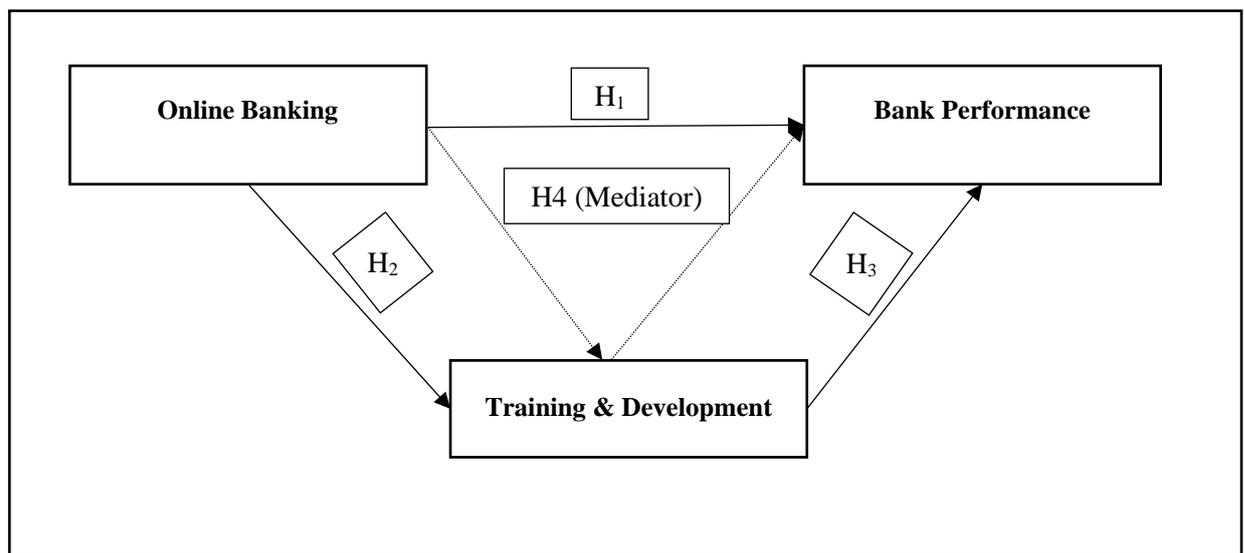


Figure 1. Conceptual model

## Research Methodology

### *Research Methodology and Data Collection Tools*

According to (Kothari, 2004), research methods are specialized processes or strategies used to locate, pick, process, and analyze data on a certain subject. To fulfill the dissertation's purpose, research questions, objectives, and hypotheses, we used quantitative methodologies (Nenty, 2009). The main emphasis was on factors that affect online banking, specifically how training and development affect Nepal's commercial banks' performance. We started with a carefully chosen population, study design, and sampling. Then, we concentrated on the tools utilized, validation techniques, experiments, and data gathering and analysis. As a result, general population objectives were guided by straightforward random sampling techniques, and each member of the population had an equal chance of being chosen for the sample. The rationale for simple random sampling, according to (Olken & Rotem, 1995), is that it eliminates bias in the selection process and ought to result in a representative. A closed-ended questionnaire

was utilized to collect the data, with each question being presented in a logical sequence and formulated in an unambiguous, straightforward manner.

This approach gave participants the chance to clear up any uncertainties of any sort and gave us the chance to describe the goal of the study in a way that would inspire participants and result in a high rate of questionnaire return (White & Frederiksen, 2005). However, a closed-ended questionnaire was used, the studies focused on registered commercial bank employee from nearby city Kathmandu, Bhaktapur, and Lalitpur, Nepal, and we selected 150 commercial banks employees as our sample for this study. All registered commercial banks located these cities that provide Internet banking and other online financial services were included in the target sample.

They were chosen using basic random sample methods because the population was both small and representative. On the other hand, managers, officers from the online banking section, customer service desk officers, and supervisors from the digital banking department of chosen banks were the respondents chosen using a purposive sample strategy. The selection criteria were based on their management and operational responsibilities for online banking, which were crucial for affecting the commercial bank's financial performance.

#### *Data Collection Tools/Methods*

This study's data collection strategy, a survey methodology, is frequently connected to deductive methodologies depending on the quantitative approach used (Rahi, 2017). A survey method gave us complete control over the research procedure and enabled the production of survey results that were more reasonably priced and representative of the population of financial institutions in Kathmandu, Bhaktapur, and Lalitpur. According to (Bryman, 2006), structured interviews and questionnaires are the two primary data collection methods frequently used in survey tactics.

Therefore, the primary source of quantitative data for the current investigation was a self-administered questionnaire. The identical questions about every variable utilized in this investigation were included in each questionnaire. Furthermore, partial least squares structural equation modeling (PLS-SEM) was used to examine the data gathered through questionnaires. Both survey managers and respondents may quickly learn how to use the 5-point Likert scale. Higher-point scales require more effort and time to complete. Scales with more points fit screens of mobile devices better. With options, respondents don't feel swamped. Therefore, a 5-point Likert scale with the options strongly agree to strongly disagree was adopted in the current investigation (Finstad, 2010).

The study included 200 participants in all, and 150 valid responses were collected. 45 female individuals made up 30% of the overall number of participants in the study, which included 105 male participants, or 70% of the total. There were 150 volunteers in all, divided into different age groups for the study. In particular, 22 people (15%) were under the age of 25, 74 people (49%) were between the ages of 26 and 35, 35 people (23%) were between the ages of 36 and 45, and 19 people (13%) were beyond the age of 45.

This study looked at the distribution of career levels among four different employment roles: manager, owner/CEO, and supervisor/worker. 10 people (7%) in the supervisor/worker position, 102 people (68%) in middle management, 36 people (24%) in the manager position, and 2 people (1%) in the owner/CEO position made up the sample. The participants' educational backgrounds ranged from basic/secondary (nine), undergraduate (64), master's (76), and doctoral (two) degrees. These percentages were 5%, 43%, 51%, and 1%, respectively, according to the degrees. In Table 1. Demographic variations and a variety of characteristics of the population are exposed.

Table 1. Respondents' characteristics

Respondents characteristics	Frequency	Percent
<b>Gender</b>		
Men	105	70%
Women	45	30%
Total	150	100
<b>Age group</b>		
Under 25	22	15%
26-35	74	49%
36-45	35	23%
Over 45	19	13%
Total	150	100
<b>Education</b>		
Secondary or Basic	8	5%
Undergraduate	64	43%
Masters	76	51%
PhD	2	1%
Total	150	100
<b>Position</b>		
Supervisor/ Worker	10	7%
Middle Manager	102	68%
Manager	36	24%
Owner/ CEO	2	1%
Total	150	100

### *Measurement Scale*

All five items were adapted from (Suh & Han, 2002), (Walker & Johnson, 2006), (Shih & Fang, 2004), and (Sukkar & Hasan, 2005) to assess the behavioral intentions of internet banking users. All sixteen items for the training and development questionnaire were derived from earlier research studies (Kirkpatrick), (Warr, Allan, & Birdi, 1999), (Warr & Bunce, 1995), (Sackett & Mullen, 1993), (Pierce & Schafer, 1986), and (Birdi, Allan, & Warr, 1997), that dealt with the measured constructs. Four criteria have been employed for evaluating how well the commercial banks performed (Hussain & Al-Ajmi, 2012).

## Results and discussion

The researchers' method preferred for data analysis was partial least squares structural equation modeling (PLS-SEM). (Haenlein & Kaplan, 2004), suggest that PLS-SEM is a more advantageous strategy than other traditional multivariate approaches. PLS-SEM is a statistical method that provides a reliable analysis through the use of the bootstrapping method (Iqbal, Li, Yang, & Sindhu, 2022). In order to evaluate the significance of their findings, researchers can use this method to create standard errors for route coefficients (Nitzl, Roldan, & Cepeda, 2016). Multicollinearity, normality, and common method variance were among the initial assumptions that were evaluated (Tabachnick, Fidell, & Ullman, 2007). (Hair Jr, Babin, & Anderson, 2010), examined and interpreted the gathered data using a two-step process incorporating measurement and structural models.

### *Measurement model assessment*

It is essential to assess each concept's reliability, internal consistency, convergent validity, and discriminant validity in order to study the measurement model (Hair Jr, et al., 2010). PLS-SEM was used in this work since it has received widespread acceptance and adoption from academic academics in a variety of academic domains. The new method this study used to set standards for thorough data analysis is what makes it appropriate (Joseph F Hair, Risher, Sarstedt, & Ringle, 2019). To assess the dependability of each individual item, the researchers used factor loading (Joe F Hair, Sarstedt, Ringle, & Mena, 2012). According to (Joseph F Hair, et al., 2019), a minimum threshold of 0.7 or above is required. Table 2 shows that every outside loading in our investigation corresponds with the standards.

Table 2. Mean, SD, CA, CR, and AVE

Constructs	Mean	SD	CA	CR	AVE
Bank Performance	3.04	0.84	0.749	0.841	0.571
Online Banking	3.18	0.70	0.804	0.865	0.563
Training & Development	3.23	0.86	0.946	0.952	0.553

SD, standard deviation; CA, Cronbach alpha; CR, composite reliability; AVE, average variance extracted.

### *Internal consistency*

Cronbach's alpha and composite reliability are commonly used by researchers to assess an instrument's internal consistency. According to various research (Bagozzi, Yi, & Phillips, 1991; Joe F Hair, Ringle, & Sarstedt, 2011; Joseph F Hair, et al., 2019; Hair Jr et al., 2021), the measurements frequently use a minimum threshold of 0.70. According to (Bagozzi, et al., 1991), the internal consistency and reliability of the structures are shown in Table 3. A statistical tool for assessing the presence of technique bias and collinearity effects is the variance inflated factor (VIF). (Ringle, Wende, & Becker, 2015) claim that. As shown in Table 2, it is often advisable to take into account a threshold of 5 or below for the VIF.

Table 3. Factor loadings and variance inflated factor

Construct	Item	Loading	VIF
Bank Performance			
	BP1	0.796	1.535
	BP2	0.764	1.437
	BP3	0.703	1.323
Online Banking	BP4	0.755	1.483
	OB1	0.799	1.882
	OB2	0.726	1.787
	OB3	0.703	1.646
Training & Development	OB4	0.709	1.459
	OB5	0.807	1.906
	T&D1	0.728	2.137
	T&D2	0.705	1.946
	T&D3	0.774	3.299
	T&D4	0.739	2.251
	T&D5	0.749	2.420
	T&D6	0.794	3.159
	T&D7	0.705	2.009
	T&D8	0.745	2.558
	T&D9	0.708	2.058
	T&D10	0.767	2.220
	T&D11	0.713	2.468
	T&D12	0.762	2.543
	T&D13	0.737	2.397
T&D14	0.723	2.639	
T&D15	0.813	2.902	
T&D16	0.728	2.697	

\*Note: VIF = Variance Inflated Factor

The average variance extracted (AVE), as suggested by (Fornell & Larcker, 1981), is used to measure the convergent and discriminant validity. A minimum criterion of 0.5 or above is frequently used to establish convergent validity (Chin, 1998). Table 3 presents the convergent validity research outcomes. Table 3 shows that every latent variable had average variance extracted (AVE) values greater than the set cutoff. Table 4 shows that the average extracted variance (AVE) square root was found to be bigger than the correlations among the latent components. Acceptable discriminant validity is shown in the present investigation across all dimensions.

Table 4. Discriminant validity

Constructs	BP	OB	T & D
Bank Performance	0.733		
Online Banking	0.693	0.750	
T & D	0.673	0.577	0.744

### Structural model assessment

The model's ability to predict outcomes is gauged by the R<sup>2</sup> coefficient (Sarstedt, Ringle, Henseler, & Hair, 2014). An R<sup>2</sup> value of 0.60 is classified as vital, 0.33 as moderate, and 0.19 as weak by (Chin, 1998), who also recommended particular parameters for evaluating the R<sup>2</sup> number. The R<sup>2</sup> and Q<sup>2</sup> values for the BP and T&D variables are shown in Table 5. For the BP variable, the coefficient of determination (R<sup>2</sup>) is 0.593, while for the OB variable, it is 0.333. BP's Q<sup>2</sup> value was determined to be 0.329, while T&D's Q<sup>2</sup> value was determined to be 0.175. The result of the F<sup>2</sup> tests for the OB constructs (0.341) and T&D (0.175) show that our study model is legitimate.

Table 5. Predictive Relevance and Model Fit

Constructs	Q <sup>2</sup>	R <sup>2</sup>	F <sup>2</sup>
BP	0.329	0.593	
OB		0.333	0.341
T & D	0.175		0.276

The study used the bootstrapping approach, especially 5,000 bootstrap samples, to ascertain the statistical significance of the hypothesis (F. Hair Jr, Sarstedt, Hopkins, & G. Kuppelwieser, 2014; Henseler, Ringle, & Sinkovics, 2009). Hypothesis 1 (H<sub>1</sub>) proposes a substantial and positive correlation between OB and BP, which is empirically supported by the data from Table 6 and Figure 2 (= 0.456, t = 7.133, p = 0.000). Thus, hypothesis H<sub>1</sub> has been confirmed.

The study's results demonstrated that online banking (OB) and training & development (T&D) had a statistically significant correlation (= 0.577, t = 10.377, p = 0.000), which was consistent with Hypothesis 2. The values of t = 6.109, p = 0.000, and = 0.410 support the validity of hypothesis 3. The study's findings supported the hypothesis that the relationship between online banking (OB) and bank performance (BP) is mediated by training and development (T&D). The analysis's findings generated a statistically significant result (= 0.237, t = 5.074, p = 0.000), verifying (Baron & Kenny, 1986) theory of partial mediation.

Table 6. Structural model

Hypothesis	Relationship	Beta	SE	t-Value	P-Value	Decision
H <sub>1</sub>	OB → BP	0.456	0.064	7.133	0.000	Supported
H <sub>2</sub>	OB → T&D	0.577	0.056	10.377	0.000	Supported
H <sub>3</sub>	T & D → BP	0.410	0.067	6.109	0.000	Supported
H <sub>4</sub>	OB → T&D → BP	0.237	0.047	5.074	0.000	Supported

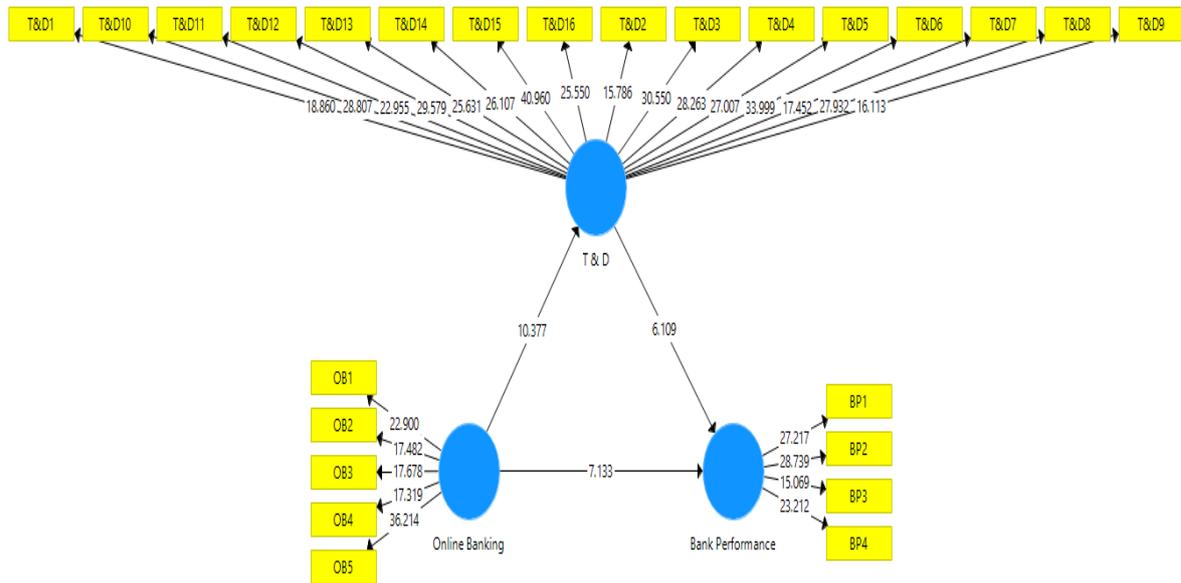


Figure 2. Hypothesis results.

### Discussion

The current study looked at the factors that affect training and development and how they relate to Nepal's commercial banks' performance. The findings showed a link between internet banking and bank performance that is favorable. Additionally, it was discovered that training and development and internet banking had a considerable impact on bank performance. The findings also showed that the relationship between online banking and commercial banks' performance is mediated by training and development. The empirical findings showed that, while internet banking is certain to have a beneficial impact on bank performance, it can be enhanced if training and development are used properly throughout the process. This suggests that if we focus on adequate training and development, every sort of internet banking will be more efficient and successful. The ideal online banking procedure specifies and maximizes the frontline staff's training and development plan. Actively concentrate on often using online banking, keep your attention on client happiness, and make sure the transaction process is simple.

Our findings also show that training and development primarily aims to ascertain whether adequate training sessions are necessary, with a focus on which training procedure is most important for various departments' front-line workers. To maximize the financial performance of the bank, the training and development process includes an evaluation of the online banking product and anticipated future results. The customer's goal, the demand's veracity, the procedure's accessibility and ability to be improved in order to make it more streamlined and hassle-free are some of the characteristics of the most common online banking process that are of concern. The goal of online banking is to reduce consumer frequency of bank visits for easy processes that need little effort. In

keeping with the findings of an earlier study, the results also showed that training and development strongly mediates the relationship between online banking and commercial banks' performance (Zhong, Chen, & Ren, 2022). This study found that training and development may act as a mediator in the association between online banking and bank performance. The study also found that the performance of online banking can be influenced by the efficiency of the training and development program, the degree of employee participation in the program, and management support for training and development. The study also found that the performance of online banking can be influenced by the efficiency of the training and development program, the degree of employee participation in the program, and management support for training and development. The level to which the online banking function is carried out correctly and the structure of the profitability portion of the online banking process is maintained depends on how well each financial institution's frontline workers, supervisors, and senior managers in the back office are trained and developed. The training and development process is most effective when the essential principles and components are adhered to and continuously used throughout the financial institution.

### **Conclusion, limitations and future work**

The objective of this study was to look into the factors that affect online banking training and development and how they relate to Nepal's commercial banks' performance. These results imply that a bank in Nepal's training and development strategy depends on a number of crucial steps in the online banking process. The efficacy of online banking methods in Nepal is greatly dependent on how well-versed banking staff is in the procedure and process. In order to identify, measure, monitor, and regulate different online banking activities such transactions, market requirements, frequency of uses, and operational support, as well as to maintain standards of quality and customer satisfaction, banks must also actively engage in training and development.

In order to meet regulatory standards, it is beneficial for Nepali banks to create a complete online banking system that takes consideration of standard procedures. This is also a good way to boost financial institutions' performance. As a result, the study's findings are consistent with the hypothesis that online banking significantly affects the performance of a few Nepalese banks. Even if online banking is the most popular type of banking, it is still vital to consider the market's importance, particularly in light of the various online banking processes and methodologies that are crucial for economists and analysts.

It is emphasized that the approaches for determining market value have shortcomings and restrictions that show up under both typical and unfavorable circumstances. Nevertheless, these procedures continue to be crucial tools in the process of embracing the general internet banking that banks employ, and their outcomes help to increase efficiency in the banking and financial sectors. The only factors that were the focus of the survey in the current study were the effects of online banking and the mediated function of training and development on the performance of commercial banks in Nepal. It is important to look into the relationship between human resources, online banking, and financial success in Nepalese commercial banks. The population of this study was only

focused on Nepal's commercial banking. As a result, some other categories, including microfinance banks, may be covered in a subsequent study.

### *Theoretical and practical implications*

By lowering expenses and boosting productivity, online banking can help banks perform better. This is due to the fact that internet banking enables banks to automate a number of their procedures, freeing up workers to concentrate on other activities. Online banking can also assist banks in reaching a larger consumer base, which may result in increased income. By enhancing the abilities and knowledge of their staff, training and development can help banks function better. Employee productivity and efficiency could increase as a result, which would benefit the bank's bottom line. In addition, training and development can assist banks in luring and keeping top talent, which can also help them perform better. The influence of online banking on bank performance depends on the level of training and development that workers receive due to the mediating role of training and development. Employees may not be able to fully benefit from online banking advantages if they are not given proper training on how to use it. Additionally, if staff members lack the knowledge and abilities to use online banking efficiently, they may commit errors that endanger the bank's standing or financial health.

This is due to the fact that internet banking can assist banks in lowering operational expenses, enhancing customer service, and luring in new clients. However, banks must ensure that their staff members are properly trained on how to use internet banking in order to enjoy these benefits. Employees can become more productive on the work by learning how to use internet banking with the aid of training and development. For instance, staff members can learn how to perform transactions, check account balances, and send payments via internet banking. Additionally, they can learn how to use online banking to offer customer care, including responding to queries and addressing issues.

In conclusion, training and development as well as internet banking can both significantly enhance bank performance. The influence of internet banking on bank performance, however, depends on the level of training and development that staff receives due to the mediating role of training and development. This may reduce the frequency of visit bank location to client, saving banks money on staffing and real estate. Employee ability and expertise can be improved through training and development to enable successful use of online banking technologies. Employee productivity and efficiency could increase as a result, which would benefit the bank's bottom line. Improved bank performance can result from using training and development to draw in and keep top talent. Top employees are more likely to be knowledgeable about and skilled in using online banking technology.

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<p><b>HOW TO CITE THIS ARTICLE</b></p> <p>Bhatt, T. K., Dang, X., Jan, S. Q., &amp; Iqbal, M. B. (2024). Influence of Online Banking on Bank Performance in Nepal: Mediating Role of Training and Development. <i>International Journal of Management, Accounting and Economics</i>, 11(1), 75-95.</p> <p>DOI: <a href="https://doi.org/10.5281/zenodo.10809114">https://doi.org/10.5281/zenodo.10809114</a></p> <p>URL: <a href="https://www.ijmae.com/article_190038.html">https://www.ijmae.com/article_190038.html</a></p>	 A square QR code that, when scanned, likely leads to the full article page.