INTERNET BANKING SERVICES AND CUSTOMER SATISFACTION IN THE BANKING SECTOR IN SANFEBAGAR MUNICIPALITY

A Dissertation Submitted to the Office of the Dean, Faculty of Management in Partial Fulfillment of the Requirements for the Masters of Business Studies (MBS)

By

Gajendra Thakulla
Campus Roll No: 329/077
Exam Roll No: 35525/21
T.U. Registration No: 7-2-327-615-2016
Shanker Dev Campus
Specialization: Management

Kathmandu, Nepal
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CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled **"Internet Banking Services and Customer Satisfaction in the Banking Sector in Sanfebagar Municipality."** 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.

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Gajendra Thakulla

Date:

REPORT OF RESEARCH COMMITTEE

Mr. Gajendra Thakulla has defended research proposal entitled **"Internet Banking Services and Customer Satisfaction in the Banking Sector in Sanfebagar Municipality"** 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 Lecturer Laxman Raj Kandel and submit the thesis for evaluation and viva voce examination.

……..…….....
Lecturer Laxman Raj Kandel
Dissertation Supervisor

Dissertation Proposal Defended Date:

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Dissertation Submitted Date:

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

Dissertation Viva Voce Date:

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APPROVAL SHEET

We, the undersigned, have examined the dissertation entitled **"Internet Banking Services and Customer Satisfaction in the Banking Sector in Sanfebagar Municipality"** presented by Mr. Gajendra Thakulla for the degree of Master of Business Studies (MBS Semester) and conducted the Viva voce examination of the candidate. We hereby certify that the dissertation is worthy of acceptance.

……..
Lecturer Laxman Raj Kandel
Dissertation Supervisor

……..
Internal Examiner

……..
Internal Expert

……..
External Expert

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

……..
Asso. Prof. Dr. Kapil Khanal
Campus Chief

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ABBREVIATIONS

CA	:	Cronbach's Alpha
CBS	:	Central Bureau of Statistics
CS	:	Customer Satisfaction
DS	:	Descriptive Statistics
EFF	:	Efficiency
IB	:	Internet Banking
Is	:	Inferential Statistics
OLS	:	Ordinary Least Squares
PLS	:	Partial Least Squares
PRI	:	Privacy
RA	:	Reliability Analysis
RES	:	Responsiveness
SA	:	System Availability
SEM	:	Structural Equation Modeling
SPSS	:	Statistical Package for the Social Sciences
SQD	:	Service Quality Dimensions
TU	:	Tribhuvan University
α	:	Alpha

ABSTRACT

This study investigates the internet banking system and customer satisfaction in the banking sector of Sanfebagar Municipality, focusing on assessing the current state of internet banking services and customer satisfaction, examining the relationships between efficiency (EFF), privacy (PRI), responsiveness (RES) and system availability (SA) with customer satisfaction (CS) and analyzing their effects on Customer Satisfaction (CS). A descriptive and causal comparative research design has been employed. The population has consisted of all internet banking users in Sanfebagar Municipality, with 419 responses collected through convenience sampling, exceeding the initially calculated sample size of 384 using Cochran's (1977) formula. Primary data have been gathered via a structured questionnaire distributed online in 2025. Reliability tests have confirmed acceptable to good internal consistency across all variables. Demographic analysis has shown that most respondents were male, young, unmarried, degree-holding, and employed, with moderate income and frequent use of internet banking. Descriptive analysis has revealed favorable perceptions of internet banking services, with system availability rated highest, followed by efficiency, privacy, and responsiveness. Correlation analysis has shown all independent variables to have significant positive relationships with customer satisfaction, with system availability exhibiting the strongest correlation. Regression analysis has indicated that both efficiency and system availability have had significant positive impacts on satisfaction, whereas privacy and responsiveness have shown statistically insignificant effects. These findings have underscored the importance of functionality and reliability in driving customer satisfaction in internet banking.

***Keywords**: Customer Satisfaction, Efficiency, Privacy, Responsiveness, System Availability, Internet Banking, Sanfebagar Municipality.*

CHPTER I
INTRODUCTION

1.1 Background of the Study

The global banking industry has undergone significant transformation with the advent of internet banking, which has emerged as a critical tool in modern financial services. Internet banking enables customers to access banking services conveniently, conduct transactions, and monitor accounts without visiting bank branches. This innovation has significantly improved banking efficiency, reduced operational costs, and offered better customer service (Allada et al., 2014; Indrasari et al., 2022; Lapina et al., 2021). E-banking has played a crucial role in enhancing competitiveness and the economic performance of banks globally (Hammoud et al., 2018; Khatoon et al., 2020).

The adoption of internet banking in various countries has shown diverse outcomes in terms of customer satisfaction. In Libya, for example, Almansour and Elkrghli (2023) found that perceived usefulness, ease of use, credibility, and customer attitude significantly influenced satisfaction with e-banking. Similarly, Hammoud et al. (2018) revealed that reliability, efficiency, responsiveness, and privacy contributed meaningfully to customer satisfaction in the Lebanese banking sector.

Despite the benefits of internet banking globally, developing countries like Nepal have faced challenges in digital banking adoption. Nepal's banking system has been gradually digitizing, with most commercial banks offering internet banking platforms. However, internet connectivity issues, lack of digital literacy, and trust concerns have slowed customer adoption. According to Nepal Rastra Bank, the usage of internet banking has grown over recent years, yet rural areas like Sanfebagar Municipality still lag behind urban centers in terms of access and digital readiness.

Sanfebagar Municipality, located in the Achham district of Nepal, is witnessing a growing awareness of digital banking services. However, customer satisfaction with internet banking in the area appears limited. Many customers face issues like system downtime, unresponsive customer service, and concerns about privacy. Although banks

have introduced digital platforms, customers often report dissatisfaction regarding the reliability and availability of these services.

Previous international studies have also examined system dimensions influencing satisfaction. Zavareh et al. (2012) identified efficiency, fulfillment, security, and responsiveness as essential to user satisfaction in Iran. Similarly, Motlaghi et al. (2015) highlighted the roles of system availability, privacy, and efficiency. In India, Sardana and Bajpai (2020) found that efficiency, responsiveness, and system criticality were key factors influencing satisfaction. These findings suggest that the technical and service quality aspects of internet banking significantly shape the user experience.

In the context of developing countries, digital banking faces several barriers that affect its effectiveness. In regions where internet infrastructure is weak and customer literacy about digital tools is low, the full potential of internet banking is not realized. The study by Harb et al. (2022) demonstrated how service quality, adoption levels, and perceived benefits influence satisfaction with digital channels in Lebanon. Their study concluded that internet banking could enhance customer satisfaction if implemented with proper technical reliability and user-centered service quality.

In Sanfebagar, many customers reportedly encounter unresponsive platforms during peak usage hours, delays in fund transfers, and inconsistent customer support. These issues reflect similar service quality dimensions discussed in prior research, such as responsiveness and system availability. While customers appreciate the convenience of avoiding travel to bank branches, the actual digital experience does not always meet expectations, leading to mixed satisfaction outcomes.

Efficiency, defined as the speed and accuracy of banking operations, is a critical factor influencing customer satisfaction. Beshir and Zelalem (2020) found that efficiency significantly predicted satisfaction in Ethiopian banks. In Sanfebagar, however, slow loading times and transaction errors often frustrate users, suggesting a gap in efficiency that needs to be addressed by local banks.

Privacy is another crucial dimension, especially in regions with limited awareness of cybersecurity. Shankar and Jebarajakirthy (2019) emphasized the role of trust and privacy in determining customer satisfaction in India. In Sanfebagar, concerns about data misuse and lack of secure login methods deter customers from fully embracing internet banking, highlighting the need for better privacy features and customer education.

Responsiveness, which relates to timely customer support and problem-solving, has been widely recognized as a predictor of satisfaction. Studies by Zavareh et al. (2012) and Hammoud et al. (2018) found responsiveness to be strongly associated with higher satisfaction. In the case of Sanfebagar, delays in complaint resolution and lack of real-time assistance negatively impact user trust in digital platforms.

System availability, which refers to the accessibility of internet banking platforms, is another vital factor. Motlaghi et al. (2015) showed that reliable systems with minimal downtime improve customer satisfaction. Sanfebagar banks often suffer from power outages and server unavailability, making the digital banking experience unpredictable and frustrating for customers.

Given the slow but growing adoption of internet banking in Nepal, there is a need for studies focusing on less urbanized municipalities like Sanfebagar to better understand the factors influencing customer satisfaction. The unique context of digital infrastructure, customer awareness, and localized service challenges must be considered in evaluating user satisfaction with internet banking.

Despite the challenges, customers in Sanfebagar express willingness to adopt digital services if reliability and responsiveness improve. Banks operating in the region must focus on enhancing system uptime, strengthening privacy measures, and delivering responsive customer service to improve satisfaction levels.

Building on global and national findings, this study focuses on four independent variables such as efficiency, privacy, responsiveness and system availability and their effect on the dependent variable customer satisfaction. By exploring these dimensions

within Sanfebagar Municipality, the study aims to provide empirical insights into how internet banking can be optimized in rural Nepalese contexts.

1.2 Problem Statement

The rapid expansion of internet banking services has significantly transformed how customers interact with financial institutions. In Nepal, while there has been growing adoption of internet banking, especially in urban areas, there has been limited understanding of how these services impact customer satisfaction in rural settings like Sanfebagar Municipality. Previous studies, such as those by Dias and Edirisinghe (2025) and Subedi and Bhandari (2024) explored internet banking and customer satisfaction, but most of them were conducted in urban areas where digital literacy, internet infrastructure and access to online services were more advanced. This geographical and contextual focus left a considerable gap in understanding how internet banking services functioned in rural areas where factors such as limited internet connectivity, low digital literacy, and restricted access to technology could significantly influence customer satisfaction (Gautam & Sah, 2023).

One of the primary issues in the existing literature was the lack of research examining the specific challenges faced by rural customers in their adoption and satisfaction with internet banking services. Rural customers may have had different expectations and experiences with internet banking due to their socio-economic environment, access to digital tools, and limited exposure to technology. Additionally, while several studies found a positive relationship between internet banking service quality and customer satisfaction, these studies did not fully address how factors like efficiency, privacy, responsiveness, and system availability interacted and contributed to overall satisfaction in rural areas. For example, studies by Khanal (2023) and Limbu (2024) highlighted that efficiency and privacy were essential components of customer satisfaction but failed to explore how these elements related to system availability and responsiveness in rural settings. The rural context likely presented unique challenges, such as unreliable network services, which could have diminished the perceived quality of internet banking services.

Another significant gap in the literature was the insufficient focus on the combined influence of multiple service quality dimensions on customer satisfaction. Studies like

those by Almansour and Elkrghli (2023) and Hilmy and Saujan (2025) examined individual service quality factors such as privacy, system availability, or responsiveness, but tended to overlook how these factors interacted with each other. For instance, a bank with a highly efficient system but without adequate privacy protections might not have necessarily led to high customer satisfaction, especially in a rural area where concerns about privacy could have been more pronounced. Similarly, system availability, which is crucial in ensuring smooth access to banking services, was often underexplored in many studies, particularly in regions where internet access was intermittent or unreliable. Therefore, there was a need for a more comprehensive examination of how these factors such as efficiency, privacy, responsiveness and system availability interacted to influence customer satisfaction, especially in the context of rural municipalities like Sanfebagar.

Furthermore, while existing studies primarily focused on customer satisfaction as a single construct, there was a lack of research that examined how customer satisfaction directly correlated with other dimensions, such as loyalty or long-term engagement in rural areas. Studies by Gautam and Sah (2023) and Patel et al. (2024) highlighted the role of satisfaction in fostering customer loyalty, but these studies did not provide insights into the specific service quality dimensions that drove satisfaction in rural areas like Sanfebagar Municipality. Given the unique nature of rural markets and the distinctive challenges they faced, understanding the direct effect of these service quality dimensions on satisfaction could have led to more tailored service improvements.

In conclusion, existing studies did not explore the current situation of internet banking services and customer satisfaction in rural municipalities like Sanfebagar. Moreover, there was no clear understanding of the relationship between efficiency, privacy, responsiveness and system availability with customer satisfaction, nor was there sufficient research on how these factors affected customer satisfaction in rural settings. Therefore, this study aims to address the issues identified in previous research by posing the following research questions:

i. What is the current situation of internet banking services and customer satisfaction in Sanfebagar Municipality?

ii. Is there a relationship between efficiency, privacy, responsiveness and system availability with customer satisfaction in Sanfebagar Municipality?
iii. How do efficiency, privacy, responsiveness and system availability effect on customer satisfaction in Sanfebagar Municipality?

1.3 Objectives of the Study

The general objective of this study is to investigates internet banking system and customer satisfaction in the Nepalese banking sector, specifically focusing on Sanfebagar Municipality. The specific objectives are as follows:

i. To assess the current situation of internet banking services and customer satisfaction in Sanfebagar Municipality.
i. To examine the relationship between efficiency, privacy, responsiveness and system availability with customer satisfaction in Sanfebagar Municipality.
ii. To analyze the effect of efficiency, privacy, responsiveness and system availability on customer satisfaction in Sanfebagar Municipality.

1.4 Rationale of the Study

This study on internet banking systems and customer satisfaction in Sanfebagar Municipality is particularly valuable as it explores how rural customers perceive and interact with digital banking services a growing yet under-researched area in Nepal. As digital transformation accelerates across the country, understanding its impact in rural settings becomes essential. This research is worthwhile because it provides insights into the unique challenges that rural customers face when accessing internet banking, such as infrastructure limitations, digital literacy gaps, and service availability. By focusing on key factors like efficiency, privacy, responsiveness, and system availability, the study highlights how these dimensions' influence customer satisfaction. It also fills a significant gap in the existing literature by examining customer behavior and perceptions in a rural context, where most previous studies have focused on urban populations. The findings can help banks tailor their services to better meet the expectations of rural customers and improve overall satisfaction levels. Moreover, the research supports policymakers by identifying areas where digital banking infrastructure and services can be strengthened to ensure inclusivity.

Ultimately, the study contributes to a broader understanding of how to improve the quality and reach of internet banking in rural municipalities and offers practical recommendations that banking institutions and regulators can adopt to enhance service delivery and promote financial inclusion. This research also encourages future academic inquiry into digital banking experiences in other rural areas across Nepal, enabling comparative insights for nationwide improvement.

1.5 Limitations of the Study

Limitations of a study refer to the potential weaknesses or constraints that may affect the scope, depth, or generalizability of the research findings. These limitations are often beyond the control of the researcher and are acknowledged to maintain transparency and guide future research. The limitations of this study are as follows:

i. The study has employed a descriptive and causal-comparative research design, which limits the ability to establish definitive cause-and-effect relationships.
ii. The study population is confined to internet banking users in Sanfebagar Municipality and therefore, the findings may not be generalized to users in other regions or municipalities.
iii. Although Cochran's (1977) formula was used to determine a sample size of 384, a total of 419 responses were collected using a convenience sampling technique, which may introduce sampling bias and limit the representativeness of the sample.
iv. The study relies on primary data collected through an online questionnaire, which may exclude individuals without internet access or those unfamiliar with online surveys, potentially affecting the diversity of responses.
v. The research has focused only on four dimensions of service quality including efficiency, privacy, responsiveness and system availability while other factors that may influence customer satisfaction have been excluded.
vi. The data collection was conducted in 2025 only, which provides a cross-sectional view rather than a longitudinal perspective on changes in internet banking service quality and customer satisfaction over time.

CHAPTER II
LITERATURE REVIEW

This chapter has discussed research studies related to the role of internet banking systems and customer satisfaction in the banking sector in Sanfebagar Municipality, establishing a foundation of knowledge by highlighting the current literature on this topic. It provides a comprehensive analysis of existing work in the field. This chapter has been organized into three major sections: the conceptual review, which outlines the core concepts related to internet banking service quality and customer satisfaction, focusing on how dimensions such as efficiency, privacy, responsiveness, system availability, reliability, security, and ease of use influence customer satisfaction; the theoretical review, which discusses the relevant theories that underpin internet banking and its impact on customer satisfaction; and the empirical review, which summarizes and evaluates findings from previous research studies conducted between 2017 and 2025 that have investigated the effects of internet banking services including efficiency, privacy, responsiveness, and system availability on customer satisfaction in rural areas. Further details of these three sections are described below.

2.1 Conceptual Review

This section discusses the core concepts related to internet banking service quality and customer satisfaction. It focuses on how various dimensions of service quality such as efficiency, privacy, responsiveness and system availability shape customer perceptions and satisfaction in the banking sector of Sanfebagar Municipality.

2.1.1 Overview of Internet Banking and Customer Satisfaction

In the era of digital transformation, internet banking has emerged as a vital service in enhancing operational efficiency and customer interaction in the banking sector. Customer satisfaction in this domain is shaped by several dimensions of service quality, such as system functionality, privacy, responsiveness, reliability, and ease of use. Evaluating these dimensions helps banks improve digital service delivery and meet evolving customer expectations (Al-Hawari, 2021). This study identifies and reviews seven major service quality dimensions influencing customer satisfaction in internet banking within Sanfebagar Municipality.

2.1.2 Key Dimensions of Internet Banking Service Quality

Efficiency

Efficiency refers to the speed, convenience, and accuracy with which customers can complete their transactions online. A system that allows users to quickly log in, navigate, and complete tasks like transfers or bill payments is seen as efficient. Recent studies show that efficient digital services enhance satisfaction and usage continuity (Ali et al., 2023). Efficiency minimizes time and effort, directly contributing to a positive customer experience in internet banking.

Privacy

Privacy pertains to the secure handling of personal and financial information. Customers expect banks to safeguard their data from unauthorized access, especially in online environments. With increasing cyber threats, ensuring data confidentiality is crucial for maintaining trust (Javaria et al., 2022). Research indicates that perceived privacy protection significantly boosts customer confidence and satisfaction in internet banking platforms (Rahman & Laila, 2023).

Responsiveness

Responsiveness is the bank’s ability to provide prompt assistance, resolve queries, and handle customer issues swiftly. Timely response via online support systems or service centers plays a pivotal role in reducing customer frustration (Hassan et al., 2022). Studies reveal that banks with higher responsiveness levels tend to retain customers longer and improve satisfaction levels (Wang & Nguyen, 2023).

System Availability

System availability reflects the extent to which the online banking platform is accessible and functional whenever needed. Customers expect 24/7 availability with minimal downtime or interruptions (Sathye & Prakash, 2021). When systems crash frequently or are inaccessible, customers experience dissatisfaction, which can lead to a loss of trust in the service.

Reliability

Reliability refers to the consistency and dependability of the banking system in delivering services accurately. This includes the system's ability to execute transactions without errors, update balances correctly, and function as promised (Qureshi et al., 2022). A reliable platform fosters loyalty and improves satisfaction by reinforcing customers' belief in the platform's integrity.

Security

Security is a critical aspect of internet banking and involves protecting user accounts from fraud, hacking, and financial theft. Customers are more likely to use and be satisfied with platforms that ensure strong security measures like encryption and two-factor authentication (Khan & Muneer, 2023). Current literature emphasizes the growing importance of security as a determinant of online banking success (Nwaobia & Akinwale, 2023).

Ease of Use

Ease of use refers to the user-friendliness and simplicity of navigating through the internet banking interface. A platform that is intuitive, visually organized, and requires minimal instruction is more likely to be accepted and preferred by users (Ahmed et al., 2022). Complexity or confusion in design reduces satisfaction and discourages further usage.

2.1.3 Customer Satisfaction in Internet Banking

Customer satisfaction is a customer's overall evaluation of their banking experience, particularly in terms of service quality. It reflects how well customer expectations are met or exceeded by the service provided. High customer satisfaction leads to increased loyalty, repeated use of services, and positive word-of-mouth (Alotaibi &

Alalwan, 2021). Internet banking satisfaction depends on how customers perceive the performance of various service quality dimensions mentioned above.

2.1.4 Relationship Between Internet Banking Services and Customer Satisfaction

Extensive research has confirmed a strong association between digital service quality and customer satisfaction. Each of the seven dimensions such as efficiency, privacy, responsiveness, system availability, reliability, security, and ease of use has been positively linked with user satisfaction in the banking context (Singh & Srivastava, 2022). In developing regions like Sanfebagar Municipality, where internet infrastructure and digital literacy may vary, these factors play an even more crucial role. Optimizing these dimensions can help local banks enhance customer experiences and encourage broader adoption of internet banking services. In summary, this conceptual review highlights that customer satisfaction in internet banking is multi-dimensional. Efficiency, privacy, responsiveness, system availability, reliability, security, and ease of use are critical service quality elements that shape users' satisfaction levels. In Sanfebagar Municipality, where internet banking is still evolving, focusing on these factors will allow banks to tailor their services to local needs and expectations. The review sets a foundation for analyzing how improvements in these areas can drive greater customer engagement and satisfaction in the digital banking sector.

2.2 Theoretical Review

The theoretical review explores theories related to the role of internet banking systems in enhancing customer satisfaction in the banking sector, focusing on service quality, customer trust, and technology acceptance. It examines most relevant some theories that explain how factors like efficiency, privacy, responsiveness and system availability contribute to overall customer satisfaction in rural banking environments. This review aims to refine existing theoretical frameworks and identify gaps in understanding the effectiveness of internet banking services. Some theories include:

2.2.1 Technology Acceptance Model

The Technology Acceptance Model was developed by Davis (1989) to explain how users come to accept and use a new technology. The model assumed that two key beliefs perceived ease of use and perceived usefulness determine users' intentions to

adopt a system. It proposed that technologies seen as easy to use and beneficial are more likely to be accepted. This model was tested by Pikkarainen et al. (2004) and Shih (2004), who found that these two factors significantly influenced users' adoption of internet banking. Their studies highlighted that users are more likely to adopt technology when it aligns with their needs and reduces the effort required to complete tasks. Additionally, they emphasized that trust and accessibility can further enhance the impact of ease of use and usefulness in technology adoption. Later research also integrated external variables such as user experience, system quality, and perceived risk into the model to improve its explanatory power. These extensions have shown that user confidence and prior familiarity with technology also play a crucial role in adoption. In the current study, TAM is relevant as it helps explain how the simplicity and usefulness of internet banking platforms in Sanfebagar Municipality influence customer satisfaction and shape their ongoing usage behavior.

2.2.2 Theory of Planned Behavior

The theory of planned behavior was proposed by Ajzen (1991). It assumed that behavior is determined by behavioral intentions, which in turn are influenced by attitudes toward the behavior, subjective norms, and perceived behavioral control. Tan and Teo (2000); Ramayah et al. (2009) applied this theory in digital banking and found that these elements strongly impacted the intention to adopt online banking services. In the context of this study, TPB helps understand how customers' attitudes, social influence, and confidence in using internet banking shape their satisfaction in Sanfebagar Municipality. This theory provides a useful lens to explore how behavioral beliefs translate into customer experiences and satisfaction with online banking services.

2.2.3 Expectation-Confirmation Theory

Expectation-confirmation theory was developed by Oliver (1980). It assumed that satisfaction results from a comparison between initial expectations and actual performance. If the service meets or exceeds expectations, satisfaction follows; otherwise, dissatisfaction occurs. Bhattacherjee (2001); Ranaweera and Neely (2003) tested ECT in information systems and service quality research, confirming its relevance in predicting satisfaction. For this study, ECT is applied to analyze how

well internet banking services in Sanfebagar Municipality meet customer expectations and how this affects their satisfaction.

2.2.4 SERVQUAL Model

The SERVQUAL model was developed by Parasuraman, Zeithaml, and Berry (1988). It assumed that service quality can be assessed through five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Jun and Cai (2001); Ladhari (2009) used SERVQUAL to evaluate service quality in electronic banking and showed strong links between these dimensions and customer satisfaction. In this study, SERVQUAL is used to evaluate the service quality of internet banking in Sanfebagar Municipality and its effect on customer satisfaction, emphasizing how dimensions like responsiveness and assurance influence user satisfaction and service quality perception. This framework helps identify areas for improvement in banking services to meet customer expectations and enhance their overall experience.

2.2.5 Social Exchange Theory

Social Exchange Theory was developed by Homans in 1961. The theory assumes that individuals make decisions about their interactions by evaluating the perceived benefits and costs, aiming to maximize rewards and minimize losses. It suggests that people are more likely to continue a relationship or interaction when the benefits outweigh the associated risks or costs. This theory was later tested by Blau (1964); Molm (1997) in various social and organizational settings. Their studies found that SET effectively explained user engagement and satisfaction, especially in environments involving service delivery and decision-making. In the context of the current study on internet banking systems and customer satisfaction in Sanfebagar Municipality, SET helps understand how customers evaluate the trade-off between benefits like convenience and time savings, and costs such as security concerns and technical issues. Their satisfaction depends on this balance, making SET crucial for analyzing internet banking adoption.

2.2.6 Diffusion of Innovation Theory

The diffusion of innovation theory was developed by Rogers (1962). It assumed that the adoption of new technologies depends on five key attributes: relative advantage,

compatibility, complexity, trialability, and observability. The theory suggested that innovations perceived as more advantageous and easy to try are adopted more quickly. This theory was tested by Lee (2009) and Al-Jabri and Sohail (2012), who found it effective in explaining how customers adopt mobile and internet banking services based on these perceived attributes. In the context of this study, DOI helps explain how the perceived benefits and compatibility of internet banking systems influence customers' adoption and satisfaction levels in Sanfebagar Municipality. It highlights how factors like ease of use, visible benefits, and technological compatibility with local user behavior can increase trust and adoption. Therefore, understanding these attributes can help banks design strategies to encourage broader usage and improve satisfaction with online banking services in rural settings.

2.2 Empirical Review

Dias and Edirisinghe (2025) looked the factors affecting customer satisfaction in online banking, focusing specifically on Pan Asia Bank in Sri Lanka. The objective of the study was to identify critical independent variables influencing customer satisfaction, particularly emphasizing perceived usefulness, perceived ease of use, perceived relative advantage, and compatibility. The methodology employed a quantitative approach, using a structured questionnaire distributed among 120 online banking customers selected through simple random sampling. Data were analyzed using IBM SPSS software, employing descriptive statistics and Pearson correlation analysis. The findings revealed strong positive correlations between customer satisfaction and all four independent variables, with perceived usefulness showing the most significant relationship. The results underscore the importance for financial institutions to enhance online banking services to improve customer satisfaction levels and remain competitive.

Hilmy and Saujan (2025) conducted a study on customer satisfaction with digital banking services provided by Islamic financial institutions in Sri Lanka. The study aimed to determine how satisfied customers are with digital banking services, focusing on Amana Bank PLC and AL Adalah accounts. The research utilized the ISO 9000 standard E-SERVQUAL model to analyze digital service quality. A total of 200 questionnaires were administered to customers, and the data were analyzed using SPSS version 20, employing descriptive analysis methods. The results were displayed using bar graphs and pie charts in Microsoft Excel. Pearson correlation analysis was

employed to examine the relationship between customer satisfaction (dependent variable) and independent variables such as efficiency, system availability, ease of use, privacy, and responsiveness. The study found significant relationships between service quality factors and customer satisfaction, emphasizing the importance of these factors in enhancing customer experiences with digital banking services.

Alzoraik et al. (2025) explored the impact of trust and satisfaction on the adoption of online banking in Bahrain. The objective of the study was to examine how trust and satisfaction influence the adoption rates of online banking. The methodology used was a comprehensive literature review, with secondary data gathered from various academic sources. The independent variables were trust and satisfaction, while the dependent variable was online banking adoption. The findings showed a significant relationship between enhanced security measures and increased trust, and a user-friendly interface was strongly linked to customer satisfaction, which, in turn, promotes adoption intentions.

Subedi and Bhandari (2024) surveyed on online banking services and customer satisfaction in Nepalese commercial banks. The objective of the study was to assess the satisfaction level of customers using online banking services in Nepal and to analyze the evolving nature of digital banking platforms replacing traditional systems. The methodology was based on a quantitative research approach using structured questionnaires, with data collected through stratified random sampling. The independent variables were tangibility, reliability, responsiveness, assurance, and empathy, while the dependent variable was customer satisfaction. The findings highlighted both the strengths and weaknesses of the shift to online banking, showing that service quality dimensions significantly influenced customer satisfaction and offering insights for improving digital service delivery in the Nepalese banking sector.

Limbu (2024) investigated Satisfaction Levels of Customers with Online Banking Sectors in Nepal. The objective of the study was to understand customer responses to e-banking services offered by commercial banks in Nepal. The methodology was based on a survey research design, combining questionnaires and semi-structured interviews, with data collected from 60 respondents using convenience sampling. The independent variables were accessibility, reliability, ease of use, and digital security,

while the dependent variable was customer satisfaction. The findings revealed that accessibility had a significant impact on customer satisfaction, with reliability also identified as a crucial factor due to its influence on information accuracy and service updates. Ease of use, reflected in simple language and intuitive interfaces, and strong digital security measures, particularly confidentiality of transactions, were also found to be key drivers of satisfaction in the online banking context.

Patel et al. (2024) reviewed the structural relationship between e-service quality, e-satisfaction, and e-loyalty in Indian and Pakistani banks. The objective of the study was to analyze how these variables interact in the context of internet banking. The methodology used involved a survey of 800 respondents, with 400 from India and 400 from Pakistan, all of whom were users of internet banking services. The data collection was done using structured questionnaires, and the theoretical model was assessed using the PLS-SEM technique. The independent variables were reliability, responsiveness, accessibility, ease of use, and security, while e-customer satisfaction and e-customer loyalty were the dependent variables. The findings showed a significant positive relationship between e-service quality, e-satisfaction, and e-loyalty in both countries. The study recommended that bank managers should focus on enhancing internet banking services to foster customer loyalty, particularly in emerging economies like India and Pakistan.

Khanal (2023) analyzed impact of e-banking services on customer awareness in Nepalese commercial banks. The objective of the study was to examine how e-banking services influence customer awareness within Nepalese commercial banks. The methodology was based on both descriptive and explanatory research designs, using primary data collected through questionnaires and interviews from bank customers. The independent variables were accessibility, reliability, convenience, and privacy/security, while the dependent variable was customer awareness. The findings indicated that all independent variables had a positive and significant relationship with customer awareness, with convenience and privacy/security having the most substantial effects. The regression analysis showed that these e-banking services explained 96% of the variation in customer awareness, highlighting the importance of improving accessibility and reliability to enhance awareness among customers.

Gautam and Sah (2023) observed online banking service practices and its impact on e-customer satisfaction and e-customer loyalty in developing country of South Asia–Nepal. The objective of the study was to investigate the relationship and impact of online banking service practices on e-customer satisfaction and loyalty, including the mediating role of e-satisfaction. The methodology was based on a quantitative research approach using structured questionnaires, with data collected from 384 respondents through stratified random sampling. The independent variables were e-customer service, site of the organization, website efficiency, user-friendliness, security, and privacy, while the dependent variables were e-customer satisfaction and e-customer loyalty. The findings revealed that website efficiency and e-customer service were the most influential dimensions, followed by user-friendliness, security and privacy, and the organizational site. E-customer satisfaction had a significant positive effect on e-customer loyalty and also mediated the relationship between online banking service quality and loyalty, offering valuable insights for improving digital banking strategies in developing economies.

Gaire (2023) assessed internet banking tools and client satisfaction with Nepalese commercial banks. The objective of the study was to evaluate the influence of various internet banking tools on client satisfaction in the commercial banking sector of Surkhet. The methodology was based on a descriptive research design using a structured questionnaire, with data collected from 101 internet banking users through a convenience sampling technique. The independent variables were Internet banking, mobile banking, automated teller machine, and point of sales, while the dependent variable was client satisfaction. The findings demonstrated a significant positive effect of these internet banking tools on client satisfaction, indicating that the effective use and integration of digital banking tools by commercial banks in Surkhet contributed to enhanced satisfaction levels among their clients.

Almansour and Elkrghli (2023) investigated the factors influencing customer satisfaction with e-banking services in Libyan banks. The objective of the study was to identify the impact of perceived usefulness, perceived ease of use, perceived credibility, and customer attitude on customer satisfaction with e-banking services. The methodology used was a descriptive research design with a quantitative approach, and data was collected through an online questionnaire distributed to 215 e-banking

users. The independent variables were perceived usefulness, perceived ease of use, perceived credibility, and customer attitude, while the dependent variable was customer satisfaction. The findings revealed that all four factors significantly impacted customer satisfaction, with customer attitude being the most important factor. The study concluded that banks in Libya should prioritize improving customer attitudes, ease of use, credibility, and perceived usefulness to enhance customer satisfaction and competitiveness in the digital banking sector.

Ghimire et al. (2022) examined understanding and adoption of internet banking: Nepalese perspective. The objective of the study was to identify the elements influencing the adoption of internet banking by analyzing customer viewpoints. The methodology involved a questionnaire survey conducted among 398 banking customers in the Kathmandu Valley. The independent variables were security, trust, cost reduction, and service delivery speed, while the dependent variable was internet banking adoption. The findings revealed that security and trust were the most influential factors in determining customers' willingness to adopt internet banking, highlighting the need for banks to enhance service quality by offering customized and fast financial services aligned with international standards.

Lamsal (2022) explored internet banking services and customer satisfaction in Nawalpur district. The objective of the study was to explore the effect of service quality and customer satisfaction on consumer loyalty in internet banking. A quantitative research methodology was used, with 172 internet banking users as the sample. The independent variables were ease of use, efficiency, security, reliability, and responsiveness, and the dependent variable was customer loyalty. The findings indicated a significant positive impact of service quality and customer satisfaction on customer loyalty.

Harb et al. (2022) examined customer satisfaction with digital banking channels in Lebanon during times of uncertainty. The objective of the study was to investigate the adoption, benefits, service quality, and overall customer satisfaction with digital banking channels (DBCs) in Lebanese banks during the economic crisis and the COVID-19 pandemic. The methodology used was a deductive approach, analyzing Spearman's correlations and multiple linear regression to determine relationships

between DBC adoption and customer satisfaction. The independent variables were DBC adoption, benefits, and service quality, while the dependent variable was customer satisfaction. The findings revealed a positive relationship between DBC adoption and customer satisfaction, with mobile banking, internet banking, and transactional call centers showing high correlation with satisfaction. The study concluded that banks should invest in and further develop DBCs to enhance customer satisfaction through increased adoption, improved service quality, and greater benefits.

Lama (2021) examined the impact of internet banking on customer satisfaction in Kathmandu. The objective of the study was to assess how accessibility, convenience, and service security influence customer satisfaction. A primary data collection methodology was used, with 123 respondents from Kathmandu city, utilizing a structured questionnaire and Likert scale items for cross-sectional data collection. Correlation and regression analyses were employed to identify the relationships between the independent variables and customer satisfaction. The findings revealed that convenience, service security, and accessibility were positively correlated with customer satisfaction, with convenience and service security showing significant relationships. However, accessibility was not statistically significant in the regression analysis.

Lakshmipathi and SV (2021) researched on e-banking services and customer satisfaction with reference to select public and private banks in India. The objective of the study was to analyze customer satisfaction and willingness to use e-banking services provided by SBI Bank and Kotak Mahindra Bank. A sample of 1000 respondents was collected, with 570 from SBI and 430 from Kotak Mahindra Bank. The methodology involved analyzing questionnaire results. The findings showed that e-banking customers were satisfied with aspects such as ease of use, website design, security, privacy, perceived cost, responsiveness, and computer self-efficacy. The comparison between SBI and Kotak Mahindra Bank revealed negligible or similar satisfaction levels.

Gautam and Devkota (2021) studied internet banking services of commercial banks in Nepal. The objective of the study was to analyze different internet banking services

and their parameters provided by commercial banks in Nepal. The research used a questionnaire distributed via Google Form for primary data collection. A sample of four banks was selected from the 27 banks in Nepal, analyzing 18 different attributes. The comparative study involved examining various internet banking services, such as transaction types (intra and interbank), merchant tie-ups, wallet support, utility payments, transaction costs, transaction limits, and IPS connectivity using bar chart analysis. The findings indicated that no single parameter could be used to compare the services, and the proposed model was helpful for comparing services across financial institutions and could be applied to other service-oriented organizations.

Buddhika and Gunawardana (2020) reviewed the impact of e-banking on customer satisfaction in private commercial banks in Sri Lanka. The objective of the study was to investigate why some customers use e-banking systems while others do not, particularly in the Galle district. The research identified seven e-banking dimensions and six service quality dimensions to measure customer satisfaction, based on an extensive review of literature. The study employed purposive and snowball sampling methods, with structured questionnaires distributed to 150 respondents practicing e-banking. The findings revealed that ATM banking, internet banking, online banking, credit cards, and debit cards had a positive direct impact on customer satisfaction, while telephone banking and mobile banking showed a negative and statistically significant relationship.

Belbase and Paudel (2020) examined the impact of e-banking on customer satisfaction in Nepalese commercial banks. The objective of the study was to assess how e-banking services influence customer satisfaction. The research utilized a descriptive, cause-and-effect research design and collected primary data from 200 respondents using a structured questionnaire. The study employed a quantitative method for data analysis, with convenience sampling used for selecting respondents. The independent variables were personalization, ease of use, cost, and security, while customer satisfaction served as the dependent variable. The study found a positive relationship between the four independent variables and customer satisfaction, with security identified as the most impactful factor influencing customer satisfaction in e-banking services.

Firdous and Farooqi (2017) investigated the impact of internet banking service quality on customer satisfaction. The purpose of the study was to enhance the understanding of the dimensions of internet banking and their contributions to customer satisfaction, particularly in India, following the government's demonetization which boosted the adoption of digital banking. The study collected data from 194 internet banking customers in New Delhi using an exploratory survey with a Likert-based questionnaire. The sampling method used was judgmental and convenience sampling. The findings revealed that the quality dimensions of internet banking, including efficiency, system availability, fulfillment, privacy, contact, and responsiveness, had a significant impact on customer satisfaction. Collectively, these dimensions contributed 70% to overall customer satisfaction in internet banking.

Table 1

Summary of Empirical Review

Author(s)	Titles	Objectives	Methodology	Findings
Dias and Edirisinghe (2025)	Factors affecting customer satisfaction in online banking (Pan Asia Bank, Sri Lanka)	To identify critical variables influencing customer satisfaction	Quantitative; 120 respondents; SPSS; DV: Customer Satisfaction; IVs: Perceived usefulness, ease of use, relative advantage, compatibility	All IVs had significant positive effects on satisfaction. Perceived usefulness was the strongest predictor. Banks should enhance usability and compatibility to retain customers.
Hilmy and Saujan (2025)	Customer satisfaction with digital banking in Islamic financial institutions	To determine customer satisfaction with digital banking services	E-SERVQUAL; 200 respondents; SPSS; DV: Customer Satisfaction; IVs: Efficiency, system availability, ease of use, privacy, responsiveness	All service quality dimensions showed strong correlation with satisfaction. Responsiveness and privacy were particularly valued by users of Islamic banks.
Alzoraik et	Trust and	To examine	Literature review;	Trust improved by better

al. (2025)	satisfaction in online banking adoption (Bahrain)	how trust and satisfaction affect online banking adoption	DV: Online Banking Adoption; IVs: Trust, Satisfaction	security; satisfaction linked to interface design. Both significantly impacted adoption rates of online banking services.
Subedi and Bhandari (2024)	Online banking services and customer satisfaction in Nepalese banks	To assess satisfaction level of online banking users in Nepal	Quantitative; stratified sampling; DV: Customer Satisfaction; IVs: Tangibility, reliability, responsiveness, assurance, empathy	All five IVs influenced satisfaction positively. Reliability and responsiveness were top contributors; banks must invest in user training and support.
Limbu (2024)	Satisfaction with online banking in Nepal	To understand customer responses to e-banking services	Survey & interviews; 60 respondents; DV: Customer Satisfaction; IVs: Accessibility, reliability, ease of use, digital security	Accessibility had the most influence. Reliability impacted satisfaction due to data accuracy. Ease of use and confidentiality were also key factors.
Patel et al. (2024)	E-service quality, satisfaction, and loyalty in Indian & Pakistani banks	To analyze relationships among e-service quality, satisfaction, and loyalty	Survey; 800 respondents; PLS-SEM; DVs: E-Satisfaction, E-Loyalty; IVs: Reliability, responsiveness, accessibility, ease of use, security	E-service quality strongly affected both satisfaction and loyalty. Indian users valued responsiveness more, while Pakistani users emphasized security.
Khanal (2023)	E-banking services and customer awareness in Nepalese banks	To examine how e-banking influences customer	Descriptive & explanatory; DV: Customer Awareness; IVs: Accessibility,	Convenience and privacy/security had the highest influence. 96% of variation in awareness explained by the model;

		awareness	reliability, convenience, privacy/security	banks should focus on reliable digital outreach.
Gautam and Sah (2023)	Online banking practices and their effect on satisfaction & loyalty in Nepal	To explore impact of online banking practices on satisfaction and loyalty	Quantitative; 384 respondents; DVs: E-Satisfaction, E-Loyalty; IVs: E-customer service, website efficiency, user-friendliness, security, privacy	Website efficiency and customer service were key drivers. Satisfaction fully mediated loyalty. Trust-building and digital literacy boost long-term usage.
Gaire (2023)	Internet banking tools and client satisfaction in Surkhet	To evaluate the effect of internet banking tools on client satisfaction	Descriptive; 101 respondents; DV: Client Satisfaction; IVs: Internet banking, mobile banking, ATM, POS	All tools significantly influenced satisfaction. Mobile banking and ATMs were especially impactful due to ease and availability. Banks need better integration of tools.
Almansour and Elkrghli (2023)	Factors Influencing Customer Satisfaction with E-banking in Libyan Banks	To identify the impact of perceived usefulness, perceived ease of use, perceived credibility, and customer attitude on customer satisfaction	Descriptive research design, online questionnaire with 215 e-banking users; DV: Customer satisfaction; IVs: Perceived usefulness, perceived ease of use, perceived credibility, customer attitude	All factors significantly impacted satisfaction, with customer attitude being the most important. Banks should focus on improving customer attitude, ease of use, and credibility.
Ghimire et al. (2022)	Understanding and Adoption of Internet	To identify elements influencing	Survey of 398 customers; DV: Internet banking	Security and trust were key factors; banks should enhance service quality and

	Banking: Nepalese Perspective	internet banking adoption	adoption; IVs: Security, trust, cost reduction, service delivery speed	offer faster services.
Lamsal (2022)	Internet Banking Services and Customer Satisfaction in Nawalpur	To explore the effect of service quality and customer satisfaction on loyalty	Survey of 172 users; DV: Customer loyalty; IVs: Ease of use, efficiency, security, reliability, responsiveness	Service quality and satisfaction positively impacted customer loyalty.
Harb et al. (2022)	Customer Satisfaction with Digital Banking Channels in Lebanon	To investigate DBC adoption, benefits, service quality, and satisfaction	Deductive approach, regression & correlation; DV: Customer satisfaction; IVs: DBC adoption, benefits, service quality	Positive relationship between DBC adoption and satisfaction; mobile banking, internet banking, and call centers were most correlated.
Lama (2021)	Impact of Internet Banking on Customer Satisfaction in Kathmandu	To assess how accessibility, convenience, and service security influence satisfaction	Survey of 123 respondents; DV: Customer satisfaction; IVs: Accessibility, convenience, service security	Convenience and service security significantly impacted satisfaction; accessibility was less important.
Lakshmipathi and SV (2021)	E-banking Services and Customer Satisfaction in India	To analyze satisfaction and willingness to use e-banking	Survey of 1000 respondents; No specific DV/IVs	High satisfaction with ease of use, website design, security, privacy, and responsiveness.
Gautam	Internet	To analyze	Survey of 4 banks,	No single parameter for

and Devkota (2021)	Banking Services of Commercial Banks in Nepal	internet banking services and parameters	18 attributes; No specific DV/IVs	service comparison; a proposed model was useful for evaluating services.
Buddhika and Gunawardana (2020)	Impact of E-banking on Customer Satisfaction in Sri Lanka	To explore why some use e-banking and others do not	Survey of 150 respondents; DV: Customer satisfaction; IVs: ATM, online, credit/debit cards, mobile & phone banking	ATM and internet banking positively affected satisfaction; mobile and phone banking showed negative impact.
Belbase and Paudel (2020)	Impact of E-banking on Customer Satisfaction in Nepal	To assess how e-banking services influence customer satisfaction	Survey of 200 respondents; DV: Customer satisfaction; IVs: Personalization, ease of use, cost, security	Security was the most impactful factor; personalization, ease of use, and cost also positively affected satisfaction.
Firdous and Farooqi (2017)	Internet Banking Service Quality and Customer Satisfaction in India	To understand internet banking quality and satisfaction	Survey of 194 respondents; DV: Customer satisfaction; IVs: EFF, SA, PRI, contact, RES	Quality dimensions contributed 70% to customer satisfaction, with efficiency and responsiveness being most significant.

2.3 Research Gap

Previous studies' research design was mostly descriptive only (Gaire, 2023; Lama, 2021; Firdous & Farooqi, 2017) but the current study has employed a descriptive and causal comparative research design. The population and sampling in earlier studies were broader or smaller in scale, often focusing on national or bank-level samples with fewer respondents (Lamsal, 2022; Gautam & Sah, 2023) while this study has focused specifically on internet banking users in Sanfebagar Municipality with a revised sample size of 419 using convenience sampling. Earlier research collected primary data mostly before 2024 using various instruments (Dias & Edirisinghe,

2025; Alzoraik et al., 2025) but this study has collected primary data in 2025 through a structured online questionnaire distributed via Google Forms. Previous studies generally applied descriptive statistics and regression analyses (Patel et al., 2024; Belbase & Paudel, 2020) whereas this study has used reliability testing, demographic profile analysis, correlation and regression analysis to ensure comprehensive findings. Prior research variables often focused on limited service quality dimensions such as reliability and accessibility (Subedi & Bhandari, 2024; Hilmy & Saujan, 2025) but the current study has included efficiency, privacy, responsiveness and system availability as independent variables affecting customer satisfaction. Therefore, this study has maintained the research gap successfully.

CHAPTER III
RESEARCH METHODOLOGY

The research methodology section presents the methods, tools and techniques applied to analyze the data and prepare the report. In this study, the adopted methodology successfully fulfilled both the main and specific objectives. The research methodology includes (i) research design, (ii) population and sampling, and sampling design, (iii) nature and sources of data, and the instruments of data collection, (iv) methods of analysis and (v) research framework and definition of variables. The details of these methodological aspects are explained below.

3.1 Research Design

Based on the specific objectives of the study, this research has employed both descriptive and causal-comparative research designs. The descriptive design has been used to assess the current situation of internet banking services and customer satisfaction in Sanfebagar Municipality, thereby addressing the first objective. To fulfill the second objective, which examines the relationship between efficiency, privacy, responsiveness, and system availability with customer satisfaction, and the third objective, which analyzes the effect of these factors on customer satisfaction, the causal-comparative design has been applied. This design enables the study to explore the relationships and impact of internet banking system components on customer

satisfaction. Therefore, these two research designs have been purposefully chosen to align with the study's objectives, while other designs have been excluded.

3.2 Population, Sampling, and Sampling Design

The population for this study includes customers of commercial banks using internet banking services in Sanfebagar Municipality. Since there is no exact data available regarding the total number of internet banking users in the area, a sample size of 384 respondents has been determined using Cochran's formula (1977), which is widely used in similar research to calculate an appropriate sample size when the population size is unknown. However, during the data collection phase, responses were obtained from 419 respondents, and thus the study has been conducted using the revised sample size of 419. Due to limitations in time and lack of resources, the researcher has employed convenience sampling technique to select participants. Respondents were chosen from various commercial banks operating in Sanfebagar Municipality, focusing on individuals actively using internet banking services. The formula used for determining the sample size is as follows:

$$n = \frac{z^2 pq}{e^2}$$

Where;

n = Sample size for infinite population

Z = Critical value of desired confidence interval

p = Estimated proportion of an attribute that's present in population

e = Level of significance

With Confidence Interval of 95% and 5% level of significance

Here,

Z =1.96, p = 0.5, q = 0.5, e = 0.05

Now,

$$n = \frac{(1.96)^2 0.5 \times 0.5}{0.05^2} = 384$$ optimal sample size

The ideal sample size, based on Cochran's (1977) formula, is 384; however, the revised sample size of 419 includes extra respondents to account for potential errors in the stochastic model.

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

This study has utilized primary data collection, with sources including customers of commercial banks in Sanfebagar Municipality who are active users of internet banking services. Respondents have been approached online through various digital platforms such as WhatsApp, Gmail, Facebook Messenger and Viber to ensure broader reach and convenience. A structured questionnaire administered via Google Forms has served as the instrument of data collection. It has included both multiple-choice questions and Likert scale items (ranging from 5 – strongly agree to 1 – strongly disagree) which have been designed to gather information on the independent variables including Efficiency, Privacy, Responsiveness and System Availability in relation to the dependent variable Customer Satisfaction.

3.4 Method of Analysis

The method of analysis refers to the techniques that have been used to interpret the collected data, including various statistical methods. Especially, the analysis has included reliability testing, demographic profile summaries and both descriptive and inferential statistics. Descriptive statistics have been used to summarize key measures such as minimum, maximum, mean, and standard deviation for all variables. Inferential statistics have included correlation analysis to examine the relationships between the independent variables such as Efficiency, Privacy, Responsiveness, and System Availability with customer satisfaction while regression analysis to assess the impact of Efficiency, Privacy, Responsiveness and System Availability on Customer Satisfaction. The tools for analysis have included the following:

3.4.1 Reliability Test

Reliability refers to the extent to which a research method consistently produces stable results. In this study Cronbach's alpha has been used to assess the questionnaire's reliability with values above 0.7 considered satisfactory for social science research indicating acceptable to excellent internal consistency. The researcher evaluated the reliability of each study variable with the findings presented in Chapter 4's results section. The scale of reliability analysis along with its interpretations is as follows.

Table 2

Scale of Reliability Analysis

Cronbach's Alpha (α) Value	Internal Consistency
Above 0.9	Excellent
0.8 - 0.9	Good
0.7 - 0.8	Acceptable
0.6 - 0.7	Questionable
0.5 - 0.6	Poor
Below 0.5	Unacceptable

(Source: Cronbach, 1951)

Table 2 presents the reliability scale, where Cronbach's alpha above 0.9 is excellent, 0.8–0.9 is good, 0.7–0.8 is acceptable, 0.6–0.7 is questionable, 0.5–0.6 is poor, and below 0.5 is unacceptable.

3.4.2 Respondent's Demographic Profile

This study has incorporated demographic information of customers using internet banking services in Sanfebagar Municipality, focusing on factors such as gender, age group, level of education, employment status, monthly income and frequency of internet banking usage. The research has provided valuable insights into how these demographic characteristics are associated with the use and satisfaction of internet banking services. Additionally, the survey response rates have been recorded, showing the number of questionnaires distributed and completed, along with the overall response rate. The detailed demographic profile of respondents has been presented in Chapter 4 of the results section.

3.4.3 Descriptive Statistics

Descriptive statistics have been essential in analyzing key variables related to the impact of the internet banking system on customer satisfaction. Specifically, the independent variables such as Efficiency, Privacy, Responsiveness and System Availability have been examined alongside Customer Satisfaction as the dependent variable. This analysis has provided insights into the minimum, maximum, mean, and standard deviation (SD) of these variables, helping to understand their distribution and variability. These statistical measures have been crucial in assessing the central tendencies and dispersion of the data, setting the stage for a more detailed

investigation into how components of the internet banking system affect customer satisfaction. The following are the findings from the descriptive statistics:

Arithmetic Mean

The arithmetic mean, also known as the average, represents the central value of a dataset and is one of the most commonly used measures of central tendency. It is calculated by summing all the values in the dataset and then dividing by the total number of values. This provides a single value that is useful for summarizing the data, offering a general sense of the typical value or central point within the dataset. Because of its simplicity, the arithmetic mean is widely used in various fields, such as statistics, economics, and social sciences, to understand overall trends and patterns. However, while it serves as an effective measure in many cases, the arithmetic mean can be significantly influenced by outliers or extreme values. For example, if there is a data point that is much higher or lower than the others, it can skew the mean, making it less representative of the majority of values in the dataset. Therefore, while the arithmetic mean is valuable for providing a quick overview, it may not always give a complete picture of the data, especially when the distribution is uneven or contains outliers.

The formula for the arithmetic mean is as follows:

$$\text{Arithmetic mean } (\bar{X}) = \frac{\sum X}{n}$$

Where,

n = Total number of values in the dataset

$\sum X$= Sum of all values in the dataset

Standard Deviation

Standard deviation is an important statistical measure used to assess the degree of variation or dispersion within a dataset. It indicates how much individual data points deviate from the mean (average) of the dataset. By taking the square root of the variance, it provides a numerical value that reflects the spread of the data. A smaller standard deviation suggests that the values are tightly clustered around the mean, indicating low variability, while a larger standard deviation indicates greater dispersion, with values spread farther apart. This measure is crucial for ensuring consistency, reliability, and predictability, and is commonly used in finance, research,

and quality control. Understanding the standard deviation helps to evaluate the risk or uncertainty of data, making it essential for decision-making processes, especially when comparing different datasets or distributions. It is also useful in identifying patterns, trends, and anomalies, contributing to more accurate predictions and assessments. Additionally, it plays a vital role in hypothesis testing and confidence interval estimation, providing insight into the precision of statistical results.

The formula for the Standard deviation is as follows:

$$\text{Standard deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{n-1}}$$

Where,

X Represents each individual data point in the dataset

$\bar{X}$ Represents the mean (average) of the dataset

n is the total number of data points in the dataset

3.4.4 Inferential Statistics

Inferential statistics have included correlation and regression analysis. Correlation analysis has been used to assess the relationship between Efficiency, Privacy, Responsiveness, and System Availability with Customer Satisfaction. Regression analysis techniques have been applied to analyze the impact of these internet banking system components on customer satisfaction. These statistical methods have allowed for an exploration of how different aspects of the internet banking system influence customer satisfaction in the banking sector of Sanfebagar Municipality. The following are the findings from the inferential statistics:

Correlation Analysis

Correlation analysis examines the strength and direction of relationships between variables, with the correlation coefficient “r” used to quantify this on a scale from +1 to -1. A positive correlation (+1) represents a direct relationship, while a negative correlation (-1) indicates an inverse relationship. A value of 0 suggests no linear relationship. This analysis helps evaluate the relationships between variables and guides further statistical analysis. The results of Karl Pearson’s correlation coefficient (r) have been computed using SPSS software version 29. Additionally, correlation

analysis assists in identifying potential predictors or causes of a particular outcome, which is essential for data-driven decision-making. It is widely used in various fields, including social sciences, economics, and healthcare to establish or confirm connections between key variables.

The Pearson correlation coefficient (r) is calculated using the formula:

$$r = \frac{n\,(\sum XY) - (\sum X)\,(\sum Y)}{\sqrt{[n\,(\sum X^2) - (\sum X)^2]}\,\sqrt{[n\,(\sum Y^2) - (\sum Y)^2]}}$$

Where;

n = the number of data pairs

$\sum XY$ = the sum of the product of each pair of scores

$\sum X$ And $\sum Y$ = the sums of X and Y scores respectively

Regression Analysis

Regression analysis is a statistical approach used to evaluate the effect of one or more independent variables (predictors) on a dependent variable (outcome). It investigates how changes in the predictors influence the outcome, with the magnitude and direction of these effects measured by regression coefficients (β). This technique is widely used to comprehend and forecast results, assess patterns, and identify key factors contributing to changes in the dependent variable. It also allows for predicting future outcomes of the dependent variable based on the values of the independent variables, making it valuable for informed decision-making. Additionally, regression analysis aids in detecting multicollinearity among predictors, ensuring that the model's findings are reliable and valid. By doing so, it offers a deeper understanding of the relationships that shape the outcome variable. Furthermore, it helps in refining models by identifying significant predictors and eliminating irrelevant ones, enhancing the overall accuracy and efficiency of the analysis.

Model Specification

In this model, the dependent variable is Customer Satisfaction, which has been influenced by several independent variables including Efficiency, Privacy, Responsiveness, and System Availability in the context of the study topic, "Internet Banking Services and Customer Satisfaction in the Banking Sector in Sanfebagar Municipality."

The model is represented as:

$CS = \beta_0 + \beta_1 EFF + \beta_2 PRI + \beta_3 RES + \beta_4 SA + \varepsilon it$

Where:

β_0 = Intercept/constant term

CS = Customer Satisfaction

EFF = Efficiency

PRI = Privacy

RES = Responsiveness

SA = System Availability

εit = Error term of the stochastic model

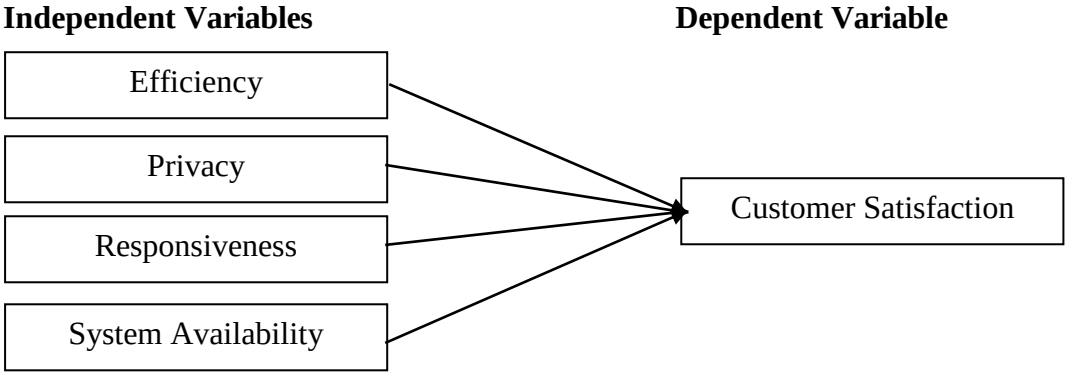
Betas including β_1, β_2, β_3 and β_4 are the parameters of the model

3.5 Research Framework and Definition of Variables

In the research framework of this study on "Internet Banking Services and Customer Satisfaction in the Banking Sector in Sanfebagar Municipality," the independent variables have included Efficiency, Privacy, Responsiveness and System Availability, which influence Customer Satisfaction. The dependent variable has been Customer Satisfaction, reflecting how these components of the internet banking system contribute to shaping customers' satisfaction levels. This framework provides a structured approach to examining the extent to which these internet banking system factors affect customer satisfaction. The research framework is presented in the following figure:

Figure 1

Research Framework



Modified from:

(Sources: Firdous & Farooqi, 2017; Lamsal, 2022)

Dependent Variable

Customer Satisfaction

Customer satisfaction refers to the degree to which a customer's expectations about a product or service are met or exceeded, especially in terms of quality, reliability, and overall experience (Oliver, 1997; Anderson et al., 1994). It reflects users' emotional and cognitive response to their interaction with the internet banking system. In banking, high customer satisfaction is associated with trust, continued usage, and customer loyalty (Sivapalan et al., 2020). In the context of the current study, customer satisfaction is the central outcome variable used to assess how internet banking services impact users' experiences in Sanfebagar Municipality.

Independent Variables

Efficiency

Efficiency in internet banking describes how swiftly and conveniently users can perform tasks such as fund transfers, checking balances, or paying bills. It involves system responsiveness, ease of navigation, and user-friendly interfaces (Parasuraman et al., 2005; Ho & Lin, 2010). High efficiency reduces users' time and effort in performing banking transactions, which in turn positively affects satisfaction levels (Yang et al., 2003). In this study, efficiency has been measured to understand its contribution to customer satisfaction with internet banking in Sanfebagar Municipality.

Privacy

Privacy refers to the level of protection and confidentiality users feel regarding their personal and financial information shared online (Belanger et al., 2002; Yousafzai et al., 2003). Customers expect banks to safeguard sensitive data through strong encryption, secure login systems, and privacy policies. Concerns over data breaches or misuse can negatively impact users' trust and satisfaction (Aladwani, 2001; Mukherjee & Nath, 2003). In this study, privacy is examined as a factor influencing customers' willingness to use and continue using internet banking services in Sanfebagar Municipality.

Responsiveness

Responsiveness refers to the bank's ability to promptly address customer needs, concerns, and feedback through its internet banking platform (Zeithaml et al., 1990;

Jun & Cai, 2001). This includes quick replies to inquiries, timely updates, and resolution of service disruptions or complaints. A responsive service system enhances the customer's sense of being valued and supported (Santos, 2003; Ladhari, 2009). In the present study, responsiveness has been assessed as a critical driver of customer satisfaction with internet banking services in Sanfebagar Municipality.

System Availability

System availability indicates the consistency and reliability of access to internet banking services, with minimal downtime or technical errors (Yang et al., 2004; Jun & Cai, 2001). A stable and uninterrupted banking system boosts confidence and encourages frequent usage, especially in areas where alternative banking channels may be limited (Santos, 2003; Ho & Lin, 2010). In the current study, system availability is considered an essential determinant of how users in Sanfebagar Municipality evaluate their internet banking experience and overall satisfaction.

CHAPTER IV
RESULTS AND DISCUSSION

In this chapter, data have been presented in an appropriate format, then analyzed and discussed. The analysis has aimed to answer the research questions set in the introduction chapter. The outcomes of the analyses have been considered as the results. These results have then been discussed and interpreted in light of relevant theories and empirical studies to reach a conclusion. Accordingly, this chapter has been organized under the Results and Discussion section.

4.1 Results

This section presents the data and results obtained from the collected primary data, analyzed using SPSS and Excel. It includes reliability tests, the demographic profile of respondents, and both descriptive and inferential statistics, including correlation and regression analysis, applied to assess the impact of internet banking system

components on customer satisfaction. Respondents have been categorized based on demographic factors such as gender, age group, level of education, employment status, monthly income, and frequency of internet banking usage. The reliability of each variable has been evaluated to ensure consistency of the measurement scales. Descriptive statistics such as minimum, maximum, mean, and standard deviation have been used to summarize the collected data. Correlation analysis has been conducted to examine the relationship between the independent variables such as EFF, PRI, RES and SA with the dependent variable CS. Regression analysis has also been conducted using SPSS software to analyze the effects of these independent variables on customer satisfaction. The results of the reliability tests, demographic profile, descriptive statistics and inferential statistics including correlation and regression analyses have been presented in the following subsections.

4.1.1 Results of Reliability Test

Reliability indicates the consistency and stability of a research instrument in measuring what it is intended to measure. In this study, Cronbach's alpha has been used to assess the internal consistency of the questionnaire items related to Efficiency (EFF), Privacy (PRI), Responsiveness (RES), System Availability (SA) and Customer Satisfaction

(CS). A Cronbach's alpha value greater than 0.7 is considered acceptable in social science research, reflecting a satisfactory level of reliability. The commonly accepted interpretation scale classifies values above 0.9 as excellent, 0.8–0.9 as good, 0.7–0.8 as acceptable, 0.6–0.7 as questionable, 0.5–0.6 as poor, and below 0.5 as unacceptable (Cronbach, 1951). Based on this scale, the reliability results for each variable in the current study have been evaluated and are presented in the following table.

Table 3

Reliability Test for Study Variables

Study Variables	No. of Items	Cronbach's Alpha
EFF	5	0.798
PRI	5	0.812
RES	5	0.840
SA	5	0.788
CS	5	0.804

(Source: SPSS Version 29)

Table 3 presents the results of the reliability test with Cronbach's alpha values for each study variable: EFF – 0.798, PRI – 0.812, RES – 0.840, SA – 0.788 and CS – 0.804. All the values exceed the commonly accepted threshold of 0.7, indicating acceptable to good internal consistency for each construct. Specifically, PRI, RES, and CS fall within the "good" range (0.8–0.9), while EFF and SA fall within the "acceptable" range (0.7–0.8). These results suggest that the questionnaire items used to measure efficiency, privacy, responsiveness, system availability and customer satisfaction are reliable and consistent, making them suitable for further statistical analysis within the context of internet banking and customer satisfaction in Sanfebagar Municipality.

4.1.2 Results of Respondents' Demographic Profile

This section presents the demographic profile of the respondents, derived from the primary data collected through structured questionnaires. The demographic characteristics include gender, age group, level of education, employment status, monthly income and frequency of internet banking usage. Analyzing the demographic profile provides important context for interpreting the results and identifying any patterns or differences in customer satisfaction among diverse user groups. The respondents' demographic details are summarized in the following table.

Table 4

Respondents' Demographic Profile

Demographic Factors	Options	Frequency	Percentage
Gender	Male	344	82.1
	Female	75	17.9
Age Category	Under 25 years	125	29.8
	25 - 35 years	205	48.9
	36 - 45 years	71	16.9
	46 - 55 years	14	3.3
	Over 55 years	4	1.0
Marital Status	Married	136	32.5
	Unmarried	267	63.7
	Divorced/ Separated	16	3.8

Level of Education	+2 level and below	105	25.1
	Bachelor level	212	50.6
	Master level	88	21.0
	Above master level	14	3.3
Employment Status	Student	110	26.3
	Employed	181	43.2
	Self-employed	84	20.0
	Unemployed	44	10.5
Monthly Income	Below Rs. 20,000	162	38.7
	Rs. 20,000 - Rs. 40,000	172	41.1
	Rs. 40,001 - Rs. 60,000	74	17.7
	Above Rs. 60,000	11	2.6
Frequency of Internet	Daily	135	32.2
Banking Usage	Weekly	149	35.6
	Monthly	100	23.9
	Occasionally	30	7.2
	Never	5	1.2

(Source: Online Survey, 2025; SPSS Version 29) N = 419; Percentage (%) = 100

Table 4 presents the demographic profile of the respondents who participated in the study. Out of a total of 419 respondents, the majority were male (82.1%), while female respondents constituted 17.9%. In terms of age category, most respondents were within the 25–35 years group (48.9%), followed by those under 25 years (29.8%), 36–45 years (16.9%), 46–55 years (3.3%), and over 55 years (1.0%).

Regarding marital status, 63.7% of respondents were unmarried, 32.5% were married, and 3.8% were divorced or separated. For education level, half of the participants (50.6%) had completed a bachelor's degree, followed by +2 level and below (25.1%), master's level (21.0%), and above master's level (3.3%).

With respect to employment status, 43.2% were employed, 26.3% were students, 20.0% were self-employed, and 10.5% were unemployed. In terms of monthly income, 41.1% earned between Rs. 20,000 and Rs. 40,000, 38.7% earned below Rs.

20,000, 17.7% earned between Rs. 40,001 and Rs. 60,000, and 2.6% earned above Rs. 60,000.

Lastly, on the frequency of internet banking usage, the highest portion of respondents used internet banking on a weekly basis (35.6%), followed by daily users (32.2%), monthly users (23.9%), those using it occasionally (7.2%), and 1.2% who never used it. Overall, the demographic data indicate that the majority of internet banking users in Sanfebagar Municipality are young, educated, employed or students, and are frequent users of internet banking services.

4.1.3 Results of Descriptive Statistics

Descriptive statistics have been employed to analyze the questionnaire data using measures such as minimum, maximum, mean, and standard deviation. The study has included independent variables such as Efficiency, Privacy, Responsiveness, and System Availability with Customer Satisfaction as the dependent variable. Descriptive statistics for each variable have been assessed to understand the range, central tendency (mean), and variability (standard deviation) in how these factors influence customer satisfaction. Efficiency reflects how effectively and quickly services are delivered, Privacy ensures the protection of customer data, Responsiveness represents how promptly and helpfully issues are addressed, and System Availability indicates the consistent accessibility of the internet banking system. Customer Satisfaction refers to the level of contentment customers feel regarding internet banking services. The descriptive statistics of each variable is presented below, followed by a summary.

Table 5

Descriptive Statistics of Efficiency

Scale Items for Efficiency	Min	Max	Mean	S.D.
Internet banking enhances transaction efficiency	1.00	5.00	4.1456	0.72896
The stability and reliability of internet banking systems increase my confidence to use them.	1.00	5.00	3.5489	0.76675
Internet banking streamlines my banking activities.	1.00	5.00	3.6253	0.78894

Internet banking systems are efficient in handling large volumes of transactions.	1.00	5.00	3.5967	0.83126
The speed of transactions in internet banking meets my expectations.	1.00	5.00	3.7232	0.83564

(Sources: Online Survey, 2025; SPSS Version 29)

Table 5 reveals that respondents generally perceive the efficiency of the internet banking system positively. The 1st statement, "Internet banking enhances transaction efficiency" (Min = 1, Max = 5, Mean = 4.1456, SD = 0.72896), indicates strong agreement that internet banking improves transaction efficiency. The 2nd statement, "The stability and reliability of internet banking systems increase my confidence to use them" (Min = 1, Max = 5, Mean = 3.5489, SD = 0.76675), indicates moderate confidence in system stability and reliability. The 3rd statement, "Internet banking streamlines my banking activities" (Min = 1, Max = 5, Mean = 3.6253, SD = 0.78894), indicates that users generally agree internet banking simplifies their banking tasks. The 4th statement, "Internet banking systems are efficient in handling large volumes of transactions" (Min = 1, Max = 5, Mean = 3.5967, SD = 0.83126), indicates a favorable view of the system's capacity to manage many transactions efficiently. The 5th statement, "The speed of transactions in internet banking meets my expectations" (Min = 1, Max = 5, Mean = 3.7232, SD = 0.83564), indicates satisfaction with the speed of online transactions. Overall, the mean scores above 3.5 across all items indicate that users perceive the internet banking system as efficient, reliable, and capable of meeting their transaction needs.

Table 6

Descriptive Statistics of Privacy

Scale Items for Privacy	Min	Max	Mean	S.D.
I am confident in the privacy measures provided by internet banking services.	1.00	5.00	3.8687	0.77302
Internet banking ensures the confidentiality of my personal and financial information.	1.00	5.00	3.5394	0.84732
My private information is well-protected when using internet banking.	1.00	5.00	3.6468	0.78826

Internet banking has adequate privacy policies and practices.	1.00	5.00	3.5012	0.81954
I trust the security and privacy of internet banking transactions.	1.00	5.00	3.7112	0.80378

(Sources: Online Survey, 2025; SPSS Version 29)

Table 6 demonstrates that respondents generally have a positive perception of privacy in internet banking services. The 1st statement, "I am confident in the privacy measures provided by internet banking services" (Min = 1, Max = 5, Mean = 3.8687, SD = 0.77302), indicates a relatively high level of confidence in privacy measures. The 2nd statement, "Internet banking ensures the confidentiality of my personal and financial information" (Min = 1, Max = 5, Mean = 3.5394, SD = 0.84732), indicates moderate agreement about confidentiality. The 3rd statement, "My private information is well-protected when using internet banking" (Min = 1, Max = 5, Mean = 3.6468, SD = 0.78826), indicates that users generally believe their private data is protected. The 4th statement, "Internet banking has adequate privacy policies and practices" (Min = 1, Max = 5, Mean = 3.5012, SD = 0.81954), indicates a moderate perception of privacy policies' adequacy. The 5th statement, "I trust the security and privacy of internet banking transactions" (Min = 1, Max = 5, Mean = 3.7112, SD = 0.80378), indicates that users mostly trust the overall security and privacy. Overall, mean values above 3.5 indicate that customers perceive privacy in internet banking as satisfactory but there is room for improvement in some areas.

Table 7

Descriptive Statistics of Responsiveness

Scale Items for Responsiveness	Min	Max	Mean	S.D.
The customer support for internet banking is prompt and helpful.	1.00	5.00	3.9165	0.73543
Internet banking services respond quickly to my issues and concerns.	1.00	5.00	3.3461	0.84833
The responsiveness of internet banking services meets my expectations.	1.00	5.00	3.7399	0.84526
Internet banking services are quick to	1.00	5.00	3.3580	0.98104

address and resolve problems.				
The response time of internet banking services is satisfactory.	1.00	5.00	3.7900	0.76327

(Sources: Online Survey, 2025; SPSS Version 29)

Table 7 displays that respondents have a generally positive perception of the responsiveness of internet banking services. The 1st statement, "The customer support for internet banking is prompt and helpful" (Min = 1, Max = 5, Mean = 3.9165, SD = 0.73543), reflects strong agreement on prompt and helpful support. The 2nd statement, "Internet banking services respond quickly to my issues and concerns" (Min = 1, Max = 5, Mean = 3.3461, SD = 0.84833), indicates moderate agreement on quick responsiveness. The 3rd statement, "The responsiveness of internet banking services meets my expectations" (Min = 1, Max = 5, Mean = 3.7399, SD = 0.84526), shows general satisfaction with responsiveness. The 4th statement, "Internet banking services are quick to address and resolve problems" (Min = 1, Max = 5, Mean = 3.3580, SD = 0.98104), suggests moderate perception of problem resolution speed. The 5th statement, "The response time of internet banking services is satisfactory" (Min = 1, Max = 5, Mean = 3.7900, SD = 0.76327), indicates positive feedback on response time. Overall, the mean scores above 3.3 indicate that users view the responsiveness of internet banking services as generally satisfactory but with some room for improvement.

Table 8

Descriptive Statistics of System Availability

Scale Items for System Availability	Min	Max	Mean	S.D.
Internet banking systems are available whenever I need to use them.	1.00	5.00	3.8616	0.77948
I rarely experience downtime with internet banking services.	1.00	5.00	3.4821	0.73630
The availability of internet banking services is reliable.	1.00	5.00	3.6516	0.78431
I can access internet banking services	1.00	5.00	3.5036	0.82535

24/7 without issues.				
Internet banking services are consistently operational.	1.00	5.00	3.8091	0.73323

(Sources: Online Survey, 2025; SPSS Version 29)

Table 8 outlines the descriptive statistics for system availability in internet banking, revealing generally positive customer perceptions. The first statement, "Internet banking systems are available whenever I need to use them" (Min = 1, Max = 5, Mean = 3.8616, SD = 0.77948), shows that users mostly agree that the system is accessible when needed. The second statement, "I rarely experience downtime with internet banking services" (Min = 1, Max = 5, Mean = 3.4821, SD = 0.73630), indicates a moderate agreement that downtime is infrequent. The third statement, "The availability of internet banking services is reliable" (Min = 1, Max = 5, Mean = 3.6516, SD = 0.78431), reflects a positive perception of system reliability. The fourth statement, "I can access internet banking services 24/7 without issues" (Min = 1, Max = 5, Mean = 3.5036, SD = 0.82535), suggests users generally find round-the-clock access satisfactory. The fifth statement, "Internet banking services are consistently operational" (Min = 1, Max = 5, Mean = 3.8091, SD = 0.73323), indicates that most respondents agree on the consistent operation of the system. Overall, with mean scores ranging from 3.48 to 3.86, respondents perceive system availability as reliable and accessible, though some improvement is possible.

Table 9

Descriptive Statistics of Customer Satisfaction

Scale Items for Customer Satisfaction	Min	Max	Mean	S.D.
I am satisfied with the overall internet banking experience.	1.00	5.00	4.0453	0.72899
Internet banking meets my expectations for banking services.	1.00	5.00	3.6372	0.83129
I would recommend internet banking to others.	1.00	5.00	4.0453	0.80688
I am satisfied with the features and	1.00	5.00	3.7088	0.82497

functionalities of internet banking.				
Internet banking fulfills my banking needs effectively.	1.00	5.00	3.9332	0.75160

(Sources: Online Survey, 2025; SPSS Version 29)

Table 9 shows the descriptive statistics of customer satisfaction toward internet banking services, with all five statements reflecting positive user perceptions. For the first statement, "I am satisfied with the overall internet banking experience," respondents rated a minimum of 1 and a maximum of 5, with a mean score of 4.0453 and a standard deviation of 0.72899, indicating strong overall satisfaction. The second statement, "Internet banking meets my expectations for banking services," ranged from 1 to 5, with a mean of 3.6372 and a higher standard deviation of 0.83129, suggesting a generally favorable view though with somewhat more diverse opinions. The third statement, "I would recommend internet banking to others," had a mean of 4.0453 and standard deviation of 0.80688, showing most users are willing to recommend the service. The fourth statement, "I am satisfied with the features and functionalities of internet banking," had a mean of 3.7088 and standard deviation of 0.82497, revealing positive satisfaction levels with noticeable differences among respondents. Finally, the fifth statement, "Internet banking fulfills my banking needs effectively," recorded a mean of 3.9332 and standard deviation of 0.75160, indicating users generally agree their needs are met effectively. Overall, the mean scores ranging between 3.6372 and 4.0453 indicate a high level of customer satisfaction, while the standard deviations between 0.72899 and 0.83129 reflect some variation in individual experiences.

Table 10

Summary of Descriptive Statistics

Study Variables	N	Min	Max	Mean	S.D.
EFF	419	1.00	5.00	3.7279	0.58861
PRI	419	1.00	5.00	3.6535	0.60966
RES	419	1.00	5.00	3.6301	0.65502
SA	419	1.60	5.00	3.6616	0.56816
CS	419	1.00	5.00	3.8740	0.59146

(Sources: SPSS Version 29)

Table 10 summarizes the descriptive statistics for all study variables including EFF, PRI, RES, SA and CS based on responses from 419 participants. EFF has a minimum value of 1.00 and a maximum of 5.00, with a mean of 3.7279 and a standard deviation of 0.58861, indicating generally positive perceptions with moderate variation. PRI ranges from 1.00 to 5.00, showing a mean of 3.6535 and standard deviation of 0.60966, reflecting favorable views with some diversity in responses. RES also spans 1.00 to 5.00, with a mean of 3.6301 and a higher standard deviation of 0.65502, suggesting slightly more variability among respondents. SA ranges from 1.60 to 5.00 with a mean of 3.6616 and the lowest standard deviation of 0.56816, indicating consistent opinions about system accessibility. Lastly, CS shows a minimum of 1.00 and maximum of 5.00, with the highest mean of 3.8740 and a standard deviation of 0.59146, reflecting overall positive satisfaction with some variation across users. Overall, the mean values between 3.63 and 3.87 suggest a generally favorable perception of the internet banking system and its impact on customer satisfaction.

4.1.4 Results of Inferential Statistics

In the context of the current study, inferential statistics have been employed, including both correlation and regression analyses. The correlation analysis examines the relationships between EFF, PRI, RES, SA with CS. Regression analysis further explores the extent to how these factors influence customer satisfaction with the internet banking system. By assessing significant relationships and predictive effects, this analysis reveals how key aspects of the internet banking system influence customer satisfaction. The detailed results from these inferential analyses are presented in the sections below.

Correlation Analysis

Correlation analysis has been used to measure the relationships between EFF, PRI, RES, SA with CS. This statistical technique identifies whether these internet banking system factors are positively or negatively associated with customer satisfaction. The results of these correlations are presented in the table below.

Table 11

Karl Pearson's Correlation Analysis Between Variables

Variables	EFF	PRI	RES	SA	CS
FEE	1				

PRI	0.762**	1			
RES	0.676**	0.795**	1		
SA	0.612**	0.694**	0.722**	1	
CS	0.477**	0.483**	0.507**	0.661**	1

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

(Source: SPSS Version 29)

Table 11 depicts the correlation analysis between the study variables, particularly focusing on the relationships between EFF, PRI, RES and SA with CS. The relationship between EFF and CS shows a moderate positive correlation with an r-value of 0.477 and a p-value of 0.000 which is less than 0.01 indicating a statistically significant relationship. This implies that improvements in efficiency are associated with increased customer satisfaction. The relationship between PRI and CS also reveals a moderate positive correlation with an r-value of 0.483 and a p-value of 0.000 which is below 0.01 thus statistically significant. This indicates that enhanced privacy measures contribute to higher customer satisfaction. Likewise, the relationship between RES and CS exhibits a moderate positive correlation with an r-value of 0.507 and a p-value of 0.000 signifying a significant relationship. This suggests that greater responsiveness in internet banking leads to improved customer satisfaction. Lastly, the relationship between SA and CS demonstrates a strong positive correlation with an r-value of 0.661 and a p-value of 0.000 which is well below the 0.01 threshold, indicating a highly significant relationship. This indicates that consistent and reliable system availability plays a crucial role in enhancing customer satisfaction. Overall, all independent variables are positively and significantly associated with customer satisfaction.

Regression Analysis

Regression analysis analyzes the impact of EFF, PRI, RES and SA on CS. The analysis includes a model summary, analysis of variance and regression coefficients to evaluate how these internet banking services factors influence on CS. The regression analysis results of this study are presented below.

Table 12

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.668	0.446	0.441	0.44232

a. Predictors: (Constant), EFF, PRI, RES,SA

(Source: SPSS Version 29)

Table 12 highlights the model summary of this study, showing an R-square value of 0.446. This indicates that approximately 44.6% of the variation in CS is explained by the predictors including EFF, PRI, RES and SA. The remaining 55.4% of the variance is attributed to other independent variables which are not included in the model.

Table 13

Analysis of Variance (ANOVA)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	65.227	4	16.307	83.346	0.000
	Residual	81.000	414	0.196		
	Total	146.226	418			

a. Dependent variable: CS

b. Predictors: (Constant), EFF, PRI, RES,SA

(Source: SPSS Version 29)

Table 13 represents the analysis of variance for the regression model. The significance value (Sig.) of the regression model is 0.000, which is less than the 5% significance level (0.05). This indicates that the model is statistically significant, meaning that the independent variables such as EFF, PRI, RES and SA collectively have a significant impact on Customer Satisfaction (CS).

Table 14

Coefficients of Regression Model for Dependent Variable CS

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Sd. error	Beta		
1	(Constant)	1.199	0.156		7.692	0.000
	EFF	0.137	0.058	0.137	2.366	0.018

	PRI	-0.058	0.069	-0.059	-0.834	0.405
	RES	0.029	0.060	0.032	0.488	0.626
	SA	0.619	0.058	0.595	10.701	0.000

a. Dependent variable: Customer Satisfaction (CS)

(Source: SPSS Version 29)

$CS = 1.199 + 0.137EFF - 0.058PRI + 0.029RES + 0.0619SA + \varepsilon it$

Table 14 presents the coefficients of the regression model for the dependent variable Customer Satisfaction (CS), which helps analyze the impact of Efficiency (EFF), Privacy (PRI), Responsiveness (RES) and System Availability (SA) on Customer Satisfaction (CS) by examining their unstandardized beta coefficients. Firstly, EFF has an unstandardized beta coefficient of 0.137 indicating a positive and significant impact on CS as the p-value is 0.018 which is less than the 0.05 significance level. This indicates that EFF significantly contributes to improving customer satisfaction. Additionally, PRI has an unstandardized beta coefficient of -0.058 indicating a negative and insignificant impact on CS with a p-value of 0.405 which is greater than 0.05. This indicates that PRI does not have a significant effect on customer satisfaction. Moreover, RES has an unstandardized beta coefficient of 0.029 which means a positive but insignificant impact on CS supported by a p-value of 0.626 greater than 0.05. This indicates that RES does not significantly affect customer satisfaction. Finally, SA has an unstandardized beta coefficient of 0.619 indicating a strong positive and significant impact on CS as the p-value is 0.000 less than 0.05. This indicates that SA has the strongest influence on customer satisfaction. Overall, EFF and SA significantly impact customer satisfaction, while PRI and RES have insignificant effects. Furthermore, based on the t-values, SA shows the strongest significant effect with t-value of 10.701 while PRI shows the weakest and insignificant effect with a t-value of -0.834.

4.2 Discussion

This research has investigated the Internet Banking System and Customer Satisfaction in Sanfebagar Municipality by collecting primary data through structured online questionnaires from 419 internet banking users. Reliability tests have confirmed acceptable to good internal consistency for all variables. The demographic profile has shown that the majority of respondents have been male (82.1%), aged between 25–35

years (48.9%), mostly unmarried (63.7%), holding a bachelor's degree (50.6%), employed (43.2%), earning between Rs. 20,000 and Rs. 40,000 monthly (41.1%), and using internet banking on a weekly basis (35.6%). To analyze the data, both descriptive and inferential statistics have been employed. Descriptive statistics have assessed the current situation of internet banking services and customer satisfaction, correlation analysis has examined the relationships between efficiency (EFF), privacy (PRI), responsiveness (RES), and system availability (SA) with customer satisfaction (CS), and regression analysis has evaluated the impact of efficiency (EFF), privacy (PRI), responsiveness (RES), and system availability (SA) on customer satisfaction (CS) within Sanfebagar Municipality.

Descriptive statistics based on responses from 419 participants have indicated generally favorable perceptions of internet banking services. EFF has shown a mean of 3.7279 (SD = 0.58861), with scores ranging from 1.00 to 5.00, suggesting positive views with moderate variability. PRI has had a mean of 3.6535 (SD = 0.60966), reflecting favorable perceptions with some variation. RES has reported a mean of 3.6301 (SD = 0.65502), indicating slightly more variability in user views on responsiveness. SA has displayed a mean of 3.6616 (SD = 0.56816), with scores between 1.60 and 5.00, showing relatively consistent opinions on system availability. CS has recorded the highest mean of 3.8740 (SD = 0.59146), indicating strong overall satisfaction with internet banking services. The mean values ranging between 3.63 and 3.87 suggest that users have generally experienced positive service across all measured dimensions.

Correlation analysis has revealed statistically significant positive relationships between all independent variables (EFF, PRI, RES, and SA) and CS. EFF has shown a moderate positive correlation with CS ($r = 0.477$, $p = 0.000$), likely because increased efficiency reduces user effort and time, thus boosting satisfaction. PRI has also demonstrated a moderate correlation ($r = 0.483$, $p = 0.000$), as secure and private systems tend to build user trust and confidence. RES has shown a moderate correlation ($r = 0.507$, $p = 0.000$), indicating that quick and helpful responses enhance the quality of user experience. SA has exhibited the strongest correlation with CS ($r = 0.661$, $p = 0.000$), emphasizing the importance of system reliability and uninterrupted service in ensuring user satisfaction. These correlation values have emerged due to the

essential roles each factor plays in shaping overall customer experience in online banking.

Regression analysis has further clarified the influence of these factors on customer satisfaction. EFF has shown a significant positive effect ($\beta = 0.137$, $p = 0.018$), confirming that efficient internet banking services contribute to higher customer satisfaction. PRI has exhibited a negative and statistically insignificant relationship ($\beta = -0.058$, $p = 0.405$), suggesting that privacy, although important, may not currently be a major driver of satisfaction among users in this context. RES has shown a positive but insignificant effect ($\beta = 0.029$, $p = 0.626$), indicating that while responsiveness matters, it may not be sufficient on its own to influence satisfaction significantly. SA, however, has shown the strongest and most significant positive impact on CS ($\beta = 0.619$, $p = 0.000$), highlighting that consistent system availability is the most influential factor in enhancing customer satisfaction in internet banking.

The current study finds a moderate positive correlation between Efficiency and customer satisfaction, consistent with Dias and Edirisinghe (2025), Patel et al. (2024), and Harb et al. (2022), supporting TAM (Davis, 1989) and SERVQUAL (Parasuraman et al., 1988). However, it contrasts with Singh and Kumar (2023), who found no significant link. Privacy's moderate positive correlation aligns with Hilmy and Saujan (2025) and Khanal (2023), in line with Social Exchange Theory (Homans, 1961), but contrasts with Almansour and Elkrghli (2023), who emphasized attitude over privacy per the Theory of Planned Behavior (Ajzen, 1991). Responsiveness also shows moderate positive correlation, agreeing with Subedi and Bhandari (2024) and Patel et al. (2024) under SERVQUAL, but contrasts with Buddhika and Gunawardana (2020), who reported mixed effects, possibly due to Expectation-Confirmation Theory (Oliver, 1980). System Access has a strong positive correlation, consistent with Limbu (2024) and Gaire (2023) as per TAM and SERVQUAL's reliability dimension, but contrasts with Sharma (2022), who found limited impact in rural areas.

In regression analysis, Efficiency positively impacts customer satisfaction confirming Dias and Edirisinghe (2025) and Harb et al. (2022) and consistent with TAM (Davis, 1989). Privacy's negative and insignificant effect on customer satisfaction contrasts with Hilmy and Saujan (2025) and Khanal (2023) reflecting Social Exchange Theory

(Homans, 1961) but indicating context differences. Responsiveness shows a positive but insignificant impact here, differing from Subedi and Bhandari (2024) where it was significant impact on customer satisfaction related to TPB (Ajzen, 1991) and Expectation-Confirmation Theory (Oliver, 1980). System Availability is the strongest positive predictor on customer satisfaction in line with Limbu (2024) and Gaire (2023), supporting TAM and SERVQUAL but contrasts with Sharma (2022). These results highlight how TAM, SERVQUAL, SET, TPB and ECT frameworks explain both consistent and contrasting findings across studies.

CHAPTER V
SUMMARY AND CONCLUSION

The purpose of this chapter to present an overview of the study in the summarized form along with major findings and the conclusion of the study. Accordingly, it has been organized in three sections:

5.1 Summary

The main objective of this study is to investigate the Internet Banking Services and Customer Satisfaction in the Banking Sector in Sanfebagar Municipality. It focuses on three specific objectives: assessing the current state of internet banking services and customer satisfaction, examining the relationship between EFF, PRI, RES, SA with CS, and analyzing the effects of these factors on CS. To achieve these objectives, the study has employed a descriptive and causal-comparative research design. The population consists of all internet banking users in Sanfebagar Municipality. Using Cochran's (1977) formula, a sample size of 384 was determined, but during data collection, 419 responses have been received and used for analysis. Convenience sampling was employed due to time and budget constraints. Primary data have been collected through a structured questionnaire distributed via Google Forms on various online platforms during 2025. Reliability tests have been confirmed acceptable to good internal consistency for all variables. The demographic profile has showed that most respondents were male, predominantly young adults to early middle-aged, mostly unmarried, holding a bachelor's degree, and employed. Their monthly income generally falls within a moderate range, and they typically use internet banking on a weekly basis. Descriptive statistics along with inferential analyses, including correlation and regression have been used to analyze the collected data.

The descriptive analysis has shown that customers in Sanfebagar Municipality have generally held favorable perceptions of internet banking services. Efficiency has enhanced satisfaction by simplifying transactions and saving time, while privacy has reflected trust in data security. Responsiveness has received moderately favorable responses, indicating some influence from timely support. System availability has been rated highest, with customers appreciating reliable and uninterrupted access. Overall,
all four service quality dimensions have played key roles in shaping positive customer experiences.

The correlation analysis has revealed that all independent variables have maintained statistically significant positive relationships with customer satisfaction. Efficiency, privacy and responsiveness have each shown moderate positive correlations with satisfaction, indicating that improvements in these areas have enhanced the overall customer experience. In particular, system availability has exhibited a strong positive correlation with customer satisfaction, showing that the consistent and dependable functioning of internet banking platforms has had the greatest impact on customer satisfaction. These findings have supported the idea that all four service dimensions are relevant, though some are more influential than others.

The regression analysis has further clarified the degree of impact these variables have had on customer satisfaction. Efficiency has had a significant positive impact, affirming that smoother and faster services have enhanced satisfaction. System availability has emerged as the most influential factor, having had the strongest positive impact on customer satisfaction, as customers have relied heavily on uninterrupted access to services. In contrast, privacy and responsiveness have had statistically insignificant impacts in this study, suggesting that while customers have valued these aspects, they have not had as strong an effect on satisfaction as efficiency and availability have had. These findings have highlighted that reliability and functionality are the primary drivers of satisfaction in the context of internet banking in Sanfebagar Municipality.

5.2 Conclusion

The first objective of the study is to assess the current situation of internet banking services and customer satisfaction in Sanfebagar Municipality, which has been fulfilled through descriptive analysis. The findings have concluded that customers have generally held favorable perceptions toward all four dimensions of internet banking services efficiency, privacy, responsiveness and system availability. Customers have especially appreciated system availability and efficiency, as these services have facilitated smooth, reliable, and timely banking experiences. The overall high mean values and low variability across responses suggest that customers in Sanfebagar Municipality perceive internet banking as accessible, reliable, and beneficial for their financial needs.

The second objective of the study is to examine the relationship between efficiency, privacy, responsiveness, and system availability with customer satisfaction. This objective has been addressed through correlation analysis. The results have revealed statistically significant positive relationships between all four service dimensions and customer satisfaction. Efficiency, privacy, and responsiveness have shown moderate positive correlations, indicating that improvements in these areas are associated with increased satisfaction. System availability has exhibited the strongest correlation, suggesting that uninterrupted and dependable access to online banking services plays a critical role in enhancing customer satisfaction.

The third objective of the study is to analyze the effect of efficiency, privacy, responsiveness, and system availability on customer satisfaction. This has been addressed through regression analysis, which has revealed that efficiency and system availability have a statistically significant positive impact on customer satisfaction, with system availability being the most influential factor. While responsiveness and privacy have shown positive but statistically insignificant effects, the findings highlight that ensuring the reliability and efficiency of internet banking services is key to improving customer satisfaction. These results suggest that banks should prioritize technological stability and user-centric service features to enhance the overall customer experience in online banking platforms.

5.3 Implications

Based on the summary and key findings, the research presents several implications for policymakers, practitioners, and the academic community. These implications may serve as a foundation for both practical recommendations and directions for future research.

Implications for Policymakers

The findings indicate that system availability and efficiency have had the most significant impact on customer satisfaction. Policymakers should, therefore, encourage and support digital infrastructure development and stable network services to ensure uninterrupted access to internet banking. Investment in secure and reliable digital platforms, particularly in semi-urban and rural municipalities like Sanfebagar, could bridge the gap in digital service quality and promote financial inclusion.

Implications for Banking Practitioners

Bank managers and service designers should focus on enhancing system reliability and operational efficiency. Training programs for staff to improve responsiveness and customer communication may also contribute to greater satisfaction, even though responsiveness and privacy were not found to have significant impacts in this context. Continuous monitoring of system performance and prompt handling of service disruptions will help build long-term customer trust. Additionally, improving the privacy features and making them more visible to customers could enhance their perceived value.

Implications for Academic Community and Future Research

The study contributes to the growing body of literature on digital banking and customer satisfaction, particularly in the context of rural municipalities. Future research could expand this study by including more diverse geographical areas or comparing rural and urban perceptions. Additionally, longitudinal studies may help capture changes in customer satisfaction over time. Researchers may also explore other factors such as ease of use, digital literacy, or mobile banking experience to build a more comprehensive understanding of what drives satisfaction in digital financial services.

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APPENDIX

Questionnaire

Dear Respondent,

I am Gajendra Thakulla, an MBS student at Shanker Dev Campus, Putalisadak, Kathmandu. As part of my master's degree dissertation, I am conducting a study titled "Internet Banking Services and Customer Satisfaction in the Banking Sector in Sanfebagar Municipality." I am collecting primary data for this research and kindly request your assistance in completing this questionnaire. The information you provide will be used solely for academic purposes. Therefore, I kindly ask you to take a few minutes to complete the following sections.

Section A: Demographic Information

1. Gender

a) Male
b) Female

2. Age Category

a) Under 25 years
b) 25 – 35 years
c) 36 – 45 years
d) 46 – 55 years
e) Over 55 years

3. Marital Status

a) Married
b) Unmarried
c) Divorced/ Separated

4. Level of Education

a) +2 level and below
b) Bachelor level
c) Master level
d) Above master level

5. Employment Status

a) Student
b) Employed
c) Self-employed
d) Unemployed

6. Monthly Income

a) Below Rs. 20,000
b) Rs. 20,000 – Rs. 40,000
c) Rs. 40,001 – Rs. 60,000
d) Above Rs. 60,000

7. Frequency of Internet Banking Usage

a) Daily
b) Weekly
c) Monthly
d) Occasionally
e) Never

Section B: Statements for Study Variables

The following statements are related to the variables in this study. The independent variables have included Efficiency, Privacy, Responsiveness and System Availability, while the dependent variable has been identified as Customer Satisfaction. Each variable has been represented by five statements. So, please kindly indicate your level of agreement with each statement. Your responses will be measured using a five-point Likert scale, defined as follows:

Measurement of Likert Scale

Likert scale items	Ratings
Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

(Source: Likert, 1932)

Efficiency

Code	Statements	Ratings				
		5	4	3	2	1
EFF1	Internet banking enhances transaction efficiency					
EFF2	The stability and reliability of internet banking systems increase my confidence to use them.					
EFF3	Internet banking streamlines my banking activities.					
EFF4	Internet banking systems are efficient in handling large volumes of transactions.					
EFF5	The speed of transactions in internet banking meets my expectations.					

(Source: Author's Development)

Privacy

Code	Statements	Ratings				
		5	4	3	2	1
PRI1	I am confident in the privacy measures provided by internet banking services.					
PRI2	Internet banking ensures the confidentiality of my personal and financial information.					
PRI3	My private information is well-protected when using internet banking.					
PRI4	Internet banking has adequate privacy policies and practices.					
PRI5	I trust the security and privacy of internet banking transactions.					

(Source: Author's Development)

Responsiveness

Code	Statements	Ratings				
		5	4	3	2	1
RES1	The customer support for internet banking is prompt and helpful.					
RES2	Internet banking services respond quickly to my issues and concerns.					
RES3	The responsiveness of internet banking services meets my expectations.					
RES4	Internet banking services are quick to address and resolve problems.					
RES5	The response time of internet banking services is satisfactory.					

(Source: Author's Development)

System Availability

Code	Statements	Ratings				
		5	4	3	2	1
SA1	Internet banking systems are available whenever I need to use them.					
SA2	I rarely experience downtime with internet banking services.					
SA3	The availability of internet banking services is reliable.					
SA4	I can access internet banking services 24/7 without issues.					
SA5	Internet banking services are consistently operational.					

(Source: Author's Development)

Customer Satisfaction

Code	Statements	Ratings				
		5	4	3	2	1
CS1	I am satisfied with the overall internet banking experience.					
CS2	Internet banking meets my expectations for banking services.					
CS3	I would recommend internet banking to others.					
CS4	I am satisfied with the features and functionalities of internet banking.					
CS5	Internet banking fulfills my banking needs effectively.					

(Source: Author's Development)

Thank you for your participant!

PAPER NAME

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