



## Evaluating E-Banking Service Quality and Customer Satisfaction: A Systematic Review in the Context of Nepal

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Article Info	ABSTRACT
<p><b>Corresponding Author</b> Ram Paudel E-mail: <a href="mailto:ram.paudel@amu.edu.eu">ram.paudel@amu.edu.eu</a></p>	<p>Nepal has recorded significant improvements in electronic banking (e-banking) in the past years, but there remains a situation of persisting limitations (in terms of infrastructure, digital literacy level and disparity), which tends to affect user satisfaction alongside service delivery. Despite the rise in the scholarly attention given to e-banking in Nepal, the current evidence remains fragmentary, as an incomplete picture exists of the way in which the dimension of service quality influence the experience of e-banking users in Nepal. The primary aim of this systematic review is to critically examine the influence of e-banking service quality on customer satisfaction in Nepalese commercial banks. The review seeks to consolidate fragmented empirical findings and provide a clear understanding of which service dimensions most significantly impact satisfaction. In total 40 peer reviewed empirical studies published between 1985 and 2025 that were selected for a review as per PRISMA guidelines. The five dimensions of SERVQUAL were utilized in being as thorough as possible, with thematic synthesis, but the results were complemented by emergent variables, also considered important to the Nepalese case. In this overview, reliability, responsiveness, and security assurance are outlined as the key dimensions that define the satisfaction of users. Digital trust, infrastructure adequacy, and digital literacy are additional variables, which are proposed as mediating. The underutilized constructs of tangibles and empathy came out as important to rural and first-time users. This study contextualizes and extends SERVQUAL for use in developing digital economies, offering theoretical refinements and actionable insights for Nepalese banks and policymakers to foster inclusive and customer-centric e-banking services.</p> <p><b>Keywords:</b> E-banking, Customer satisfaction, SERVQUAL, Service quality, Digital literacy</p>

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## INTRODUCTION

The global banking industry has undergone a significant transformation due to the widespread adoption of information and communication technologies (ICTs), which have reshaped the way financial services are delivered and consumed (Cosker & Glynn, 2023; Rouse, 2005). Electronic banking (e-banking), which includes internet banking, mobile banking, automated teller machines (ATMs), and SMS banking, has revolutionized consumer access to banking services, enabling transactions to be completed remotely, securely, and with greater convenience (Daniel, 1999). In developed countries, the penetration of e-banking has reached a mature stage where digital platforms are considered standard practice in banking operations. However, in developing nations such as Nepal, the uptake of e-banking services has been comparatively limited. Challenges such as inadequate infrastructure, low internet penetration rates, and limited digital literacy have contributed to this uneven adoption pattern (Banstola, 2007; Sapkota et al., 2018). Nepal was relatively late in introducing e-banking, with Kumari Bank becoming the first to offer internet banking in 2002, followed by Laxmi Bank's introduction of mobile banking in 2004. In modern literature, much has been said about the growth of digital banking services in the context of urban areas; however, large parts of the Nepalese rural population remain isolated of such developments due to poor infrastructure and digital illiteracy. Even though in Nepal today some of the renowned commercial banks are providing a mixture of digital services, there is a lapse in the satisfaction of customers with such platforms. Constant criticism against these platforms raises three main concerns regarding low levels of user education, an increase in cybersecurity risks, and a poor-quality support infrastructure that does not serve users appropriately (Singh et al., 2020). Such roadblocks have indicated an ill-repute between the delivery of e banking facilities and consumer quality standards. To achieve this gap, the systematic review under consideration explores the relationship between the quality of the services and client satisfaction in the e-banking sphere in Nepal with references to the model SERVQUAL by Parasuraman et al. (1985, 1988). The review focuses on five dimensions, namely reliability, responsiveness assurance, tangibles and empathy. The review provides a sophisticated appreciation of factors influencing or hindering digital banking in Nepal through the analysis of how each dimension of the concept is related to the perception and satisfaction of customers. Further, it identifies the areas which are under-researched in the existing literature and sketch the direction to be explored further, especially in the backdrop of developing-economies. Although the availability of the digital banking services is on the rise, a significant part of the Nepalese population is still reluctant to use such channels. The factors that contribute to this reluctance are inconsistent quality of the services, poor ICT infrastructure, digital trust, and the ever-present urban-rural digital divide. According to the recent studies, there are some technical and non-technical barriers, which have impacted negatively the user experience in relation to the e-banking practice in Nepal, thus diminishing the perceived benefits to consumers. This influence can be felt especially among the customers who depend on this platform to conduct their usual financial transactions. Moreover, empirical research focusing on examining explicitly the relationships between service quality discrete components with customer satisfaction is rare. The existing studies have sprouted in the last few years but most of them have not taken the validated and standardized models of service quality like SERVQUAL ( Shakya, 2016; Neha 2020).

The primary aim of this systematic review is to critically examine the influence of e-banking service quality on customer satisfaction in Nepalese commercial banks. The review

seeks to consolidate fragmented empirical findings and provide a clear understanding of which service dimensions most significantly impact satisfaction. To achieve this aim, the review is guided by three specific objectives:

- a. To review the status of e-banking service quality in Nepal, drawing on existing empirical studies.
- b. To map the scope and nature of existing research to highlight gaps and suggest avenues for future investigation.

This review is structured around three central research questions where these questions provide a focused lens for the systematic review and ensure that the analysis remains relevant to both academic and practical concerns in the financial services industry.

- a. What is the status of e-banking adoption and satisfaction in Nepal?
- b. What research gaps exist in the current literature on Nepalese e-banking?

This study holds significant value for multiple stakeholders. Academically, it contributes to the growing body of literature on digital banking in developing countries by synthesizing scattered empirical research focused on Nepal. It provides a structured and theory-driven understanding of service quality in the e-banking sector, thereby filling a knowledge gap in the field of service management and consumer behavior. From a practical perspective, the findings are highly relevant to policymakers, banking professionals, and digital service designers who aim to enhance customer-centric banking models. The insights gained from this review can guide improvements in system accessibility, user training, customer support, and technological trust—all of which are vital for advancing digital financial inclusion. Ultimately, this review serves as both a scholarly contribution and a practical roadmap for enhancing service quality in Nepal's evolving e-banking landscape.

## METHODS

This study adopted a systematic review methodology to examine existing literature on e-banking service quality and customer satisfaction in the context of Nepal. A systematic review was selected for its ability to provide a structured, transparent, and replicable means of identifying, evaluating, and synthesizing relevant research. The approach was grounded in established review protocols, incorporating a comprehensive process that included the development of inclusion and exclusion criteria, a targeted literature search, data extraction, thematic coding, and synthesis of findings. To analyze service quality in digital banking, the SERVQUAL framework was used in the analysis as a primary tool; however, it was complemented by emergent themes which capture new aspects of present issues in e-banking within emerging economies. The technique was an attempt to achieve academic soundness, reduce bias, and achieve strong conclusions that can be used in any study regarding online banking in Nepal, and by implication, similar developing environments.

### Inclusion and Exclusion Criteria

A stringent methodological design has been implemented in the current literature review to ensure the relevance and the methodological soundness of the contents under analysis. In that regard, a set of inclusion and exclusion criteria was drafted beforehand. The review included the empirical studies of 2000-2025 findings, with a focus on e-banking services, and their quality just as well as customer satisfaction. This period allowed the incorporation of both works that depicted the initial changes and recent trends around digital banking. Studies were only eligible where the research was conducted in Nepal or a similar

environment, where the case could be similar because of the digital infrastructure and the behavior of the consumers, which might be like that in Nepal. The available sources were peer-reviewed journal articles, academic dissertations or theses and credible government or industry reports. Conversely, the empirical studies, with an exclusive logical debate and those that did not mention service quality as well as customer satisfaction in the banking industry were rejected. In the same manner, the works that focused on the general ICT or distinct financial services were also excluded to maintain the thematic concentration. All these criteria were used carefully to make sure that only quality and relevant evidence informed the findings of the review.

### Sources and Search Strategy

The current systematic review adheres to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework to establish transparency, rigor, and replicability when identifying the relevant literature. The systematic search procedure was carried out to find the empirical research published on the topic of e-banking service quality and customer satisfaction, especially with references to the Nepalese context and other developing economies. This was done in the following academic databases and digital repositories: Google Scholar, JSTOR, ScienceDirect, Research Gate, EBSCOhost, SpringerLink, and Nepal journals online (NepJOL); and institutional repositories containing grey literature such as master’s and doctoral theses, and industry reports. A search resulted in a total of 215 records: 180 found using electronic databases and 35 found using snowballing methods, such as tracking the backlinks of key findings and examining the reference lists on key findings.

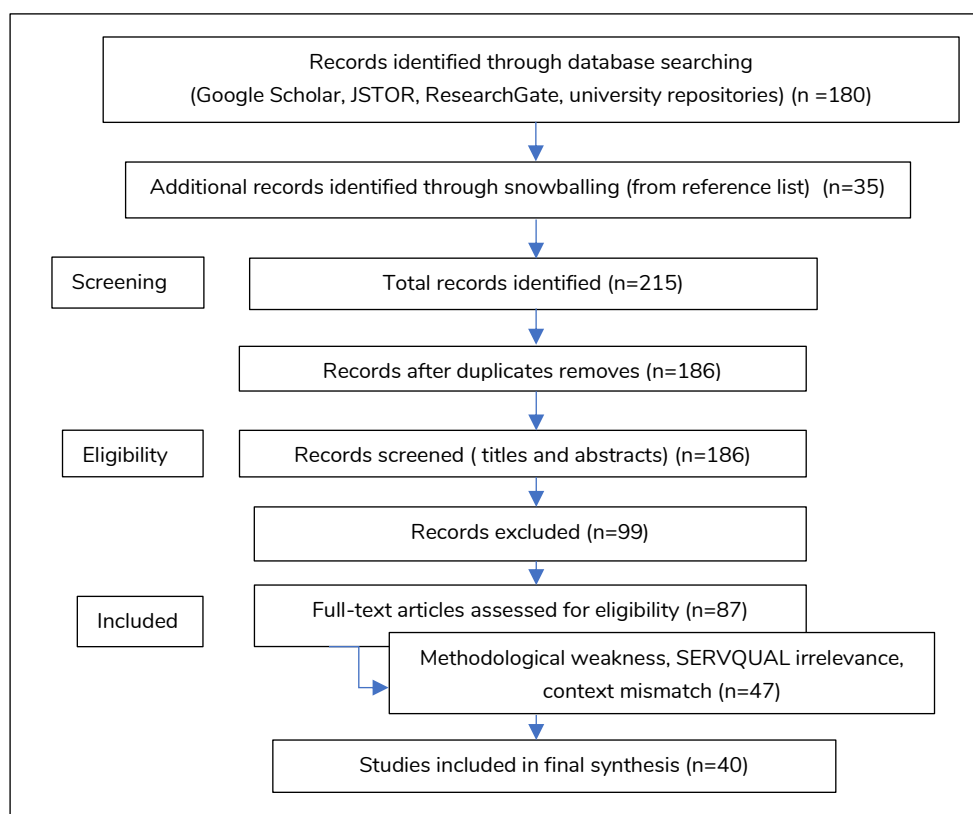


Figure 1. PRISMA Flow Diagram for Systematic Review

This initial set of articles has been narrowed using Boolean search strings which resulted to 215 articles that were included in the final synthesis. These included combinations of keywords such as “e-banking,” “internet banking,” “digital banking,” “service quality,” “SERVQUAL,” and “customer satisfaction,” paired with geographical identifiers such as “Nepal” or “developing countries.” Filters were applied to limit the search to peer-reviewed, English-language studies that contained empirical data. After removing duplicates, 186 unique records remained for title and abstract screening. During this screening phase, 99 articles were excluded for reasons such as thematic irrelevance, non-empirical nature, or insufficient focus on service quality or customer satisfaction in banking. The remaining 87 full-text articles were then assessed for eligibility. Following a detailed evaluation based on inclusion criteria, 47 articles were excluded due to weak methodology, lack of relevance to Nepal or similar contexts, or failure to incorporate service quality dimensions. Ultimately, 40 studies were deemed methodologically sound and thematically aligned, and were included in the final synthesis. This multi-stage, methodical approach to sourcing and screening ensured that the studies selected for review provide reliable, contextually appropriate insights into the dynamics of e-banking service quality and customer satisfaction in Nepal and similar developing regions.

### **Data Extraction and Categorization**

To maintain consistency and accuracy in handling the selected literature, a structured data extraction template was developed and applied. To enhance the rigorous organization and interpretation of empirical studies on service quality in digital banking, the current systematic review was performed using a systematic template. The template proposes the criteria of extracting and coding the research articles, such as names of authors and the year of publication, the country where the study was conducted, research problem and procedure, sample features, and the target services quality dimensions. At the same time, main findings and the limitations of methods are noted onto which critical appraisal and synthesis is based. Such a methodical organization is enabling the author to categorize and compare the studies which were included in a fairly accurate manner showing similarities and some kind of discrepancies in the available body of knowledge. Moreover, matrix format allows visualizing trends in geographic regions, research methods and conceptual approaches, which increases the soundness of the review.

### **Review Approach and Thematic Synthesis**

Thematic synthesis approach was embraced to critically review and understand the retrieved data. This plan allowed identifying similarities, emerging trends, and discrepancies among the chosen works. Traditional theory used as the main analytical framework was SERVQUAL model developed by Parasuraman et al., (1988) which outlines five essential dimensions of service quality: reliability, responsiveness, assurance, tangibles, and empathy. All the used studies were evaluated to determine the extent of the response of these dimensions to the permission of e-banking. Research on service stability (reliability), responsiveness of support, competency and trust (assurance), digital interface and design (tangibles) and personal user care that focused on empathy were categorized accordingly. SERVQUAL, which is often used in the research of service quality, has significant limitations when it comes to assessment of customer service experiences and digital services. Designed to assess the conventional face-to-face interaction, SERVQUAL makes a couple of

assumptions, specifically that customer expectations are stable and cannot adapt quickly to the emerging online forms. Overlapping dimensions especially assurance and responsiveness can provide a vague interpretation. In addition, SERVQUAL does not accurately represent the usability of the systems, online functionality, and service orientation of digital-related matters of service provision, which can be quite important in the e-banking setup (Zeithaml et al., 2002).

Though these limitations exist, SERVQUAL continues to be the most popular instrument in literature on banking and service quality research, especially in the developing world due to its conceptual clarity, multidimensional design, and empirical reliability (Kumbhar, 2011). Other models, including SERVPERF (Cronin & Taylor, 1992) that is used to quantify performance and is independent of customer satisfaction and E-S-QUAL (Parasuraman et al., 2005) which identifies parameters of digital services and focuses on efficiency of systems, privacy, and fulfillments, are more reliable in a certain context but cannot offer any in-depth diagnosis. Within the e-banking culture of Nepal, the customers are used to using not only online systems but also face-to-face support, and SERVQUAL remains a rather useful, versatile tool. Its fundamental dimensions can help researchers to explore both the technical and human aspect of the banking services, which makes it appropriate to be used in studying hybrid service delivery models (Shakya, 2016; Singh et al., 2020). As such SERVQUAL was used as the major analysis framework in this review, and emergent themes in the digital age cybersecurity, digital literacy, trust of the system as well as urban-rural infrastructure inequality were also addressed. These are some of the extra themes which are constantly fused with the initial five dimensions of SERVQUAL, to provide a more contextual and conceptual sense, as well as capturing the dynamics of user experience on a more holistic level in the e-banking sphere of Nepal which is in process of transformation.

### **Quality Assessment**

Without the use of a formal quality appraisal instrument, every study contained in it was evaluated in a structured manner to establish its methodological credibility. The review focused on three main areas; (1) the size/representativeness of the sample involved, (2) the validity and reliability of measures used, (3) the overall comprehensibility/transparency of research design and analysis. Articles that had well outlined aim, proper sampling and good methodology had been given priority during synthesis. Articles form inexact research design, insufficient sample size, unconfirmed results, on the contrary, were deciphered sensitively.

To maintain the integrity of the review and the realization that synthesized findings were based on the sound empirical evidence a fundamental quality appraisal was conducted by applying a seven-point-checklist adjusted to the existing systematic review guidelines. Although the scoring system based on numbers was not utilized, this checklist served the purpose of a qualitative filter, which allowed to reject the studies, which were methodologically unsound or lacked contextual relevance. Secondary data-based study does not make any use of human beings and does not collect personal information; the research procedure is solely based on secondary data gathered by publicly available sources. Therefore, it did not need any ethical approval.

## **RESULTS AND DISCUSSION**

The next part is a synthesis of empirical findings based on the reviewed literature related to the SERVQUAL framework. Results are classified by the major core dimensions of

the framework: reliability, responsiveness, security assurance, tangibles and empathy and by a newly identified theme of concern, the digital divide and literacy. These findings within studies are cross referenced with each other to establish validity and local context of the construct in relation to e-banking sector in Nepal.

### **Reliability and Responsiveness**

In a series of empirical studies, reliability and responsiveness are marked as the most influential factors of the quality of e-banking service (Singh et al., 2020; Kumbhar, 2011). In that, consumers attach a premium to value of accuracy in transactions, access to banks options and the real time delivery of account activity changes. The Nepal situation, where the internet connection is often offline and systems down a lot of time, enhances the importance of reliability of transactions still further. Responsiveness, which reflects how much the banks are willing and able to offer help to the customers as well as how fast complaints are resolved is also of paramount importance. According to Gan (2006), a rapid reaction rate, responsive customer services, and delivery of individualized services are crucial in enhancing satisfaction and minimize loss of users of a digital environment (Setiono & Hidayat, 2022). City clients can wait before the time delay because they are accustomed to digital facilities, but rural and mainstream customers are inclined to withdrawal under non-responsiveness. All these observations are related to the SERVQUAL theoretical framework, according to which reliability and responsiveness is the basis of the perceived quality of services. The prevailing nature of these dimensions in the existing literature highlights the need of banks in Nepal to invest in reliable digital resources and efficient communication channels to develop customer loyalty.

### **Security and Assurance**

The factors affecting the level of customer trust, especially in the case of e-banking when users engage in financial deals without meeting their counterparts face-to-face, are security and assurance (Silalahi et al., 2024). According to empirical study findings e.g., Shakya (2016) and Hamid et al. (2018), the data privacy, fraud online, and poor authentication procedures are still impeding satisfaction in Nepal and similar environments. In its turn, the lack of security leads users to be reluctant to implement digital platforms in their operations. Combined competence of the service personnel, transparency of the system and understandability of bank policies, which is herein referred to as assurance, becomes a decisive element to counteract this reluctance. Designed in a user-friendly interface, easily accessible to comprehensive support documentation, and by adopting secure protocols during the login process will generate the perception of trustworthiness (Zhou et al., 2021). In the case of numerous customers and particularly those who are less experienced in the digital environment, assurance acts as a safety mechanism with regards to the perceived internet risks that utilizing online banking is exposed to. Banks that provide proactive communication, fraud protection guarantees, and educational outreach are more likely to foster trust and long-term usage. These insights underscore the need for Nepalese financial

institutions to prioritize digital security not only as a technical feature but as a core dimension of service quality. The study by Fan et al. (2022) supplements the past investigations about the correlation between quality of e-services and customer engagement by characterizing that the system design, intelligent fulfillment, security assurance, and interactive service are significant predictors of customer engagement behavior. Their results indicate that the role of customer trust and perceived risk as important mediating variables that interconnects this service quality dimensions and the results of engagement with the company. This understanding supports the concept of SERVQUAL assurance, i.e. confirming that quality service infrastructure not only helps generate satisfaction but also strengthens commitment and loyalties among the user of the platform. The mediating role of trust is particularly relevant in the Nepalese situation of e-banking which deals with asymmetric differences in digital literacy and weak infrastructure. An intelligent, safe, and responsive system can minimize perceived risks of the users, especially that of the vulnerable users and new users, which can further bolster the rate of engagement and adoption. Therefore, in addition to improving the realistic service delivery by the banks, they must activate proactive measures to build trust and have open communication strategies to generate optimistic perceptions of the users.

### **Tangibles and Empathy**

In the context of e-banking, the term tangibles refer to the visual beauty and design integrity, and utility functions of digital banking portals including digital websites, mobile application, automated teller machine (ATM) screens and the corresponding technology frameworks. All these dimensions have a significant effect on how the customers rate service quality. Due to the intensified digitalization process in Nepal, the real-life form of e-banking services has achieved new importance (Poudel & Niraula, 2024). Khan et al. (2024) provide the conclusion that aesthetically pleasing and operationally powerful platforms lead to the increase in user satisfaction and strengthen institutional credibility. Orehovački et al. (2022) agree that the user engagement is considerably impacted by the intuitiveness of navigational structures, succinctly structured information, and the harmonious presence of security measures. This is the case in the Nepalese setting where uneven design standards among institutions, navigation designs that are no longer up to date, and language-based obstacles continue to characterize the inadequacy which often leads to confusion, poor user satisfaction, and eventual loss of customers (Chhetri, 2023). In this context, the efficiency of platform design yields special significance, because in the unevenly digitally literate world, there are quite significant barriers to the vast dissemination of e-banking even in the physical world, which is excessively hypothetical. Chan et al. (2022) argue that intuitive design, namely user-friendliness of layouts, the clarity of feature labels, and the limited demands on learning would enable a wider audience to use it, especially some inexperienced users or those with low technological skill levels. That means the Nepali financial institutions need to strive to find a balance between visual interest and usability among all population groups. At the same time, an invisible factor that also predetermines quality service is the relevant technological

basis. The consistent feedback about the downtime, a significant delay of the page loading, and failing to log in with a particular account is what highlights the weaknesses of the server performance and system responsiveness (Khan et al., 2024). Consequently, it is critical to invest in the scalable, secure, and high-performance technological infrastructure in case the continuity of services depends on peak load or the upgrade of the systems.

The security capabilities are among the key non-intangible determinants of user trust and adoption. Customers in Nepal who are currently faced with increasing cases of digital fraud and phishing activities have also demonstrated increased paranoia when it comes to the security of their financial dealings. The explicit way security processes, such as two-factor authentication, biometric log-in, data transmission encryption, and anti-fraud systems, are implemented contributes paramount to the trust of the user towards the digital mortgage banking platform (Gaudel, 2021). Additionally, banks that themselves report this security measures ensure an increased transparency and reduce the perceived risk. In Nepal, the aspect of accessibility is a burning issue in the shift to inclusive digital banking. Many platforms continue to lack the features that allow accessible use by a person with a disability, like support of screen readers, alt-text and keyboard navigation. Alayed (2024) reveals the necessity of the principles of a universal design to support the idea of a genuinely inclusive digital banking. Within the space of a linguistically, educationally and socioeconomically diverse country, the availability of accessible platforms is not only a legal or ethical necessity, but also one of strategic motives of financial inclusion.

To conclude, in the context of Nepal banking, tangibles in e-banking are not only used to distinguish the quality of services but also become the means of entering the larger scope of digital services. Through user-friendly design, reliable infrastructure, visible high-security systems, and accessible designs, the institutions would be able to conquer customer satisfaction, confidence, and participation in the long run. With the rising competition among banks and improved customer expectations, focus on these material dimensions will become vital in sustaining growth and inclusion of people to receive digital financial services across Nepal.

The high rate of digitalization of the banking system in Nepal highlights the current relevance of service quality as the customer satisfaction driver. Empathy which is simply the ability to understand and act on needs of individual customers as well as their moods has also been found to be an important aspect of e-banking service quality in such a landscape (Kumar et al., 2025; Lamichhane, 2024). Even though the digital channels carry with them relevance offered by convenience and operational efficiency, a significant number of clients in the Nepalese banking institutions still enjoy receiving personalized financial advice, and these facts showcase an increase in demand in IT-enabled advisory services that enhance customer experience without necessarily overwhelming human-provided advisory services (Staehelin et al., 2024). In this respect, empathy enables high-quality interactions and develops a common framework of interpretation between the clients and the financial services providers. Therefore, it is vital to consider empathy as an experience in the Nepali e-banking systems

not just as a method of high customer service quality provision but also as the means of strengthening customer satisfaction and loyalty.

Although tangibles and empathy receive comparatively less emphasis in the reviewed literature, they remain vital for specific user groups, particularly new adopters and rural customers. Tangibles in the context of e-banking refer to the visual and functional design of digital platforms, such as ATM interfaces, mobile applications, and websites. According to Dhurup et al. (2014), intuitive design, multilingual support, and visual clarity significantly enhance user satisfaction. Inadequate or overly complex interfaces can alienate less tech-savvy users, thereby reducing digital engagement. Empathy, involving the provision of personalized attention and the ability to understand customer needs, is especially important in contexts where users are unfamiliar with self-service technologies. Staff politeness, culturally sensitive communication, and human support—either online or in hybrid formats help bridge the gap between automated systems and human expectations. Despite being intrinsically intangible, soft service components are crucial to the development of the inclusive digital financial services. These factors are essential to the potential customers especially the first-time users, women, and older ones whose unique needs are often beyond the form of an automated interaction.

### **Digital Divide and Literacy**

The digital divide and the unequal degree of digital and financial literacy have a significant influence on the way individual Nepalese can effectively adopt and utilize e-banking in the country. These determinants play a vital role in defining adoption and long-term usage of digital banking platforms, the eventual outcomes of which affect customer satisfaction and financial inclusion in general. The Nepal digital divide is rightly marked by burdensome access to constant internet and digital facilities especially amid cities and rural areas along with social economic classes. These differences will cause high divergence in the usages of e-banking services. Digital literacy. Digital literacy is also one of the main predictors of successful e-banking uptake. Empirical studies have shown that people living in urban areas who have greater educational degrees and access to digital tools are likely to have a high probability of using mobile banking as compared to those in rural areas (Bhatt, 2021; Chand et al., 2024). Research also indicates that when a user has high digital literacy, he/she will have a high level of engagement with both mobile and internet platforms of banking services and such users will enhance higher usage and satisfaction with the services (Ban et al., 2024; Yadav, 2024).

There are several reasons that contributed to low digital literacy in Nepal. Short access to low-priced digital equipment, poor online connection in distant locations, minimal organized digital-attributes education as well as wider financial and societal limitations all hinder literacy advancement. The use of rural farmers in the western hills, to mention one, revealed that though many people were in possession of smartphone, the ability among them to use such devices in digital financial solutions was limited because they had no digital skills

(Bohara & Gurung, 2025). As the present analysis illustrates, ownership of the technological infrastructure does not on its part occasion significant participation in the digital economy. Digital divide limits the accessibility of e-banking services and provides a challenge on the effectiveness of the digital government initiatives. The lack of necessary accession or proficiency in e-governance and digital service delivery channels is predisposing individuals against their inclusion in the digital service scope and thus extending the gap between the digital in and digital out groups (Acharya, 2020). Digital divide can be explained as a two-dimensional concept which comprises first-order divide which refers to fundamental access to technological tools and second order divide which indicates the imbalances in the ability to use technology to its full capacity (Elena-Bucea et al., 2020). These two dimensions are evident in the case of Nepal e-banking industry wherein the spread of internet connectivity has not resulted in equal access to banking activity due to the existent disparities in digital competence (Chand et al., 2024).

In addition to digital literacy, digital financial literacy (DFL) has been listed as a definite factor that determines the adoption and safe usage of e-banking. DFL is the knowledge, skills and attitudes needed to handle financial resources efficiently in a digital area; it affects the feeling of confidence and security in online savings, budget, and investment process (Ban et al., 2024; Joshi & Rawat, 2024). Available evidence shows that people with high DFL produce more stable and sure-footed financial behaviors. Investors in Nepal have become more digitally literate because such investors are willing to look at online investment opportunities and utilize FinTech services to make financial plans (Joshi & Rawat, 2024). The digital divide not only limits access to e-banking but also impairs the overall effectiveness of digital government initiatives. As Nepal moves toward expanding e-governance and digital service delivery, those without the necessary access or skills are systematically excluded from these services, widening the gap between the digitally included and excluded populations (Acharya, 2020).

The digital divide can be understood through two dimensions: the first-order divide, referring to basic access to technology, and the second-order divide, which reflects disparities in the ability to use technology meaningfully (Elena-Bucea et al., 2020). Both these dimensions are evident in Nepal's e-banking sector, where increasing internet availability has not translated into equitable usage due to persistent differences in digital capabilities (Chand et al., 2024). In addition to digital literacy, digital financial literacy (DFL) refers to the knowledge, skills, and attitudes required to manage financial resources effectively in a digital environment (Ban et al., 2024; Joshi & Rawat, 2024). There is strong evidence suggesting that individuals with higher DFL exhibit more confident and secure financial behaviors, such as digital saving, budgeting, and investing.

**Table 1.** Summary of SERVQUAL Dimensions and Empirical Findings in Nepalese E-Banking

SERVQUAL Dimension	Key Findings	Challenges Identified	Relevant Studies
Reliability	Accuracy in transactions and real-time updates are critical for customer trust.	Frequent internet outages, system downtime.	Singh et al. (2020); Kumbhar (2011); Gan (2006); Setiono & Hidayat (2022)
Responsiveness	Fast customer support and complaint resolution enhance user satisfaction.	Delayed response leads to user dropout, especially in rural areas.	Gan (2006); Setiono & Hidayat (2022)
Security	Secure login, encryption, and fraud prevention increase trust.	Data breaches, poor authentication systems, phishing fears.	Silalahi et al. (2024); Shakya (2016); Hamid et al. (2018); Gaudel (2021)
Assurance	Transparency, staff competence, and policy clarity build confidence.	Low awareness among users, particularly those with limited digital experience.	Zhou et al. (2021); Fan et al. (2022)
Tangibles	Intuitive interface design, aesthetic appeal, and app performance boost engagement.	Outdated UI/UX, poor accessibility, slow platforms.	Poudel & Niraula (2024); Khan et al. (2024); Chhetri (2023); Chan et al. (2022); Orehovački et al. (2022); Alayed (2024)
Empathy	Personalized support and advisory services improve customer loyalty.	Automated systems lack human touch; rural and first-time users need more support.	Kumar et al. (2025); Lamichhane (2024); Staehelin et al. (2024); Dhurup et al. (2014)
Digital Divide & Literacy <i>(Emerging Theme)</i>	Digital and financial literacy directly influence adoption and satisfaction.	Socioeconomic disparities, urban-rural divide, lack of digital education.	Acharya (2020); Jamil & Almunawar (2021); Bhatt (2021); Chand et al. (2024); (Ban et al., 2024); Joshi & Rawat (2024); N et al. (2025); Abichar & B. (2025); Elena-Bucea et al. (2020); Neha (2020); Shaji & Mathews (2020)

Source : Compiled by the author based on existing literature

In Nepal, digitally literate investors are more likely to explore online investment options and utilize FinTech services for financial planning (Joshi & Rawat, 2024). FinTech products have recently grown in Nepal, and this trend has demonstrated the importance of intensifying digital financial literacy (DFL). As more banking services are being transferred to mobile devices and web-based access points, the user needs to acquire digital and monetary skills in to successfully and safely access the channels

in question. A low DFL cultivates paranoia about digital platforms, prevents the likelihood of using online banking, and increases the risk of online fraud and scam (N et al., 2025; Putra et al., 2024). It is therefore evident that digital divide and digital and financial literacy are necessary functions to improve the quality, availability, and ease of use of e-banking services in Nepal.

However, there is a common pattern that comes across most of the studies reviewed and that is the fact that the digital divide is a persistent factor that greatly influences the degree of e-banking adoption and pleasure. Shaji and Mathews (2020) focus on South Asian rural women and state that the lack of technology accessibility and inadequate number of digital literacy rates are the barriers to efficient usage of digital banking services. This limitation does not only refer to gender but also to age, level of education and surroundings. Similarly, the study by Neha (2020) reveals that the problems with digital interfaces, password management, and fraud awareness are common in the older population and people with low education levels. These challenges are compounded by unequal internet infrastructure and the tendency of concentrated discharge of digital service infrastructure in cities in the context of Nepal. The conclusion is obvious: to achieve sustainable changes in satisfaction levels, we will need to develop solutions, which go beyond the platform design and address the assignment of public education, digital literacy curricula, and inclusive technology policy. Digital divide closure would be a necessity in extensive acceptance and fair fulfillment in the broad spectrum of people. These initiatives also meet the demands of other world development priorities in the areas of financial inclusion and digital equity.

### **Research Gaps and Limitations**

The existing body of literature on both e-banking service quality and customer satisfaction in Nepal has been focusing on the presence of several conceptual gaps and methodological gaps. To top it all is the inadequacy of empirical evidence in the SERVQUAL system as applied in the Nepal banking sphere. The model has been found to be a global structure, and its measures such as empathy and tangibles have specifically not been researched deeply or used equally across the different nations thus are either unresearched or inconsistently operationalized. Second, age, gender, education level and digital experience are the types of demographic and behavioral moderators that are mostly disregarded in current research. The specified variables are the crucial determinants of customer satisfaction that cannot be thoroughly analyzed or included into more refined models of analysis. Third, few longitudinal and experimental studies form another methodological weakness. In the field, cross-sectional surveys are debilitating in terms of making causal inferences and cloud the time-related changes in satisfaction as customers develop digital knowledge or adjust their behaviors to the changing banking platforms. Fourth, there exist considerably fewer comparative studies in terms of type of banks (public, private) and geography (urban, rural) contexts. This differentiation is critical to put the service-quality interventions in context and develop more effective ways of tailoring the strategy to specific user groups in the socio-

economically and diversified Nepali society. The current review combines the available body of literature on e-banking service quality in Nepal, but several limitations should be noted. To begin with, non-English studies were excluded; thus, the knowledge that was locally relevant might have been omitted. Second, use of available published sources brings in potential publication bias. Third, none of the formal quality-scoring mechanisms allows the equal comparative evaluation of methodological rigor of the studies. Fourth, the results are not universal and cannot be completely transferred to other countries outside Nepal or other developing countries.

## CONCLUSION

The existing systematic review ascertains that the phenomenon of customer satisfaction in the e-banking sphere of Nepal is rather complex and multidimensional. As envisaged by earlier studies, reliability and responsiveness in conjunction with security persistently emerge as the first triad of connotations of high-quality service, and along with that, the degree of satisfaction may also be influenced by non-technological factors, such as digital literacy, trust in banking systems, and construction of physical infrastructure. These findings underscore the urgent need for banks, regulators, and researchers to collaboratively develop digital banking ecosystems that are secure, user-friendly, and inclusive particularly in digitally transitioning economies like Nepal. This review contributes to theory by offering context-specific refinements to the SERVQUAL framework in low-resource and digitally transitioning environments. The findings suggest that existing service quality dimensions should be reweighted or expanded to include variables such as digital trust and infrastructure adequacy concepts that are often overlooked in traditional models. Furthermore, this review integrates trust theory in online environments, highlighting the importance of perceived institutional integrity and interface transparency as emerging dimensions of perceived quality. These insights extend the conceptual boundaries of service quality theory and suggest a hybrid model adapted for developing digital economies.

The findings hold direct implications for financial policy and regulatory planning in Nepal:

- a. Nepal Rastra Bank (NRB) could use these insights to refine its digital inclusion policies by emphasizing user-centered platform design and consistent service quality standards across both private and public institutions.
- b. National financial literacy campaigns should target underserved segments (e.g., rural women, the elderly) by incorporating localized training modules on mobile banking interfaces, privacy, and digital safety.
- c. Infrastructure policies must prioritize expanding broadband access and mobile banking capabilities in rural and mountainous regions, where digital penetration remains low. A collaboration between NRB, telecom providers, and local governments could facilitate inclusive e-banking ecosystems.

## Recommendation and Future Study

Future studies should go beyond descriptive accounts to employ robust and diverse research designs:

- a. Longitudinal panel studies to track shifts in customer satisfaction and service perceptions over time, especially as users become more digitally literate.
- b. Experimental research to test how different user interface designs, color schemes, or chatbot features influence customer trust, particularly among novice users.
- c. Mixed-method designs, combining structured surveys with in-depth interviews or ethnographic observation, to explore nuanced, culturally embedded banking behaviors and trust dynamics.
- d. Comparative studies that assess satisfaction levels across Nepal's diverse banking sectors private, cooperative, and public, and between rural and urban users, are also warranted.

By filling these gaps, scholars and practitioners can develop more inclusive, trustworthy, and effective e-banking systems tailored to Nepal's evolving digital and financial landscapes.

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