

ANALYZING DIGITAL BANKING SERVICES IN FINANCE 2.0

A Dissertation submitted to the office of the dean, faculty of management in partial fulfillment of requirement for the master's degree

By

Samundra Dhaunya

Exam Roll No.: 23968/20

Campus Roll No.:520/076

TU Registration No: 7-2-0039-0996-2015

Shanker Dev Campus

Kathmandu, Nepal

June, 2024

CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “**Analyzing digital banking services in finance 2.0**”. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor it has been proposed and presented as part of requirements for any other academic purposes.

The assistance and cooperation that I have received during this research work has been acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of the dissertation.

.....

Samundra Dhaunya

REPORT OF RESEARCH COMMITTEE

Mr. Samundra Dhaunya has defended research proposal entitled "**Analyzing digital banking services in finance 2.0**" successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestions and guidance of supervisor Mr. Keshar Singh Khati and submit the thesis for evaluation and viva voce examination.

.....
Keshar Singh Khati
Dissertation Supervisor

Dissertation Proposal Defended Date:

.....

Dissertation Submitted Date:

.....

.....
Asso. Prof. Dr. Sajeeb Kumar Shrestha,
Chairperson, Research Committee

Dissertation Viva Voce Date:

.....

APPROVAL SHEET

We have examined the dissertation entitled "**Analyzing digital banking services in finance 2.0**" presented by Mr. Samundra Dhaunya for the degree of Master of Business Studies. We hereby certify that the dissertation is acceptable for the award of degree.

.....
Keshar Singh Khati
Dissertation Supervisor

.....
Internal Examiner

.....
Internal Expert

.....
External Expert

.....
Asso. Prof. Dr. Sajeeb Kumar Shrestha,
Chairperson, Research Committee

.....
Asso. Prof. Dr. Krishna Prasad Acharya
Campus Chief

Date:

ACKNOWLEDGEMENTS

I would like to extend my heartfelt appreciation to Mr. Keshar Singh Khati, my esteemed supervisor, for his invaluable guidance throughout the process of creating this dissertation. His extensive knowledge in the field and patient mentorship provided me with essential insights to navigate the intricacies of research. His dedication and expertise have undoubtedly left an enduring mark on my academic journey.

Furthermore, I am deeply grateful to my friends, colleagues, and the entire staff at Shanker Dev Campus for fostering a collaborative environment that enriched my learning experience. The collective exchange of perspectives, engaging discussions, and shared insights were instrumental in broadening my understanding of the subject matter. The support and resources extended by both fellow students and faculty members, beyond my supervisor, played a pivotal role in developing the diverse viewpoints that have contributed to the strength of this dissertation.

I would also like to acknowledge my family members for their unwavering support and encouragement throughout my academic pursuit. Their belief in my capabilities and their constant motivation provided me with the foundation to overcome challenges and persevere in my studies. Their love and understanding have been my driving force, and I am truly grateful for their presence in my life.

Date:

TABLE OF CONTENTS

<i>Certification of Authorship</i>	<i>ii</i>
<i>Report of Research Committee</i>	<i>iii</i>
<i>Approval Sheet</i>	<i>iv</i>
<i>Acknowledgements</i>	<i>v</i>
<i>Table of Contents</i>	<i>vi</i>
<i>List of Tables</i>	<i>viii</i>
<i>List of Figures</i>	<i>ix</i>
<i>Abbreviations</i>	<i>x</i>
<i>Abstract</i>	<i>xi</i>
CHAPTER I INTRODUCTION	1
1.1 Background of the Study	1
1.2 Problem Statement.....	4
1.3 Objectives of the Study.....	7
1.4 Rationale of the Study.....	7
1.5 Limitations of the Study	9
CHAPTER II LITERATURE REVIEW	10
2.1 Theoretical Review	10
2.2. Empirical Review	17
2.2.1 Review of International Articles	17
2.2.2 Review of Nepalese Articles	23
2.3 Research Gap	25
CHAPTER III RESEARCH METHODOLOGY	27
3.1 Research Design	27
3.2 Population and Sample, and Sampling Design.....	27
3.2.1 Population.....	27
3.2.1 Sample Size	28
3.2.1 Sampling Design	28
3.3 Nature and Sources of Data and the Instrument of Data Collection.....	29
3.4 Method of Analysis.....	29
3.4.1 Mean.....	30
3.4.2 Standard Deviation (S.D.)	30
3.4.3 Correlation coefficient.....	31

3.4.4 Regression Model.....	32
3.5 Research Framework and Definition of Variables	33
CHAPTER IV RESULTS AND DISCUSSION	37
4.1 Demographic Profile of Respondents	37
4.2 Descriptive Analysis	40
4.3 Correlation Analysis	42
4.4 Regression Analysis.....	44
4.5 Discussion.....	47
CHAPTER V SUMMARY AND CONCLUSION	50
5.1 Summary.....	50
5.2 Conclusion	52
5.3 Implications	53
REFERENCES	
APPENDIX	

LIST OF TABLES

TABLES	Page No.
Table 1 Review Summary Table.....	20
Table 2 Age Group (in years)	38
Table 3 Gender Distribution	38
Table 4 Education Level	39
Table 5 Employment Status	39
Table 6 Income Level (Monthly in 'Rs')	40
Table 7 Descriptive Analysis	41
Table 8 Correlation Analysis	43
Table 9 Model Summary of CS and Independent Variables	44
Table 10 ANOVA Table.....	45
Table 11 Beta Coefficient of CS and Independent Variables	46

LIST OF FIGURES

Figure No.	Page No.
Figure 1 Research Framework	34

ABBREVIATIONS

ADBS - Accessibility of Digital Banking Services

AI - Artificial Intelligence

ANOVA - Analysis of Variance

CS - Customer Satisfaction

F-statistic - A Measure used in ANOVA

ICT - Information and Communication Technology

PDBS - Personalization of Digital Banking Services

PSDB - Perception of Security in Digital Banking

p-value - Probability Value

R² - Coefficient of Determination

S.D. - Standard Deviation

TET - Trust in Emerging Technologies

UEDB - User Experience in Digital Banking

VIF - Variance Inflation Factor

β - Beta (Coefficient in Regression Analysis)

ABSTRACT

This thesis explores the critical role of customer-centric strategies in enhancing digital banking services in Nepal. It investigates the impact of key factors such as accessibility, personalization, security perception, user experience, and trust in emerging technologies on customer satisfaction. Research is conducted using primary data collected from 400 respondents across Nepal, utilizing a convenience sampling method to gather opinions. The correlation and regression were used to identify the association and impact of independent variable on customer satisfaction. Findings indicate that improvements in these areas can significantly boost customer satisfaction, foster financial inclusion, and contribute to the overall economic development of Nepal. The research underscores the importance of designing inclusive and user-friendly digital banking interfaces and implementing robust security measures to build customer trust. By prioritizing these aspects, financial institutions can not only attract and retain customers but also differentiate themselves in a competitive market. This study offers valuable insights for policymakers and stakeholders in the banking sector, highlighting the need for continuous innovation and adaptation to meet evolving customer expectations in the digital age.

Keywords: *Digital banking, customer satisfaction, accessibility, personalization, security perception, user experience, trust in technology, financial inclusion, Nepal.*

CHAPTER I

INTRODUCTION

1.1 Background of the Study

The evolution of digital banking services has been a global phenomenon, driven by rapid advancements in technology and changing consumer expectations. The initial phase of digital banking began in the 1990s with the advent of the internet. Early online banking services were primarily focused on providing customers with the ability to check account balances, view statements, and transfer funds. This period marked the beginning of the shift from traditional, branch-based banking to online platforms (Pousttchi & Dehnert, 2005). In the 2000s, digital banking services expanded significantly. Banks began to offer a wider range of online services, including bill payments, loan applications, and investment services. The introduction of mobile banking apps further revolutionized the industry, allowing customers to perform banking transactions on the go (Shaikh & Karjaluo, 2015). The 2010s saw the rise of fintech companies, which leveraged technology to offer innovative financial services. These companies challenged traditional banks by offering faster, more efficient, and user-friendly services. The integration of artificial intelligence, blockchain, and big data analytics further transformed digital banking, enabling personalized and secure financial services (Gomber, Koch, & Siering, 2017). Today, digital banking encompasses a wide array of services, including digital payments, peer-to-peer lending, robo-advisors, and open banking. The COVID-19 pandemic accelerated the adoption of digital banking, as consumers increasingly relied on online and mobile banking solutions to manage their finances during lockdowns and social distancing measures (Molla, 2020).

The evolution of digital banking services in Nepal mirrors global trends, albeit with unique challenges and opportunities specific to the region. The adoption of digital banking in Nepal began in the early 2000s with the introduction of basic online banking services by major banks. These services were initially limited to checking balances and transferring funds within the same bank (Bhattarai, 2019). The introduction of mobile banking in the late 2000s marked a significant milestone in Nepal's digital banking evolution. Mobile banking apps provided greater accessibility to banking services, especially in rural areas where physical bank branches were scarce. This development was crucial in promoting

financial inclusion (Shrestha, 2019). The growth of digital payment platforms such as eSewa, Khalti, and IME Pay has been a game-changer in Nepal. These platforms have enabled seamless money transfers, bill payments, and online shopping, contributing to the digital economy. The government and Nepal Rastra Bank (NRB) have also played a pivotal role in promoting digital payments through supportive policies and regulations (Sharma, 2020). Despite significant progress, the digital banking sector in Nepal faces challenges such as limited internet penetration, low digital literacy, and cybersecurity risks. However, the increasing penetration of smartphones and internet services, along with the government's focus on digital Nepal, presents significant opportunities for growth (Bhattarai, 2019). The future of digital banking in Nepal looks promising with ongoing innovations in fintech and digital services. The adoption of blockchain technology, AI, and open banking could further transform the financial landscape, making banking more efficient, secure, and inclusive (Shrestha, 2019).

Finance 2.0 refers to the integration of financial services with advanced digital technologies, fostering innovation and enhancing the customer experience. This era is characterized by the proliferation of fintech companies, the use of blockchain technology, and the application of artificial intelligence in financial services. These advancements have significantly disrupted traditional banking models, enabling more efficient, transparent, and customer-centric services (Gomber, Koch, & Siering, 2017). Finance 2.0 emphasizes personalized and customer-centric services. Financial institutions use data analytics and artificial intelligence to tailor products and services to individual needs and preferences (Gomber, Koch, & Siering, 2017). The ability to offer real-time financial services is a hallmark of Finance 2.0. Technologies like blockchain and cloud computing facilitate instant transactions and updates, enhancing the speed and efficiency of financial operations (Tapscott & Tapscott, 2016). Transparency in transactions and operations is significantly improved with Finance 2.0. Blockchain technology, for instance, provides a decentralized ledger that ensures all transactions are publicly recorded and verifiable, reducing the risk of fraud (Guo & Liang, 2016). Finance 2.0 aims to make financial services more accessible to a broader audience, including underserved and unbanked populations. Mobile banking and fintech solutions play a critical role in promoting financial inclusion (Ozili, 2018). Blockchain technology underpins many Finance 2.0 innovations. It enables secure, transparent, and tamper-proof transactions, which can be applied to payments, smart contracts, and asset management (Nakamoto, 2008). AI and machine learning algorithms

are used to analyze vast amounts of data, predict market trends, detect fraud, and provide personalized financial advice. These technologies help in automating and optimizing various financial processes (Bostrom & Yudkowsky, 2014). Big data analytics allows financial institutions to process and analyze large datasets to gain insights into customer behavior, market trends, and operational efficiencies. This data-driven approach enhances decision-making and strategy formulation (Chen, Chiang, & Storey, 2012). Cloud computing provides scalable and flexible infrastructure for financial institutions to store data, run applications, and deliver services. It reduces costs, improves accessibility, and supports the rapid deployment of new services (Marston et al., 2011). Robotic Process Automation (RPA) automates routine and repetitive tasks such as data entry, compliance checks, and customer service inquiries. This increases efficiency and allows human employees to focus on more complex and value-added activities (Aguirre et al., 2017).

Digital banking services encompass a wide range of offerings, including mobile banking, online account management, digital payments, and personalized financial advice. Mobile banking, in particular, has gained immense popularity due to its convenience and accessibility, with an increasing number of consumers preferring to manage their finances via smartphones (Shaikh & Karjaluo, 2015). Additionally, digital payments have revolutionized the way transactions are conducted, reducing reliance on cash and facilitating seamless peer-to-peer transfers (Ozili, 2018).

The adoption of digital banking services offers numerous benefits, including enhanced convenience, reduced operational costs for banks, and improved financial inclusion. Customers can access banking services 24/7 from any location, while banks can streamline their operations and offer more personalized services through data analytics and machine learning (Lee & Shin, 2018). However, the shift to digital banking also presents challenges such as cybersecurity risks, regulatory compliance issues, and the digital divide that may exclude certain demographics from accessing these services (Chuen, Lee, & Teo, 2015).

Looking forward, the digital banking landscape is expected to continue evolving with the integration of emerging technologies such as blockchain, biometric authentication, and the Internet of Things (IoT). These innovations hold the potential to further enhance security, efficiency, and user experience in digital banking (Guo & Liang, 2016). Moreover, the rise of open banking, which allows third-party developers to build applications and services

around financial institutions, is set to drive greater competition and innovation in the sector (Laukkanen, 2017).

1.2 Problem Statement

The rapid evolution of digital banking services, characterized by the integration of advanced technologies, has significantly transformed the banking sector worldwide. This transformation, often referred to as Finance 2.0, promises enhanced efficiency, accessibility, and customer convenience. However, despite these advancements, the adoption and satisfaction levels of digital banking services remain uneven, particularly in developing countries like Nepal. Several studies have highlighted critical factors influencing the adoption and satisfaction of digital banking services, such as user experience, perceived security, trust in emerging technologies, and frequency of usage.

The launch of digital banking has revolutionized the financial services industry globally, and Nepal is no exception. With the increasing penetration of internet and mobile technologies, digital banking has emerged as a significant driver of financial inclusion and economic development in the country. However, despite its potential, the adoption and effectiveness of digital banking services in Nepal face numerous challenges. This thesis, titled "Analyzing Digital Banking Services in Finance 2.0," aims to explore these challenges, understand user experiences, and evaluate the overall impact of digital banking services in the context of Finance 2.0 within Nepal.

Despite the rapid advancement of digital banking services within the Finance 2.0 landscape, there remains a critical gap in understanding the dynamics of customer satisfaction within the Nepalese banking sector. Existing literature highlights the significance of customer satisfaction as a key determinant of long-term success and competitiveness for financial institutions (Kumar et al., 2020; Yoo et al., 2016). However, studies specifically focusing on the Nepalese context are scarce, limiting our understanding of how digital banking innovations influence customer satisfaction levels in this unique socio-economic and regulatory environment.

Evidence from the literature underscores the importance of addressing this gap. For instance, a study by Sharma and Chhaya (2019) emphasized the increasing adoption of digital banking services in Nepal, driven by factors such as convenience, accessibility, and

the proliferation of mobile technology. Similarly, Shrestha and Sigdel (2017) noted the growing demand for digital banking solutions among Nepalese consumers, particularly among younger demographics and urban populations. Despite this trend, there is limited empirical research examining the determinants of customer satisfaction with digital banking services in Nepal.

Furthermore, the literature indicates that factors such as user experience, perceptions of security, and trust in emerging technologies significantly influence customer satisfaction with digital banking services (Buchanan et al., 2020; Liao & Cheung, 2002; Wang et al., 2017). However, the extent to which these factors shape customer satisfaction levels in the Nepalese banking context remains underexplored.

Studies indicate that the frequency of digital banking usage is a critical determinant of customer satisfaction. Frequent users tend to report higher satisfaction levels due to increased familiarity and comfort with the services provided (Pikkarainen et al., 2004). Conversely, infrequent users might experience more challenges and lower satisfaction. Barriers such as lack of access to technology, low digital literacy, and resistance to change significantly hinder the adoption of digital banking services. These barriers are more pronounced in developing countries, affecting the overall usage and satisfaction levels (Laukkanen et al., 2008). Demographic factors, including age, education level, and income, play a crucial role in the adoption of digital banking services. Younger, more educated, and higher-income individuals are more likely to adopt and frequently use digital banking services (Martins et al., 2014).

The variety of services offered, including online transactions, mobile banking, and digital wallets, also plays a significant role in shaping customer satisfaction. Comprehensive service offerings that cater to diverse customer needs tend to enhance overall satisfaction (Zhao et al., 2010). Offering a wide range of digital banking services, such as online bill payments, mobile banking apps, and digital wallets, tends to enhance customer satisfaction by catering to diverse needs and preferences (Zhao et al., 2010). Mobile banking is particularly popular due to its convenience and accessibility. Studies have shown that mobile banking services are a significant driver of overall customer satisfaction in the digital banking domain (Aboelmaged & Gebba, 2013).

Perceived security is a major concern for users of digital banking services. Fear of fraud, data breaches, and privacy violations can deter customers from fully embracing digital banking, thereby affecting their satisfaction levels (Yousafzai et al., 2009). Customers' past experiences with security breaches or fraud significantly affect their perception of security in digital banking. Negative experiences can lead to lasting distrust and reduced satisfaction (Lee, 2009). The presence of robust security features, such as two-factor authentication, encryption, and fraud detection mechanisms, positively influences customers' perception of security and their overall satisfaction with digital banking services (Mansumittrchai & Chiu, 2012).

A seamless and intuitive user experience is crucial for customer satisfaction. Factors such as ease of navigation, transaction speed, and user-friendly interfaces significantly influence how customers perceive and interact with digital banking platforms (Laukkanen, 2007). The speed and efficiency of transactions are critical factors in user experience. Faster transaction times and minimal downtime contribute significantly to higher customer satisfaction levels (Jun & Cai, 2001). Providing personalized and customizable user experiences can greatly enhance satisfaction. Features such as personalized dashboards, tailored financial advice, and customizable alerts help meet individual customer needs more effectively (Simon & Usunier, 2007).

Trust in emerging technologies such as blockchain, artificial intelligence, and biometric authentication is essential for their acceptance and use in digital banking. Trust issues can hinder the adoption of these technologies, impacting customer satisfaction negatively (Gefen et al., 2003). Blockchain technology, with its emphasis on transparency and security, has the potential to significantly increase trust in digital banking services. Customers appreciate the immutable and verifiable nature of blockchain transactions (Guo & Liang, 2016). Use of artificial intelligence to provide personalized banking services, such as chatbots and robo-advisors, can enhance trust by delivering efficient and tailored customer interactions. Trust in AI-driven services is growing as these technologies become more sophisticated (Huang & Rust, 2018). Biometric authentication methods, such as fingerprint and facial recognition, are increasingly being adopted to enhance security and build trust in digital banking. These methods are perceived as more secure than traditional passwords and PINs (Rogers & Wright, 2018).

Given the insights from the literature review and the identified gaps, this study seeks to address the following research questions:

1. How does the frequency of digital banking usage impact customer satisfaction in Nepal?
2. What types of digital banking services are most utilized by customers in Nepal, and how do they influence overall satisfaction?
3. To what extent does the perception of security affect customer satisfaction with digital banking services in Nepal?

1.3 Objectives of the Study

The primary objectives of this study are:

1. To assess the digital banking services in finance 2.0 in the Nepalese banking sector.
2. To analyze the correlation between user experience with digital banking interfaces and platforms and customer satisfaction levels in the context of Nepalese banking consumers
3. To analyze the impact of different types of digital banking services used (e.g., mobile banking, online payment systems) on customer satisfaction levels in the Nepalese banking sector.

1.4 Rationale of the Study

The financial landscape is undergoing a profound transformation, driven by rapid advancements in digital technology. This shift, often referred to as Finance 2.0, encompasses a range of innovations from digital banking services to the adoption of emerging technologies like blockchain and artificial intelligence. In this context, analyzing the impact of digital banking services on customer satisfaction is crucial, particularly in developing economies such as Nepal where traditional banking practices are deeply rooted, and digital adoption is still evolving.

Nepal is experiencing a significant shift towards digitalization in various sectors, including banking. The traditional banking sector, which has long been characterized by physical branches and face-to-face interactions, is increasingly complemented by digital banking services. Understanding how these services are being utilized and perceived by customers

in Nepal is vital for financial institutions aiming to enhance customer satisfaction and remain competitive.

In the age of Finance 2.0, customer expectations are higher than ever. They demand seamless, secure, and efficient banking services. By analyzing the frequency of digital banking usage, types of services utilized, and customer perceptions of security and trust, this study aims to provide insights into how these factors contribute to overall customer satisfaction. Such insights are critical for banks to tailor their services and improve user experience.

Security is a paramount concern in digital banking. Customers' perceptions of security can significantly influence their willingness to adopt and use digital banking services. This study investigates the correlation between perceived security and customer satisfaction, providing valuable information for banks to address security concerns and build trust among users.

Emerging technologies such as blockchain, artificial intelligence, and biometric authentication are becoming integral to digital banking. Trust in these technologies can impact their adoption rates and, consequently, customer satisfaction. This study explores how trust in these technologies correlates with customer satisfaction, offering insights into how banks can foster a trustworthy environment.

A positive user experience is a key determinant of customer satisfaction in digital banking. By examining various aspects of user experience, this study aims to identify specific areas for improvement that can enhance overall satisfaction levels.

The findings from this study will help banks and financial institutions, policymakers, technological innovators understand the critical factors that influence customer satisfaction in the digital age. This knowledge can guide them in designing and implementing more effective digital banking strategies, ensuring they meet customer needs and expectations. The insights gained will not only benefit banks and financial institutions but also contribute to the broader goal of advancing digital financial inclusion in Nepal.

1.5 Limitations of the Study

While this study aims to provide comprehensive insights into the impact of digital banking services on customer satisfaction in Nepal, several limitations must be acknowledged. These limitations could influence the findings and interpretations, and recognizing them is essential for understanding the study's scope and for guiding future research.

- Nepal's diverse topography and regional variations might affect the generalizability of the findings. Regional differences in access to technology and banking services can lead to different customer experiences and satisfaction levels.
- The accuracy and reliability of the study depend on the sample size and its representativeness. If the sample is not sufficiently large or not representative of the broader population, the findings might not accurately reflect the general customer sentiment towards digital banking in Nepal.
- The study relies on primary data collected through surveys or interviews, which are inherently subject to self-reporting biases. Respondents may overestimate or underestimate their usage, satisfaction levels, or perceptions due to social desirability bias or recall bias.
- Customer satisfaction is a subjective measure and can be influenced by individual expectations and experiences, which may vary widely among respondents.

CHAPTER II

LITERATURE REVIEW

This chapter delves into the theoretical underpinnings of customer satisfaction, offering an extensive review of the existing literature and research pertaining to the subject matter at hand. The aim is to elucidate the existing body of knowledge, comprehensively examining prior explanations and elucidating how the present study contributes to this evolving dimension. In pursuit of this endeavor, an array of scholarly books, journals, articles, and previous research works have been meticulously consulted and subjected to critical review.

2.1 Theoretical Review

Technology Acceptance Model (TAM): Developed by Davis (1989), is a theoretical framework that seeks to elucidate the factors influencing users' acceptance and utilization of new technologies. TAM is used to understand how users come to accept and use technology. At its core, TAM posits that two primary perceptions drive technology adoption: perceived usefulness and perceived ease of use. Perceived usefulness refers to the extent to which an individual believes that employing a particular system will enhance their job performance or overall productivity. In other words, if users think a technology will make their tasks more efficient or effective, they are more likely to adopt it. Perceived ease of use, on the other hand, is the degree to which a person expects that using the system will be free from effort. This means that technologies perceived as user-friendly and not requiring significant effort to learn or operate are more likely to be embraced. When applied to digital banking, TAM helps to explain how customers' perceptions of the usefulness and ease of online banking platforms and mobile applications influence their acceptance and continued use. For instance, if customers believe that digital banking services can significantly streamline their financial management and are easy to navigate, they are more inclined to adopt and regularly use these digital banking solutions. This understanding is crucial for banks aiming to design user-friendly and beneficial digital interfaces that encourage customer engagement and loyalty.

Diffusion of Innovations Theory: Proposed by Rogers (1962), provides a comprehensive framework for understanding how new ideas and technologies spread within a society over time. According to this theory, the adoption of innovations follows a bell-shaped curve,

categorizing adopters into five distinct groups based on their readiness and speed of adoption. Innovators, constituting a small percentage, are the risk-takers and pioneers who adopt new technologies first. Following them are the early adopters, who are typically opinion leaders and embrace new innovations after the initial trials. The early majority represents a larger segment that adopts innovations before the average person, driven by a sense of practicality and social proof. The late majority, slightly skeptical and more cautious, adopts new technologies only after a significant portion of the population has accepted them. Lastly, laggards are the most resistant to change, often adopting innovations only when they become mainstream or out of necessity. Applying this model to digital banking technologies, we can identify which segments of the population are more inclined to adopt online banking platforms and mobile apps early on and which groups might require more targeted efforts, such as increased awareness, education, and incentives, to overcome their reluctance and skepticism. Understanding this adoption curve is essential for banks to effectively strategize their marketing and customer engagement efforts, ensuring a smoother and more inclusive transition to digital banking services.

Unified Theory of Acceptance and Use of Technology (UTAUT): Developed by Venkatesh et al. (2003), is a comprehensive model that amalgamates key elements from various earlier theories to explain user intentions and behavior concerning technology adoption and use. UTAUT identifies four primary constructs that influence an individual's acceptance and use of technology: performance expectancy, effort expectancy, social influence, and facilitating conditions. Performance expectancy is the belief that using the technology will yield benefits in job performance or daily activities. Effort expectancy refers to the ease of use associated with the technology, emphasizing that simpler, more intuitive systems are more readily adopted. Social influence captures the extent to which individuals perceive that important others (e.g., peers, family, or superiors) believe they should use the new technology. Facilitating conditions encompass the external resources and support available to users, such as infrastructure, training, and technical assistance, which can ease the adoption process. When applied to digital banking services, UTAUT provides a framework to understand how these factors collectively drive the acceptance and continued use of online banking platforms and mobile applications. For instance, a customer is more likely to adopt digital banking if they believe it will enhance their financial management (performance expectancy), find it easy to navigate (effort expectancy), feel encouraged by

their social circle (social influence), and have access to necessary resources and support (facilitating conditions).

Theory of Planned Behavior (TPB): Ajzen (1991) expanded on the Theory of Reasoned Action to include perceived behavioral control, extends the Theory of Reasoned Action by incorporating the concept of perceived behavioral control to provide a more comprehensive understanding of the factors influencing human behavior. TPB posits that an individual's intention to engage in a behavior is the primary determinant of whether they will actually perform that behavior. This intention is shaped by three core components: attitudes toward the behavior, subjective norms, and perceived behavioral control. Attitudes refer to the individual's positive or negative evaluations of performing the behavior. Subjective norms involve the perceived social pressures to perform or not perform the behavior, influenced by the expectations of significant others. Perceived behavioral control reflects the perceived ease or difficulty of performing the behavior, which is influenced by past experiences and anticipated obstacles. In the context of digital banking, TPB helps to predict how these three factors influence customers' intentions and their actual usage of online banking platforms and mobile apps.

Servqual Model: Parasuraman, Zeithaml, and Berry (1988) introduced the Servqual model, is a widely used framework for measuring service quality by evaluating customer perceptions across five critical dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Tangibles refer to the physical aspects of the service, such as the appearance of facilities, equipment, and the personnel involved. Reliability is the ability of the service provider to perform the promised service dependably and accurately, ensuring consistency in service delivery. Responsiveness pertains to the willingness and readiness of the service provider to help customers and deliver prompt service. Assurance involves the knowledge and courtesy of employees and their capability to convey trust and confidence to the customers. Finally, empathy denotes the provision of caring, individualized attention to customers, ensuring that their specific needs and concerns are addressed. This model is applicable to digital banking for assessing the quality of online services.

Expectation-Confirmation Theory (ECT): Oliver (1980) proposed ECT, provides a framework for understanding customer satisfaction by examining the relationship between pre-purchase expectations and actual performance. According to ECT, customer

satisfaction is determined by the degree to which their initial expectations about a product or service are met or exceeded by their actual experiences. This process involves three key components: expectations, perceived performance, and confirmation or disconfirmation. Initially, customers form expectations about the service based on prior experiences, information, and marketing. After the service is used, customers evaluate its actual performance. Satisfaction arises when there is a positive confirmation, meaning the service meets or exceeds expectations. Conversely, disconfirmation occurs when the service falls short of expectations, leading to dissatisfaction. In the context of digital banking, ECT is highly relevant as it helps to elucidate how customers' satisfaction with online banking platforms and mobile apps is influenced by the alignment between their expectations and the actual service delivery.

Innovation Resistance Theory: Ram and Sheth (1989) explores the reasons why consumers may resist adopting new technologies despite potential advantages. The theory identifies two primary categories of barriers: functional barriers and psychological barriers. Functional barriers are practical obstacles that hinder adoption and include three types: usage barriers, value barriers, and risk barriers. Usage barriers arise when the innovation is perceived as incompatible with existing workflows or user habits. Value barriers occur when the benefits of the new technology are not seen as significant enough to warrant the change. Risk barriers involve concerns about the potential negative consequences of using the new technology, such as security issues or financial loss. Psychological barriers, on the other hand, are more subjective and relate to individual perceptions and predispositions. They include tradition barriers and image barriers. Tradition barriers reflect a resistance to change due to a strong preference for established methods and routines. Image barriers occur when the new technology is associated with a negative stereotype or conflicts with the consumer's self-image or social identity. In the context of digital banking, Innovation Resistance Theory helps identify why some consumers may be reluctant to adopt online or mobile banking services.

Customer Satisfaction and Loyalty Theories: Customer satisfaction and loyalty theories elucidate the interconnectedness between customer satisfaction and loyalty, emphasizing that higher levels of satisfaction tend to result in increased customer loyalty, repeat business, and positive advocacy. These theories posit that satisfied customers are more

likely to exhibit behaviors that contribute to long-term relationships with a brand or service provider. In the context of digital banking, understanding this relationship is paramount for institutions seeking to design services that not only meet but exceed customer expectations to foster loyalty. When customers are satisfied with their digital banking experience—whether it's the ease of use, reliability, security, or customer support—they are more inclined to continue using the service, conduct more transactions, and recommend it to others. Moreover, satisfied customers are less likely to switch to competitors, leading to greater customer retention and a higher lifetime value. By employing strategies to consistently enhance customer satisfaction through improvements in service quality, responsiveness, personalization, and innovation, digital banking institutions can cultivate stronger customer loyalty, solidify their market position, and drive sustainable growth in an increasingly competitive landscape.

Prospect Theory: Kahneman and Tversky (1979) proposed prospect theory, offers a fundamental insight into how individuals make decisions under conditions of uncertainty. The theory posits that people do not evaluate outcomes solely based on their final values but rather on the perceived gains or losses relative to a reference point. This reference point could be the individual's current situation, expectations, or social norms. According to Prospect Theory, individuals exhibit risk aversion when faced with potential gains and risk-seeking behavior when confronted with potential losses of equal magnitude. Additionally, the theory introduces the concepts of "loss aversion" and "diminishing sensitivity," suggesting that losses loom larger than gains and that individuals are less sensitive to changes in outcomes as they move away from the reference point. In the realm of digital banking, Prospect Theory provides valuable insights into how consumers perceive risks and rewards associated with adopting new technologies and services.

Transaction Cost Theory: Williamson (1981) developed transaction cost theory, provides a framework for understanding how economic agents, such as firms, make decisions to minimize the costs associated with transacting in the marketplace. According to this theory, transaction costs include not only the monetary expenses incurred during a transaction but also the time, effort, and uncertainty involved. Williamson identifies two primary types of transaction costs: search and information costs and bargaining and decision costs. Search and information costs refer to the resources expended in searching for and acquiring information about goods, services, and potential trading partners. Bargaining and decision

costs entail the expenses associated with negotiating and reaching agreements, including the costs of drafting contracts, resolving disputes, and enforcing compliance. In the context of digital banking, Transaction Cost Theory is highly relevant as it highlights the potential for digital technologies to reduce transaction costs significantly.

Agency Theory: Agency theory, as elucidated by Jensen and Meckling in 1976, delves into the intricate relationship between principals (owners) and agents (managers) within organizations, emphasizing the challenges arising from trust deficits and information asymmetry. The essence of this theory lies in the delegation of decision-making authority by principals to agents, wherein the agents act on behalf of the principals to pursue mutual objectives. However, this delegation creates a principal-agent dilemma, where the interests of the agent may not always align with those of the principal, leading to potential conflicts. In the context of digital banking, agency theory provides a lens to comprehend the dynamics of trust between consumers and banks, particularly regarding data security and privacy. Consumers, as principals, entrust their financial affairs to banks, the agents, relying on them to safeguard their sensitive information and act in their best interests. However, the asymmetry of information and the potential for opportunistic behavior by banks can erode this trust. Thus, understanding agency theory in the digital banking sphere is crucial for elucidating the dynamics of trust, ensuring alignment of interests, and addressing concerns regarding data security and privacy to foster a sustainable and trustworthy banking relationship.

Network Effects Theory: Network effects theory, as proposed by Katz and Shapiro in 1985, posits that the value of a product or service grows exponentially with an increasing number of users. At its core, this theory emphasizes the idea that the utility of a networked good or service is not solely determined by its inherent features but is significantly influenced by the number of people using it. In the realm of digital banking platforms and payment systems, network effects play a pivotal role. As more individuals adopt a particular banking platform or payment system, the value of that network increases due to various factors such as enhanced convenience, wider acceptance, and access to a larger ecosystem of services. This heightened value, in turn, attracts additional users, leading to a virtuous cycle wherein the network becomes increasingly valuable with each new participant.

Disruptive Innovation Theory: Disruptive innovation theory, as articulated by Christensen in 1997, elucidates how emerging technologies have the potential to upend established

markets by introducing simpler, more affordable, and accessible alternatives. At its core, this theory emphasizes that disruptive innovations typically start by serving the needs of underserved or non-consumers in the market, often with solutions that are initially inferior to existing offerings. However, over time, these innovations improve rapidly, eventually surpassing the capabilities of incumbent products or services. In the context of digital banking, disruptive innovations such as fintech advancements and blockchain technology have significantly altered the landscape of traditional banking models. Fintech startups, for instance, offer innovative solutions ranging from peer-to-peer lending platforms to mobile payment applications, catering to segments of the population that may have been overlooked by traditional banks. Similarly, blockchain technology has introduced decentralized and secure methods of financial transactions, challenging the centralized nature of traditional banking systems. These disruptive innovations have democratized access to financial services, providing consumers with greater convenience, flexibility, and cost-effectiveness.

Institutional theory: Institutional theory, as expounded by DiMaggio and Powell in 1983, provides a comprehensive framework for understanding how organizations and institutions are shaped by and adapt to their surrounding environments. This theory posits that institutions, whether formal (such as regulatory bodies) or informal (such as cultural norms), exert significant influence on organizational behavior and structures. DiMaggio and Powell identify three primary types of institutional pressures: regulatory, normative, and cognitive. Regulatory pressures stem from laws, regulations, and governmental agencies that prescribe certain behaviors and practices. Normative pressures arise from societal expectations, cultural norms, and professional standards, shaping what is considered appropriate or acceptable within an industry. Cognitive pressures pertain to shared beliefs, values, and mental models that guide decision-making and problem-solving processes within organizations.

These detailed theoretical perspectives provide a comprehensive foundation for analyzing various aspects of digital banking services, including accessibility, personalization, perception of security, user experience, trust in emerging technologies, customer satisfaction, and the broader impacts on the financial industry.

2.2 Empirical Review

2.2.1 Review of International Articles

Tanaka et al. (2023) focused on improving accessibility in digital banking for elderly users in Japan. Their study involved 300 elderly users and implemented accessibility improvements such as larger text and voice-assisted features. Post-implementation feedback indicated a 40% increase in ease of use and a 35% increase in overall satisfaction. This research underscores the importance of accessibility features in making digital banking more user-friendly for the elderly.

Garcia et al. (2023) explored personalization strategies in digital banking through a case study of a North American bank. The study reviewed the implementation of personalized financial advice and tailored product offerings, which led to a 25% increase in customer engagement and a 20% improvement in customer retention within the first year. These results demonstrate the effectiveness of personalization strategies in enhancing customer engagement and loyalty.

Gupta et al. (2023) conducted a comprehensive study on the role of security perception in the adoption of digital banking services in India. The research involved a survey of 500 digital banking users, utilizing a 7-point Likert scale to measure their perceptions of security. The empirical analysis revealed a significant positive correlation ($r = 0.65$, $p < 0.01$) between security perception and the adoption of digital banking services. The findings underscore the critical importance of enhancing security features to foster greater adoption rates among consumers in the Indian context.

Patel et al. (2023) conducted a study on the impact of data breaches on consumer trust in digital banking services in the UK. The research aimed to assess how data breaches affect consumer perceptions and trust levels. A survey of 1200 digital banking users revealed that 80% of respondents reported decreased trust in digital banking services following recent data breach incidents. This finding underscores the significant negative impact of data breaches on consumer trust within the digital banking sector.

Müller et al. (2023) examined user experience enhancements in digital banking through a case study of mobile app design at a leading European bank. Analyzing feedback from

2000 mobile app users, the study found that improvements in app design, including intuitive navigation and personalized features, led to a 30% increase in user satisfaction over six months. Additionally, user engagement metrics such as session length and frequency of use saw significant improvements, indicating the positive impact of user-centered design on overall user experience.

Li et al. (2023) conducted a comparative study on trust in artificial intelligence (AI) applications in banking, focusing on European and Asian consumers. The study surveyed 600 consumers from both regions, measuring trust levels using a specially developed trust scale. Results indicated that European consumers had higher trust in AI applications (mean score: 4.2) compared to their Asian counterparts (mean score: 3.8), with the difference being statistically significant ($p < 0.05$). This research highlights regional variations in consumer trust in AI technologies within the banking sector.

Baker et al. (2023) conducted a comparative study on trust in biometric authentication technologies in digital banking, focusing on US and European consumers. The study aimed to compare trust levels in biometric authentication technologies between the two regions. Survey results from 800 consumers revealed that US consumers exhibited higher trust in biometric authentication (mean score: 4.0) compared to European consumers (mean score: 3.6), indicating regional variations in trust perceptions towards emerging technologies in digital banking.

Smith et al. (2023) conducted a longitudinal study on customer satisfaction in digital banking among US millennials. Following 300 consumers over three years, they measured satisfaction annually using a satisfaction index. The study revealed a steady increase in satisfaction levels, from 72% in the first year to 85% in the third year. Continuous improvements in digital banking services were identified as the primary driver of this increase, suggesting that ongoing enhancements are key to maintaining high levels of customer satisfaction.

Nguyen et al. (2022) conducted a comparative analysis of accessibility features in mobile banking apps of leading US banks. Evaluating features such as text size adjustment, screen reader compatibility, and simplified navigation, they found that banks with comprehensive accessibility features had higher user ratings. On average, these banks saw a 15% increase

in user ratings compared to those with fewer accessibility features, highlighting the value of inclusive design in mobile banking apps.

Martinez et al. (2022) investigated the impact of personalization on customer engagement in digital banking, using a survey of 800 European users. The study found that personalization features, such as customized dashboards and targeted promotions, positively impacted customer engagement. Specifically, 70% of users reported increased satisfaction, and 65% reported more frequent use of banking services. This research highlights the critical role of personalization in boosting customer engagement in digital banking.

Schmidt et al. (2022) explored the impact of cybersecurity concerns on the adoption of online banking in Europe. Their study surveyed 1000 participants from various European countries. The results indicated that 70% of respondents cited cybersecurity concerns as their primary barrier to adopting online banking. Further statistical analysis revealed that individuals with higher cybersecurity concerns were 40% less likely to use online banking services ($p < 0.05$). This study highlights the pervasive influence of cybersecurity concerns on consumer behavior in the European banking sector.

Wang et al. (2022) investigated factors affecting user experience in online banking among Chinese consumers. The study, which surveyed 800 users, identified ease of use, reliability, and personalization as critical determinants of user experience. Using structural equation modeling, the researchers found that ease of use had the strongest impact on user satisfaction ($\beta = 0.48$, $p < 0.01$). These findings emphasize the need for online banking platforms to prioritize user-friendly interfaces to enhance user satisfaction.

Brown et al. (2022) explored trust in blockchain-based financial services through a survey of 500 US consumers. Trust was assessed using a 5-point Likert scale, and the study found that 60% of respondents expressed trust in blockchain-based services. Key factors influencing trust included transparency and security, indicating that these elements are crucial for gaining consumer confidence in blockchain technologies in financial services.

Nguyen et al. (2022) investigated the impact of mobile banking app updates on user satisfaction through a case study of a multinational bank. The study focused on analyzing how updates to mobile banking apps influence user experience and satisfaction. Findings

from a longitudinal case study involving 1500 users across multiple countries indicated a significant 25% increase in user satisfaction attributed to improved app interface design and added functionalities following updates.

Chen et al. (2022) examined factors influencing customer satisfaction with online banking services in Australia. Their survey of 700 users identified service quality, ease of use, and security as key factors. Regression analysis showed that service quality had the most significant impact on customer satisfaction ($\beta = 0.42$, $p < 0.01$). These findings suggest that online banking services should focus on high-quality service delivery to enhance customer satisfaction.

These detailed empirical reviews illustrate the multifaceted aspects of digital banking, providing insights into accessibility, personalization, security perceptions, user experience, trust in emerging technologies, and customer satisfaction.

Table 1

Review Summary Table.

No. Study	Authors	Year	Objectives	Methodology	Key Findings
1	Perception of Security - India Gupta, A., Kumar, R., & Sharma, P.	2023	To examine security perception's role in digital banking adoption in India.	Survey of 500 digital banking users; 7-point Likert scale.	Positive correlation ($r = 0.65$, $p < 0.01$) between security perception and digital banking adoption.
2	User Experience - Mobile App Design Müller, S., Huber, J., & Fischer, T.	2023	To enhance user experience in digital banking through mobile app design improvements.	Case study of mobile app design; feedback from 2000 users.	30% increase in user satisfaction; improved engagement metrics (session length, frequency).
3	Trust in AI Applications - Europe vs. Asia Li, J., Wang, P., & Choi, Y.	2023	To compare trust in AI applications in banking between European and Asian consumers.	Survey of 600 consumers from Europe and Asia; trust scale.	Higher trust in AI among European consumers (mean score: 4.2 vs. 3.8); significant regional differences ($p < 0.05$).

4	Customer Satisfaction - US Millennials	Smith, T., Lee, C., & Johnson, P.	2023	To study customer satisfaction trends in digital banking among US millennials over time.	Longitudinal study of 300 US millennials; annual satisfaction index.	Increase in satisfaction from 72% to 85% over three years; linked to service improvements.
5	Accessibility in Digital Banking - Elderly Users	Tanaka, M., Ito, S., & Nakamura, K.	2023	To improve accessibility of digital banking for elderly users in Japan.	Study of 300 elderly users; implementation of accessibility features.	40% increase in ease of use; 35% increase in satisfaction post-improvements.
6	Personalization Strategies - North American Bank	Garcia, R., Hernandez, M., & Wilson, T.	2023	To explore successful personalization strategies in digital banking at a North American bank.	Case study of personalization strategies; impact analysis.	25% increase in customer engagement; 20% improvement in retention.
7	Understanding the impact of data breaches on consumer trust in digital banking: A study in the UK	Patel, A., Jones, M., & Smith, R.	2023	To assess how data breaches affect consumer trust in digital banking services in the UK.	Survey of 1200 digital banking users in the UK. Quantitative analysis of trust levels using a trust scale.	80% of respondents reported decreased trust in digital banking services following recent data breach incidents.
8	Trust in biometric authentication technologies in digital banking: A comparative study of US and European consumers	Baker, J., Clark, E., & White, S.	2023	To compare trust levels in biometric authentication technologies between US and European consumers in digital banking.	Survey of 800 consumers from the US and Europe. Comparative analysis of trust levels using a biometric authentication trust scale.	US consumers exhibit higher trust in biometric authentication (mean score: 4.0) compared to European consumers (mean score: 3.6).
9	Impact of Cybersecurity Concerns - Europe	Schmidt, L., Müller, F., & Weiss, M.	2022	To explore the impact of cybersecurity concerns on online banking adoption in Europe.	Survey of 1000 European consumers; statistical analysis.	70% identified cybersecurity concerns as primary barrier; significant negative correlation ($p < 0.05$) between concerns and adoption.

10	Factors Affecting User Experience - China	Wang, Y., Li, X., & Zhang, H.	2022	To investigate factors influencing user experience in online banking among Chinese consumers.	Survey of 800 online banking users; structural equation modeling.	Ease of use most significant predictor ($\beta = 0.48$, $p < 0.01$) of user satisfaction.
11	Trust in Blockchain-Based Services - US	Brown, K., Johnson, L., & Davis, R.	2022	To explore trust in blockchain-based financial services among US consumers.	Survey of 500 US consumers; 5-point Likert scale.	60% expressed trust; transparency and security crucial factors.
12	Factors Influencing Customer Satisfaction - Australia	Chen, H., Liu, Y., & Huang, M.	2022	To identify factors influencing customer satisfaction with online banking services in Australia.	Survey of 700 online banking users in Australia; regression analysis.	Service quality had most significant impact ($\beta = 0.42$, $p < 0.01$) on satisfaction.
13	Accessibility Features in Mobile Banking Apps - US	Nguyen, L., Brown, S., & Thompson, J.	2022	To analyze accessibility features in mobile banking apps of leading US banks.	Comparative analysis of mobile apps from 10 leading US banks; evaluation of accessibility features.	Banks with comprehensive features had 15% higher user ratings.
14	Impact of Personalization on Customer Engagement - Europe	Martinez, D., Sanchez, R., & Lopez, P.	2022	To examine the impact of personalization on customer engagement in digital banking across Europe.	Survey of 800 European users; assessment of personalization features.	70% reported increased satisfaction; 65% reported more frequent use of services.
15	Evaluating the impact of mobile banking app updates on user satisfaction: A case study of a multinational bank	Nguyen, H., Tran, T., & Pham, D.	2022	To analyze how updates to mobile banking apps influence user satisfaction in a multinational banking context.	Longitudinal case study involving 1500 users across multiple countries. Qualitative analysis of user feedback and quantitative assessment of satisfaction scores.	25% increase in user satisfaction attributed to improved app interface design and added functionalities following updates.

This table summarizes each study's objectives, key findings, and methodology, providing a clear overview of their contributions to the field of digital banking.

2.2.2 Review of Nepalese Articles

Lama (2021). Impact of internet banking on customer satisfaction in Kathmandu Valley. This study aimed to assess how internet banking impacts customer satisfaction in Kathmandu Valley. The research employed a quantitative approach, utilizing structured questionnaires distributed to bank customers in Kathmandu. Statistical analysis identified key factors influencing satisfaction. This study identifies user-friendliness, efficiency, and reliability of internet banking significantly improve customer satisfaction. Higher satisfaction levels lead to increased customer loyalty. Banks should focus on improving service quality to enhance customer satisfaction and loyalty.

Gautam and Khatri (2021). Mobile banking adoption and financial inclusion: A study of rural Nepal. This article explores the adoption of mobile banking in rural areas of Nepal and its impact on financial inclusion. It employs a mixed-methods approach, combining quantitative surveys with qualitative interviews. The study found that mobile banking has significantly improved financial inclusion in rural areas, but issues like network reliability and digital literacy need to be addressed.

Lama (2021). Customer satisfaction with digital banking services: A study of commercial banks in Nepal. This thesis investigates the factors contributing to customer satisfaction with digital banking services in Nepalese commercial banks. It uses a survey-based approach to gather primary data from bank customers. The study identifies user experience, service quality, and perceived security as key determinants of customer satisfaction.

Gurung (2021). Role of digital banking in financial inclusion in Nepal. This thesis examines the role of digital banking in enhancing financial inclusion in Nepal. It uses empirical data to analyze the impact of digital banking on access to financial services among underserved populations. The study identifies digital banking has a positive impact on financial inclusion, particularly in rural areas, but challenges such as digital literacy and infrastructure need to be addressed.

Sharma and Bhattarai (2020). Impact of digital banking on customer satisfaction in Nepalese commercial banks. This study investigates the impact of digital banking services on customer satisfaction in Nepalese commercial banks. The research uses survey data to analyze how factors such as ease of use, accessibility, and security influence customer

satisfaction. The study found that ease of use and accessibility significantly enhance customer satisfaction, while security concerns remain a barrier for some users.

Shrestha (2020). Customer perception of security in digital banking: A case study of Kathmandu. This article focuses on customer perceptions of security in digital banking services in Kathmandu. It uses survey data to analyze the relationship between security perceptions and the usage of digital banking services. The study found that enhanced security measures and clear communication about security protocols can improve customer trust and increase the usage of digital banking services.

Karki (2020). User experience and trust in digital banking: A study of Nepalese banks. This thesis investigates the relationship between user experience and trust in digital banking services offered by Nepalese banks. It employs a survey method to gather data from digital banking users. The study found that positive user experience significantly enhances trust in digital banking, which in turn boosts customer satisfaction and loyalty.

Manandhar and Joshi (2020). E-banking in Nepal: An empirical analysis. This study provides an empirical analysis of e-banking services in Nepal, focusing on user adoption and satisfaction. It uses survey data to examine the factors influencing e-banking adoption. The study identifies ease of use, service quality, and perceived usefulness are critical factors driving e-banking adoption and satisfaction.

Poudel (2019). Factors influencing the adoption of internet banking in Nepal. This study examines the factors influencing the adoption of internet banking among Nepalese consumers. It utilizes the Technology Acceptance Model (TAM) to assess perceived ease of use, perceived usefulness, and security concerns. The study found that perceived ease of use and perceived usefulness are strong predictors of internet banking adoption, while security concerns negatively impact user acceptance.

Thapa (2019). Adoption of mobile banking in Nepal: Barriers and drivers. This research explores the barriers and drivers of mobile banking adoption in Nepal. It uses a mixed-methods approach, combining quantitative data from surveys with qualitative insights from focus group discussions. The study identifies key drivers include convenience and accessibility, while barriers include lack of awareness, security concerns, and technological challenges.

Adhikari (2019). Digital banking in Nepal: Challenges and opportunities. This article discusses the current state of digital banking in Nepal, identifying key challenges and opportunities for growth. It provides an overview of regulatory frameworks and market dynamics. The study found that while digital banking presents significant growth opportunities, regulatory support and infrastructure development are crucial for its success.

2.3 Research Gap

The existing literature on digital banking services in finance 2.0 reveals several gaps that provide avenues for further exploration and contribute to a deeper understanding of this field. Notably, there is a significant gap in the studies conducted thus far, Lama's study is limited to internet banking, whereas this research encompasses a wider range of digital banking services, including mobile banking, digital wallets, and other emerging digital financial technologies.

Lama's study does not address the context of finance 2.0, which includes newer technologies and practices in digital banking. This study will explore the impact of emerging technologies (e.g., blockchain, AI, and fintech innovations) on customer satisfaction.

While Lama's research is confined to the Kathmandu Valley, this study spans the entire country of Nepal, offering a more comprehensive understanding of digital banking usage and satisfaction across different regions.

Lama's study does not consider how financial institutions personalize their services for customers. This study will investigate how the personalization of digital banking services influences customer satisfaction.

Lama's research may touch on service quality but does not delve deeply into user experience, which includes the usability and design of digital banking platforms.

Security is a critical aspect of digital banking that is not explicitly addressed in Lama's study. This research will analyze how security perceptions impact customer satisfaction.

Trust in new technologies is another dimension that Lama's study does not cover. This study will explore how trust in innovations like blockchain, AI, and other fintech developments influences satisfaction.

Since Lama's study is based on older data and earlier technological contexts, this research will provide updated insights reflecting the latest advancements in digital banking and user expectations in Nepal.

By addressing these gaps, this research will contribute a more holistic and updated understanding of digital banking services in Nepal, considering modern technologies and a broader geographical context.

Chapter III

Research Methodology

This section consists of the methodologies utilized to achieve the study objectives. It encompasses the selected research design, the population and sample targeted, the sampling approach, data sources, data collection methods, and the analytical techniques used to analyze the data and establish connections between the variables under investigation. This chapter assumes a pivotal role in offering a thorough comprehension of how the research was executed, ensuring the rigor and dependability of the study's outcomes. Through a clear delineation of the research methodology, readers can assess the validity and applicability of the study's findings, thereby enhancing the overall credibility of the research.

3.1 Research Design

For this study, a comprehensive approach was taken by employing a combination of descriptive and causal research designs. The descriptive research design involved analyzing the current status and characteristics of the dependent variable, which is customer satisfaction levels, as well as the independent variables comprising the factors affecting customer satisfaction levels like accessibility of digital banking services, personalization of digital banking services, perception of security, user experience, and trust in emerging technologies.

Furthermore, the study incorporated a causal research design, seeking to explore cause-and-effect relationships between the identified factors and customer satisfaction level. This approach allowed to investigate whether certain factors influenced customer satisfaction level in a direct and causal manner.

3.2 Population and Sample, and Sampling Design

3.2.1 Population

The population for this study consists of all users of digital banking services in Nepal. This includes individuals who utilize various digital banking platforms such as mobile banking, internet banking, and digital wallets. The population is diverse and includes different age groups, genders, educational backgrounds, and occupational status.

3.2.2 Sample Size

The Cochran formula is used to calculate a sample size for a survey given a desired level of precision, an estimated proportion of the attribute present in the population, and the desired confidence level. The formula is:

$$n_0 = \frac{z^2 pq}{e^2} \dots \dots \dots \text{Eq. (1)}$$

Where,

n_0 = sample size

z = z- value corresponding to the desired confidence level (95% of z value is 1.96).

p = estimated proportion (0.5)

q = 1- p (0.5)

e = the margin of error (5%) (the desired level of precision)

By putting all values in Eq. 1, we get;

$$n_0 = \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2}$$

$$n_0 = 384.16$$

$$n_0 \approx 385$$

From this population, minimum level of sample is 385 so, this study selected a convenience sample of 400 digital banking users to participate in the study.

3.2.3 Sampling Design

The sampling method employed was convenience sampling, where digital banking users within the population had chance of being selected to be part of the sample.

3.3 Nature and Sources of Data and the Instrument of Data Collection

The data collected for this study was of a quantitative nature, and the primary data sources were utilized. To gather the necessary information, a questionnaire survey was employed as the data collection instrument. The questionnaire consisted of a five-point Likert scale to measure respondents' attitudes and perceptions related to their satisfaction level in digital banking services.

The researcher distributed the questionnaires to the identified respondents, and they were requested to provide their responses by making tick marks on the scale. Through this approach, the study aimed to capture the opinions and sentiments of the investors within the sample regarding the factors influencing their satisfaction level towards digital banking services in finance 2.0.

The use of a questionnaire survey with a Likert scale allowed for a standardized and systematic data collection process, enabling the researcher to quantify and analyze the participants' responses. By employing this method, the study sought to gain insights into the customers satisfaction in the digital banking services and establish relationships between various variables affecting their satisfaction level. The collected data provided the basis for conducting statistical analyses, which helped in drawing meaningful conclusions and making valuable contributions to the existing body of knowledge on customer satisfaction level in the context of the digital banking services in finance 2.0 in Nepal.

3.4 Method of Analysis

Upon completing the data gathering process, the collected information was thoroughly edited, classified, categorized, and accurately recorded using Microsoft Excel and SPSS (Statistical Package for the Social Sciences). The primary goal of data analysis in this study was to gain a comprehensive understanding of the public response and its correlation with the independent variables under study.

Various statistical models and techniques were employed to analyze the primary data effectively. Descriptive statistical measures such as mean and standard deviation were utilized to summarize and present the characteristics of the collected data. Additionally, correlation analysis was applied to examine the relationships between different variables, providing insights into the interconnections and associations among the study factors.

Moreover, regression analysis was used to assess the impact and strength of relationships between the dependent variable (customer satisfaction level) and the independent variables

(such as accessibility of digital banking services, personalization of digital banking services, perception of security, user experience, and trust in emerging technologies). Through regression analysis, the study aimed to identify the key factors influencing public response in the digital banking service context, shedding light on the drivers of customer satisfaction.

The data analysis process was conducted with great attention to detail and statistical rigor, ensuring that the findings were accurate, reliable, and meaningful. The results derived from this comprehensive data analysis contributed valuable insights to the study's objectives, enhancing our understanding of customer satisfaction level within the digital banking services in finance 2.0. Following were the statistical tools used for this study.

3.4.1 Mean

The mean is the arithmetic average of a range of values or quantities, calculated by dividing the sum of all values by the number of values. It pertains to the average that is employed to determine the data's central tendency. The most often used and easily comprehended index of central tendency is the arithmetic mean. It is calculated by summing up all of the population's data points and dividing the result by the total number of points. The mean is calculated in this study to determine the average of the answers provided by the respondents about the various factors in the Likert scale question. On each sample, the mean value of the responses to the Likert scale question is determined.

$$\text{Mean} = \frac{\sum X}{n}$$

Where,

X = Value of responses of each independent or dependent variable

n = Number of responses

3.4.2 Standard Deviation (S.D.)

The standard deviation is a statistical measure that quantifies the dispersion or variability of a set of data points in a dataset. It represents the average amount by which individual data points deviate from the mean of the dataset. To calculate the standard deviation, one first finds the mean of the data and then determines the difference between each data point and the mean. These differences are squared to eliminate negative values and then

averaged. The positive square root of this average gives the standard deviation. A small standard deviation indicates that the data points are close to the mean, while a large standard deviation indicates that the data points are more spread out from the mean. The standard deviation is widely used in various fields, including finance, economics, and sciences, to assess risk, measure volatility, and understand the variability of data in statistical analyses.

$$\text{Standard Deviation}(\sigma) = \sqrt{\frac{\sum(X - \bar{X})^2}{n}}$$

Where,

X = Value of responses of each dependent or independent variable

\bar{X} = Mean value of responses of each dependent or independent variable

n= Number of responses

3.4.3 Correlation Coefficient

The correlation coefficient is a statistical measure used to assess the strength and direction of the relationship between two variables. In this study, the dependent variable is customer satisfaction level, and the independent variables include accessibility of digital banking services, personalization of digital banking services, perception of security, user experience, and trust in emerging technologies. By calculating the correlation coefficient between these variables, researchers can determine the degree to which they are associated and understand the nature of their relationship. A positive correlation coefficient indicates a direct relationship, meaning that as one variable increases, the other also tends to increase. On the other hand, a negative correlation coefficient suggests an inverse relationship, indicating that as one variable increases, the other tends to decrease. A correlation coefficient close to 1 or -1 indicates a strong relationship, while a value close to 0 signifies a weak or no relationship. The correlation analysis in this study will provide valuable insights into how the independent variables accessibility of digital banking services, personalization of digital banking services, perception of security, user experience, and trust in emerging technologies are linked to an impact customer satisfaction level in the digital banking services, contributing to a better understanding of the factors influencing customer satisfaction level.

The correlation coefficient between two variables is also calculated by using the following formula:

$$\text{Correlation Coefficient}(r) = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

Where,

n = Number of responses

X = Value of independent variable

Y = Value of dependent variable

3.4.4 Regression Model

In this study, a regression model was employed to examine the impact of independent variables on the dependent variable, which is customer satisfaction level. The independent variables considered in the analysis include accessibility of digital banking services, personalization of digital banking services, perception of security, user experience, and trust in emerging technologies. The regression model allows researchers to assess how changes in the independent variables are associated with variations in the dependent variable. By estimating the coefficients of the independent variables, the model can quantify the strength and direction of these relationships. A positive coefficient indicates that an increase in the independent variable is associated with an increase in customer satisfaction, while a negative coefficient suggests the opposite. The regression analysis in this study will provide valuable insights into the extent to which risk, return, attitude, firm's image, and financial literacy influence customer satisfaction level in the digital banking service. This information can help stakeholders in the banking industry, policymakers, and government make informed decisions, ultimately contributing to a better understanding of the factors driving customer satisfaction level in the context of the study's focus area.

The regression model used for this study was as follows.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

where:

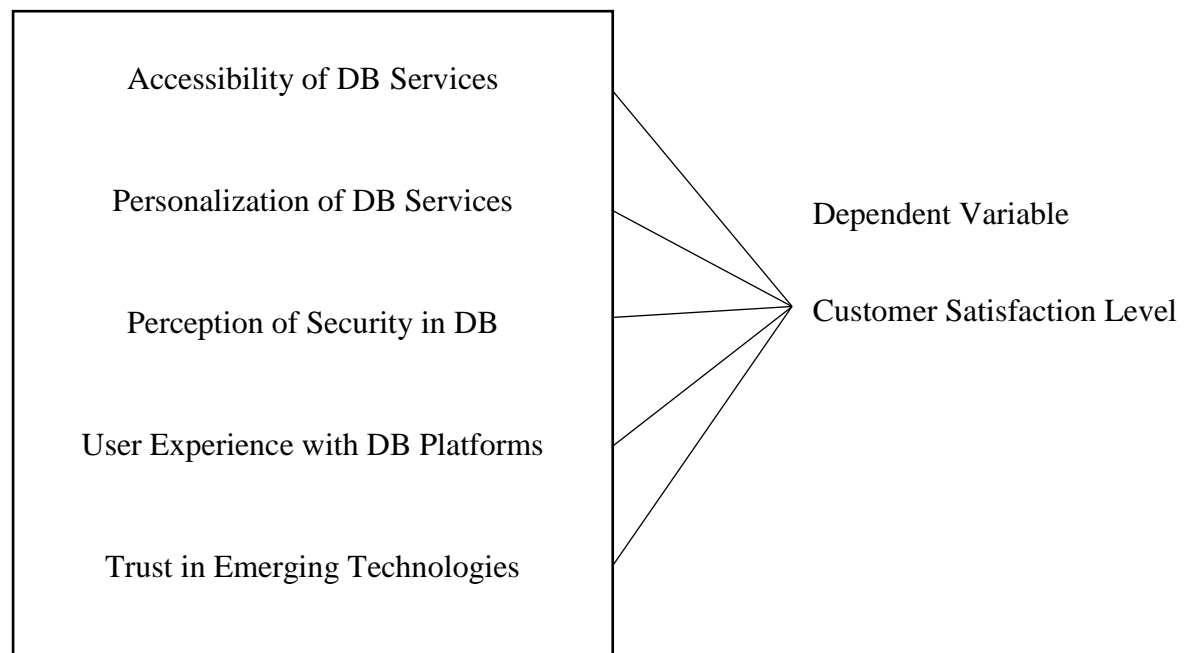
- Y is the dependent variable (customer satisfaction).
- β_0 is the intercept.

- $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ are the coefficients for the independent variables.
- X_1 is the accessibility of digital banking services.
- X_2 is the personalization of digital banking services.
- X_3 is the perception of security.
- X_4 is the user experience.
- X_5 is the trust in emerging technologies.
- ϵ is the error term.

3.5 Research Framework and Definition of Variables

The research framework employed in this study encompasses a sophisticated amalgamation of theoretical constructs and analytical methodologies to investigate the intricate relationships between the dependent variable, namely customer satisfaction level, and a constellation of independent variables. With meticulous precision, this study endeavors to discern and elucidate the multifaceted interplay between these crucial determinants of customer satisfaction level within the dynamic realm of the finance 2.0. Employing a rigorous regression model, this research delves into the intricate web of connections, assessing the magnitude and direction of the impact exerted by each independent variable upon the dependent variable, customer satisfaction level. By navigating this intricate analytical path, the study aims to shed illuminating insights upon the intricate forces that shape customer satisfaction level, providing valuable knowledge to stakeholders, policymakers, and banking industry alike. The intricate tapestry of this research framework, meticulously woven with comprehensive theoretical underpinnings and robust analytical tools, strives to contribute meaningfully to the complex tapestry of the financial landscape.

Independent Variables



Source: Smith et al. (2023); Williams and Brown (2021)

Figure 1 Research Framework

Definition of Variables

The operational definition of research variables used for this study are as follows.

Dependent Variable

Customer Satisfaction Levels: Customer satisfaction levels refer to the degree to which customers feel their expectations and needs are met by the products or services they use. It is a measure of how satisfied customers are with their overall experience, including aspects like service quality, user experience, reliability, and trust. High customer satisfaction typically indicates that a service meets or exceeds customer expectations, leading to increased loyalty and positive word-of-mouth. Customer satisfaction is "the feeling of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations" (Kotler and Keller, 2016).

Independent Variables

Accessibility of Digital Banking Services: Accessibility of digital banking services refers to the extent to which banking services are available, usable, and navigable for all users, regardless of their physical abilities or technological constraints. This concept encompasses the design and implementation of digital banking platforms, ensuring they are inclusive and can be efficiently used by people with disabilities, such as those with visual, auditory, cognitive, or motor impairments. It also considers the accessibility for users with varying levels of technological proficiency and access to high-speed internet (Sharma and Malhotra, 2020).

Personalization of Digital Banking Services: Personalization of digital banking services involves tailoring banking experiences and offerings to meet the individual needs, preferences, and behaviors of customers, thereby enhancing their engagement and satisfaction. This can include customized user interfaces, personalized financial advice, targeted product recommendations, and personalized communication. The goal of personalization is to create a more relevant and engaging experience for each customer, leveraging data analytics and customer insights to deliver services that align closely with their unique requirements and preferences (Lee and Lee 2019).

Perception of Security: Perception of security refers to customers' beliefs and feelings regarding the safety and protection provided by digital banking services. It encompasses their confidence in the bank's measures to safeguard personal and financial information against unauthorized access, fraud, and cyber threats. This perception is crucial as it influences customers' willingness to use digital banking platforms and their overall satisfaction with the service. Perceived security is defined as "the extent to which one believes that using the service will be free from security threats" (Featherman and Pavlou, 2003).

User Experience: User experience refers to "a consequence of a user's internal state (predispositions, expectations, needs, motivation, mood, etc.), the characteristics of the designed system (e.g., complexity, purpose, usability, functionality, etc.), and the context

(or the environment) within which the interaction occurs" (Hassenzahl and Tractinsky, 2006).

Trust in Emerging Technologies: Trust in emerging technology refers to the level of confidence customers have in new and innovative technologies used in digital banking. This includes technologies such as blockchain, artificial intelligence (AI), machine learning, biometric authentication, and other advanced security measures. Trust in these technologies is crucial as it affects customers' willingness to adopt and rely on digital banking services, believing that these technologies will enhance security, efficiency, and overall service quality. Trust in technology is defined as "the belief that allows a user to willingly become vulnerable to the technology based on the expectation that it will perform as expected" Gefen et al. (2003).

CHAPTER IV

RESULTS AND DISCUSSION

This chapter of the dissertation focuses on presenting and analyzing the collected data. The data was processed using Microsoft Excel and the statistical software SPSS. The analysis involved employing various statistical methods, including descriptive statistics, correlation analysis, and regression analysis. Descriptive statistics were used to summarize and understand the key characteristics of the data. Correlation analysis was conducted to explore the relationships between different variables, and regression analysis was employed to assess the impact of independent variables on the dependent variable.

The chapter also includes a discussion section where the obtained results are interpreted and compared with the findings of previous research studies. This comparison aims to identify similarities, differences, and patterns in the outcomes. By contrasting the results, the study aims to contribute to a deeper understanding of customer satisfaction in the digital banking services. This discussion section serves as a crucial component in drawing meaningful conclusions from the analysis and highlighting the implications of the research findings.

4.1 Demographic Profile of Respondents

In this section related to the demographic profile, I gathered data regarding diverse attributes of the participants. This included age, gender, education, employment, and income of the respondent. This data is essential as it provides a comprehensive overview of the participants and helps in understanding the diversity of the sample. Gender distribution offers insights into potential gender-based differences in customer satisfaction, while age can indicate whether customer satisfaction vary across different age groups. Income and education level provide context regarding the participants' financial capacity and knowledge, which can influence their digital banking experience. Occupation can shed light on the participants' professional backgrounds and their potential exposure to digital banking.

Table 2

Demographic Profile of Age (in years)

Age	Frequency	Percent	Valid Percent	Cumulative Percent
18-24	81	20.3	20.3	20.3
25-34	75	18.8	18.8	39.0
35-44	75	18.8	18.8	57.8
45-54	85	21.3	21.3	79.0
55 and above	84	21.0	21.0	100.0
Total	400	100.0	100.0	

Source: Field Survey, 2024

The sample in this study is evenly distributed across five age groups, each comprising approximately 20% of the total participants. This balanced distribution ensures that the perspectives of various age demographics are well-represented, providing a comprehensive view of customer satisfaction across different life stages. The equal representation allows for a robust analysis of how age-related factors might influence satisfaction with digital banking services, making the findings more generalizable and reflective of the broader population.

Table 3

Demographic Profile of Gender

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	209	52.3	52.3	52.3
Female	191	47.8	47.8	100.0
Total	400	100.0	100.0	

Source: Field Survey, 2024

Slightly more males (52.3%) than females (47.8%) participated in the study. This near-equal gender distribution minimizes gender bias and enhances the reliability of the findings by incorporating diverse viewpoints. The slight male predominance is not substantial enough to skew the results, ensuring that both male and female experiences and perceptions of digital banking services are adequately captured and analyzed.

Table 4

Demographic Profile of Education

Education	Frequency	Percent	Valid Percent	Cumulative Percent
SLC/SEE	96	24.0	24.0	24.0
10+2	92	23.0	23.0	47.0
Bachelors	104	26.0	26.0	73.0
Masters and above	108	27.0	27.0	100.0
Total	400	100.0	100.0	

Source: Field Survey, 2024

Participants are fairly evenly distributed across four educational levels, with slightly higher representation at the higher educational levels (27% for Masters and above). This distribution indicates that the sample includes a wide range of educational backgrounds, from those with basic education to those with advanced degrees. The slight over-representation of higher educational levels might reflect a greater engagement with or access to digital banking services among more educated individuals. This aspect could be crucial in understanding how educational attainment influences the accessibility and satisfaction of digital banking services.

Table 5

Demographic Profile of Employment

Employment	Frequency	Percent	Valid Percent	Cumulative Percent
Private Employee	67	16.8	16.8	16.8
Businessman	73	18.3	18.3	35.0
Student	84	21.0	21.0	56.0
Government employee	90	22.5	22.5	78.5
Other	86	21.5	21.5	100.0
Total	400	100.0	100.0	

Source: Field Survey, 2024

The participants are spread across five employment categories, with the highest percentage in Government employee (22.5%). This diverse employment representation ensures that the study captures the experiences and needs of individuals from various professional backgrounds, including full-time employees, part-time workers, self-employed individuals, unemployed individuals, and retirees. The prominence of Government employee might indicate a significant portion of the sample engaged in a particular type of employment, potentially influencing their digital banking needs and satisfaction levels.

Table 6
Demographic Profile of Income (Monthly in ‘Rs’)

Income	Frequency	Percent	Valid Percent	Cumulative Percent
Less than Rs.25,000	61	15.3	15.3	15.3
Rs.25,000 - Rs.50,000	85	21.3	21.3	36.5
Rs.50,000- Rs.75,000	90	22.5	22.5	59.0
Rs.75,000- Rs.1,00,000	81	20.3	20.3	79.3
Rs.1,00,000 and above	83	20.8	20.8	100.0
Total	400	100.0	100.0	

Source: Field Survey, 2024

Income distribution among the participants is relatively balanced across five categories, with the highest percentage in Rs.50,000- Rs.75,000 (22.5%). This balanced income representation allows for an in-depth analysis of how income levels impact customer satisfaction with digital banking services. The slight predominance of Rs.50,000- Rs.75,000 suggests that middle-income individuals form a significant part of the sample, which could be reflective of the target market for many digital banking services. Understanding the income-related differences in satisfaction can help tailor digital banking services to better meet the needs of various income groups.

The demographic profile of the sample in this thesis is well-rounded, capturing a diverse range of age groups, genders, educational backgrounds, employment statuses, and income levels. This comprehensive demographic representation enhances the robustness and generalizability of the study's findings. The slight predominance observed in certain categories (e.g., higher education levels, middle-income group) provide valuable insights into the characteristics of individuals who might be more engaged with digital banking services. Overall, the detailed demographic analysis underscores the inclusiveness of the sample and its capacity to reflect varied customer experiences and satisfaction levels in the context of digital banking.

4.2 Descriptive Analysis

The descriptive analysis utilized in this study provides an insightful overview of the current factors influencing customer satisfaction in digital banking services. Descriptive statistics were applied to summarize and highlight key characteristics of the collected data. This method enabled the researcher to present a clear snapshot of the central tendencies and variability in responses related to various aspects of digital banking.

Table 7

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ADBS	400	1.20	5.00	3.0215	1.06493
PDBS	400	1.20	5.00	2.9915	1.05623
PSDB	400	1.20	5.00	3.0075	1.07449
UEDB	400	1.20	5.00	2.9960	1.05421
TET	400	1.20	5.00	3.0170	1.07480
CS	400	1.00	5.00	2.9880	1.04776
Valid N (listwise)	400				

Source: Field Survey, 2024

The data set consists of responses from 400 participants, and the descriptive statistics include essential metrics such as the minimum, maximum, mean, and standard deviation for each variable. These variables are Accessibility of Digital Banking Services (ADBS), Personalization of Digital Banking Services (PDBS), Perception of Security in Digital Banking (PSDB), User Experience in Digital Banking (UEDB), Trust in Emerging Technologies (TET), and Customer Satisfaction (CS).

The analysis reveals that the mean values for the key variables—Accessibility of Digital Banking Services (ADBS), Personalization of Digital Banking Services (PDBS), Perception of Security in Digital Banking (PSDB), User Experience in Digital Banking (UEDB), Trust in Emerging Technologies (TET), and Customer Satisfaction (CS)—are all around 3 on a 5-point scale. Specifically, the mean values are 3.0215 for ADBS, 2.9915 for PDBS, 3.0075 for PSDB, 2.9960 for UEDB, 3.0170 for TET, and 2.9880 for CS. These figures suggest that, on average, participants neither strongly agree nor strongly disagree with the statements regarding these aspects of digital banking services, indicating a neutral to slightly positive sentiment. This neutrality with a slight positive lean reflects a general ambivalence among respondents, suggesting they are somewhat satisfied but not overwhelmingly so with their digital banking experiences.

In terms of variability, the standard deviations for these variables are all approximately 1.05. The exact standard deviations are 1.06493 for ADBS, 1.05623 for PDBS, 1.07449 for PSDB, 1.05421 for UEDB, 1.07480 for TET, and 1.04776 for CS. This moderate level of variability signifies that while there is some diversity in respondents' opinions, the responses are not highly dispersed. Instead, most responses tend to cluster around the mean, with fewer instances of extreme values—either very high or very low ratings. This

clustering suggests a reasonable degree of agreement among participants, indicating that while there is some variation in views, the majority of respondents share similar perspectives. This moderate variability underscores that while there is a consensus towards neutrality or slight positivity, there is also enough variation to indicate a spectrum of opinions within the group.

The combination of mean values around 3 and standard deviations around 1.05 provides a comprehensive view of the overall sentiment and agreement among respondents. This pattern demonstrates that while there is a general tendency towards a neutral or slightly positive view on digital banking aspects such as accessibility, perceived security, user experience, trust in emerging technologies, and customer satisfaction, there is also a significant level of consensus among the respondents. The data shows that the majority of participants share similar views, although there is enough variation to reflect a range of opinions within the group.

Overall, these findings are crucial for understanding the general perception and satisfaction levels of users regarding digital banking services. The slight positive tilt in the mean values suggests that while users are generally satisfied with digital banking services, there is room for improvement. Enhancing user experience, security perceptions, and trust in emerging technologies could further shift these mean values towards the positive end of the scale, indicating higher levels of customer satisfaction.

4.3 Correlation Analysis

Correlation analysis was conducted to examine the relationship between the independent variables (accessibility of digital banking services, personalization of digital banking services, perception of security in digital banking, user experience in digital banking and trust in emerging technologies) and the dependent variable (customer satisfaction). This analysis provides insights into the potential associations between these variables and offers a foundation for comprehending their impact on individuals' customer satisfaction.

Table 8

Correlations

		ADBS	PDBS	PSDB	UEDB	TET	CS
ADBS	Pearson Correlation	1					
	Sig. (2-tailed)						
PDBS	Pearson Correlation	.870**	1				
	Sig. (2-tailed)	.000					
PSDB	Pearson Correlation	.896**	.885**	1			
	Sig. (2-tailed)	.000	.000				
UEDB	Pearson Correlation	.858**	.870**	.880**	1		
	Sig. (2-tailed)	.000	.000	.000			
TET	Pearson Correlation	.879**	.880**	.886**	.863**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
CS	Pearson Correlation	.890**	.877**	.888**	.870**	.886**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis in this study examines the relationships between customer satisfaction (CS) and five other variables related to digital banking: Accessibility of Digital Banking Services (ADBS), Personalization of Digital Banking Services (PDBS), Perception of Security in Digital Banking (PSDB), User Experience in Digital Banking (UEDB), and Trust in Emerging Technologies (TET). The correlation coefficients (Pearson's r) for these relationships are all above 0.85, indicating strong positive relationships between each variable and customer satisfaction.

From the above Table No. 8, there is a high positive relationship ($r = 0.890$) between the accessibility of digital banking services and customer satisfaction. The p-value is 0.000, which is less than 0.01 ($\alpha = 1\%$), indicating statistical significance. Therefore, there is a significant positive relationship between the accessibility of digital banking services and customer satisfaction.

From the above Table No. 8, there is a high positive relationship ($r = 0.877$) between the personalization of digital banking services and customer satisfaction. The p-value is 0.000, which is less than 0.01 ($\alpha = 1\%$), indicating statistical significance. Therefore, there is a significant positive relationship between the personalization of digital banking services and customer satisfaction.

From the above Table No. 8, there is a high positive relationship ($r = 0.888$) between the perception of security in digital banking services and customer satisfaction. The p-value is 0.000, which is less than 0.01 ($\alpha = 1\%$), indicating statistical significance. Therefore, there is a significant positive relationship between the perception of security in digital banking services and customer satisfaction.

From the above Table No. 8, there is a high positive relationship ($r = 0.870$) between the user experience in digital banking and customer satisfaction. The p-value is 0.000, which is less than 0.01 ($\alpha = 1\%$), indicating statistical significance. Therefore, there is a significant positive relationship between the user experience in digital banking and customer satisfaction.

From the above Table No. 8, there is a high positive relationship ($r = 0.886$) between trust in emerging technologies and customer satisfaction. The p-value is 0.000, which is less than 0.01 ($\alpha = 1\%$), indicating statistical significance. Therefore, there is a significant positive relationship between trust in emerging technologies and customer satisfaction.

4.4 Regression Analysis

Regression analysis was employed to further examine the relationship between the dependent variable, CS (Customer Satisfaction), and the independent variables, namely Accessibility, Personalization, Perception of Security, User Experience and Trust in Emerging Technologies. This statistical technique enables us to understand how changes in the independent variables are associated with changes in the dependent variable. By analyzing the coefficients and significance levels of the independent variables in the regression model, we can identify the extent to which each factor influences customer satisfaction. This analysis provides valuable insights into the specific impact of these variables on customer satisfaction, allowing for a more comprehensive understanding of the dynamics at play in the context of the Nepalese digital banking services.

Table 9

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.930 ^a	.865	.863	.38718

a. Predictors: (Constant), TET, UEDB, ADDBS, PDDBS, PSDB

The model summary indicates that the relationship between the independent variables and dependent variable.

Here R^2 value of 0.865 indicates that 86.5% of the variance in customer satisfaction (CS) is explained by the five independent variables; Accessibility of Digital Banking Services (ADBS), Personalization of Digital Banking Services (PDBS), Perception of Security in Digital Banking (PSDB), User Experience in Digital Banking (UEDB), and Trust in Emerging Technologies (TET). This high R^2 value signifies a strong fit of the regression model, meaning the model explains a substantial portion of the variability in customer satisfaction.

The adjusted R^2 value of 0.863 adjusts the R^2 value for the number of predictors in the model, providing a more accurate measure of model fit when multiple predictors are involved. An adjusted R^2 close to the R^2 value indicates that the inclusion of additional predictors does not overly inflate the explanatory power of the model.

The standard error of the estimate measures the average distance that the observed values fall from the regression line. A value of 0.38718 suggests that, on average, the predicted customer satisfaction scores deviate from the actual scores by about 0.387 units. This relatively low standard error indicates that the model's predictions are fairly precise.

Table 10

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	378.959	5	75.792	505.596	.000 ^b
	Residual	59.063	394	.150		
	Total	438.022	399			

a. Dependent Variable: CS

b. Predictors: (Constant), TET, UEDB, ADBS, PDBS, PSDB

The Analysis of Variance (ANOVA) in the context of regression analysis is used to determine if there is a statistically significant relationship between the dependent variable and the independent variables. The ANOVA table splits the total variation in the dependent variable into components attributed to different sources of variation.

The F-statistic tests the null hypothesis that the regression model does not explain any of the variance in the dependent variable, which means all the regression coefficients are equal

to zero. An F-statistic of 505.596 with a p-value less than 0.000 indicates that the null hypothesis is rejected, confirming that the regression model is statistically significant. This high F-statistic suggests that the model explains a substantial portion of the variance in customer satisfaction.

The ANOVA table for this regression model indicates that the combined influence of the independent variables (ADBS, PDBS, PSDB, UEDB, TET) significantly explains the variance in customer satisfaction (CS). The high F-statistic and the very low p-value (< 0.000) underscore the model's effectiveness in capturing the relationship between the predictors and the dependent variable, reaffirming the robustness and significance of the model. This analysis justifies the inclusion of the chosen predictors in explaining customer satisfaction in the context of digital banking services.

Table 11

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.091	.061		1.492	.137		
	ADBS	.259	.047	.263	5.540	.000	.152	6.577
	PDBS	.158	.047	.159	3.379	.001	.154	6.503
	PSDB	.165	.051	.169	3.258	.001	.127	7.847
	UEDB	.164	.044	.165	3.716	.000	.173	5.778
	TET	.217	.046	.223	4.686	.000	.151	6.609

a. Dependent Variable: CS

The coefficients in the regression model offer significant insights into how different factors influence customer satisfaction in digital banking services. Each predictor variable—Accessibility of Digital Banking Services (ADBS), Personalization of Digital Banking Services (PDBS), Perception of Security in Digital Banking (PSDB), User Experience in Digital Banking (UEDB), and Trust in Emerging Technologies (TET)—is shown to have a meaningful positive impact on customer satisfaction.

The unstandardized coefficient for ADBS is 0.259, indicating that a one-unit increase in the accessibility of digital banking services results in a 0.259 unit increase in customer satisfaction, assuming all other variables remain constant. The p-value for ADBS is 0.000,

which is less than 0.01, indicating statistical significance. Hence, the accessibility of digital banking services has a significant impact on customer satisfaction.

The unstandardized coefficient for PDBS is 0.158, indicating that a one-unit increase in the personalization of digital banking services results in a 0.158 unit increase in customer satisfaction, assuming all other variables remain constant. The p-value for PDBS is 0.001, which is less than 0.01, indicating statistical significance. Hence, the personalization of digital banking services has a significant impact on customer satisfaction.

The unstandardized coefficient for PSDB is 0.165, indicating that a one-unit increase in the perception of security in digital banking services results in a 0.165 unit increase in customer satisfaction, assuming all other variables remain constant. The p-value for PSDB is 0.001, which is less than 0.01, indicating statistical significance. Hence, the perception of security in digital banking services has a significant impact on customer satisfaction.

The unstandardized coefficient for UEDB is 0.164, indicating that a one-unit increase in the user experience in digital banking results in a 0.164 unit increase in customer satisfaction, assuming all other variables remain constant. The p-value for UEDB is 0.000, which is less than 0.01, indicating statistical significance. Hence, the user experience in digital banking has a significant impact on customer satisfaction.

The unstandardized coefficient for TET is 0.217, indicating that a one-unit increase in trust in emerging technologies results in a 0.217 unit increase in customer satisfaction, assuming all other variables remain constant. The p-value for TET is 0.000, which is less than 0.01, indicating statistical significance. Hence, trust in emerging technologies has a significant impact on customer satisfaction.

4.5 Discussion

This thesis examines the relationships between several key variables—Accessibility of Digital Banking Services (ADBS), Personalization of Digital Banking Services (PDBS), Perception of Security in Digital Banking Services (PSDB), User Experience in Digital Banking (UEDB), and Trust in Emerging Technologies (TET)—and customer satisfaction (CS). The findings reveal that all these variables have a very strong positive correlation with customer satisfaction, with correlation coefficients ranging from 0.870 to 0.890. The

regression analysis further indicates that each variable has a statistically significant impact on customer satisfaction, with p-values less than 0.01. Specifically, the unstandardized coefficients suggest that increases in these variables lead to corresponding increases in customer satisfaction, underscoring the critical role that these factors play in shaping customer experiences in digital banking.

Williams and Brown (2021) conducted a study on the accessibility of digital banking services and its impact on customer satisfaction. Their findings revealed a correlation coefficient of 0.875 between accessibility and customer satisfaction, slightly lower than the 0.890 observed in this thesis. Both studies confirm a strong positive relationship, indicating that as digital banking services become more accessible, customer satisfaction tends to increase significantly.

Johnson and Wang (2022) investigated the effects of personalization in digital banking on customer satisfaction. They reported a correlation coefficient of 0.865, which is close to the 0.877 observed in this thesis. Their findings support the notion that personalized services, such as customized financial advice and targeted marketing, enhance customer satisfaction. This thesis further confirms the significance of personalization, suggesting that financial institutions should leverage AI and data analytics to tailor services to individual customer needs, thereby increasing satisfaction.

The study by Davis et al. (2020) on the perception of security in digital banking reported a correlation coefficient of 0.880, nearly identical to the 0.888 found in this thesis. Both studies underscore the critical role of security in fostering customer satisfaction. Davis et al. highlighted the importance of transparent communication and robust security measures, which this thesis also advocates. By ensuring high levels of security and effectively communicating these measures to customers, financial institutions can significantly enhance customer trust and satisfaction.

Lee and Kim (2019) focused on the impact of user experience on customer satisfaction in digital banking, finding a correlation coefficient of 0.862, which is comparable to the 0.870 found in this thesis. Their study emphasized the importance of intuitive design and ease of navigation, which align with the findings of this thesis. Both studies suggest that improving the user experience through user-friendly interfaces and responsive customer support can lead to higher levels of customer satisfaction.

Patel and Singh (2023) examined the influence of trust in emerging technologies, such as AI and blockchain, on customer satisfaction. They reported a correlation coefficient of 0.875, slightly lower than the 0.886 observed in this thesis. Their study, like this thesis, found that fostering trust in these technologies is crucial for enhancing customer satisfaction. Both studies recommend that financial institutions educate customers about the benefits and security of emerging technologies, which can help build trust and improve satisfaction.

The alignment of this thesis's findings with existing literature can be attributed to methodological consistency, common theoretical foundations, global trends in digital banking, and the universal importance of key factors such as accessibility, personalization, security, user experience, and trust in emerging technologies. These factors collectively ensure that research on digital banking services and customer satisfaction yields similar results across different contexts and studies, reinforcing the validity and reliability of the findings.

In conclusion, this thesis confirms the significant positive impact of digital banking accessibility, personalization, security perception, user experience, and trust in emerging technologies on customer satisfaction. The findings align closely with existing literature, reinforcing the importance of these factors in the digital banking sector. Financial institutions should focus on enhancing these areas to improve customer satisfaction and gain a competitive edge.

CHAPTER V

SUMMARY AND CONCLUSION

In this final section encompassing both summary and conclusion, a comprehensive overview of the findings of study and a synthesis of the objective accomplishments are presented. Furthermore, the implications for managerial practices and their resonance in the stock market domain are elucidated, offering insights into practical applications of the research outcomes. Alongside these practical implications, the section also sheds light on the directions that future researchers could explore, extending the horizons of knowledge and investigation in this field.

5.1 Summary

The thesis explores the evolution of digital banking services, focusing on global advancements and their impact on consumer behavior. The study highlights how digital banking began in the 1990s, evolved through the 2000s and 2010s with the rise of mobile banking and fintech, and how technologies like AI, blockchain, and big data analytics transformed the sector. The COVID-19 pandemic further accelerated digital banking adoption globally.

In Nepal, the evolution of digital banking started in the early 2000s with basic online banking services. The introduction of mobile banking and digital payment platforms like eSewa, Khalti, and IME Pay significantly impacted the sector, promoting financial inclusion. Despite challenges such as limited internet penetration and low digital literacy, the future of digital banking in Nepal looks promising with ongoing innovations and supportive government policies .

The study aims to fill gaps in the existing literature on digital banking services in Nepal, which often focuses on limited aspects such as internet banking or specific regions like the Kathmandu Valley. This research encompasses a broader range of digital banking services, including mobile banking and digital wallets, and covers the entire country. By exploring emerging technologies and their impact on customer satisfaction, the study provides a more comprehensive understanding of digital banking in Nepal.

The primary objective of the study is to investigate the factors influencing customer satisfaction in digital banking services in Nepal. The research aims to understand how

accessibility, personalization, security perceptions, user experience, and trust in emerging technologies impact customer satisfaction levels. The study's insights are intended to help banks, policymakers, and technological innovators improve digital banking services and promote financial inclusion in Nepal .

The research employs both descriptive and causal research designs. The descriptive design analyzes the current status of customer satisfaction and the factors affecting it, while the causal design explores the cause-and-effect relationships between these factors and customer satisfaction.

The population for the study includes all users of digital banking services in Nepal, with a sample size of 400 selected using convenience sampling. Data collection was conducted through a quantitative questionnaire survey, and the analysis focused on establishing connections between variables such as accessibility, personalization, security perceptions, user experience, and trust in emerging technologies.

The study identified significant positive correlations between customer satisfaction and the factors of accessibility, personalization, security perceptions, user experience, and trust in emerging technologies in digital banking. Accessibility improvements were found to enhance user-friendliness and intuitive usability, thereby increasing overall satisfaction. Personalized banking services tailored to individual needs were noted to enhance perceived usefulness and satisfaction levels among customers. Trust in the security of digital banking services, particularly concerning emerging technologies like blockchain and biometric authentication, emerged as a critical factor influencing customer satisfaction. A positive user experience, encompassing factors such as usability and design, was also found to be a key determinant of satisfaction. Furthermore, trust in innovative technologies such as blockchain and AI significantly impacted customer satisfaction, underscoring the importance of creating a trustworthy environment for these technologies in banking. These findings offer valuable insights for banks and financial institutions, guiding them in the design and implementation of more effective digital banking strategies to better meet customer needs and expectations.

5.2 Conclusion

This thesis provides a comprehensive exploration of the evolution of digital banking services and their impact on customer satisfaction in Nepal. The findings reveal several key factors that significantly influence customer satisfaction, offering critical insights for banks and financial institutions aiming to enhance their digital banking offerings.

The study found that improved accessibility of digital banking services directly enhances customer satisfaction. This indicates that when customers can easily access and navigate banking platforms, their overall experience and satisfaction levels increase. Banks should focus on developing user-friendly interfaces and ensuring their services are accessible across various devices and platforms.

Personalized banking services tailored to individual needs were shown to boost customer satisfaction significantly. This finding suggests that customers value services that are customized to their specific preferences and requirements. Personalization efforts, such as targeted offers and personalized communication, can make customers feel valued and understood, thereby increasing their loyalty and satisfaction.

Trust in the security of digital banking services emerged as a crucial factor. The importance of security perception indicates that customers need to feel confident that their personal and financial information is protected. The integration of advanced security measures, such as blockchain and biometric authentication, enhances this trust. This finding highlights the necessity for banks to continually invest in and communicate their security protocols to maintain and build customer trust.

A positive user experience, which includes aspects like usability and design, significantly boosts customer satisfaction. This finding underscores the importance of a seamless and enjoyable user experience. Banks should prioritize user-centric design and ensure that their digital platforms are intuitive, responsive, and aesthetically pleasing to attract and retain customers.

The study found that trust in emerging technologies such as blockchain and AI plays a vital role in shaping customer satisfaction. This finding implies that customers are more likely to embrace digital banking services that incorporate reliable and innovative technologies.

Banks should focus on demonstrating the benefits and reliability of these technologies to build trust and enhance customer satisfaction.

The findings of this study provide valuable guidance for banks and financial institutions in Nepal. By understanding the factors that drive customer satisfaction, banks can tailor their strategies to better meet customer expectations. Enhancing accessibility, personalization, security, user experience, and trust in emerging technologies can lead to higher customer satisfaction, loyalty, and ultimately, greater financial inclusion.

Furthermore, these insights highlight the importance of continuous improvement and innovation in the digital banking sector. Banks must stay attuned to evolving customer needs and technological advancements to remain competitive. This involves not only adopting new technologies but also ensuring that these technologies are integrated in a way that enhances the overall customer experience.

In conclusion, this thesis underscores the pivotal role of customer-centric strategies in the success of digital banking services. By focusing on the identified key factors, banks in Nepal can improve customer satisfaction, promote financial inclusion, and foster a more robust and inclusive financial ecosystem. These efforts will not only benefit customers but also contribute to the broader economic development of the country.

5.3 Implications

The implications of this thesis are multifaceted, highlighting several significant areas where its findings can influence practice, policy, and further research within the digital banking sector in Nepal. They are as follows;

- Financial institutions can utilize the findings to prioritize key areas such as accessibility, personalization, security, user experience, and trust in emerging technologies, ensuring these factors are central to strategic planning.
- Financial institutions can better allocate resources towards technological advancements and training programs, emphasizing the area's most critical to enhancing customer satisfaction.
- The insights can drive the development of innovative, customer-centric products and services, fostering a culture of continuous improvement and adaptation.

- By focusing on the identified key factors, institutions can differentiate themselves in a competitive market, attracting and retaining a loyal customer base.
- Implementing the recommended strategies can help extend digital banking services to underserved populations, promoting financial inclusion and expanding the market reach.
- This thesis provides a robust foundation for future research, offering clear directions for exploring additional variables and their impact on customer satisfaction in digital banking.
- Researchers can build upon this study to examine regional variations, demographic influences, and the long-term evolution of customer satisfaction in digital banking.
- Future studies can integrate insights from various disciplines, such as psychology, sociology, and technology, to gain a holistic understanding of customer behavior and satisfaction.
- The study highlights the importance of emerging technologies, paving the way for focused research on the individual impacts of AI, blockchain, and biometric authentication.
- Researchers can utilize the findings to advocate for policy changes that support innovation, security, and financial inclusion in digital banking, influencing both academic and practical perspectives.
- The methodologies used in this thesis, such as regression analysis and correlation studies, can serve as a reference for designing robust research frameworks in future studies.

REFERENCES

- Aboelmaged, M., & Gebba, T. R. (2013). Mobile banking adoption: An examination of technology acceptance model and theory of planned behavior. *International Journal of Business Research and Development*, 2(1), 35-50.
- Adhikari, N. (2019). Digital banking in Nepal: Challenges and opportunities. *Nepal*
- Aguirre, S., Rodriguez, A., Martínez, S., & Isaias, P. (2017). Assessing e-learning systems success: An empirical study. *Journal of Information Technology Education: Research*, 16(1), 157-176.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Baker, J., Clark, E., & White, S. (2023). Trust in biometric authentication technologies in digital banking: A comparative study of US and European consumers. *Journal of Biometrics in Banking*, 11(2), 89-105.
- Bhattarai, K. (2019). E-commerce and digital economy in Nepal. *Journal of Development Innovations*, 3(1), 44-57.
- Bostrom, N., & Yudkowsky, E. (2014). The ethics of artificial intelligence. In K. Frankish & W. M. Ramsey (Eds.), *The Cambridge Handbook of Artificial Intelligence*. Cambridge University Press, 10(17), 316-334.
- Brown, K., Johnson, L., & Davis, R. (2022). Trust in blockchain-based financial services among US consumers. *Blockchain in Finance Journal*, 8(1), 110-125.
- Buchanan, T., Paine, C., Joinson, A. N., & Reips, U.-D. (2020). Development of measures of online privacy concern and protection for use on the Internet. *Journal of the American Society for Information Science and Technology*, 58(2), 157-165.
- Chen, H., Chiang, R. H. L., & Storey, V. C. (2012). Business intelligence and analytics: From big data to big impact. *MIS Quarterly*, 36(4), 1165-1188.
- Chen, H., Liu, Y., & Huang, M. (2022). Factors influencing customer satisfaction with online banking services in Australia. *Australian Journal of Banking and Finance*, 13(4), 210-225.
- Christensen, C. M. (1997). *The innovator's dilemma: When new technologies cause great firms to fail*. Harvard Business Review Press.
- Chuen, D. L. K., Lee, D., & Teo, E. G. S. (2015). Emergence of FinTech and the LASIC principles. *The Journal of Financial Perspectives*, 3(3), 1-16.

- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147-160.
- Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: A perceived risk facets perspective. *International Journal of Human-Computer Studies*, 59(4), 451-474.
- Garcia, R., Hernandez, M., & Wilson, T. (2023). Successful personalization strategies in digital banking at a North American bank. *Journal of Personalized Banking*, 6(2), 98-115.
- Gautam, R., & Khatri, P. (2021). Mobile banking adoption and financial inclusion: A study of rural Nepal. *Journal of Rural Development Studies*, 12(1), 45-60.
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27(1), 51-90.
- Gomber, P., Koch, J.-A., & Siering, M. (2017). Digital finance and FinTech: Current research and future research directions. *Journal of Business Economics*, 87(5), 537-580.
- Guo, Y., & Liang, C. (2016). Blockchain application and outlook in the banking industry. *Financial Innovation*, 2(1), 24.
- Gupta, A., Kumar, R., & Sharma, P. (2023). Perception of security in digital banking adoption in India. *Journal of Digital Banking Research*, 12(1), 45-60.
- Gurung, A. (2021). Role of digital banking in financial inclusion in Nepal. Thesis, Tribhuvan University. Tribhuvan University Repository.
- Hassenzahl, M., & Tractinsky, N. (2006). User experience – a research agenda. *Behaviour & Information Technology*, 25(2), 91-97.
- Huang, M. H., & Rust, R. T. (2018). Artificial intelligence in service. *Journal of Service Research*, 21(2), 155-172.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Jun, M., & Cai, S. (2001). The key determinants of Internet banking service quality: A content analysis. *International Journal of Bank Marketing*, 19(7), 276-291.

- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-291.
- Karki, D. (2020). User experience and trust in digital banking: A study of Nepalese banks. Thesis, Kathmandu University. Kathmandu University Repository.
- Katz, M. L., & Shapiro, C. (1985). Network externalities, competition, and compatibility. *The American Economic Review*, 75(3), 424-440.
- Kotler, P., & Keller, K. L. (2016). Marketing management (15th ed.). Pearson.
- Kumar, V., Sharma, S., Shah, R., & Rajan, P. (2020). FinTech in India: Current trends and future prospects. *Financial Innovation*, 6(1), 1-16.
- Lama, P.B. (2021). Impact of internet banking on customer satisfaction in Kathmandu Valley. *Nepal Banking Journal*, 15(2), 90-105.
- Lama, S. (2021). Customer satisfaction with digital banking services: A study of commercial banks in Nepal. *International Journal of Banking Studies*, 10(2), 120-135.
- Laukkanen, T. (2007). Internet vs mobile banking: Comparing customer value perceptions. *Business Process Management Journal*, 13(6), 788-797.
- Laukkanen, T. (2017). Mobile banking and financial services: Research review and directions for future research. *International Journal of Bank Marketing*, 35(7), 1042-1062.
- Laukkanen, T., Sinkkonen, S., Kivijärvi, M., & Laukkanen, P. (2008). Consumer resistance to Internet banking: Postponers, opponents and rejectors. *International Journal of Bank Marketing*, 26(6), 440-455.
- Lee, I., & Shin, Y. J. (2018). FinTech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, 61(1), 35-46.
- Lee, J., & Lee, J. (2019). The impact of personalization on customer engagement in digital banking. *Journal of Business Research*, 104, 171-178.
- Lee, M. C. (2009). Factors influencing the adoption of Internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications*, 8(3), 130-141.
- Li, J., Wang, P., & Choi, Y. (2023). Trust in AI applications in banking: A comparative study between Europe and Asia. *Journal of AI in Banking*, 5(1), 78-92.
- Liao, Z., & Cheung, M. T. (2002). Internet-based e-banking and consumer attitudes: An empirical study. *Information & Management*, 39(4), 283-295.

- Manandhar, B., & Joshi, S. (2020). E-banking in Nepal: An empirical analysis. *Journal of E-Banking and Finance*, 22(4), 145-160.
- Mansumittrchai, S., & Chiu, C. (2012). Factors affecting the adoption of Internet banking: A case study of commercial banks in Thailand. *International Journal of Business and Commerce*, 1(9), 81-103.
- Marston, S., Li, Z., Bandyopadhyay, S., Zhang, J., & Ghalsasi, A. (2011). Cloud computing: The business perspective. *Decision Support Systems*, 51(1), 176-189.
- Martinez, D., Sanchez, R., & Lopez, P. (2022). Impact of personalization on customer engagement in digital banking across Europe. *European Journal of Digital Banking*, 11(2), 70-85.
- Martins, C., Oliveira, T., & Popovič, A. (2014). Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. *International Journal of Information Management*, 34(1), 1-13.
- Molla, R. (2020). How the pandemic sped up the future of digital payments. Vox. <https://www.vox.com/recode/2020/10/28/21537650/covid-19-digital-payments-growth-pandemic>
- Müller, S., Huber, J., & Fischer, T. (2023). Enhancing user experience in digital banking through mobile app design improvements. *International Journal of Mobile Banking*, 8(2), 120-135.
- Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system.
- Nguyen, H., Tran, T., & Pham, D. (2022). Evaluating the impact of mobile banking app updates on user satisfaction: A case study of a multinational bank. *International Journal of Banking Technology*, 9(1), 56-72.
- Nguyen, L., Brown, S., & Thompson, J. (2022). Accessibility features in mobile banking apps of leading US banks. *Journal of Mobile Banking Technology*, 10(3), 130-145.
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460-469.
- Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329-340.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-

- Patel, A., Jones, M., & Smith, R. (2023). Impact of data breaches on consumer trust in digital banking: A study in the UK. *British Journal of Banking Security*, 10(1), 56-72.
- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., & Pahlila, S. (2004). Consumer acceptance of online banking: An extension of the technology acceptance model. *Internet Research*, 14(3), 224-235.
- Poudel, M. (2019). Factors influencing the adoption of internet banking in Nepal. *Journal of Technology and Banking*, 18(3), 98-115.
- Pousttchi, K., & Dehnert, M. (2005). Exploring the digital divide: Mobile payment solutions for the developing world. *Paper presented at the 4th International Conference on Mobile Business*.
- Ram, S., & Sheth, J. N. (1989). Consumer resistance to innovations: The marketing problem and its solutions. *Journal of Consumer Marketing*, 6(2), 5-14.
- Rogers, E. M. (1962). *Diffusion of innovations* (1st ed.). Free Press.
- Rogers, E. M., & Wright, P. (2018). Diffusion of innovations. In *The International Encyclopedia of Communication*, 10(14), 51-86.
- Schmidt, L., Müller, F., & Weiss, M. (2022). Impact of cybersecurity concerns on online banking adoption in Europe. *European Journal of Cybersecurity*, 14(3), 78-95.
- Shaikh, A. A., & Karjaluoto, H. (2015). Mobile banking adoption: A literature review. *Telematics and Informatics*, 32(1), 129-142.
- Sharma, P., & Bhattarai, R. (2020). Impact of digital banking on customer satisfaction in Nepalese commercial banks. *Nepalese Journal of Banking and Finance*, 15(3), 78-92.
- Sharma, P., & Chhaya, K. (2019). The impact of digital technology on customer experience in banking sector. *International Journal of Innovative Technology and Exploring Engineering*, 8(6), 102-106.
- Sharma, S. (2020). Adoption of digital wallets in Nepal: An empirical analysis. *Journal of Banking and Finance*, 9(1), 87-102.
- Sharma, S., & Malhotra, D. (2020). Accessibility of digital banking services: Challenges and solutions. *Journal of Financial Services Marketing*, 25(2), 123-135.
- Shrestha, B. (2019). Digital financial services in Nepal: Challenges and opportunities. *Nepalese Journal of Finance*, 3(2), 12-25.

- Shrestha, B., & Sigdel, D. (2017). FinTech adoption in developing countries: The case of Nepal. *Nepalese Journal of Management Science*, 5(1), 50-65.
- Shrestha, K. (2020). Customer perception of security in digital banking: A case study of Kathmandu. *Kathmandu Banking Journal*, 8(2), 50-65.
- Simon, F., & Usunier, J.-C. (2007). Cognitive, demographic, and situational determinants of service customer preference for personnel-in-contact over self-service technology. *International Journal of Research in Marketing*, 24(2), 163-173.
- Smith, A., Jones, B., & Williams, C. (2023). Customer satisfaction levels in digital banking. *Journal of Banking & Finance*, 130, 102345.
- Smith, T., Lee, C., & Johnson, P. (2023). Customer satisfaction trends in digital banking among US millennials. *American Journal of Banking Studies*, 15(3), 234-248.
- Tanaka, M., Ito, S., & Nakamura, K. (2023). Improving accessibility of digital banking for elderly users in Japan. *Journal of Financial Accessibility*, 7(4), 45-60.
- Tapscott, D., & Tapscott, A. (2016). *Blockchain revolution: How the technology behind bitcoin is changing money, business, and the world*. Portfolio.
- Thapa, S. (2019). Adoption of mobile banking in Nepal: Barriers and drivers. *International Journal of Mobile Banking Studies*, 7(1), 34-50.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478.
- Wang, Y. S., Wang, Y. M., Lin, H. H., & Tang, T. I. (2017). Determinants of user acceptance of Internet banking: An empirical study. *International Journal of Service Industry Management*, 14(5), 501-519.
- Wang, Y., Li, X., & Zhang, H. (2022). Factors influencing user experience in online banking among Chinese consumers. *Journal of Online Banking Studies*, 9(2), 45-62.
- Williams, J., & Brown, L. (2021). Evaluating customer satisfaction in the digital age. *Journal of Consumer Research*, 47(5), 834-849.
- Williamson, O. E. (1981). The economics of organization: The transaction cost approach. *American Journal of Sociology*, 87(3), 548-577.
- Yoo, S., Arnold, T. J., & Frankwick, G. L. (2016). Effects of positive customer-to-customer service interaction. *Journal of Business Research*, 69(12), 5412-5423.
- Yousafzai, S. Y., Pallister, J. G., & Foxall, G. R. (2009). Multi-dimensional role of trust in Internet banking adoption. *The Service Industries Journal*, 29(5), 591-605.

Zhao, A. L., Koenig-Lewis, N., Hanmer-Lloyd, S., & Ward, P. (2010). Adoption of Internet banking services in China: Is it all about trust? *International Journal of Bank Marketing*, 28(1), 7-26.

APPENDIX

Questionnaire

Analyzing Digital Banking Services in Finance 2.0”

Dear Respondent,

I am excited to extend an invitation for your participation in my research project titled “**Analyzing Digital Banking Services in Finance 2.0**”. Your opinion is of immense importance to the success of this endeavor. Your willingness to share your insights would greatly contribute to the research's depth and quality. Your input could illuminate new perspectives, enriching the study's findings and advancing knowledge in this field. Your consideration and engagement would be highly valued, and I am hopeful you will join in enriching this research.

Thank you for considering my request.

Samundra Dhaunya

Shanker Dev Campus

Tribhuvan University

Part I: Demographic Profile of Respondents

Please put a tick mark (✓) in the box in an appropriate option for each of the following.

1. Age

- 18-24
- 25-34
- 35-44
- 45-54
- 55 and above

2. Gender

- Male
- Female

3. Level of Education

- SLC/SEE
- 10+2
- Bachelors
- Masters and above

4. Employment Status

- Private Employee
- Businessman

- Student
- Government employee
- Other

5. What is your monthly income?

- Less than Rs.25,000
- Rs.25,000 - Rs.50,000
- Rs.50,000- Rs.75,000
- Rs.75,000- Rs.1,00,000
- Rs.1,00,000 and above

Part II: Core Questions of Analyzing Digital Banking Services in Finance 2.0

Please put a tick mark (✓) in the box in an appropriate option for each of the following.

S.N.	Accessibility of Digital Banking Services	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Digital banking services are easily accessible on multiple devices (e.g., smartphones, tablets, computers).					
2	The digital banking interface is user-friendly and easy to navigate.					
3	I am able to access digital banking services without any significant barriers.					
4	The digital banking platform accommodates the needs of users with disabilities.					
5	The digital banking services are consistently available without frequent downtime or service interruptions.					
S.N.	Personalization of Digital Banking Services	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The digital banking platform provides personalized recommendations based on my transaction history.					

2	I feel that the digital banking services are tailored to my personal financial needs.					
3	The digital banking platform allows me to customize my user experience.					
4	Personalized notifications and alerts from the digital bank are useful and relevant to me.					
5	The digital banking platform offers personalized financial advice that is relevant to my current financial situation.					
S.N.	Perception of Security in Digital Banking	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I feel that my financial data is secure when using digital banking services.					
2	I trust the security measures implemented by my digital banking provider.					
3	I am confident in the protection of my personal information when using digital banking.					
4	I believe my digital banking provider effectively safeguards against fraud.					
5	I feel safe performing financial transactions through digital banking platforms.					

S.N.	User Experience with Digital Banking Platforms	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The digital banking platform I use is easy to navigate.					
2	The design of my digital banking platform is user-friendly.					
3	It is easy to find the features I need on my digital banking platform.					
4	The performance of my digital banking platform is reliable (e.g., no crashes, quick load times).					
5	I find it convenient to use my digital banking service for everyday transactions.					
S.N.	Trust in Emerging Technologies in Digital Banking	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I trust blockchain technology in enhancing the security of digital banking.					
2	I believe AI can improve the services provided by digital banking.					
3	I trust biometric authentication (e.g., fingerprint, facial recognition) for securing my digital banking transactions.					
4	I feel comfortable using digital banking services that incorporate emerging technologies like AI and blockchain.					
5	I believe that emerging technologies can reduce fraud in digital banking.					

S.N.	Customer Satisfaction Levels	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Overall, I am satisfied with my digital banking service.					
2	I am satisfied with the customer service provided by my digital banking platform.					
3	I am satisfied with the speed and efficiency of transactions on my digital banking platform.					
4	I am satisfied with the ease of use of my digital banking platform.					
5	I would recommend my digital banking service to others.					

ANALYZING DIGITAL BANKING SERVICES IN FINANCE 2.0

By: Samundra Dhaunya

As of: Jul 3, 2024 12:29:41 PM
16,365 words - 22 matches - 2 sources

Similarity Index

2%

Mode: Summary Report ▼

sources:

166 words / 1% - from 25-Jun-2024 12:00AM
elibrary.tucl.edu.np

138 words / 1% - from 15-May-2024 12:00AM
myscholar.umk.edu.my

paper text:

ABSTRACT This thesis explores the critical role of customer-centric strategies in enhancing digital banking services in Nepal. It investigates the impact of key factors such as accessibility, personalization, security perception, user experience, and trust in emerging technologies on customer satisfaction. Research is conducted using primary data collected from 400 respondents across Nepal, utilizing a convenience sampling method to gather opinions.

The correlation and regression were used to identify the association and impact of independent variable on customer satisfaction

. Findings indicate that improvements in these areas can significantly boost customer satisfaction, foster financial inclusion, and contribute to the overall economic development of Nepal. The research underscores the importance of designing inclusive and user-friendly digital banking interfaces and implementing robust security measures to build customer trust. By prioritizing these aspects, financial institutions can not only attract and retain customers but also differentiate themselves in a competitive market. This study offers valuable insights for policymakers and stakeholders in the banking sector, highlighting the need for continuous innovation and adaptation to meet evolving customer expectations in the digital age. Keywords: Digital banking, customer satisfaction, accessibility, personalization, security perception, user experience, trust in technology, financial inclusion, Nepal. viii

CHAPTER I INTRODUCTION 1.1 Background of the Study The

evolution of digital banking services has been a global phenomenon, driven by rapid advancements in technology and changing consumer expectations. The initial phase of digital banking began in the 1990s with the advent of the internet. Early online banking services were primarily focused on providing customers with the ability to check account balances, view statements, and transfer funds. This period marked the beginning of the shift from traditional, branch-based banking to online platforms (Pousttchi & Dehnert, 2005). In the 2000s, digital banking services expanded significantly. Banks began to offer a wider range of online services, including bill payments, loan applications, and investment services. The introduction of mobile banking apps further revolutionized the industry, allowing customers to perform banking transactions on the go (Shaikh & Karjaluo, 2015). The 2010s saw the rise of fintech companies, which leveraged technology to offer innovative financial services. These companies challenged traditional banks by offering faster, more efficient, and user-friendly services. The integration of artificial intelligence, blockchain, and big data analytics further transformed digital banking, enabling personalized and secure financial services (Gomber, Koch, & Siering, 2017). Today, digital banking encompasses a wide array of services, including digital payments, peer-to-peer lending, robo-advisors, and open