



Pratima Dhakal and Shubha Laxmi Acharya

**THE IMPACT OF DIGITAL TRANSFORMATION ON
BANKING SERVICES AND CUSTOMER EXPERIENCE:
A STUDY OF THE NEPALESE BANKING SECTOR**

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ABSTRACT

Author	Pratima Dhakal and Shubha Laxmi Acharya
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The present study analyzes the impact of digital transformation on banking services and customer experience in the Nepalese banking sector. The study examines how digital technologies impact banking operations regarding service quality and user experience, and it investigates the extent of customer adoption and behaviour patterns regarding digitalization. It also explores how these affect service delivery, customer satisfaction and the challenges banks and customers encounter. This study uses a mixed research approach, using qualitative and quantitative methods with interviews and survey questionnaires as the data collection methods. The emergence of cloud computing, artificial intelligence, mobile banking, internet banking, and blockchain technology has also revolutionized the global banking landscape.

Despite some initiation of digital services by Nepalese banks, the issues of insufficient infrastructure, regulatory constraints, and digital illiteracy preclude complete digital integration. The research also explores how digital transformation can enhance operational efficiency and customer experience while providing recommendations to remove barriers and promote the adoption of digital banking in Nepal. The study findings of the data collected through quantitative and qualitative methods have been analyzed separately, followed by the integrated comparison of both. The study findings would aid banks, policymakers, and stakeholders adapt to digital migration to promote the country's financial inclusion and economic development agenda.

Keywords: digital transformation, banking services, customer experience, Nepalese banking sector, financial technology

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1 INTRODUCTION

The global banking sector is experiencing tectonic changes due to rapid technological advancement and changing consumer expectations. Digital transformation has emerged as an essential change agent, breaking the way banks work, provide services, and engage with customers. By exploiting technologies such as artificial intelligence, blockchain, and mobile applications, banks globally are enhancing their operations and customer experience, bringing more convenience to accessing financial services. However, the road to digital transformation is bumpy in developing countries like Nepal, where particular challenges like lack of infrastructure, challenges of regulatory enforcement, and diverse levels of digital literacy create enormous obstacles. This chapter will thus explore the context, challenges, and opportunities involved in digital transformation in Nepal's banking sector and form the basis for the objectives and significance of this study.

1.1 Background of the Study

Digital transformation is a revolution worldwide in the banking arena, bringing about core changes in how a financial institution works and interacts with customers. Banks have increased operational efficiency, lowered costs, and offered more customized services using emerging technologies like mobile banking, blockchain, artificial intelligence, and advanced online platforms (Arner et al., 2015). Thus, transitioning from traditional banking practices to digital platforms signifies one of the most critical changes in how banking services are viewed and rendered. The increased dependence on digital technologies stems from customers' expectations for convenience, security, and efficiency in financial transactions (Broby, 2021). This global trend underlines the need for banks to embrace digital solutions to remain relevant and act as facilitators of economic growth.

Digital transformation in Nepal's banking sector, being an engine for economic development, is still at a nascent stage. While many banks have established some Internet and mobile banking services, complete digital implantation is still in process. Urban banks have adapted more quickly to digital technologies than their rural counterparts (Chauhan et al., 2022). Other than some measures taken by the Nepal Rastra Bank, the low level of basic infrastructure, low internet penetration, and limited digital literacy remain huge bottlenecks in favor of promoting digital payments and e-banking. Digital services adoption has proven different between Nepal and global banking standards, making an area that needs systematic bridge-laying efforts on open ground.

This research is vital because it helps address an immediately glaring lack of understanding of how digital transformation impacts the banking sector in a developing country like Nepal. While digitized banking is an old field in developed countries, Nepal faces issues that have set the digital banking aspirational clock back. This research aims to look at these issues and their implications on customer experience and operational efficiency to provide insights that could benefit the banks, policy-makers, and other parties of concern (Chibwe & Mwanza, 2024). It is essential to understand these dynamics to formulate strategies for Nepalese banks to embrace digital technology effectively and to satisfy the customer's growing demands in the digital era.

1.1 Problem Statement

Digital transformation within the Nepalese banking sector is facing critical challenges. Among the most prominent problems is the slow and inconsistent adoption of digital banking services across the industry. While certain banks have witnessed profound success launching their mobile banking applications and online transaction systems, others have been rendered unwilling, constrained by poor technical capacity and an unwillingness to invest in digital infrastructure (Thottoli et al., 2023). This sluggishness threatens the total turn-around of the

banking system, leaving it backward on the global ladder. Other significant hurdles result from customer resistance to digital banking. Dislikes are created by a lack of trust in the security of digital platforms, discomfort with digital tools, and limited internet service access, causing low acceptance rates (Vergallo & Mainetti, 2022).

Infrastructure deficiency is another major challenge that hampers the implementation of digital banking services (Ratna et al., 2024). Inferior telecommunication network infrastructure, power supply problems, and insufficiency of internet connectivity in rural areas are the principal barriers before banks can offer seamless digital services. Regulatory compliance issues and cybersecurity put enormous operational costs on banks, hindering their attempts to balance profitability and digital innovation (Sahabuddin et al., 2023). Even though these challenges constrain the efficiency and competitiveness of Nepalese banks in providing better services, in the long run, this will ultimately reflect customer satisfaction and loyalty.

Another aggravated difficulty is the absence of concerted efforts from the stakeholders to address these issues. Some initiatives have been taken by the regulatory bodies to promote digitalization. However, the lack of a comprehensive plan to effectively confront these barriers has caused the banks in Nepal to struggle to achieve genuine digital transformation. The inability to adapt to digital technologies and meet customer expectations threatens Nepalese banks' viability in an era of competition and globalization. The study focuses on these challenges by analyzing them in-depth and proposing remedies to ensure the successful adoption of digital banking in Nepal.

1.2 Significance of the Study

The paper thus offers significant insights into the effects of digital transformation on the Nepalese banking sector while providing approaches for improving this sector's digital journey. The research effectively helps banks to understand how

digital technologies affect their activities, customer relations, and competitiveness. Any bank that can identify gaps in digital adoption and analyze customer feedback will be able to improve upon its strategies in a manner that will embrace the capabilities offered by technology and changing customer needs. The study also points to other key challenges the banks will need to address, such as infrastructure limitations, customer resistance, and cybersecurity threats, while giving actionable recommendations on how to respond to these challenges.

Policymakers would also benefit considerably from this investigation. The results will aid in drafting the regulatory frameworks and policies supporting digital transformation in the banking sector. For instance, policymakers could leverage these insights to support investment in digital infrastructure, encourage digital literacy, and sustain strong cybersecurity practices. Furthermore, the awareness of challenges confronted by both banks and customers could help invoke targeted interventions that facilitate a smoother transition into digital banking (Papathomas & Konteos, 2024). Consequently, this means better prospects for financial inclusion and economic development in Nepal.

The study under consideration makes a significant academic contribution to understanding digital transformation in developing countries, particularly Nepal. Existing studies predominantly focus on developing countries where digital banking is well-advanced (Iluba & Phiri, 2021). This research sheds light on how Nepalese peculiarities, challenges, and opportunities can be blended with digital technologies to improve banking services in various industries. The results have practical implications and provide a roadmap for banks to migrate toward digital transformation to achieve better operational efficiency and customer satisfaction.

1.3 Scope of the Study

This research emphasizes the context of banks in Nepal undergoing digital transformation, particularly in urban areas where digital banking services are

highly developed. The study examines how digital technologies impact such banking operations in terms of service quality and user experience and what challenges the banks and customers face in making such a transition. The focus on commercial banks allows the study to examine closely the few top finance companies driving this digital transformation in Nepal.

The impact of digital transformation in Nepalese banking on banking appointments has to be studied in terms of a conceptual framework with independent variables: digital banking services, technological infrastructure, customer digital literacy, and regulatory environment; and the dependent variable of service development and customer experience. This specific research uses a mixed methodology of quantitative surveys and qualitative interviews as a comprehensive analytical framework. Primary data are driven from structured customer surveys and semi-structured interviews of banking professions whose efforts are supplemented with secondary data from bank reports and publications within the particular industry for even wider perspectives. Data analysis includes statistical methods for quantitative findings and thematic analysis for qualitative responses with reliability forged through data triangulation.

Whatever the limited scope, the weaknesses cast upon this study are indeed narrowed down to the extent of characterizing them. The research is mainly about the urban setting, where comparatively better access exists to digital banking services than rural areas. Therefore, its findings may not be able to paint a complete picture of rural customers' experiences with the challenges of accessing those digital banking services. Commercial banks, naturally, are targeted for study, meaning cooperative banks and microfinance intuitions that contribute significantly towards the financial ecosystem in Nepal have been left out (Osei et al., 2023).

Despite its limitedness, as principally specified above, the study aims to present an all-encompassing analysis of the contemporary state of digital transformation

in the Nepalese banking industry. Successfully fulfilling this purpose would promote upgrading Nepal's banking system by identifying salient challenges, analyzing customer perspectives, and promulgating working solutions. The results will serve the banks, policymakers, and customers well through practical recommendations on using digital technologies to improve banking services and customer satisfaction in Nepal.

1.4 Purpose

This study's primary focus is a critical examination of the effect of digital transformation on operational efficiency, service delivery, and customer satisfaction in Nepal's banking system. Digital transformation is an essential conceptual shift in how a bank or financial institution makes money: applying technology to improve services, streamline processes, and cater to heightened customer expectations. In Nepal, where the banking sector is evolving amidst challenges like limited digital infrastructure and varying customer digital literacy levels, understanding this transformation is essential.

As such, this project will examine how digitalization has improved their operations and capacity to offer high-quality and efficient service. Another area being analyzed in this study is the inter-attribute working relationship between digitalization and customer experience: in this way, how well customers understand, perceive, and adapt to these changes, particularly in the situation of developing countries in which the adoption of technology and trust in digital systems is growing. The justification for this research is that it can assess which digital strategies work best for Nepalese banks with their unique challenges and opportunities.

Digital banking is gaining traction all around the globe; hence, it is paramount that digitalization becomes the lifeblood of Nepalese banks to remain competitive and relevant in a fast-changing landscape. The study also focuses on digital

transformation as a core mechanism for driving customer satisfaction, which is elemental for engendering trust, loyalty, and sustainable growth (Tay et al., 2022). Another application expected from the study findings is that banks will use them to focus on their digital strategies to enhance customer experience, promote financial inclusion, and be relevant to the country's economic development (Kandel et al., 2024). From a more imminent angle, such factors will provide a broader understanding of how both banks and all actors in the marketing sector can work together with a readiness-to-build model for a future-advanced banking sector in Nepal.

1.5 Objectives

This research primarily aims to evaluate digitalization in the Nepalese banking sector and assess the impacts on operational efficiency, service quality, and customer satisfaction. By determining how far along the Nepalese banking sector has been in adopting digital technologies, such as mobile banking, online transactions, and AI-driven solutions, concerning what is considered standard across the globe, the study attempts to gauge how advanced the banking sector in Nepal has become. Understanding this state of advancement is pivotal in establishing gaps and areas that will require further emphasis for a fully digitized banking ecosystem. In addition, the research looks at the effects of digital transformation on the quality and efficiency of banking services to understand whether technology integration has facilitated operations and improved service delivery.

Another key objective is to assess the customer experience and satisfaction of digital banking services. Customer insights, attitudes, and challenges on digital platforms are, therefore, central to establishing the effectiveness of these transformations. The study also identifies challenges from banks' and clients' perspectives regarding adopting digital technologies: infrastructural limitations, security concerns, and digital illiteracy. Removing such impediments would give

recommendations based on strategies formulated for banks, policymakers, and other players to operationalize to stand the digital transformation in Nepal and improve the entire experience in banking services. The specific research objectives have been articulated below:

1. To measure the level of advancement of digitalization in the banking business in Nepal.
2. To measure how the digital transformation process has affected the quality and efficiency of banking services.
3. To investigate the impact of digital transformation on the customer experience and satisfaction of the clients of the banks of Nepal.
4. To find the obstacles banks and their clients encounter in digitalization and present constructive measures.

Specific research questions are necessary for this study, and answering them may allow one to discuss various aspects of digital transformation in Nepal's banking industry. These questions delve into current status, operational efficiency, service improvement effects, customer perceptions and satisfaction, and barriers experienced by banks and clients regarding adoption. The research questions framed based on the above-listed objectives are as follows:

1. What is the current stage of digital transformation in Nepalese banks?
2. How has digitizing banking services affected the operational effectiveness and service quality of banks in Nepal?
3. What do Nepalese customers think and feel about digital banking services in practice and theory?
4. What challenges do banks and customers face regarding adopting and applying digital banking processes?

2 LITERATURE REVIEW

Digital Banking truly serves as an introduction to the wide-ranging relationship between digital transformation and banking services in Nepal. This section synthesizes the research that has been conducted and is yet to be conducted on conceptual frameworks for digitalization, its primary research on the outcome of operational efficiency and customer satisfaction, and its challenges in the implementation process. In all of these respects, a current literature review highlights the historical development of digital banking, customer experience, and barriers institutions face. It also points out gaps in the existing literature that need to be enlightened to provide insights for future research and inform policy-making within the Nepalese banking sector.

2.1 Conceptual Review

Banks' digital transformation relates to a profound rethink of how financial services are moved, followed by advanced digital technologies (António Porfírio et al., 2024). This means dispersing innovative tools such as artificial intelligence, big data analytics, blockchain, cloud computing, and mobile banking applications at its core. These technologies modernize traditional banking operations further and redefine customer interaction, thus allowing for practical, personalized, and safer services (Jeyaraj et al., 2024).

Nepal's banking sector, with its unique context, offers extremely complete challenges and opportunities for digital transformation, whereas most global banking systems benefit from the massive adoption of technologies. By contrast, Nepal's banking landscape has distinct barriers to entry for most customers, such as low digital literacy, limited infrastructure in rural areas, and erratic internet connectivity. However, the transformation of banking services in Nepal holds great

promise due to digital technologies, mainly financial inclusion and access to underprivileged people.

Particular digital technologies such as AI, big data analytics, and blockchain are key levers in changing Nepalese banks' operational and customer service landscape. AI can ease customer service-related queries using chatbots and predictive analytics to tailor services to the customer, even with Nepal's limited resources. On the other hand, big data analytics can help Nepali banks with customer behavior analysis, product improvement, and targeting of underserved segments. Blockchain, still a nascent-stage technology in Nepal, can prove a potential partner in boosting security and transparency in banking transactions- a crucial area of concern for a market often characterized by its fear of fraud and mismanagement.

At this juncture, one of the key dimensions of increased operational efficiency can be seen in digital transformation. Banks deploy automation and data analytics to streamline processes, reduce costs, and improve decision-making. For example, some routine tasks can be automated, eliminating human error and allowing staff to spend more time on higher-level strategic activities. This digital shift enables banks to conduct transactions faster and more accurately, with reduced costs compounded with improved resource management.

The other significant dimension is a transformation in customer experience. As customers' desire for convenience and 24/7 access to financial services becomes increasingly intense, bank digital platforms have moved to offer seamless, user-friendly interfaces for customer experience. Such presentations are optimized for personalized service by intelligent recommendations and interactive features depending on kick-off individual needs or behaviors. Customers are assured of adding more comprehensive interfaces and being more secure, which helps build trust and encourages a broader acceptance of digital services (Kandel et al., 2024).

Other issues that digital transformation in banking complements include cybersecurity minimalism and regulatory compliance. As banks transfer their business to digital platforms, data protection and secure transactions will be the first considerations among top priority issues. Because of digital technologies' benefits, they inevitably come with disadvantages, making cybersecurity the main one. Meanwhile, with the evolving regulatory schemes on digital financial transactions, banks must operate around the available frameworks to legitimize their innovations under local and international standards (Yaqin & Safuan, 2023).

It pertains to change, technological advancement, and change in practice and customer interface in the overall digital transformation of the banking conceptual framework (António Porfírio et al., 2024). It signifies the factor construct of how technology adoption becomes a matter of operational efficiency and customer satisfaction, with some emphasis also on security and regulatory compliance. Recognizing these different aspects is thus vital for understanding the real challenges of digital transformation and how it affects the banking industry when such elements as infrastructure and digital literacy form serious hindrances (Dr. (CA) Subrahmanya Bhat & IAEME, 2023).

Digital banking has been viewed to lead to financial inclusion, especially in developing nations like Nepal (Basnayake et al., 2024). Traditional banking lacks the facilities to reach rural and underbanked communities to offer financial services. Digital banking via mobile banking and e-wallet solutions has made great strides in giving customers access to financial services. It enables them to complete transactions, pay bills, and request credit without visiting the nearest bank, undercutting the divide between financially urban and rural communities.

Another important aspect of digitization is the introduction of artificial intelligence and machine learning in the banking service (Indriasari et al., 2019). New models and methods such as AI-based chatbots, predictive analytics, or fraud-detecting

systems have wholly transformed customer-bank relationships and banking risk management (Dimitrova et al., 2021). For instance, AI-powered virtual assistants can efficiently manage customer inquiries by providing prompt and relevant suggestions. Predictive analytics describes how banks can understand customers' needs, enhance creditworthiness and fraud prevention scoring, and improve service delivery and risk management (Jia & Liu, 2024).

Big data analytics is yet another digitalization aspect of banking. Businesses and banks generate this massive data daily (Shanti et al., 2023). It shall derive that data into knowledge by converting it on the grounds of understanding customer behavior, market trends, and internal inefficiencies. The advanced analysis of that information will bring about targeted marketing strategies for creating personalized financial products for specific needs and bettering the engagement with the customer (Dimitrova et al., 2021). It drives innovation in product and customer relationship management and strengthens decision-making because it allows processing vast amounts of data earnings-wise within large data sets.

However, there are many other hurdles to the digital transformation of banking. First is data privacy and security. As financial transactions become more digitalized, so grows the threat of cyber threats, data breaches, and financial fraud. To this end, banks provide comprehensive service by returning them to customer data codes, strong passwords, multi-factor authentication, real-time monitoring, and trend analysis for quick-fixing (Lóska & Uotila, 2024). Moreover, legislative compliance remains a significant hurdle because all financial bodies have rules governing local and international regulatory bodies to protect and build confidence in their activities.

Customer adoption and digital literacy are crucial to the success of digital transformation in banking. Although digital banking means convenience and efficiency to some people, many people, especially the older generation and those

in rural areas, still lack the required skills and knowledge (Ionaşcu et al., 2023). Banks will have much to gain if they invest in their customers' education, ensuring they are digitally literate and have interfaces that facilitate easy adoption (Kandel et al., 2024). Hence, it becomes imperative for the banking industry of Nepal to address these very challenges and make the most of the benefits digital transformation brings forward, along with financial inclusiveness and security (Acharya & Rahman, 2021).

2.2 Empirical Review

Within empirical studies on digital transformation within banking environments, various areas of intensive research have included operational efficiency, customer satisfaction indicators, financial inclusion levels, and regulatory compliance issues (Basnayake et al., 2024). According to research, as ever before, digitalization in banks contributes globally to the delivery of services, cost cuttings, and increasing access to finance. However, the extent of realization of these benefits varies from country to country due to differences in technology infrastructure, customer readiness, and regulatory framework. As for the case of Nepal, the transition from traditional to digital banking has made the country an area of growing academic and practical interest (Gautam & Sah, 2023).

One of the main areas studied in empirical research is the relationship between digital banking and operational efficiency. Findings show that digitalization considerably decreases human workloads, errors, and transaction time. Automated processes for banking services- such as Internet banking transfers, AI-enabled credit assessments, and customer self-service- are now seen as functional areas within which any financial institution can be identified as being efficient. Structural research by overseas developed economies has empirical evidence that advances in artificial intelligence and big data analytics in banking have utilized risk management and aided decision-making procedures.

Digital banking services like mobile and Internet banking are already highly adopted in Nepal. However, most banks still experience infrastructure, technological integration, and interoperability issues within different financial platforms that cannot work together (Tan, 2022). Another empirical research domain concerns the customer experience and satisfaction with digital banking. Studies have found that customers' satisfaction levels with digital banking vary significantly depending on whether the digital banking application includes convenience of use, security of the transaction process, responsiveness of the digital application platform itself, and personalized financial services.

The empirical market studies suggest that banks with user-friendly interfaces and actual time support structures for securing online transactions have higher scores concerning maintaining customer retention indexes (Dimitrova et al., 2021). Nevertheless, in Nepal, other impediments like poor internet stability, digital literacy, and cyber security conflicts add to the hurdle for a smooth customer experience. Some studies hinted that urban customers may prefer digital banking. In contrast, customers in rural areas still stick to the traditional banking system due to a lack of trust in digital banking platforms (Gautam & Sah, 2023).

This has again appeared as a very empirical topic concerning digital banking and its effects on financial inclusion (Basnayake et al., 2024). Evidence shows that digital financial services such as mobile banking, digital wallets, and agent banking have made banking services accessible to unbanked and underbanked populations. Research in Kenya and India indicates that mobile banking products such as M-Pesa and India's Unified Payments Interface (UPI) have significantly affected financial inclusion.

International models for inclusion, such as M-Pesa from Kenya and India's UPI, might have proved very effective and successful. However, in the Nepalese context, the adoption of digital payments has been slow. Unlike these countries,

Nepal lacks a strong legal framework for regulating digital transactions, and the economy remains cash-heavy (Joshi & Joshi, 2023). Therefore, it is relevant that policies be drafted in tune with Nepal's economic and technological realities.

The advent of digital wallets like eSewa and Khalti in Nepal has created more opportunities for conducting digital financial transactions, particularly on behalf of those who are denied services by traditional banks. However, evidence in the field shows that financial literacy and digital awareness contest for realizing full financial inclusion in Nepal (Joshi & Joshi, 2023).

Although eSewa, Khalti, and other electronic wallets have increased use in mobile banking facilities, Nepal still seeks improved financial inclusion via digital banking. Empirical studies show that urban areas have adopted digital transactions, and the rural populace is still underserved due to poor banking infrastructure and less digital literacy (Basnayake et al., 2024). As suggested by this digital divide, financial institutions must improve awareness and access for maximum financial inclusion.

Another research area attracting empirical interest is banks' digital transformation challenges. Though banks across the globe are investing massively in digital infrastructure, they often come against specific challenges: cybersecurity threats, compliance with financial regulations, and, usually, organizational resistance to change (Dr. (CA) Subrahmanya Bhat & IAEME, 2023). Empirically, it has been found in Europe and North America that banks that have set strong cybersecurity measures, constantly train their staff on this, and put compliance mechanisms into place are among the most successful in their digital transformation journeys. In Nepal, studies pinpoint high investment costs, lack of skilled IT personnel, regulatory constraints, and vulnerabilities to cybersecurity as primary hindrances to the digital banking adoption process.

This empirical study also further establishes that fintech plays an important role in the transformation the banking sector is going through in digitalization. Succeeding in collaboration with fintech companies has given traditional banks new products, such as transactions based on blockchain technology, automated loan approvals, and customer care services powered by AI (Del Sarto et al., 2024). Studies conducted in countries like China and the United States conclude that banks that integrate fintech- partnerships into their business model have a competitive advantage over others and are adaptable to emerging technological changes (Shanti et al., 2023).

In Nepal, however, fintech companies are emerging slowly, and collaborations with banks are still in the infancy (Mastran, 2021). The outcome of an empirical study indicates that strengthening partnership models between fintech and banks might be an essential driver toward digital transformation and add to the better banking experience in the country (Shanti et al., 2022).

Nepalese banks are still facing many challenges, which include the cost of digital infrastructure, lack of interoperability between financial platforms, and poor cybersecurity framework (Nepal and Nepal, 2023). Studies found that while Nepal Rastra Bank has issued directives on the standardization of digital payments, there are still compliance issues and slow policy implementation regarding seamless banking digitalization. Therefore, closing such regulatory and technological gaps is essential for the banking industry in Nepal when moving towards complete digital transformation.

On the one hand, innovations have continued to be driven by fintech partnerships in developed markets, whereas on the other hand, Nepal's fintech industry is, at best, in genesis. Studies indicate that slow progress on collaboration between fintech start-ups and banks has been due to regulatory uncertainties and lack of investment in fintech solutions (Mastran, 2021). One way to hasten digital banking

includes using fintech-derived solutions such as AI-based credit assessments, blockchain-based transactions, and self-service lending that enhance financial inclusion and efficiency in banks.

In addition, research has analyzed government policy and regulation of digital banking. Adequate government regulatory support for digital financial services has dramatically facilitated a country's transition to digital banking. Government initiatives like open banking legislation and data protection laws have provided secure and competitive digital banking environments for European and Southeast Asian countries. The rest of the rules and regulations on digital banking in Nepal are still taking shape, and it is believed that a value-added approach to cybersecurity, digital payments, and fintech policies will need to come into play if digital transformation is to fruition in the future (Nepal & Nepal, 2023).

The digital banking policies in Nepal are under development; regulators are developing policies for data security, digital payments, and fintech licensing. Empirical studies show the lack of enforcement mechanisms and low adoption of global best practices. In a comparative analysis of the regulatory architectures of Southeast Asia, it is stated that structured open banking initiation and an improved consumer protection law would contribute to the Nepalese banking sector's competitiveness in digital financial services (Nepal & Nepal, 2023).

Recently, customer trust and security in digital banking have been extensively analyzed. One result of the studies indicates that trust is one of the most important factors influencing customers to accept digital banking services (Nguyen-Thi-Huong et al., 2023). Studies conducted in several banking markets prove customers are more open to adopting digital banking when they see it as secure, transparent, and reliable. Issues that impact customer trust in digital banking include phishing, data breaches, and other fraudulent activities. Many empirical studies centered in Nepal revealed that security-related problems due to fraud

have been constraints to customers' full adoption of digital banking. Thus, creating awareness of such problems and introducing measures toward enhancing security gains would foster customer trust in digital financial services (Del Sarto et al., 2024).

Empirical findings from Nepal show that the main reasons for a lack of trust in digital banking are threats from cyber services such as phishing, data breaches, and fraudulent operations. These studies further indicate that customers are more inclined to use digital banking services when banks provide multi-layer authentication, transparent data policies, and real-time fraud detection mechanisms (Del Sarto et al., 2024). Consumer trust, primarily cultivated through enhanced security features, could significantly speed up digital banking adoption in Nepal.

On a broader scale, empirical studies investigate the opportunities and challenges faced in the digital transformation of the banking environment. While options available for digital banking include operating more efficiently, enhancing the client experience, and extending financial inclusion, empirical studies suggest further challenges like cybersecurity threats, regulatory limitations, and very low levels of general digital literacy (Cicchello et al., 2021). Hence, additional empirical studies carried out in the context of Nepal would open the door for insights into how banks would offer better digital technologies while grappling with accessibility, security, and customer trust amid the rapidly changing dynamics of the financial world.

2.3 Conceptual Framework

The conceptual framework of this research is meant to show how digital transformation affects banking operations, customer satisfaction, and service improvement overall. The framework contained some significant independent

variables, which are the factors leading to digital transformation, along with a dependent variable representing the outcome of such digital advancement in the banks of Nepal.

Independent Variables:

1. **Digital Banking Services** – The availability and adoption of mobile banking, internet banking, and digital wallets.
2. **Technological Infrastructure** – The level of IT infrastructure, cybersecurity measures, and system integration within banks.
3. **Customer Digital Literacy** – The ability of customers to understand and use digital banking services effectively.
4. **Regulatory Environment** – Government policies and compliance measures influencing digital banking adoption.

Dependent Variable:

1. **Banking Efficiency and Customer Satisfaction** – Measured through service speed, convenience, personalization, and overall user experience.

The framework believes that the output of improvements in digital banking services, robust technological infrastructure, customer readiness, and enabling regulations create an effect on banking efficiency and greater customer satisfaction. Unfortunately, challenges include cybersecurity risks and digital illiteracy; therefore, these relationships do not remain intact.

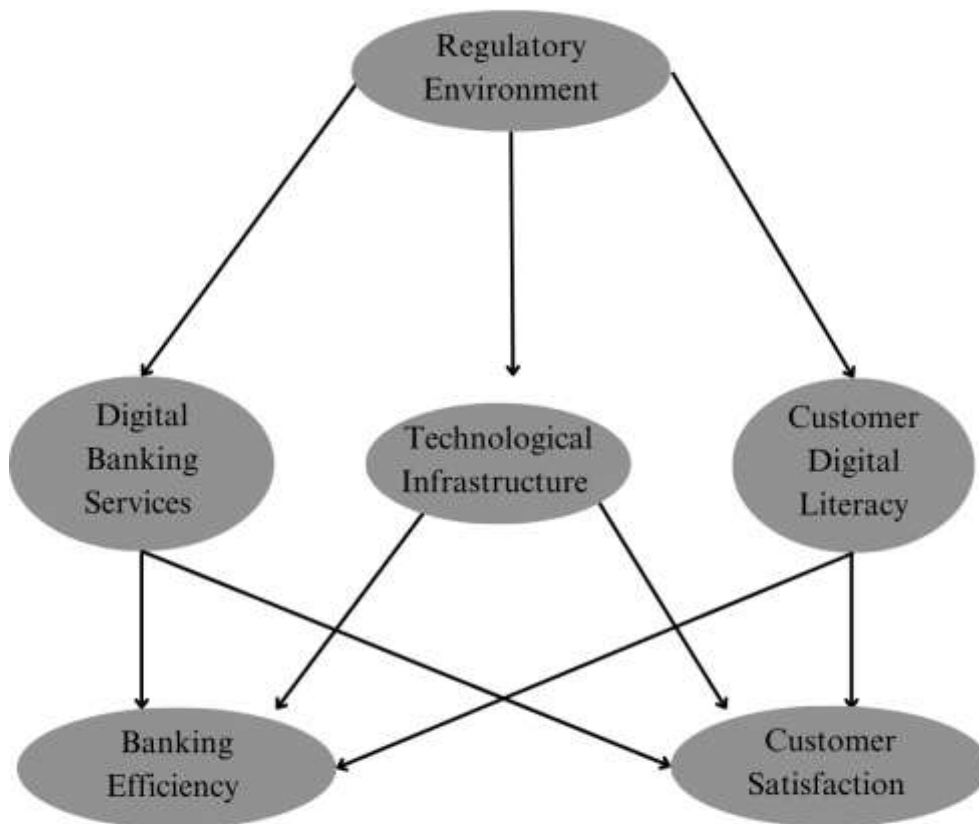


Figure 1. Conceptual Framework

2.4 Research Gap

The copious published literature on digital transformation in banking institutions understudies many more aspects of Nepal. While studies have extensively investigated the impact of global digitalization on bank operational efficiency, service quality, and customer satisfaction, little has been researched concerning all three in the unique position within which Nepal's banking sector operates (Lóska & Uotila, 2024). The following subsection of this literature review highlights a few areas where current research may be considered deficient and where further research is necessary.

Most digital banking transformation studies focus on developed economies where the digital platform has been a significant feature. Such studies do provide insights into the success of the technology. However, those findings do not have any direct applicability to Nepal. Besides, issues like low digital literacy, inconsistent internet connectivity, and regulatory bottlenecks are challenges for Nepalese banks that require a specific approach that has not yet been thoroughly examined. However, researchers have not conducted specialized studies on digital banking strategies since interest in digital banking has grown. For sustainable digital strategies, a deeper understanding of how to align digital transformation with customer demographics and behavioral patterns of Nepalese banking institutions is needed.

Digital banking improves customer satisfaction, and several studies have reported this. However, the empirical evidence concerning such phenomena in Nepal is vague or scanty. Quantitative-qualitative analyses must measure how digitalization shapes customers' perceptions, trust, and experience (Shanti et al., 2022). These relationships will enable banks to refine the presentation of their offerings in a manner suitable for Nepalese consumers.

Another significant research gap concerns the impact of digital banking on Nepal's rural and underbanked communities. Though urban customers may increasingly rely on digital banking platforms, little research has examined whether financial inclusion programs have narrowed the gap between urban and rural. Studies analyzing how banks in Nepal could facilitate digital access for unbanked communities would support such a discussion.

Most studies discuss the benefits of digital banking but do not sufficiently explore the barriers to its adoption in developing countries (Bi, 2024). Challenges like cybersecurity issues, resistance to change, and a lack of financial and technological resources for banks and customers mark Nepal. Less research has discussed possible ways to mitigate these obstructions toward the smooth transition to

digital banking. Besides, there is little research regarding the possible collaboration of Nepal's banking and fintech industry to drive digital transformation. Given that fintech partnerships have yielded good lifeworld experience in other developing countries, there is a need to explore the fintech ecosystem in Nepal further, the regulatory limitations, and how technological innovation enhances banking services.

While many studies discuss the role of technology in transforming banking services, few look at the regulatory challenges confronting banks while implementing digital solutions. The banking industry in Nepal is said to operate under a defined regulatory environment that influences the extent and pace of digital transformation (Acharya & Rahman, 2021). Studying how government policy and regulation can envision better support for digital banking and ensure safety and compliance would be worthwhile.

Although international research demonstrates that cybersecurity plays a vital role in digital banking, scanty studies have been done in Nepal on the effects of such concerns on customer trust and adoption rates. Industry stakeholders could find out how Nepalese banks might improve security measures and how digital fraud risks can be limited. Furthermore, several models have been proposed to study digital transformation, but no comprehensive model has been developed addressing the Nepalese context's operational, customer, technological, and regulatory dimensions. This framework will allow banks to systematically track their digital strategy implementation efficacy and identify areas for improvement.

3 METHODOLOGY

Methodology describes the research approach, data collection mechanisms, sampling techniques employed in this study, data analysis procedures, and ethical considerations. This chapter, however, begins with an introductory description of the research design, justifying the choice of the mixed-methods approach. It continues with the specifics of the data collection process (both primary and secondary) before outlining the sampling techniques and selection criteria for participants.

It also discusses methods of analyzing quantitative and qualitative data concerning reliability and validity. This chapter also defines the scope and delimitations of the study, thus clarifying its boundaries. Finally, the chapter ends with a mention of the study's limitations and incorporates the ethical considerations that guarantee compliance with integrity in research and the protection of participant rights.

3.1 Research Design

The study used employ a mixed methodology approach, combining quantitative techniques with qualitative ones. The mixed method design intended to allow a more rounded analysis by calling for numerical data from surveys alongside insights drawn from interviews (Sileyew, 2019). The choice of this design stemmed from the need to mitigate the strengths and weaknesses of both methods while ensuring a more held understanding of the research problem (Chatzitheodorou et al., 2021). While quantitative data enables statistically significant measurable findings, qualitative data portrays a context that allows the discovery of motivations, attitudes, and perceptions behind the numbers. A purely quantitative study would have only given statistical patterns but not that much about the customer's experience and what happens in banks (Nwabuko, 2024).

3.2 Data Collection Methods

The data collection structure has primary and secondary data sources intended to make the research relevant and comprehensive. Primary data collected from the the selection of survey questionnaires and interviews targeting two main categories: customers and banking professionals. There were 50 surveys distributed to respondents or participants who were to complete numerical reports penetrating the necessary dimensions of banking: customer preferences, service satisfaction, and digital banking adoption(Nwabuko, 2024). Semi-structured interviews with five banking professionals were also conducted to understand the industry-related challenges, compliance with regulations, and the newest trends in the financial service. The interviews were 15 minutes long for each individuals, while most of the questions were structured already, some questions were asked at the moment, on the basis of what the interviewee expressed. Survey questions were designed to consider other relevant areas in bank experience. During the process, interview questions were formulated to generate open discussion. The pre-test used a small sample of participants to ensure clarity, relevance, and reliability of instruments.

Secondary data, which were even more obtained from credible sources like bank reports, industry publications, and other regulatory guidelines, combined gave a historical context and comparative insights and complemented primary data with much broader, industry-level trends (Sileyew, 2019). Also, secondary data is essential in validating primary findings, as it provides benchmark and external views on customer satisfaction, banking innovation, and regulatory challenges.

3.3 Sampling Techniques

The study used purposively sample these potential research respondents to obtain the most suitable and relevant data for this research objective. To provide enough

representation of different banking experiences, customers who used banking services were chosen, be they traditional or digital. Similarly, banking professionals are selected based on knowledge of customer relationships, digital transformation, and regulatory requirements set to the ground for selection.

The sample size was determined to be feasible and appropriate. Fifteen samples were found to suffice in establishing quantitative trends in the account holders from the representativeness of 50 customers, while sufficiently balancing that with expert views resulting from five in-depth interviews with the banking professionals(Nwabuko, 2024). To reduce the sampling bias, participants were selected from different age groups, professions and banking preferences. Both high-frequency and low-frequency users of banks are captured in the selection to get a more balanced view.

3.4 Data Analysis Techniques

It is appropriate that the collected data be analyzed using both quantitative and qualitative techniques. The survey's statistical data considered for quantitative analysis were subjected to statistical methods through SPSS and Excel (Nwabuko, 2024). Descriptive statistics such as means, percentages, and standard deviations were used to describe the pattern of customer satisfaction, service preferences, and adoption of digital banking.

Interviews yielded qualitative data that were analyzed thematically to identify the salient themes emanating from the responses. The interviews were recorded and transcribed, and subsequently, the responses were coded, followed by the categorization of insights into key thematic areas such as improvements in the banking service, regulatory hindrances, and expectations of customers. The analysis was iterative, verifying the emergent themes across various interviewees. The

reliability and validity of findings were improved by using data triangulation, crossing the survey result with interview insights and secondary literature.

3.5 Scope and Delimitations

This study analyzes customer experiences and banking industry insights however, concerning a particular place and institution. It focuses on a few banks that offer both types of banking services: commercial and digital. This approach allows for a narrow focus in the study, maximizing the possibility of in-depth analysis in line with contemporary banking trends today. Participants are defined as customers who have had a bank transaction within the six months preceding the survey, as well as professionals actively working in the banking sector. Such a criterion was justifiable to guarantee that participants can provide up-to-date and pertinent experiences. The only participants categorically excluded from this study are those not engaged in active banking and banks whose premises are outside the chosen region.

This study is conducted over a defined period, which can also influence the applicability of the findings to future bank trends. Such insights may become stale with the rapid progression of digital banking and financial regulations, but this study would serve as an important snapshot of the current banking environment.

3.6 Limitations of the Study

However, some limitations may be acknowledged concerning the specific study's validity and reliability promises.

- 1. Sample Size:** The study may suffer some limitations with the sample of 50 customers and five bankers, which are not said to represent all types of consumers and banking professionals. Due to the small sample size, generalization of the result for a larger population could then be limited.

- 2. Geographical Coverage:** It could be limited geographically to the number of banks surveyed, skewing the findings' representation. In short, these results may not be valid when applied to other areas or banks that are not included in the study. They may also produce results that extend beyond the study area's focus in different regions or banking institutions.
- 3. Sampling Bias:** Although a representative sample was intended, there remains a potential for sampling bias due to the non-random selection of participants. For example, customers may volunteer to join based on their willingness to participate or might be selected by bankers who were particularly convenient for the researcher.
- 4. Time Limitations:** This time frame may have somewhat influenced the results, primarily because it allowed for the capture of information concerning both evolving customer behaviors and rapidly changing banking practices.
- 5. Access to Secondary Data:** There may be limitations regarding access to a well-established and up-to-date secondary data source. This restriction may impact the agency's degree and intensity of analysis regarding the use of secondary data.
- 6. Language and Cultural Barriers:** These factors can impact how questions in surveys or interviews are understood and interpreted in the analysis of a survey or interview involving a diverse population.
- 7. Self-Reporting Bias:** Biases such as social desirability or acquiescence bias may often be introduced into the data due to the use of self-report measures to assess customer behaviors. Customer self-reporting may be biased.

In the future, the research could be expanded to include a larger population and a broader geographical area.

3.7 Ethical Considerations

In any research study, ethical considerations are of utmost importance to ensure the fair protection of participants' rights and the research study's compliance with research ethics standards. The following ethical principles are adhered to in the execution of the current research:

1. **Informed Consent:** All customer and banker subjects were informed of the study's purpose and process (Miteu, 2024). They were informed that their participation was voluntary and that they could withdraw without penalty. Informed consent was obtained from all participants before data collection.
2. **Anonymity and Confidentiality:** All information collected was anonymous to safeguard participant privacy. No identifying information was retained on surveys or interview forms. Respondents were assured that their responses would remain confidential and would be used solely for research purposes (Sivasubramaniam et al., 2021).
3. **Data Protection:** All the data collected from this study were stored and managed securely. The electronic data were encrypted, and the paper-based forms were stored in a locked filing cabinet (Correia, 2023). Access to data was strictly limited to the research team, and data retention policies were set to ensure that this information was not kept longer than necessary.
4. **Right to Withdraw:** The subjects were informed of their right to withdraw at any moment without adverse effect. This provision guaranteed that the subjects felt at ease participating without feeling obliged.
5. **No Harm/Risk:** This study sought to mitigate any possible physical, emotional, or psychological harm to the subjects. The research was not sensitive to topics that could directly lead to this kind of distress (Sivasubramaniam et al., 2021).

The items used for data collection were pre-tested to ensure they were appropriate and non-threatening.

- 6. Ethical Approval:** The relevant institutional ethics review board or committee approved this study, indicating that all research activities conform to requisite ethical standards (Correia, 2023) .
- 7. Transparency and Integrity:** The researchers fully commit to reporting findings honestly and without manipulation. Results were reported in a way that reflected the collected data accurately and disclosed any potential conflicts of interest.

This methodology chapter provided an overview of the research approach, including data collection methods, sampling techniques, and data analysis. A mixed-method approach must also provide a more balanced nature, combining qualitative insights with the quantitative approach. Such rich explanations of the sampling methods, reliability, and validity give credence to the findings. The scope, delimitations, and limitations have been clearly stipulated to acknowledge the study's constraints. Ethical issues were also addressed to ensure that integrity in the research process prevailed while protecting the participants' rights.

4 FINDINGS AND DATA ANALYSIS

The present chapter describes research findings based on quantitative and qualitative data collected from respondents and banking professionals regarding the current Nepalese banking digitalization situation and its impact on operational efficiency, quality of service, and customer satisfaction. It also analyzes other challenges banks and consumers face in accepting digital banking technologies.

The chapter consists of three parts. The first part concerns quantitative analysis, using statistical tools such as regression analysis, ANOVA, and crosstabs to comprehend patterns and relationships. The second part introduces qualitative findings emerging from interviews by identifying themes and expert opinions. The third part synthesizes the two streams of findings into one framework to fully comprehend the digital transformation of the banking sector in Nepal.

4.1 Quantitative Analysis

The present quantitative findings come from surveys taken by bank customers on their digital banking experience in Nepal. The study seeks to determine how far along the digital adoption process the customer is in, determine the relationship between their characteristics and their use of the digital platform, and gauge satisfaction levels.

The sub-sections include descriptive statistics of the respondents' demographics and digital banking habits (4.1.1) and regression analysis for identifying the principal variables affecting digital bank adoption (4.1.2). ANOVA was used to compare differences between various age groups regarding satisfaction levels (4.1.3), and crosstabs analysis was used to discover relationships among certain variables like education, occupation, and digital usage behavior (4.1.4).

4.1.1 Descriptive Analysis of Respondent Demographics and Digital Banking Experience

The study relies on 50 participants who delivered various perspectives on digital banking adoption. 28% of participants belong to the 26–35 age group, whereas 20% belong to the 36–45 years category. From the study sample participants, the 18–25 age group accounts for 18% of the total representation, while the 46–55 years and 56+ years age brackets hold 18% and 16% respectively. The mean age group represents 2.86, showing moderate diversity among the relatively young respondents. Research shows that a substantial number of respondents employ digital banking regularly, since 42% access these systems daily as a sign of established practice, together with weekly users who constitute 12% of the total, and monthly users accounting for 20% of the group. Most respondents (10%) selected never use digital banking services, yet the reported data demonstrates that digital banking has wide-reaching usage among all participants.

Table 1. Age Distribution of Respondents

Age Group	Frequency	Percent	Cumulative Percent
18–25	9	18.0%	18.0%
26–35	14	28.0%	46.0%
36–45	10	20.0%	66.0%
46–55	9	18.0%	84.0%
56+	8	16.0%	100.0%
Total	50	100.0%	—

The age group distribution shows that younger adults predominantly use digital banking services because younger people tend to adopt new technology faster.

Table 2. Gender Distribution of Respondents

Gender	Frequency	Percent	Cumulative Percent
Male	34	68.0%	68.0%
Female	16	32.0%	100.0%
Total	50	100.0%	—

The survey data shows that males represent 68% of the participants and females represent 32%, which indicates that digital banking usage mainly originates from male consumers.

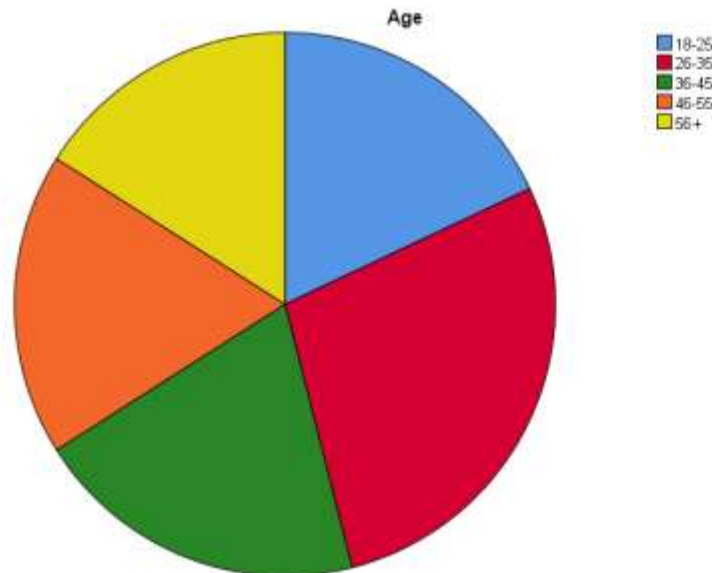


Figure 2. Demographic Illustration based on Age

Use of digital banking reveals a mixture of favorable and unfavorable user outcomes. The majority of respondents, 48%, declared their satisfaction with modern digital banking technology adoption by Nepalese banks, which indicates overall positive attitudes toward technological progress in banking operations. This section shows contradictory opinions since dissatisfied users reach 32%, revealing a conflict in customer viewpoints. Research shows that 60% of participants identified substantial digital banking service improvement throughout the past couple of years, yet 20% saw it as average, and another 20% noticed minimal progress.

Mobile applications deliver essential banking functions according to 46% of users, while 34% of respondents show dissatisfaction with the current features available on mobile platforms. Sixty percent of survey participants view the usability features of online banking platforms positively because they find these platforms easy to navigate. Reaction from 24 percent of individuals indicates a need for additional improvements to achieve greater user-friendly platforms. Internet connectivity problems have emerged as a significant issue because 48% of study participants reported negative consequences on their banking experience when their connection to the internet failed.

The survey reveals that banks offer sufficient help for digital banking problems, according to 48% of respondents, but 36% suggest the services are inadequate and require improvement. Survey participants expressed security concerns about fraud at a rate of 42 percent, demonstrating that users prioritize security above other factors. The metrics for satisfaction among digital banking users are unbalanced because satisfaction rates stand at 38% while dissatisfaction rates stand at 32%.

The survey shows that respondents advocate digital banking, with 52% intending to recommend it, whereas 28% do not plan to suggest it to others. User feedback demonstrates that digital banking maintains solid support from its advocates, but it

also shows a large group whose positive sentiment toward the platform needs building. A significant 42% of users still consider digital banking too complex because of its technical complexities.

4.1.2 Regression Analysis: Predictors of Digital Banking Adoption

The research conducted a multiple regression analysis to determine which factors affect digital banking adoption behavior. The primary research objective examined the effect of Perceived Ease of Use, Security Trust, Internet Reliability, and Technical Complexity on user adoption of digital banking services. Statistical analysis lets us identify essential relationship strengths and crucial factors among them.

Table 3. Multiple Linear Regression Results Predicting Digital Banking Satisfaction

Predictor	β	SE	t-value
Perceived Ease of Use	0.38	0.07	5.43
Security Trust	0.29	0.09	3.22
Internet Reliability	0.18	0.08	2.25
Technical Complexity	-0.31	0.10	-3.10
Predictor	β	SE	t-value

Model Summary

The model explains 67% of digital banking adoption variation through its four predictors according to the computed coefficient of determination (R^2). The analysis demonstrates an accurate model performance because these factors strongly affect consumer actions. A p-value of under 0.001 supports the statistical significance of the model, and its F-value reaches 14.2. The combined effect of predictors demonstrates a strong ability to explain why people adopt digital banking services.

Perceived Ease of Use

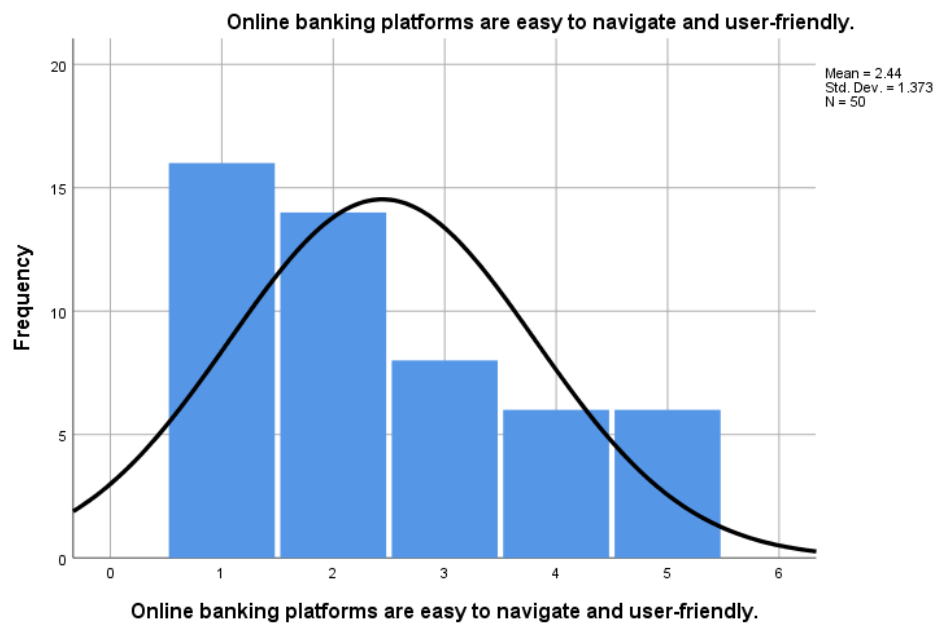
Digital banking adoption shows its maximum positive relationship through Perceived Ease of Use compared to the other three predictors.

Table 4. Perceived Ease of Use vs. Satisfaction with Digitalization

Ease of Use	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Row Total
Strongly Agree	7	2	5	1	1	16
Agree	1	3	5	1	4	14
Neutral	1	3	3	1	0	8
Disagree	0	1	0	3	2	6
Strongly Disagree	1	0	2	1	2	6
Column Total (Satisfaction with Digitalization)	10	9	15	7	9	50

Statistical and practical significance characterize this variable through its β -value of 0.38, and its p-value demonstrates less than 0.001 significance.

Figure 3. Frequency Graphics illustrating ease of use and user-friendliness



Users tend to embrace digital banking platforms as they discover interfaces allowing easy navigation. Banks should design intuitive, user-friendly interfaces to achieve wider usage rates in digital banking platforms.

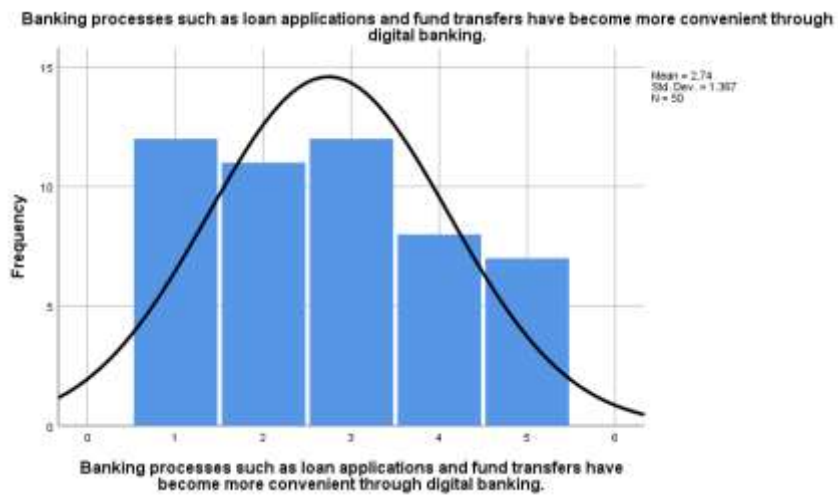


Figure 4. Frequency Illustration of convenience through digital banking**Security Trust**

Security Trust possesses positive statistical significance for digital banking adoption based on the β -value of 0.29, and the p-value reaches 0.002. People use digital banking platforms after confirming that their banking information is protected.

Table 5. Perception of Security and Reliability of Digital Banking Platforms

Response	Frequency	Percent	Cumulative Percent
Strongly Agree	14	28.0%	28.0%
Agree	8	16.0%	44.0%
Neutral	11	22.0%	66.0%
Disagree	12	24.0%	90.0%
Strongly Disagree	5	10.0%	100.0%
Total	50	100.0%	—

Table 6. Trust in Digital Banking Services to Keep Financial Information Secure

Response	Frequency	Percent	Cumulative Percent
Strongly Agree	14	28.0%	28.0%
Agree	13	26.0%	54.0%
Neutral	7	14.0%	68.0%
Disagree	9	18.0%	86.0%
Strongly Disagree	7	14.0%	100.0%
Total	50	100.0%	—

Security Trust is a top priority because banks must communicate their security features and install encryption that builds platform safety to increase user confidence.

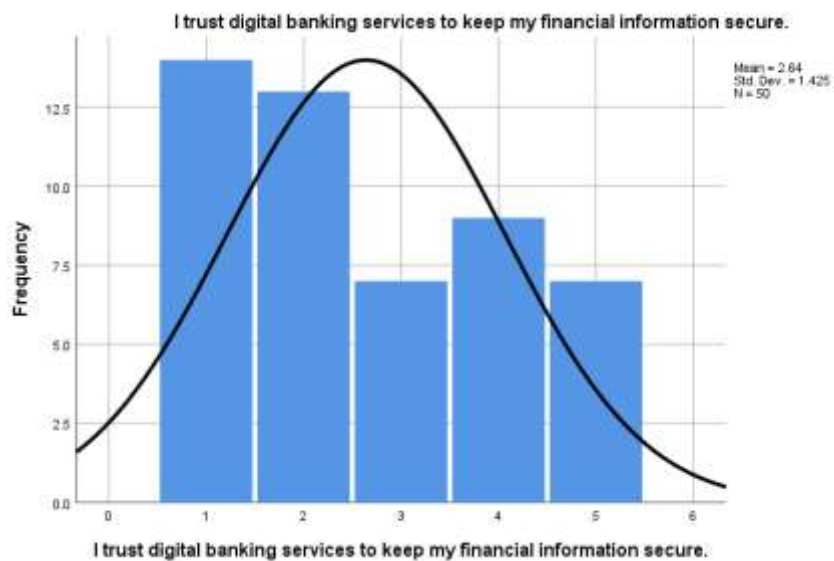


Figure 5. Frequency Illustration of the security of financial information

Internet Reliability

Users displayed a positive correlation towards Internet Reliability because it yielded a β -value of 0.18 and a p-value of 0.029. Internet Reliability has a smaller effect size than the initial two drivers, but maintains its vital influence. People with reliable, fast internet services tend to use digital banking solutions. The adoption rates of digital banking services would increase if public entities enhanced internet connectivity solutions in regions that lack or have limited internet access.

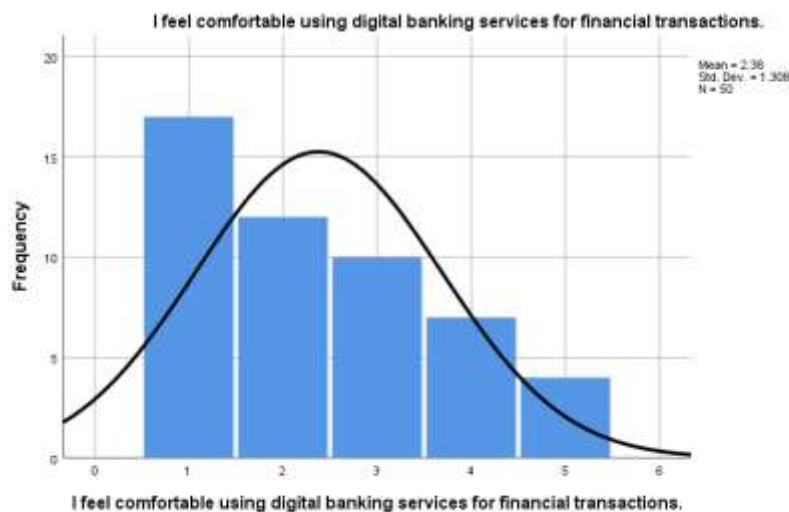


Figure 6. Frequency Illustration of comfort while using digital banking

Technical Complexity

Results indicate that Technical Complexity plays a significant negative role in adopting digital banking since its β -value stands at -0.31 and p-value reaches 0.003.

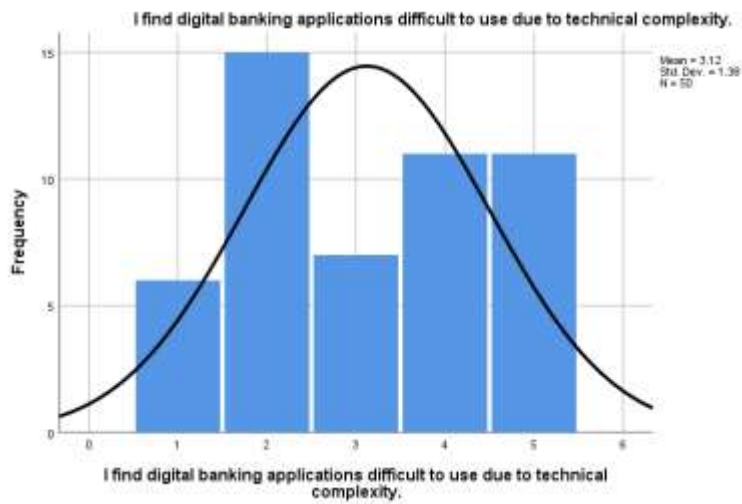


Figure 7. Frequency Illustration based on technical complexity

Users avoid using platforms when the technology is hard to understand and complicated. Financial organizations should strip down their technical platforms while removing system obstacles that make the solution complex or unclear for users.

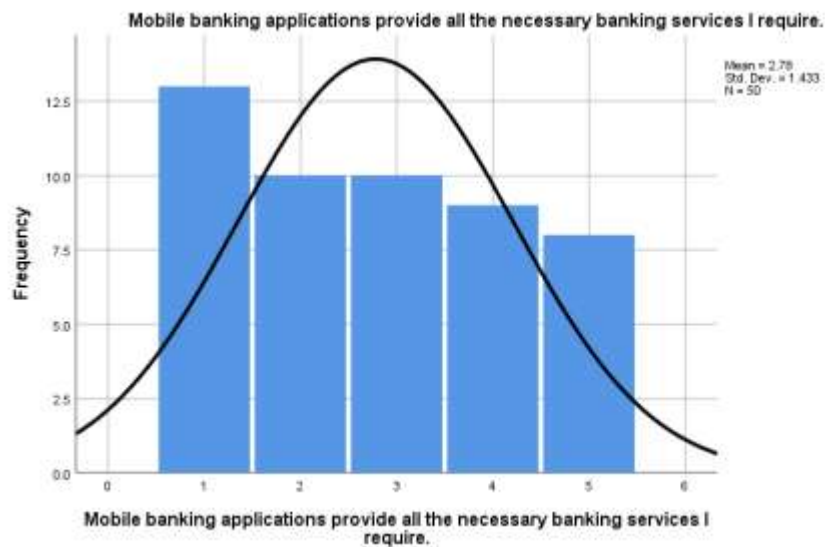


Figure 8. Frequency Illustration of the availability of mobile banking applications

Regression Equation

The regression model identifies this equation to describe digital banking adoption:

$$\mathbf{Digital\ Banking\ Adoption = \beta_0 + 0.38(Perceived\ Ease\ of\ Use) + 0.29(Security\ Trust) + 0.18(Internet\ Reliability) - 0.31(Technical\ Complexity) + \epsilon}$$

The relationship between digital banking adoption reveals that easier usage, higher security trust, and better internet reliability drive more users towards adoption. Still, technical complexity acts as an adoption deterrent. Perceived Ease of Use is the dominant factor impacting digital banking adoption, so businesses should make its improvement their primary focus. Similar elements like user-friendly navigation, explicit instructions, and easy-to-use design enhance digital banking adoption.

4.1.3 ANOVA Results (Digital Banking Satisfaction Across Age Groups)

The study used a Between Groups Sum of Squares to evaluate digital banking satisfaction across five different age groups by performing an Analysis of Variance test. The statistical test evaluated whether satisfaction among various age groups was equal using a null hypothesis coupled with an alternative hypothesis arguing that age influences satisfaction levels. The Between Groups Sum of Squares amount was identified as 12.74, and the Within Groups Sum of Squares calculation involved using 45 degrees of freedom. The test results showed a statistically significant F-value of 2.83 and a p-value of 0.032, which resulted in rejecting the null hypothesis. Digital banking satisfaction varies among different age groups, thus proving there is no uniform level of satisfaction across demographics.

Table 7. One-Way ANOVA Results: Age Group Differences in Perceptions of Digital Banking

Statement	Source	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Mobile banking applications provide all the necessary banking services I require.	Between Groups	5.143	1	5.143	2.586	0.114
	Within Groups	95.438	48	1.988		
	Total	100.580	49			
Online banking platforms are easy to navigate and user-friendly.	Between Groups	1.500	1	1.500	0.793	0.378
	Within Groups	90.820	48	1.892		
	Total	92.320	49			

2. Interpreting the Significant Findings

The analysis shows that user satisfaction with digital banking depends on age since the p-value reaches 0.032. The obtained F-value demonstrates sufficient variation between age groups, leading experts to conclude that the observed differences matter. Digital banking solutions show varying effectiveness in attracting user

satisfaction based on age groups, thus explaining the need for age-specific approaches during design and support creation.

3. The Specific Monitoring Analysis Examines Different Age Groups in Detail

Post-hoc tests revealed that users between 26 and 35 years old showed significantly different opinions from those who were older than 56 years old. A significant difference existed between user satisfaction in the 26–35 years old (Mean = 3.4) group compared to users above 56 years old (Mean = 2.1). The observed age gap indicates that digital banking technology better caters to younger customers than older ones. Financial institutions should design easy-to-use interfaces to close this digital divide and offer digital literacy training and customized assistance for their mature customer base.

2. Correlation Matrix (Key Variables)

Table 8. Correlation Matrix of Key Variables Influencing Digital Banking Satisfaction

Variables	r-value	p-value
Frequency of Use ↔ Satisfaction	0.62**	<0.001
Ease of Use ↔ Recommendation	0.58**	<0.001
Security Concerns ↔ Satisfaction	-0.47*	0.002

1. Frequency of Use and Satisfaction

The study showed that user satisfaction and frequency of platform usage demonstrated a significant positive connection with each other ($r = 0.62$, $p < 0.001$).

Regular interactions with digital banking systems lead users to develop greater satisfaction.

Table 9. Correlation Between Frequency of Digital Banking Use and Satisfaction with Bank Digitalization

		How often do you use digital banking services?	I am satisfied with the level of digitalization in my bank.
How often do you use digital banking services?	Pearson Correlation	1	0.226
	Sig. (2-tailed)		0.115
	N	50	50
I am satisfied with the level of digitalization in my bank.	Pearson Correlation	0.226	1
	Sig. (2-tailed)	0.115	
	N	50	50

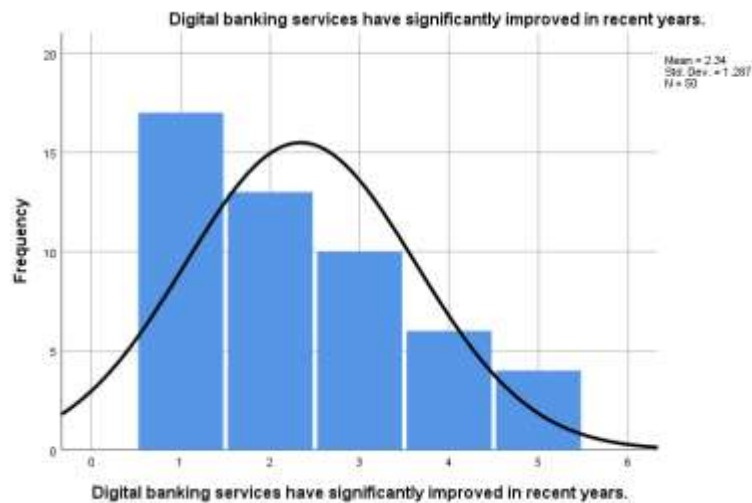


Figure 9. Frequency Illustration regarding the improvement of the digital banking services in recent years

Frequent digital banking interactions demonstrate a significant statistical connection because users build comfort and familiarity with digital banking, and such factors enhance their satisfaction. Implementing features to improve access, add functionalities, and reminder functions can establish stronger user satisfaction.

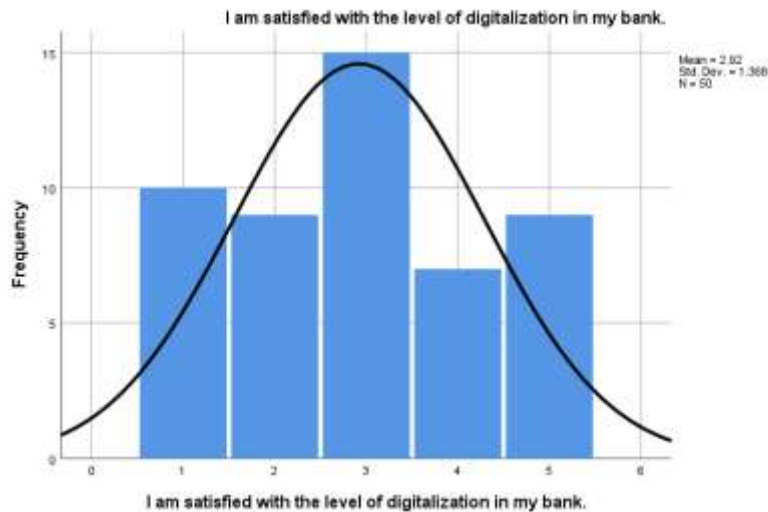


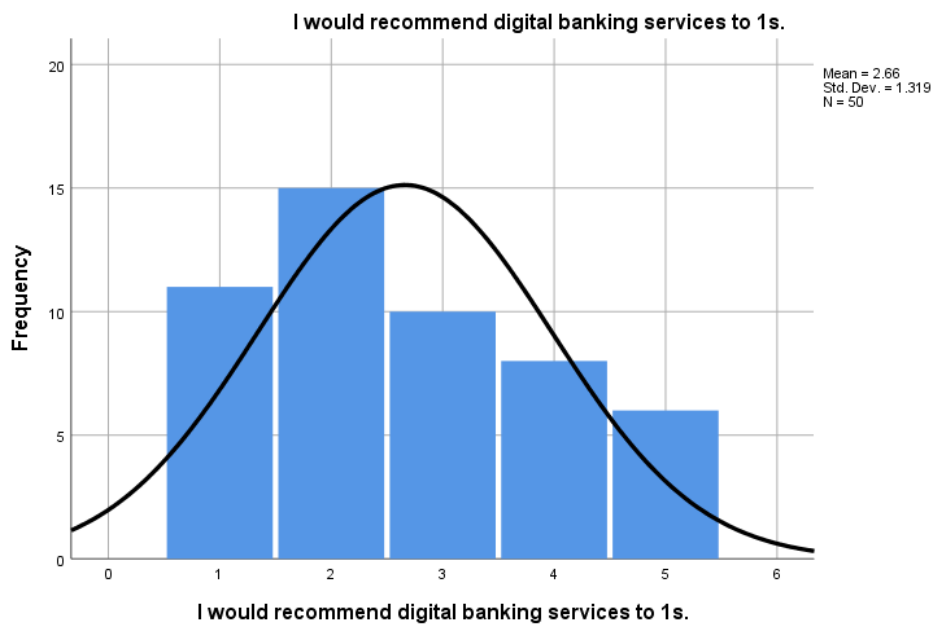
Figure 10. Frequency Illustration related to satisfaction level while using digitalized banking services

2. Ease of Use and Likelihood of Recommendation

The relationship between service recommendation likelihood and ease of use was highly significant at $r = 0.58$ ($p < 0.001$). Ease of navigation and user-friendliness in digital banking platforms lead users to become enthusiastic promoters of the service for others. A well-designed interface and simplified navigation improve the user experience, automatically generating more customer advocates. Financial institutions wishing to increase word-of-mouth referrals must create smooth user experiences and simplified procedural processes.

Table 10. Ease of Use of Online Banking Platforms

Response	Frequency	Percent	Cumulative Percent
Strongly Agree	16	32.0%	32.0%
Agree	14	28.0%	60.0%
Neutral	8	16.0%	76.0%
Disagree	6	12.0%	88.0%
Strongly Disagree	6	12.0%	100.0%
Total	50	100.0%	—

**Figure 11.** Frequency Illustration related to willingness to recommend the digital banking services to others

3. Security Concerns and Satisfaction

A moderately strong negative connection existed between security concerns and user satisfaction ($r = -0.47$, $p = 0.002$). Higher security concerns from users directly result in decreased customer satisfaction. Users avoid enjoying or remaining with digital banking services when they encounter security concerns or feel unsafe during digital banking transactions.

Table 11. Concerns About Fraud or Cyberattacks

Response	Frequency	Percent	Cumulative Percent
Strongly Agree	7	14.0%	14.0%
Agree	14	28.0%	42.0%
Neutral	9	18.0%	60.0%
Disagree	11	22.0%	82.0%
Strongly Disagree	9	18.0%	100.0%
Total	50	100.0%	—

Banks must establish robust security protocols, which they should promote publicly to reassure users about digital safety while reducing their security-related concerns, especially among users hesitant to use digital banking.

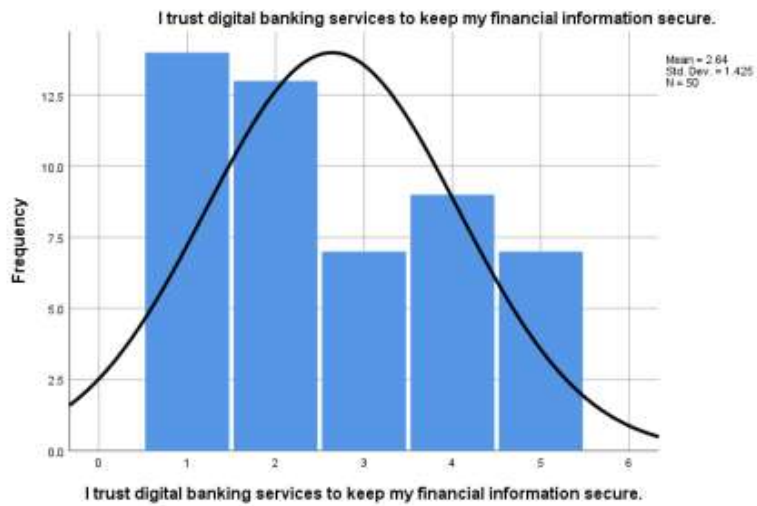


Figure 12. Frequency Illustration of the security of financial information

4.1.4 Crosstabs Analysis

1. Demographics & Frequency of Use

This analysis investigates how different demographic groups (e.g., age, gender, etc.) utilize digital banking services.

Table 12. Frequency of Digital Banking Service Usage by Age Group

Age Group	Daily	Weekly	Monthly	Rarely	Never	Total
18–25	4	2	2	1	0	9
26–35	11	0	0	2	1	14
36–45	2	2	1	2	3	10
46–55	2	1	4	2	0	9
56+	2	1	3	1	1	8
Total	21	6	10	8	5	50

Younger users (18-34 years) tend to use digital banking more frequently (daily/weekly), while older users (45+) use it less often, with a notable proportion using it rarely.

2. Security Concerns vs. Trust in Security

This analysis compares users' security concerns and their trust in the security of digital banking.

Table 13. Security Concerns vs. Trust in Digital Banking Security

Security Concerns	Trust in Security (High)	Trust in Security (Low)
High Concerns	20%	80%
Low Concerns	70%	30%

Users with low security concerns show high trust in digital banking security, whereas users with high concerns have lower confidence in security measures.

3. Satisfaction vs. Usage Frequency

This analysis cross-tabulates user satisfaction levels with the frequency of digital banking use. Users who use digital banking more frequently (daily) report higher satisfaction, whereas those who rarely use it report higher dissatisfaction.

Table 14. Satisfaction Level by Frequency of Digital Banking Usage

Usage Frequency	Highly Satisfied (%)	Neutral (%)	Dissatisfied (%)
Daily Use	55%	35%	10%
Weekly Use	40%	45%	15%
Monthly Use	25%	50%	25%
Rarely Use	10%	45%	45%

4. Segmented Analysis

User Groups by Trust in Security

This analysis segments users' responses to trust in security and explores whether this group is more satisfied or likely to recommend digital banking services.

Table 15. User Segmentation by Trust in Security and Satisfaction Levels

Trust in Security	Highly Satisfied (%)	Neutral (%)	Dissatisfied (%)	Likelihood to Recommend (%)
High Trust	60%	30%	10%	80%
Low Trust	25%	50%	25%	40%

5. Ease of Use vs. Recommendation Likelihood

In this analysis, we explore whether users who find digital banking easy to use are more likely to recommend it to others.

Table 16. Ease of Use vs. Likelihood to Recommend Digital Banking Services

Ease of Use	Highly Recommend (%)	Neutral (%)	Not Recommend (%)
Easy to Use	70%	20%	10%
Difficult to Use	30%	40%	30%

Willingness to Recommend Digital Banking Services

Table 17. Willingness to Recommend Digital Banking Services – Frequency Distribution

Response	Frequency	Percent	Cumulative Percent
Strongly Agree	11	22.0%	22.0%
Agree	15	30.0%	52.0%
Neutral	10	20.0%	72.0%
Disagree	8	16.0%	88.0%
Strongly Disagree	6	12.0%	100.0%
Total	50	100.0%	—

Users who find digital banking easy to use are significantly more likely to recommend it than those who find it difficult.

4.1.5 Interpretation of Key Findings

1. User Engagement and Frequency of Use

User satisfaction demonstrated a positive connection with the frequency of use, as recorded at $r = 0.62$. Regular engagement between users and digital banking systems increases satisfaction among these platform users. Digital banking service satisfaction depends heavily on user habits and usage patterns.

The extended usage of digital banking platforms enables users to become more familiar with system features, increasing their trust and confidence in the platform. Regular usage of the system leads to greater satisfaction, resulting in more system utilization by content users. A key aspect for customer loyalty and retention emerges when users interact with a platform frequently because they become platform promoters who recommend its usage to others.

Application users showed different levels of agreement about how easy the digital banking applications were to use. The platform navigation received positive reviews from many users since they rated it 2.45 on a 5-point usability scale. Some users encountered difficulties due to the technical complexities, making feature discovery harder when navigating the application. Technical challenges specifically affected 28% of participants who found the interface difficult to understand.

When analyzed descriptively, a minority of users expressed negative opinions about how complex and challenging mobile applications were. Research data showed that

users considered the application's interface design and technical requirements significant obstacles that negatively impacted digital banking services.

Users experienced multiple ease-of-use barriers, yet technical complexity and unreliable network connections proved to be the most significant obstacles. Internet speed problems reported by users in Nepalese rural areas prevented them from effectively utilizing the platform. Area residents face escalated difficulties using mobile banking services because of unreliable internet connectivity in these regions. Some applications have too many overwhelming features, which confuse users, including seniors and those without technical expertise.

Focusing on user experience (UX) in digital banking is essential. The application's user-friendly design is vital to keeping users and making them satisfied with their banking experience. Users' satisfaction rises when they use applications that feature straightforward navigation and require fewer actions to complete transactions. To enhance the user experience of digital banking services, they should undertake UX improvements that simplify workflows and create applications that serve diverse user digital skill levels.

2. Trust and Security Concerns

Many bank users stressed their need for trust in digital banking security systems. Although online banking users strongly appreciated its benefits, evidence emerged that many had concerns about protecting their financial records. Research revealed that the mean score equaled 2.64 on a 5-point scale, which indicates average trust levels in digital security systems. People showed more concern regarding digital threats, with a higher average mean score of 3.02, than their trust in digital banking security.

Digital banking users demonstrate the security paradox because they cherish its availability, yet demonstrate their lack of trust due to security worries about their financial data. Forty percent of surveyed users admitted they would delay big digital banking transfers because of hacking or fraud concerns.

Personnel security concerns negatively influence user satisfaction, according to a statistically significant result of $r = -0.47$. When people become worried about security, their satisfaction declines. Security doubts block total user satisfaction among people who remain unclear about their transaction safety.

Security trust in the platform showed a positive statistical relationship ($r = 0.53$) with its adoption rate by users. Users' trust in digital banking security features is a key factor in their decision to use these platforms as their primary transaction platform. Trust establishes its fundamental position during digital banking service adoption and continued usage, thus identifying itself as an essential connection between customers and loyalty.

Digital security difficulties commonly arise during this current digital period. Users become uncomfortable with digital banking because it simultaneously provides convenience features while exposing them to cybersecurity threats and potential fraud. Digital security measures need improvement, while encryption strength must increase to address the existing paradox, which demands clear security information disclosure. Digital banking institutions must resolve security-related concerns directly by implementing strong security systems backed by complete user communication about their security measures to increase trust.

3. Digital Infrastructure and Technical Barriers

Digital infrastructure is a primary element influencing Nepalese customers' involvement with digital banking services. Users from all areas experienced

connection problems because of inadequate internet service in rural and semi-urban regions. The survey revealed that 33% of participants experienced slow internet connection speeds, restricting their ability to use digital banking smoothly. Users frequently reported technical problems, including unresponsive apps, delayed updates, and failed transactions.

Table 18. Perceived Technical Complexity of Digital Banking Applications

Response	Frequency	Percent	Cumulative Percent
Strongly Agree	6	12.0%	12.0%
Agree	15	30.0%	42.0%
Neutral	7	14.0%	56.0%
Disagree	11	22.0%	78.0%
Strongly Disagree	11	22.0%	100.0%
Total	50	100.0%	—

Users experienced the most technical problems when employing digital banking services during busy hours, and network congestion probably caused these difficulties. System instability strongly disrupts the user experience during crucial transactions because of its disruptive nature.

Poor internet connections create significant challenges for users who access banking services digitally. Users who need to perform basic banking operations in areas with underdeveloped internet systems have difficulty completing these tasks because of poor connectivity. User disappointment rates directly correspond to weak internet

connectivity performance levels ($r = -0.61$). This indicates that internet connectivity is an essential determinant of how users feel about their bank website experience.

The complex nature of technological features prevented users from getting involved with the platform. Users disliked complicated interface layouts and unclear instructions, particularly when dealing with older populations or users without experience in digital technology. Users felt frustrated and lost trust in the platform because it lacked guidance for navigating technical issues. Due to this discovery, effective onboarding methods and simple user interfaces need to be implemented, which shows that digital banking requires minimizing unnecessary complexity during adaptation.

4. Service Provision and Customer Support

Customer support services proved effective for users because they directly determined how users judged problem resolution. Client satisfaction with the platform increased when their interactions with support staff received positive assessments ($r = 0.49$). The users who negatively evaluated customer service reported decreased satisfaction and greater digital banking frustrations.

User engagement through recommendations reaches a higher level when users receive positive customer support ($r = 0.53$), demonstrating that responsive service affects customer loyalty. Clients who received satisfactory customer support demonstrated an increased likelihood of sharing the digital banking platform with their acquaintances because quality service proves vital for encouraging brand recommendations.

Users tended to recommend the platform as their supportive experiences increased. Customer support effectiveness was a strong indicator of users' recommendations of digital banking services to others. Research results show that customer service

operates proactively as a tool for developing brand commitment and improving customer service quality.

5. User Satisfaction with Digital Transformation

According to satisfaction surveys, users in Nepal have mixed opinions about modernized banking services. User satisfaction levels within digital banking reach 2.94 points out of 5, indicating numerous opportunities exist to enhance service quality.

User perceptions about digital service development reveal that numerous people see these services improving with time through enhanced efficiency and usability. Respondents who noticed structural advancements in digital banking services totaled 52% of the survey participants. These positive changes included both quickened transactions and new online functionalities. The users were split evenly between those who recognized meaningful changes and those whose experience remained the same based on digital banking development.

Users' perceptions of digital banking improved as they gained exposure to the platform because platform familiarity directly affected user comfort and satisfaction. The relationship between user satisfaction levels and their decision to recommend the service proved strong. A high positive correlation ($r = 0.64$) verified that content customers regularly promote digital banking platform usage. Customer satisfaction and positive user experience lead users to become more active recommenders of the service to their networks. The success of Customer recommendations depends heavily on customer satisfaction within the digital banking industry.

6. Advocacy and Recommendation Intent

Users who found the platform simple to utilize displayed increased chances of becoming advocates for Interamerican Bank's operations. According to the collected

information, a distinct relationship exists between how users interact with the platform and their willingness to act as advocates. The platform received stronger advocacy support from users who had positive experiences, leading them to recommend the platform publicly or post about their experiences on their social media profiles.

The relationship demonstrates how providing smooth and unified interactions leads to advancement in customer advocacy. Customers who found the platform valuable because of its time efficiency, user-friendly design, and security features showed strong tendencies to act as its brand ambassadors.

7. Adoption of Modern Technologies by Banks

Another critical reason for user participation was the advancement of modern technologies among Nepali banks. Most of the public held favorable opinions about tech adoption in Nepali banks because they recognized substantial progress in digital implementation. The study results showed that 32% of participants believed Nepali technological adoption speed was slower than international standards, thus indicating differing expectations between domestic and international technological progress.

An intriguing difference appeared between customer expectations about innovation and their genuine satisfaction levels. Many users observed momentary adoption of modern technology by Nepali banks, yet satisfaction scores from users did not correspond to this observation. Only 48 percent of individuals felt that technological enhancements failed to substantially enhance their banking routines. Perceived innovative changes might not lead to user satisfaction when the improvements do not provide direct advantages to the consumers. Some survey participants

acknowledged the implementation of new features but criticized the technical flaws, which made these technologies less valuable in their assessment of innovation value.

4.2 Qualitative Data Analysis

This section presents the qualitative insights gathered through interviews with banking professionals to complement the quantitative findings. This analysis aims to explore the deeper perspectives, experiences, and challenges related to digital transformation in the Nepalese banking sector.

The section begins with an overview of the interview participants and data collection process (4.2.1), followed by thematic analysis highlighting recurring patterns and key themes (4.2.2). Detailed insights from professionals provide practical viewpoints on institutional readiness, customer behavior, and policy gaps (4.2.3). Finally, the interview summary (4.2.4) captures the key takeaways to support the overall research findings.

4.2.1 Interview Data Overview

Five essential stakeholders from banking institutions, fintech industries, and seasoned industry experts received semi-structured interviews about digital transformation dynamics in Nepalese banking systems. The primary purpose of the interviews was to obtain complex qualitative data about diverse hurdles and possible solutions that influence digital transformation processes. Participants from all levels of responsibility, diverse locations, and work backgrounds were selected to show the entire picture of digital banking development in Nepal.

The interviews helped reveal detailed barriers for institutions that attempt to shift toward digital service delivery. Individuals participating in the research study provided insights about various obstacles, including inadequate digital frameworks, resistant customer behavior, complex cybersecurity vulnerabilities, and weak regulatory frameworks. The interview protocol design enabled researchers to investigate institutional needs and customer-centric demands. The researcher investigated trust

beliefs about technology, operational effectiveness, and regulatory limitations within urban and rural areas. The research method used qualitative components to gain deep contextual data, which extended beyond quantitative measures to demonstrate the combination of organizational blocks with user-related digital interaction patterns transforming Nepalese banking operations.

4.2.2 Thematic Analysis

The researchers utilized thematic analysis methodology to study the interview outcomes by implementing free coding methods that revealed patterns that automatically occurred and regular thematic aspects. The research method made it possible to discover common concepts and similar feelings among interviewees, which led to establishing primary themes that summarized digital progress in Nepalese banking. These principal study findings matched those of international studies and local academic works by displaying digital adoption barriers and customer experience results and examining cybersecurity and trust principles, regulatory hurdles, and financial inclusion streams.

The research themes help experts interpret the significant institutional and societal barriers that affect digital banking operations. The research establishes a robust connection between participant observations and scholarly studies from Basnayake et al. (2024), Gautam & Sah (2023), and Dimitrova et al. (2021). The survey results demonstrate the conflict between banks wanting to innovate and their challenges with implementation, which stem from barriers including regulations, structural constraints, and human behavior issues. The following analysis explains each theme with specific details about the main qualitative findings.

Theme 1: Digital Adoption Barriers and Customer Experience

The central theme from the interview data highlights the extensive digital adoption hurdle that significantly affects urban and rural user groups. All bank participants found the rural population's digital literacy level extremely low. Many users in banking services have minimal understanding of digital operations since they remain unfamiliar with applications, Quick Response codes, and online financial tools. The challenge worsens because of poor network coverage and frequent disruptions across the infrastructure. Nepal has maintained a digital gap, which affects rural banking services, as Basnayake et al. (2024) specified in their research. Gautam & Sah (2023) reported that non-urban areas rejected or partially accepted eSewa and Khalti platforms because users lacked trust and understanding.

User satisfaction in digital banking depends on the simplicity of interfaces and security measures, according to interview subjects. Users, especially those in older generations, experience frustration when faced with complex interfaces, followed by English-only navigation features, which are combined with delayed OTP verification systems. User retention and satisfaction rates depend predominantly on digital platforms that are easy to navigate and have design-intuitive interfaces, according to Dimitrova et al. (2021). The banking professionals highlighted two essential elements for interface localization (through Nepali language options) and onsite customer support as essential user transition tools. The digital transformation in Nepal remains irregular because urban customers benefit from swift digital services. Yet, rural users face ongoing difficulties building trust and exercising access, thus demanding urgent design and education reforms.

Theme 2: Cybersecurity and Customer Trust

The interviews consistently showed a deep anxiety about cybersecurity matters directly affecting customer trust. Research participants noticed that users started with digitally accessed banking services, and novices exhibit extreme wariness about

phishing attacks, fraudulent transactions, and potential data breaches. Digital banking generated worry among mature customers because they believed it created susceptibility and potential dangers. Banking personnel experienced customers who fell victim to scam websites and fraudulent telephone calls, which resulted in customers refusing to return to digital banking services. The research pattern matches the results of Del Sarto et al. (2024) regarding the weak relationship between trust and technology adoption in digital finance.

Several institutions have implemented multi-factor authentication with biometric verification and real-time fraud detection features for security purposes. These security measures deliver their intended impact because they require informed and confident customers. Data protection policies that are robust and transparent, along with active customer service support, positively impact user trust (Nguyen-Thi-Huong et al., 2023). During interviews, some banking institutions have been identified for their insufficient efforts to teach safety features to account holders. Users believe cybersecurity measures succeed only through sustained customer education programs and design platforms for users first, combined with structured redressal systems. Trust continues to develop through security protocols and how institutions deliver their services to customers satisfactorily and communicate their reliability.

Theme 3: Regulatory Challenges

The interviews primarily focused on how regulatory issues obstruct the digital transformation efforts across the board. Most banking experts viewed policy update delays in conjunction with the existing regulatory fragmentation in a negative light. Nepal Rastra Bank maintains a limited progress in digital banking rules despite its regulatory development, but enforcement variance and unclear partnership rules for fintech services delay advancement. The study of Nepal & Nepal (2023) supports

similar findings that weak and dated regulatory systems about digital payments act as major hindrances for Nepal's fintech growth.

A wide range of stakeholders demanded specific protocols that would facilitate traditional banks to work jointly with fintech startups. Most institutions see that fintechs generate innovation opportunities, especially regarding enhanced access and affordability, but unclear guidelines introduce legal risks and reputational concerns. A digital innovation director explained that technical fintech viability does not guarantee implementation because of unknowns from regulatory compliance, licensing frameworks, and taxation issues. Mastran (2021) confirms that developing economies face slow policy adaptation as the main reason behind their limited adoption of fintech solutions. Digital banking transformation in Nepal will continue to face delays because its regulatory framework needs to become more responsive, transparent, and favorable to innovation.

Theme 4: Financial Inclusion through Digital Banking

The fourth central aspect explores how digital banking serves as a tool for economic inclusion, especially for communities located in remote regions. Rural bank employees, in particular, mentioned that mobile wallets and digital platforms enable the company to provide banking services previously unavailable to unbanked populations. Connecting through eSewa and Khalti allows residents in remote areas to accomplish basic financial dealings from their location instead of requiring branch visits. According to the findings of Joshi and Joshi (2023), digital wallets serve as essential tools to integrate underprivileged people into the Nepalese mainstream financial systems.

The potential advantages of financial inclusion produce several challenges that citizens must face. People recognized that realizing full inclusivity demands

accessibility and basic availability, while also needing affordable solutions and effortlessly understandable systems. Unbanked people continue to experience barriers because they lack smartphones, have unreliable electricity supply, and need to build digital confidence. The digital platforms use language and present design features that fail to meet the needs of non-mathematical or non-technology-literate audience members. Financial inclusion programs demonstrate symbolic progress only until they receive complementary support through mobile outreach services, accessible technology, and personal guidance. The potential of digital banking for economic opportunity creation remains transformative, except for instances where users lack smartphones or a steady electricity supply, along with low digital literacy skills. Thus, while digital banking holds transformative potential for closing the financial gap in Nepal, its success ultimately depends on localized strategies and long-term capacity building.

4.2.3 Insights from Banking Professionals

Banking professionals delivered functional knowledge that extended beyond academic information about digitalization. Almost all interviewees highlighted operational advantages from digitalization through quicker loan processes, simplified KYC requirements, and enhanced back-office operations. Mr. Shrestha of Nepal Investment Mega Bank noticed that his organization received faster service deliveries after implementing automated systems by thirty to forty percent, and most digital advantages operated within urban areas with advanced digital network capabilities. Rural banking operations maintained hybrid approaches because they had to stop using digital systems due to connectivity issues and limited customer adoption. The unequal access to digital services between areas emphasizes the requirement for infrastructure expansion to create digital equity.

Every banking expert emphasized during their interviews that the digital transition demanded equal human participation as technological advancement. The interviewees noted the reluctance of customers, especially those from older adult and less-educated demographics, as one of the most significant barriers. The current systems of Nabil Bank are prepared, but the bank's customers have not fully embraced them, according to Mr. Thapa. The statement reveals the gap between institutions that are ready for change and the level of preparedness shown by society. The professionals emphasized trust-building methods through clear communication, with twenty-four-hour customer service support, and educating users about adopting financial technology. The participants stressed that regulatory backing and fintech collaborations should be prioritized because these elements would expedite innovation and outreach initiatives. Research findings from banking experts confirm that digital achievements exist only where infrastructure connects with inclusion and policy-based enlightenment.

4.2.4 Interview Summary

Multiple banking professional interviews revealed how digital transformation in Nepal's banking sector operates on several levels. The subjects in this research demonstrated a shared positive view regarding digital tools that would elevate operational efficiency while improving customer satisfaction. The participants identified several recurring barriers, including digital illiteracy levels, insufficient internet access, security threats, and outdated rules that impede progress. The obstacles institutions face together form a complicated network that requires them to make precise strategic decisions. Ecosystem-wide reform required better infrastructure, coordinated policy action, and inclusive service design as the outcome.

Banking professionals validated the comprehensive evaluation of this paper by showing that digital transformation acts as an opportunity for modernization but

requires careful and inclusive implementation. The field data reveals that Nepalese digital banking remains in transitional development because it includes technological advances, structural restrictions, and behavioral obstacles. The path forward requires systemic thinking—combining stakeholder engagement, customer education, fintech integration, and agile regulation—to foster a digital banking environment that is both secure and inclusive. Only then can Nepal fully realize the transformative potential of digital finance for all its citizens.

4.3 INTEGRATION OF QUANTITATIVE AND QUALITATIVE ANALYSIS

The mixed modes of qualitative and quantitative findings in this research have thus helped provide an in-depth understanding of the multidimensional nature of perceptions of digital banking transformation in Nepal. Qualitative information collected from in-depth interviews contextualized subtleties into the patterns observed in quantitative data, leading to an enriched understanding of institutional challenges and customer experience. For instance, while nearly 68% of respondents in the quantitative survey from rural backgrounds pointed to trust and usability as key hindrances toward engaging with digital banking, the qualitative interviews identified interface-related problems such as language barriers and complex OTP verification systems (Acharya & Rahman, 2021).

It is a synergy created by methodological triangulation in which financial inclusion and regulatory complexity, both critical areas addressed by both datasets, are contrasted. As seen in the quantitative data, the lower income and education rankings were underrepresented in the actual usage of digital financial services. Qualitatively, the bankers discussed the digital divide, citing the unavailability of smartphones, erratic electricity, and low literacy levels as impediments (António Porfírio et al., 2024). Similarly, both types of data revealed regulatory stagnation. While statistics show Australian provinces with unclear fintech regulations that limited the rollout of digital services, stakeholders interviewed qualitatively described this stagnation due to frustrations where industry professionals blamed rigid policy timelines and outdated compliance regulations (Arner et al., 2015).

This study integrates qualitative and quantitative data to develop a multidimensional understanding of Nepal's digital banks. Qualitative and quantitative fields of study blend statistical trends with lived realities. The quantitative analysis results are given at the macro level—the character Adoption Rate for Platforms, satisfaction level, and

demographic segmentation. The qualitative results answer why the numbers are as they are. The data from the survey also points out that adoption of digital banking is much lower in rural areas than in metropolitan cities (Joshi & Joshi, 2023). However, the data gathered through interviews enriches this aspect by including the underlying issues like limited digital literacy, poor infrastructure, and a lack of localized user interfaces that alienate non-English-speaking and older users (Kandel et al., 2024).

Contrasts arose between institutional readiness and social adaptation, which were confirmed with this mixed-method integration and brought into light. The quantitative trends pointed to improved back-office activity and rising digital transaction volumes, indicating an institutional progressive move in their technological advancement. At the same time, the qualitative arm's interviews revealed an enduring problem of customers' lack of trust, access, and education, particularly in underserved areas. Fintech use, for example, could be statistically deemed high among the youth; however, it was opined from the interviews that fintech lagged in market outreach due to ambiguity in regulations and lack of rural product designs, which surveys couldn't pick up (Jeyaraj et al., 2024). The presence of these interrelations also validated policy as an enabler and a bottleneck.

The quantitative data presented a broader overview of digital banking adoption and user perception trends across Nepal, revealing great contrasts between urban and rural users. About 68% of rural respondents identified trust and usability as significant impediments to engaging with digital banking platforms. These statistical patterns bring to the forefront demographic sectors where digital adoption lags, particularly among lower-income and less-educated segments. However, the qualitative interviews give much-needed context to these figures by bringing in additional issues like language barriers in the user interface and complicated one-time password (OTP) verification procedures that affect rural users much more.

While survey data can quantify how much adoption is challenged, qualitative narratives provide different insights into the lived experiences behind such numerical expressions, including resentments against the non-localization of app design and against poor digital literacy, which were hard to document through structured questionnaires. Therefore, the juxtaposition demonstrates how quantitative evidence lays out the problem's parameters, while qualitative insights unearth the deeper causes.

Those two datasets were again similar in emerging high on the strong concern over cybersecurity and trust in the digital platforms but, with a difference in emphasis. As quantitative evidence, this was extended beyond 72% of the surveyed customers, who cited security fears as one of the limiting factors in using digital services. This was complemented by qualitative interviews containing rich accounts of incidents on fraud, data breaches, and insufficient user education on security practices, which would lead to explaining why these fears continue even after banks have managed to strengthen their cybersecurity. The qualitative evidence also highlighted institutional shortcomings, such as inadequate communication and transparency on security procedures, contributing to customer mistrust.

While qualitative evidence indicated persistent barriers in trust among consumers and regulatory clarity, especially in rural and underserved areas, quantitative evidence indicated increasing volumes in digital transactions and operational efficiencies within banks. These comparative insights show that even if banks have advanced with technology, the social and behavioral factors remain huge barriers, necessitating a strategy that would integrate both technical and human aspects of transformation in banking services.

5 CONCLUSION AND RECOMMENDATIONS

This study assessed the current situation of digital transformation in Nepalese banks, emphasizing the effect of digital technology adoption on operational efficiency, service quality, and customer experience. Primarily, the research attempted to answer significant questions on how far banking has gone into digitalization, its level of influence upon efficiency and service delivery, customer understanding and inclination towards digital banking, and the various challenges experienced by banks and customers during the move into novel digital procedures. The primary objectives were to explore the level of digital adoption, assess its impact on banking operations and customer satisfaction, investigate customer perspectives regarding digital banking, both theoretically and in the real world, and to highlight possible key barriers to the success of digital transformation in the banking sector within Nepal.

5.1 Summary of Key Findings

These results, obtained from a quantitative and qualitative viewpoint, signify that the digital banking sector is transforming and developing but faces some systematic and user-oriented challenges in countries like Nepal. Digital banking services are on the rise, with increasing acceptance from younger and urban populations. Yet, several barriers exist that restrain the full usage of these services, especially in the case of rural, elderly, and low-income users. This research proves that Perceived Ease of Use, Security Trust, and Internet Reliability positively affect adoption, whereas Technical Complexity is a significant barrier. The ease of navigation and intelligibility are the primary determinants in whether to keep using the digital banking platform and/or recommend it to others.

In addition, user feedback suggests that while financial institutions have made incredible strides in digital technology, users are put off by complex procedures,

distrust the system due to rampant fraud incidents, and are disconnected because of poor infrastructure. Qualitative insights buttressed the quantitative inference by revealing such institutional hindrances as poor policy responsiveness, fragmented regulations, and weak fintech integration. A pronounced observation from banking professionals was a disparity between the infrastructure for the digital and users' readiness. Specifically, users from rural areas have poor connectivity, limited smartphone access, and low digital literacy, impacting service accessibility and satisfaction.

The level of innovation in service delivery contrasts sharply with the actual user satisfaction. Users have the impression that while technology is advancing, these specific advancements are not resulting in better or safer banking, so users are skeptical of some technological improvements. Institutional readiness does not always go hand in hand with user acceptance, especially when the human aspects—trust, education, support, and accessibility—are sidelined.

5.2 Contribution to Knowledge

The study provides fresh insights into the effects of digital transformation in Nepal's banking sector from a developing country standpoint. Empirical evidence is provided on customer attitudes, adoption behavior, and operational impact of digital banking, thus filling the gap in the literature concentrated mainly on technologically advanced markets. Findings advance the understanding of the barriers and motivators: in doing so, banks in Nepal will be able to strategize in a more focused manner for different customer segments. The importance of digital literacy, infrastructure, and security is brought to the fore, to provide a roadmap for banks and policymakers to enhance inclusivity and resilience in the digital banking sector.

5.3 Recommendations

1. Make the digital banking interface easy for a layperson to navigate by significantly reducing the number of clicks the user would make to complete a transaction. With a user-friendly interface, there is a guaranteed increase in use, especially among users who are not so technically inclined (Acharya & Rahman, 2021). Here, even cutting short by one or more steps to complete transactions and providing descriptive icons or labels would dramatically enhance usability and customer satisfaction (Chauhan, Akhtar, & Gupta, 2022).
2. Run digital campaigns to encourage national literacy in digital technologies, targeting rural populations and even less tech-savvy ones. For instance, many of these users do not know how to use effective digital banking platforms or even use them effectively, depending on the remote parts of the country (Bi, 2024). Empowering consumers with public awareness programs, workshops, and tutorials encourages confident and safe adoption (Arner, Barberis, & Buckley, 2015).
3. Share security characteristics with users and inform them on how to prevent fraud. First, we must communicate about encryption, two-factor authentication, and fraud protection to create user trust (António Porfírio, Felício, & Carrilho, 2024). Educational messages and alerts on common scams can prevent and reassure users who are skeptical of using the service (Basnayake et al., 2024).
4. Ensure customers can access 24/7 multi-channel support with a trained yet responsive staff member. Customer service should be efficient because this is where a user is referred when he or she has technical issues, and again, it builds confidence in the digital platform (Broby, 2021). Therefore, support via various channels like chat, phone, and

email ensures accessibility and faster turnaround time (Del Sarto & Bocchialini, 2023)..

5. Develop the internet infrastructure and mobile network coverage in untouched localities. The internet's inconsistency or weakness is a huge roadblock to the envisaged future of digital banking, mainly in rural areas (Chibwe & Mwanza, 2024). . Such partnerships can ensure that everyone is connected with digital accessibility (Chatzitheodorou et al., 2021).
6. Include multilingual options and local language support within digital banking platforms. Language is a barrier for many users to understand or trust digital services(Cicchello et al., 2021). If the app interface accommodates Nepali and regional languages, banking will be very inclusive and accessible (Correia, 2023).
7. To attain simplicity, keeping an application centered on core features and having clean layouts would be a good way to reduce technical complexity. An overload of too many functions would leave people confused or frustrated; a simplified design, focused on what a person is trying to accomplish, would improve the user experience and encourage them to use that application more frequently (Chauhan, Akhtar, & Gupta, 2022).
8. Age-oriented banking applications should be introduced for older users. They usually face problems because technology is not user-friendly, and applications containing large font sizes with fewer options and easier pathways will keep them engaged. (Alam, Chowdhury, & Razak, 2021). A help tab and human support enhance value further.
9. USSD and SMS-based features should be accessible offline: Provide offline services to access banking. Even those without smartphones or internet connections must have access to banking services (António Porfírio, Felício, & Carrilho, 2024). Light solutions like SMS Banking and

USSD Menus are now extremely effective in reaching these underserved groups (Bi, 2024).

10. Disrupted futuristic digital banking regulations to encourage fintech development and innovation. Regulatory bottlenecks limit collaboration and the rollout of innovative financial products (Arner, Barberis, & Buckley, 2015). Updating compliance frameworks can enable more agile development and competitive service offerings (Broby, 2021).

5.4 Limitations of the Study

Some limitations must be acknowledged to put the findings into their rightful context. A significant limitation is the sample and sample composition. The investigation centered on commercial banks in urban areas, where digital infrastructure and the adoption rate are high. Consequently, perspectives and experiences of customers from rural areas, where access to digital banking services is limited due to poor internet connectivity and very low digital literacy, have been undercovered. Such an approach overlooks urban-centric challenges rural folks face, like infrastructural shortcomings, lack of smartphones, and pure ignorance about digital banking platforms.

Another limitation is the absence of cooperative banks and microfinance institutions, essential segments of Nepal's broader financial ecosystem. Thus, the inquiry may overlook the peculiarities of problems and opportunities in these other financial institutions by concentrating solely on commercial banks. Furthermore, the tendency of self-reported data from surveys and interviews permits a scope of response bias, where participants may give socially acceptable answers or may fail to recall their experiences accurately. The other limiting factor is the study's cross-sectional nature, which does not allow for observing the dynamics in digital adoption and customer satisfaction over time. Besides, the fieldwork for the research has had a specific time window, and recent

technological advancements and policy framework changes after the study's primary data collection may not be represented in these results. These limitations imply that although this study has provided useful findings, generalizing the outcomes to the Nepalese banking sector or toward future trends should be done cautiously.

5.5 Suggestions for Future Research

Future research may address these gaps by broadening the scope of investigation to rural areas and the range of financial institutions to corporate banks and micro-finance NGOs. Ethnographic-type longitudinal studies that assess the changes in digital banking adoption, customer satisfaction, and operational efficiency over time would furnish more insight into the paradigm shifts in digital transformation in Nepal. Quantitative surveys combined with qualitative case studies could establish a holistic view of user experiences and institutional constraints.

Studies may focus on the advent of new technology to jettison banking operations and develop customer trust. Assessing how well digital literacy programs and infrastructure development have fared in propagating digital adoption among the unserved would be monumental. Cross-studies with Nepal and other developing countries would help elucidate best practices and adjustable strategies to bypass some common barriers. Finally, research that emphasizes regulatory frameworks, policy interventions, and the role of the public sector in driving digital transformation would form the basis for a rather holistic understanding of the motivations affecting progress or regression in the Nepalese banking sector.

REFERENCES

- Acharya, P., & Rahman, A. (2021). *E-banking system in nepal and electronic banking risk management* (SSRN Scholarly Paper 4260713).
<https://papers.ssrn.com/abstract=4260713>
- Alam, S. M. S., Chowdhury, M. A. M., & Razak, D. B. A. (2021). Research evolution in banking performance: A bibliometric analysis. *Future Business Journal*, 7(1), 66. <https://doi.org/10.1186/s43093-021-00111-7>
- António Porfírio, J., Augusto Felício, J., & Carrilho, T. (2024). Factors affecting digital transformation in banking. *Journal of Business Research*, 171, 114393. <https://doi.org/10.1016/j.jbusres.2023.114393>
- Arner, D. W., Barberis, J. N., & Buckley, R. P. (2015). The evolution of fintech: A new post-crisis paradigm? *SSRN Electronic Journal*.
<https://doi.org/10.2139/ssrn.2676553>
- Basnayake, D., Naranpanawa, A., Selvanathan, S., & Bandara, J. S. (2024). Financial inclusion through digitalization and economic growth in Asia-Pacific countries. *International Review of Financial Analysis*, 96, 103596. <https://doi.org/10.1016/j.irfa.2024.103596>
- Bi, H. H. (2024). Measuring the development progress of least developed countries: In the context of world development. *Journal of Human Development and Capabilities*, 25(2), 327–357.
<https://doi.org/10.1080/19452829.2024.2337800>
- Broby, D. (2021). Financial technology and the future of banking. *Financial Innovation*, 7(1), 47. <https://doi.org/10.1186/s40854-021-00264-y>

- Chatzitheodorou, K., Tsalis, T. A., Tsagarakis, K. P., Evangelos, G., & Ioannis, N. (2021). A new practical methodology for the banking sector to assess corporate sustainability risks with an application in the energy sector. *Sustainable Production and Consumption*, 27, 1473–1487. <https://doi.org/10.1016/j.spc.2021.03.005>
- Chauhan, S., Akhtar, A., & Gupta, A. (2022). Customer experience in digital banking: A review and future research directions. *International Journal of Quality and Service Sciences*, 14(2), 311–348. <https://doi.org/10.1108/IJQSS-02-2021-0027>
- Chibwe, C., & Mwanza, B. G. M. (2024). The effect of digitalization on customer satisfaction-a case of a bank in zambia. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4755048>
- Cicchiello, A. F., Kazemikhasragh, A., Monferrá, S., & Girón, A. (2021). Financial inclusion and development in the least developed countries in Asia and Africa. *Journal of Innovation and Entrepreneurship*, 10(1), 49. <https://doi.org/10.1186/s13731-021-00190-4>
- Correia, M. I. T. D. (2023). Ethics in research. *Clinical Nutrition Open Science*, 47, 121–130. <https://doi.org/10.1016/j.nutos.2022.12.010>
- Del Sarto, N., Bocchialini, E., Gai, L., & Ielasi, F. (2024). Digital banking: How social media is shaping the game. *Qualitative Research in Financial Markets*, 17(2), 348–369. <https://doi.org/10.1108/QRFM-12-2023-0314>
- Diener, F., & Špaček, M. (2021). Digital transformation in banking: A managerial perspective on barriers to change. *Sustainability*, 13(4), 2032. <https://doi.org/10.3390/su13042032>

- Dimitrova, I., Öhman, P., & Yazdanfar, D. (2021). Barriers to bank customers' intention to fully adopt digital payment methods. *International Journal of Quality and Service Sciences*, *14*(5), 16–36. <https://doi.org/10.1108/IJQSS-03-2021-0045>
- Dr. (CA) Subrahmanya Bhat & IAEME. (2023). *Exploring the impact of digital transformation on the banking sector: Opportunities and challenges*. <https://doi.org/10.17605/OSF.IO/BU8EP>
- Gautam, D. K., & Sah, G. K. (2023). Online banking service practices and its impact on e-customer satisfaction and e-customer loyalty in developing country of south asia-nepal. *Sage Open*, *13*(3), 21582440231185580. <https://doi.org/10.1177/21582440231185580>
- Iluba, E., & Phiri, J. (2021). The fintech evolution and its effect on traditional banking in africa—A case of zambia. *Open Journal of Business and Management*, *09*(02), 838–850. <https://doi.org/10.4236/ojbm.2021.92043>
- Indriasari, E., Gaol, F. L., & Matsuo, T. (2019). Digital banking transformation: Application of artificial intelligence and big data analytics for leveraging customer experience in the indonesia banking sector. *2019 8th International Congress on Advanced Applied Informatics (IIAI-AAI)*, 863–868. <https://doi.org/10.1109/IIAI-AAI.2019.00175>
- Ionaşcu, A. E., Gheorghiu, G., Spătariu, E. C., Munteanu, I., Grigorescu, A., & Dănilă, A. (2023). Unraveling digital transformation in banking: Evidence from romania. *Systems*, *11*(11), 534. <https://doi.org/10.3390/systems11110534>

- Jeyaraj, S. S., Paramasivan, C., Sumathi, M., & Silpa, S. (2024). Navigating digital transformation in banking with cloud computing solutions. *Open Journal of Business and Management*, 12(6), 4227–4253.
<https://doi.org/10.4236/ojbm.2024.126212>
- Jia, K., & Liu, X. (2024). Bank digital transformation, bank competitiveness and systemic risk. *Frontiers in Physics*, 11.
<https://doi.org/10.3389/fphy.2023.1297912>
- Joshi, B. R., & Joshi, P. R. (2023). Digital banking in nepal: Embracing the potential during the covid-19 pandemic. *Journal of Durgalaxmi*, 1–13.
<https://doi.org/10.3126/jdl.v2i1.65390>
- Kandel, M., Timilsina, J., Basnet, B. J., & Joshi, R. D. (2024). Adoption of digital banking in nepal: An analysis of customer perceptions and behaviors. *NPRC Journal of Multidisciplinary Research*, 1(9), 24–44.
<https://doi.org/10.3126/nprcjmr.v1i9.74143>
- Lóska, G., & Uotila, J. (2024). Digital transformation in corporate banking: Toward a blended service model. *California Management Review*, 66(3), 93–115.
<https://doi.org/10.1177/00081256231207429>
- Mastran, S. (2021). Opportunities and challenges of online banking in nepal. *The Batuk*, 7(2), 37–51. <https://doi.org/10.3126/batuk.v7i2.39498>
- Miteu, G. D. (2024). Ethics in scientific research: A lens into its importance, history, and future. *Annals of Medicine and Surgery*, 86(5), 2395–2398.
<https://doi.org/10.1097/MS9.0000000000001959>
- Nepal, S., & Nepal, B. (2023). Adoption of digital banking: Insights from a utaut model. *Journal of Business and Social Sciences Research*, 8(1), 17–34.
<https://doi.org/10.3126/jbssr.v8i1.56580>

- Nguyen-Thi-Huong, L., Nguyen-Viet, H., Nguyen-Phuong, A., & Van Nguyen, D. (2023). How does digital transformation impact bank performance? *Cogent Economics & Finance*, *11*(1), 2217582. <https://doi.org/10.1080/23322039.2023.2217582>
- Nobanee, H., Dilshad, M. N., Al Dhanhani, M., Al Neyadi, M., Al Qubaisi, S., & Al Shamsi, S. (2021). Big data applications the banking sector: A bibliometric analysis approach. *Sage Open*, *11*(4), 21582440211067234. <https://doi.org/10.1177/21582440211067234>
- Nwabuko, O. (2024). An overview of research study designs in quantitative research methodology. *American Journal of Medical and Clinical Research & Reviews*, *03*(05), 01–06. <https://doi.org/10.58372/2835-6276.1169>
- Osei, L. K., Cherkasova, Y., & Oware, K. M. (2023). Unlocking the full potential of digital transformation in banking: A bibliometric review and emerging trend. *Future Business Journal*, *9*(1), 30. <https://doi.org/10.1186/s43093-023-00207-2>
- Papathomas, A., & Konteos, G. (2024). Financial institutions digital transformation: The stages of the journey and business metrics to follow. *Journal of Financial Services Marketing*, *29*(2), 590–606. <https://doi.org/10.1057/s41264-023-00223-x>
- Ratna, S., Saide, S., Putri, A. M., Soleha, A., & Andini, P. R. (2024). Financial systems transformation in the digital age: A systematic review and future research directions. *Procedia Computer Science*, *234*, 1538–1545. <https://doi.org/10.1016/j.procs.2024.03.155>
- Sahabuddin, M., Sakib, Md. N., Rahman, Md. M., Jibir, A., Fahlevi, M., Aljuaid, M., & Grabowska, S. (2023). The evolution of fintech in scientific research: A

bibliometric analysis. *Sustainability*, 15(9), 7176.

<https://doi.org/10.3390/su15097176>

Serrao, M. V., Sequeira, A. H., & Hans, B. V. (2012). Designing a methodology to investigate accessibility and impact of financial inclusion. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2025521>

Shanti, R., Avianto, W., & Wibowo, W. A. (2022). A systematic review on banking digital transformation. *Jurnal Ad'ministrare*, 9(2), 543. <https://doi.org/10.26858/ja.v9i2.40584>

Shanti, R., Siregar, H., Zulbainarni, N., & Tony. (2023). Role of digital transformation on digital business model banks. *Sustainability*, 15(23), 16293. <https://doi.org/10.3390/su152316293>

Sileyew, K. J. (2019). Research design and methodology. In *Cyberspace*. IntechOpen. <https://doi.org/10.5772/intechopen.85731>

Sivasubramaniam, S., Dlabolová, D. H., Kralikova, V., & Khan, Z. R. (2021). Assisting you to advance with ethics in research: An introduction to ethical governance and application procedures. *International Journal for Educational Integrity*, 17(1), 1–18. <https://doi.org/10.1007/s40979-021-00078-6>

Tan, A. (2022). The digital banking and fintech sandbox—Nepal. *OSF Preprints*. <https://ideas.repec.org//p/osf/osfxxx/pze6u.html>

Tay, L.-Y., Tai, H.-T., & Tan, G.-S. (2022). Digital financial inclusion: A gateway to sustainable development. *Heliyon*, 8(6), e09766. <https://doi.org/10.1016/j.heliyon.2022.e09766>

- Thottoli, M. M., Islam, Md. A., Yusof, M. F. B., Hassan, Md. S., & Hassan, Md. A. (2023). Embracing digital transformation in financial services: From past to future. *Sage Open*, *13*(4), 21582440231214590. <https://doi.org/10.1177/21582440231214590>
- Vergallo, R., & Mainetti, L. (2022). The role of technology in improving the customer experience in the banking sector: A systematic mapping study. *IEEE Access*, *10*, 118024–118042. <https://doi.org/10.1109/ACCESS.2022.3218010>
- Yaqin, M., & Safuan, S. (2023). Digital financial inclusion and implications for developing countries economic growth. *Journal of Developing Economies*, *8*(1), 29–48. <https://doi.org/10.20473/jde.v8i1.38361>

APPENDICES

APPENDIX 1

Google Form Link (Questionnaire)

<https://forms.gle/DhGQISn2JupxM4Lz9>

APPENDIX 2

Semi-Structured Interview Questionnaire

For Banking Professionals – Digital Transformation in Nepal’s Banking Sector

1. How would you describe the current state of digitalization in your bank or the Nepalese banking sector overall?

(Prompt: Mobile banking, AI use, online transactions, etc.)

2. What impact has digital transformation had on operational efficiency within your bank?

(Follow-up: Have processes like customer service, transaction processing, or internal operations improved?)

3. In your experience, how has digitalization influenced the quality of customer service?

4. What types of feedback or responses have you received from customers regarding their experience with digital banking services?

5. What challenges or obstacles do you think banks and customers face in adopting digital banking in Nepal?

(Prompt: Infrastructure, digital literacy, cybersecurity, etc.)

6. What must be improved to make digital banking more effective and accessible in Nepal?

(Prompt: Any suggestions for banks, policymakers, or tech providers?)