Addis Ababa University College of Business and Economics School of Commerce

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Assessing the Impact of Digital Banking Service Quality on Customer Satisfaction: A Study of Selected Branches of Abay Bank S.C.

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Addis Ababa, Ethiopia

Assessing the Impact of Digital Banking Service Quality on Customer Satisfaction: A Study of Selected Branches of A bay Bank S.C.

A Thesis Submitted to the Department of Business Administration and Information Systems in Partial Fulfillment of the Required for the Award of Masters of Arts in Degree in Business Information Systems (MBIS)

By

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Advisor

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Addis Ababa, Ethiopia

DECLARATION

I, Eyersalm Kasay , hereby declare that the thesis work entitled "*Assessing the Impact of Digital Banking Service Quality on Customer Satisfaction: A Study of Selected Branches of Abay Bank S.C.*" submitted by me for the award of degree of Masters in Business Information Systems (MBIS) of Addis Ababa University School of Commerce at Addis Ababa, Ethiopia, is my original work and it has never been presented in any university. All sources and materials used for this thesis have been duly acknowledged.

Name: Eyersalm Kasay

Signature……

CERTIFICATION

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

This is to certify that the thesis prepared by Eyersalm Kasay entitled: "*Assessing the Impact of Digital Banking Service Quality on Customer Satisfaction: A Study of Selected Branches of Abay Bank S.C.* Particularly Addis Ababa city branches and submitted in partial fulfillment of the requirements for the degree of Masters of Business Information System (MBIS) compiles with the regulations of the university and meets the accepted standards with respect to originality and quality.

Approved By:

Internal

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External

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Advisor Minale Ashagare (PhD)

Signature……..Date…….

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LIST OF ACRONYMS AND ABBREVIATIONS

ANOVA	Analysis of Variance
ASSU	Assurance
ATM	Automated Teller Machine
CBE	Commercial Bank of Ethiopia
CS	Customer Satisfaction
E- SERVQUAL	Electronics Service Quality
E-Banking	Electronics Banking
EMPA	Empathy
PC	Personal Computer
PDA	Personal Digital Assistant
PIN	Personal Identification Number
POS	Point of Sale
POP	Point of Purchase
REL	Reliability
RES	Responsiveness
SA	System availability
SC	Service content
SECPR	Security and Privacy
SERVQUAL	Service Quality
SPSS	Statistical package for social science
TANG	Tangibility
TE	Transaction efficiency
SERVPREF	Service performance
WEBQUAL	Web Quality
E-SQUAL	Electronics Service Quality
E-Recs-QUAL	Electronics Recovery Service Quality

ABSTRACT

Despite technological advancements in digital banking, financial institutions continue to face challenges in ensuring customer satisfaction. In Ethiopia, research on digital banking service quality has produced inconclusive findings, particularly concerning cultural and behavioral aspects within financial institutions. This study aimed to assess the impact of digital banking service quality on customer satisfaction at selected branches of Abay Bank S.C. in Addis Ababa.

The study investigated six independent variables reliability, responsiveness, assurance, empathy, tangibility and security & privacy with customer satisfaction as the dependent variable. A quantitative approach was adopted, using descriptive and explanatory research designs. Data were collected through structured 5-point Likert scale questionnaires distributed to 384 digital banking customers, with 339 valid responses analyzed.

Using SPSS Version 26, the study applied descriptive and inferential statistics, including multiple linear regression analysis. The findings indicated that customers were generally moderately to highly satisfy with Abay Bank's digital services. Among quality dimensions, Assurance ($\beta = 0.252$) and Security & Privacy ($\beta = 0.217$) had the most significant positive impact on customer satisfaction, followed by Empathy, Tangibility, Responsiveness, and Reliability..

The overall model was statistically significant ($R^2 = 0.800$, $F = 221.545$, $p < 0.001$), explaining 80% of the variance in customer satisfaction. The study concludes that digital banking service quality significantly affects customer satisfaction, especially in the areas of assurance and security and privacy, with moderate contributions from other service dimensions.

Keywords: Service Quality, Customer Satisfaction, Digital Banking

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Chapter 1: Introduction

1.1 Background of the Study

Technology has simplified daily life for modern societies (Hammoud, Jamil and Bizri, Rima M and El Baba, Ibrahim, 2018). Investments in Information and Communication Technology (ICT) have made it possible for financial organizations to calculate and successfully implement the shift to digital banking (Abbasi,Tariq & Weigand, 2017).

The rise of digital banking services has changed customer behavior and provided companies with banking opportunities for strategic investment (Sabi, Humphrey, And Muki, 2014). Ethiopian banks are engaged in tough competition to attract customers by offering a variety of services (Mahlet, 2020). Customers increasingly prefer services that simplify transactions, since almost all bank businesses are beginning to move into the digital era (Revin Prasetia, T. Y. , 2020). The development of digital banking services, including internet banking, mobile banking, and automated teller machines (ATMs), has enabled customers to reduce transaction costs while managing their finances more efficiently and independently (Serrah, E. A., and Maideen, M. B. H, 2022).

E-banking, as defined by (Pikkarainen,T.et al., 2004) refers to a range of self-service platforms, such as online banking, mobile banking, phone banking, and PC banking. Customers access these services through electronic devices, including personal computers, ATMs, and point-of-sale (POS) terminals, eliminating the need for physical visits to the bank. The term "electronic banking" or "digital banking" encompasses the use of ICT by banks to enhance service delivery and improve customer relationships with higher quality and satisfaction levels (Siyum, 2021).

Internet banking, in particular, allows customers to perform various financial transactions anytime and anywhere, significantly reducing operational costs (Raza, S.A., Umer, A., Qureshi, M.A. & Dahri, A.S, 2020). To retain selective and demanding customers, banks must not only expand and diversify their products and services but also prioritize high-

quality customer service (Siyum, 2021). Service quality and customer satisfaction are critical for maintaining a competitive advantage in the modern banking industry.

High-quality service impacts customer satisfaction, cost efficiency, loyalty, relationship retention, and overall profitability. According to the "disconfirmation theory," service quality arises from the comparison between perceived performance and expected performance. The SERVQUAL model is widely used to assess service quality, defining it as the gap between the expected and actual levels of service (Zekiri, 2011).

Abay Bank S.C was established on July 14, 2010, when the National Bank of Ethiopia granted its banking license. By November 3, 2010 Abay Bank commenced operations, offering a wide range of commercial banking services including various forms of savings, loans and advances, grantee facilities, foreign banking services and domestic banking services. Over the years, the bank has expanded its operations to improve accessibility and convenience for its customers. As of June 30, 2024 Abay Bank S.C launched 59 new Branches, bringing its total to 542. (Abay.Bank, 2023/24).

Abay Bank S.C introduced digital banking services (ATM, POS, Mobile and Agency Banking) in 2015 with nine ATMs and six POS machines. The Digital Banking department comprises two divisions named business and technical team which is led by team leaders, and both leaders managed by e-banking department managers under the control of e-Banking Director. Over the years, the bank’s digital capabilities have significantly improved, enhancing its competitiveness in the financial industry. Key achievements during the FY 2023/24, including the launch of a new mobile banking application and the deployment of 138 new ATMs, has increased the total to 299 .The bank also introduced more POS terminals at merchant locations. Mobile and Internet banking subscribers surpassed 3.2 million with 1.21 million new registrations during the fiscal year. Active digital service users more than doubled, exceeding 2 million, while card users increased by 44%, reaching over 954,000 (Abay.Bank, 2023/24).

The bank's efforts to strengthen agent banking and merchant recruitment have yielded significant results, with 39.2 million digital transactions processed, amounting to Birr 44.6 billion in FY 2023/24.This digital transformation has enhanced customer convenience and driven a notable increase in e-banking adoption.

Given the substantial growth in customer numbers and the increasing reliance on digital banking, the researcher is motivated to evaluate the satisfaction level of Abay Bank's Digital banking customer in selected branches and examine how service quality dimensions influence customer satisfaction.

1.2 Statement of the Problem

In the modern banking sector, the adoption of technology has become crucial for delivering excellent customer service (Bhatia, P., & Jain, S., 2022). Investments in ICT have enabled financial institutions to transition successfully to digital banking (Mekdes, 2022). Digital banking services allow customers to conduct transactions conveniently without visiting a physical branch, thereby enhancing accessibility and efficiency for both banks and their customers (Khan, 2017).

Despite these technological advancements, ensuring consistent customer satisfaction remains a major challenge for financial institutions. Although numerous studies have explored the impact of digital banking service quality in Ethiopia, their findings vary, particularly regarding which dimensions most significantly influence customer satisfaction.

The study conducted by (Siyum, 2021) assessed five traditional SERVQUAL dimensions: tangibility, reliability, responsiveness, assurance, and empathy and found all to significantly affect customer satisfaction. However, tangibility and empathy had lower impacts. The research done by (Yohannes T, 2024) identified as ease of use, efficiency, responsiveness, security and privacy, and web design as key factors affecting customer satisfaction and brand image.

Similarly researcher work of (Eyasu, 2023) discovered all five dimensions (tangibility, reliability, responsiveness, assurance, and empathy) positively and significantly influence customer satisfaction. Another researcher (Mesfin, 2023), on the other hand, emphasized the significant role of Customer Support and Service Security had significant positive effects on customer satisfaction. These variations imply that differences in research methodology, sample characteristics, or contextual factors (such as behavioral dimension like organizational culture) may influence how service quality dimensions affect customer satisfaction in digital banking.

However, these prior studies have limitations in scope and generalizability, making their findings insufficient for addressing the case of Abay Bank.

Abay Bank stands out as a fast growing financial institution with a strong commitment to digital transformation. However, there is limited empirical evidence that specifically evaluates how digital service quality dimensions affect customer satisfaction within Abay Bank's operational context.

Abay Bank was selected as the focus of this study for several reasons. First, although Abay Bank has been established for 15 years, it is considered a relatively younger institution compared to Ethiopia's oldest commercial banks. Its ongoing efforts to modernize and expand its digital banking services position it as a dynamic and competitive player in the evolving financial sector. This makes it a relevant and timely case for understanding how newer banks manage customer expectations in the digital era. Second, Abay Bank has made significant investments in mobile banking, internet banking, and ATM networks, yet customer feedback on digital service performance remains under explored in academic literature. Lastly, as a bank aiming to differentiate itself in a competitive market, identifying and improving the quality dimensions that matter most to customers can directly support its strategic objectives.

Therefore, this research addresses a practical gap by evaluating the specific impact of digital banking service quality factors such as reliability, responsiveness, assurance, empathy, tangibility, and security & privacy on customer satisfaction in selected Branches

of Abay Bank. The findings of this study will not only contribute to academic knowledge but also provide Abay Bank's management with actionable insights to improve digital service delivery and strengthen customer loyalty.

1.3 Research Questions

- What are the challenges customers face when using digital banking services at Abay Bank?
- How does the quality of digital banking services influence customer satisfaction in selected branches of Abay Bank?
- How satisfied are customers with the various aspects of Abay Bank's digital banking services?
- What are the key factors that contribute to customer satisfaction with Abay Bank's digital banking services?

1.4 Research Objectives

1.4.1 General Objective

The general objective of this research is to assess the impact of digital banking service quality on customer satisfaction: a study of selected branches of Abay Bank S.C.

1.4.2 Specific objectives

- To identify the challenges that customers face when using digital banking services at Abay Bank
- To examine the influence of digital banking service quality on customer satisfaction in selected branches of Abay Bank
- To assess customer satisfaction with various aspects of Abay Bank's digital banking services.
- To identify the key factors that contribute to customer satisfaction with Abay Bank's digital banking services.

1.5 Significance of the Study

This study explores the impact of digital banking service quality on customer satisfaction on the selected branches of Abay Bank, offering significant contributions to both practical banking operations and academic research. By identifying key strengths and areas for improvement in the bank's digital banking services, the findings will provide actionable insights for enhancing customer experiences and fostering long-term loyalty. For Abay Bank, the study will serve as a strategic resource, equipping management with evidence-based recommendations to refine service delivery, address quality gaps, and meet evolving customer expectations. These insights will be instrumental in maintaining a competitive edge in the rapidly advancing digital banking landscape. Beyond its practical implications, the research contributes to the broader knowledge base in digital banking, particularly in the Ethiopian financial context. It will serve as a valuable reference for future researchers, offering a foundation for exploring new dimensions of digital banking service quality and its influence on customer satisfaction. Ultimately, this study not only helps Abay Bank in improving its service quality but also provides insights that are relevant for other financial institutions and stakeholders navigating the challenges of digital transformation in banking.

1.6 Scope of the Study

The study focused on customers who used digital banking services actively over a period of two years (2023–2024). The study covered digital banking services (mobile banking, internet banking, card banking (ATM Banking & POS), and agent banking delivered by Abay Bank).

1.7 Limitation of the Study

The study is limited to customers of Abay Bank digital banking users selected branches in Addis Ababa. Therefore; the findings may not be generalizable to other banks or regions across the country.

1.8 Description of Terms

- **Digital Banking:** Digital banking is the practice of conducting banking services using digital technologies, allowing customers to enter their accounts, make transfers, and carry out other banking tasks through ATMs, mobile banking, internet banking, or card banking without having to physically visit the bank. (Sharma, M., & Kaur, R. , 2023) (Ameen, A., et al., 2021). This mode of banking service Information and Communication Technology(ICT) to streamline banking processes and offer enhanced convenience to Customers.

- **Bank Card**: The term" bank card" describes any card that a bank issues and that's connected to a customer's depository account. Customers can use these cards to do a range of financial transactions, including withdrawal, deposits, and payments. They include credit cards, Debit cards, and ATM cards. (Mekdes, 2022).

- **Point of sale (POS):** Stands for point of trade systems that enable customers to use electronic payment system, similar as debit or credit cards, to pay for goods or services at businesses. also, POS systems may allow to receive cash in advance or to withdrawal and other banking operations. (Suresh, A., & Ramesh, K, 2022). These systems give convenience by enabling flawless, cashless deals to receive at bank branch.

- **Service Quality**: Measuring how well a service fulfils customer prospects is known as service quality. It includes elements like the services' tangibility, assurance, responsiveness, empathy, and responsibility in the banking sector. further Customer satisfaction and loyalty are the results of high quality services. (Sengupta, D., & Dutta, A. , 2022); (Parasuraman, A., Zeithaml, V. A., & Berry, L. L., 1988).

- **Customer Satisfaction** :Customer Satisfaction is the extent to which a company's goods and services meet or surpass a client's expectations. It shows how well a bank's online and mobile banking services meet the convenience, security, and availability requirements of its customers (Ameen, A., et al., 2021); (Kotler, P., & Keller, K. L. , 2021)

- **Automated Teller Machine (ATM):** An ATM is an organizer of electronic banking installation that allows users to perform common transactional tasks such as checking their balance, making cash payments, and transferring funds between accounts. Because they provide 24/7 access to banking services, ATMs are key components of digital banking infrastructure (Dawson, A., & Liu, H. , 2023)

- **Internet banking**, an essential part of digital banking, gives users the freedom to manage their finances whenever and wherever they want. It includes platforms that let users pay bills, manage their bank accounts, make transfers, and perform other financial operations through a secure website. (Raza, S. A., et al. (2022).) (Pikkarainen,T.et al., 2004).

1.9 Organization of the Study

The Study organized into five chapters. Chapter Two presents a comprehensive review of the literature, highlighting the contributions of previous scholars in the field.Chapter Three details the research methodology, including an overview of the study, research approach, population, data types and sources, sample size and sampling techniques, as well as the data collection procedures and tools. It also addresses the validity and reliability of the study. Chapter Four is dedicated to the analysis and presentation of the study's findings. Chapter Five concludes the study by summarizing the key findings, drawing conclusions, offering recommendations, and suggesting areas for further research.

Chapter 2: Literature Review

2.1 Overview

This chapter is organized into three main sections: Section one provides an overview of banking and digital banking in Ethiopia. Highlighting how the banking industry has been grown significantly since e-banking was introduced. However, limited private sector involvement and constraints on foreign bank entry continue to hinder its growth. The success and profitability of a business are largely dependent on the quality of its services. Ethiopian banks still struggle to provide high quality online banking services despite developments, mostly because of technological infrastructure restrictions that might lead to dissatisfied customers.

Section Two presents a review of related literature, focusing on the relationship between digital banking and customer satisfaction. Special attention is given to key service quality dimensions such as reliability, responsiveness, assurance, empathy, tangibility, web design, and privacy and security.

Section Three introduces the conceptual framework for the study. It outlines how models like E-SERVQUAL are employed to assess the gap between customer expectations and perceptions, particularly within the context of digital banking services.

2.2 Banking and digital Banking Services in Ethiopia

The establishment of modern banking in Ethiopia dates back to 1905 with the creation of the Abyssinian Bank under a fifty-year agreement with the Anglo-Egyptian National Bank (Pankhurst, 1963) By 1908, three additional foreign banks—Société Nationale d'Éthiopie pour le Développement de l'Agriculture et du Commerce, Banque de l'Indochine, and Compagnie de l'Afrique Orientale—were introduced. These institutions, however, were criticized for being entirely foreign-owned (Geda, 2006).

In 1931, the Ethiopian government acquired the Abyssinian Bank and renamed it the Bank of Abyssinia. The bank’s operations were short-lived as it ceased functioning during the Italian invasion. This period (1936–1941) saw increased banking activities due to the expansion of Italian banks. After Ethiopia regained its independence in 1941, Barclays

Bank operated briefly until 1943, influenced by British strategic interests during World War II (Gedey, 1990); (Geda, 2006).

In 1943, the Ethiopian government established the Ethiopian State Bank, which performed both commercial and central banking functions until its restructuring in 1963. The restructuring has resulted in the creation of the National Bank of Ethiopia and the Commercial Bank of Ethiopia (CBE). Following the 1974 revolution, the CBE assumed control over private banks, consolidating its dominance in the sector (Geda, 2006). Following the fall of socialist economic order/command economy, the Economic Reforms initiated in 1994 marked a significant shift, allowing private banks to operate.

As competition increased among banks and IT developments accelerated, e-banking grew in popularity, driven by the demand for accessible and convenient financial services in both developed and developing countries (Mahdi, M.D.H., Rezaul, K.M. and Rahman,M.A, 2010).

E-banking has evolved significantly since the late 1990s, growing from a small and relatively insignificant service to one that now serves millions of customers worldwide (OECD, 2001) In 1996, Deutsche Bank pioneered the launch of the first Internet banking initiative in Latin America, marking a significant milestone in digital banking in the region. To further facilitate the global expansion of digital banking, Citibank developed an "e-toolkit" for its branches worldwide (Abrar, 2017) .

Digital banking, also referred to as electronic or cashless banking, facilitates financial transactions without the use of physical currency (Kamboh, K. M., & Leghari, M. E. J., 2016). Initially, the focus of digital banking revolved around improving existing banking services using technology to enhance customer access and convenience. E-banking involves leveraging electronic and telecommunication networks to deliver various banking products and services (Offei, M. O., & Nuamah-Gyambrah, K. , 2016).

The first Automated Teller Machine (ATM) in Finland established a new financial channel, positioning the country as a leader in e-banking (Konheim, 2016). Today, e-banking services span a wide range of electronic channels, including computers, phones, TVs, and mobile devices (Lustsik, 2004).

Ethiopia's banking industry remains underdeveloped compared to regional and global benchmarks. The sector is dominated by the state-owned Commercial Bank of Ethiopia, and restrictions on foreign bank entry and private sector participation have limited competition and innovation. This has resulted in slower financial sector development and reduced economic growth compared to other countries in the region (Keatinge, 2022).

As technology continues to improve, consumer expectations for e-banking have also evolved. Customers now expect to complete their banking activities remotely, at any time, without being limited by operating hours. They also expect the ability to make payments—whether for stocks, bills, or purchases quickly and affordably.

Electronic banking, often known as e-banking, is the word used to characterize all electronic transactions that take place between businesses, organizations, and individuals and their banking institution (Sintayehu, Z & Sapana,C., 2022).

According to (Haralayya, 2021), traditional financial services have been computerised to become digital banking. It makes it possible for the bank's customers to use online or electronic platforms to access banking services and products. It involves digitising all aspect of banking in order to replace the bank's physical location and remove the need for customers to visit the branch. Business practices have also evolved as a result of the globalisation of the industry brought about by electronic banking.

According to (Sewalem, 2018) E-banking refers to the use of the internet as a remote delivery channel for providing services, such as creating a bank account, transferring money between different accounts, and presenting and paying bills electronically.

- **Types of E-Banking**

Electronic devices such as PCs, smartphones, and the internet are used to deliver e-banking services. These services include 24/7 access to fund transfers, recharge cards, and cash withdrawals, amongst other benefits.

Automated teller Machine (ATM)

An ATM is a public electronic device that is linked to a data system and associated hardware to allow a bank customer to access banking services and information without physically entering the banking hall. It enables users to access banking services such transfers, withdrawals, chequebook requests, account statements, direct deposits, foreign exchange, and balance enquiries. (Fenuga,O.J., 2010).

An ATM card and a passcode, often known as a PIN (Personal Identification Number), are necessary for using an ATM.In addition to allowing card-less withdrawals on funds given to them via mobile money, ATMs let users to take out cash using their debit, credit, and prepaid cards.

Internet Banking

Internet banking is an electronic payment system that enables customers of financial institutions, including building societies, credit unions, retail banks, and virtual banks, to make financial transactions on the institution's website at any time of day. Through the use of a website, bank customers can carry out nearly all of the operations that the bank offers. Customers using internet banking can extract their monthly or annual activity reports and transfer large amounts of money. (Sintayehu, Z & Sapana,C., 2022).

A financial institution, such as a physical or virtual bank, credit union, or society, can use internet banking to carry out financial transactions on a secure website run by the organisation. Any transactions relating to online usage may be included. More and more banks are providing websites where clients can do a range of activities in addition to asking

questions about account balances, interest rates, and currency rates.It might include any internet purchase. In addition to asking about account balances, interest rates, and currency rates, banks are increasingly running websites where users may perform a variety of other functions. (Amith kumar Reddy, Megharaja B., 2021)

Mobile Banking

Mobile banking, sometimes referred to as M-banking, is the practice of conducting account transactions, balance checks, payments, credit applications, and other banking operations on a mobile device, such as a PDA or cell phone. The first way that mobile financial services were delivered was through SMS banking (Amith kumar Reddy, Megharaja B., 2021).

To use mobile banking, all you need is a smartphone with a dependable text messaging app. This category includes banking via SMS. In addition, M-banking, or "mobile banking," refers to the practice of conducting account transactions, balance checks, payments, credit applications, and other banking operations via a mobile device, such as a PDA or cell phone. Payments like digital payments, mobile purchases, or mobile money transfers are examples of mobile banking transactions. Alternatively, a mobile banking transaction may comprise an account inquiry without a payment, such as checking your balances, available credit, or transaction history (Shaikh, A. A., & Karjaluoto, H., 2015).

Point of Sales (POS)

The point of sale (POS), also referred to as the checkout or point of purchase (POP), is where a transaction occurs. The phrase "checkout" refers to a point-of-sale (POS) terminal, or more generally, the hardware and software used for checkouts, which is the analogue of a digital cash register. A point-of-sale terminal manages the selling process through an interface that salespeople can access, and the receipt can be generated and printed using the same process (Amith kumar Reddy, Megharaja B., 2021).

The selling process is managed by a POS terminal with an interface that is available to salespeople. It is possible to create and print the receipt using the same system. For tax and

business purposes, POS systems keep track of sales. By debiting the buyer's account and crediting the seller's account, point-of-sale (POS) enables customers to pay for goods and services without physically touching currency. (Fikerselassie, 2017).

2.3 Service Quality

The idea of providing high-quality service is increasingly taking precedence in the current business climate as the main means to increase profits through customer satisfaction. A significant factor influencing a company's ability to compete is service quality. Banks continuously monitor the quality of their service offerings to enhancement their market share and obtain a competitive edge. One definition of service quality is the difference between a customer's expectations and their impression of the service they received (Parasuraman, Anantharanthan and Zeithaml, Valarie A and Berry, Leonard L, 1985) . When a company wants to set itself apart from its competitors, it is thought to be a crucial tool. There isn't a single, widely recognised definition of service quality at the moment.

According to (Grooroos, 2007) service quality is the outcome of an assessment process where the user compares their expectations with the service they believe they have consumed. Service quality has been defined by the following criteria: satisfying or exceeding client expectations; aspects of the product or service that fulfil expressed desires; adherence to clearly defined specifications; and durability for use, where the product satisfies consumer needs and is free of flaws (Fikru, 2023).

Service quality, or perceived service quality, affects customer satisfaction. According to various researches, customer satisfaction and service quality measure the same fundamental concept and are therefore interchangeable. However, other scholars oppose that customer satisfaction with a specific transaction comes before opinions about the firm's general quality, making it a pioneer to perceived quality. Some argue that perceived service quality has an impact on customer satisfaction and that quality and satisfaction are two different ideas. Therefore, service quality theory is based on a combination of customer satisfaction and service quality literature (Parasuraman, Anantharanthan and Zeithaml, Valarie A and Berry, Leonard L, 1985).

2.4 Theoretical model of Service Quality

Service quality is essential determinant of customer satisfaction, loyalty, and trust. Service quality reflects the difference between what customers expect from a service before they receive it and how they perceive it afterward (Collier .J.E., and C.C. Bienstock, 2006). The evaluation of service quality has evolved with the emergence of different models; two widely recognized models for measuring service quality globally are SERVQUAL and SERVPREF. These models, originally designed for traditional service quality evaluation, have been adapted by many researchers to assess e-service quality and to develop E-Service Quality models for digital platforms. (Bogale, 2019).

- **SERVQUAL Model**

The SERVQUAL model, developed by (Parasuraman, Anantharanthan and Zeithaml, Valarie A and Berry, Leonard L, 1985), Compares customers service expectations to their perceptions of the service they received. SERVQUAL was first divided into 10 domains: tangibles, reliability, security, trustworthiness, courtesy, competence, responsiveness, access, communication, and understanding customers (Jayasundara, 2009). These were then reduced into five important dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Customers receive personalized attention and care.

The SERVQUAL model is widely used across industries due to its comprehensive diagnostic value (Furrer, O., Liu, B.S-C. and Sudharshan, D, 2000). Despite criticism regarding its theoretical and methodological aspects, SERVQUAL remains a dominant framework for evaluating service quality (Hongxiu,and Reima,, 2010) .

- **SERVPREF Model**

Researcher (Collier .J.E., and C.C. Bienstock, 2006) introduced the SERVPREF model to measure service quality and customer satisfaction based, specially on performance. Unlike SERVQUAL, SERVPREF does not account for customer expectations, focusing instead

on perceptions of service delivery. While SERVPREF is simpler and easier to administer, its lack of diagnostic depth makes SERVQUAL the preferred model in many cases.

- **E-Service Quality Models**

The original SERVQUAL model developed by (Parasuraman, A., Zeithaml, V. A., & Berry, L. L., 1988) cannot be fully applied to online service research. However, assessments of service quality can still be conducted using similar elements. To comprehensively evaluate online service quality, additional variables should be considered (Zeithaml, V.A., Parasuraman, A. And Malhotra, A. , 2002). To measure the quality of online services the E-SERVQUAL model was developed, which consists of four key components: Reliability, Efficiency, Privacy and Fulfillment.

The E-SERVQUAL approach evaluates service quality at three stages**:** before, during, and after service delivery. It is also considered **a** strong predictor of customer satisfaction, as it highlights the gap between customer expectations and actual service performance (Zeithaml, V.A., Parasuraman, A. And Malhotra, A. , 2002)**.**

As digital services continue to grow, various researchers have proposed alternative models to assess E-SERVQUAL**:** According to researcher (Zarei, 2010) suggested modifying the E-SERVQUAL scale to include dimensions such as efficiency, fulfillment, system availability, privacy, assurance/trust, site aesthetics, responsiveness, and contact.
Therefore, models like E-SERVQUAL and WEBQUAL have been developed to assess online service quality. E-SERVQUAL provides a more holistic evaluation by measuring both website performance and service recovery, while WEBQUAL focuses primarily on website usability and design. However, neither model fully captures all aspects of online banking service quality. To improve online banking service quality assessments, trust and assurance should be emphasized due to their critical role in financial transactions. Additionally, website aesthetics must be considered as a factor influencing customer perception. Meanwhile, some dimensions, such as compensation, may be less relevant in online banking.

Another researcher (Torres-Moraga,E.,Vasquez-Parraga,A. Z.,& Barra, C, 2010) developed a scale for evaluating the characteristics of banking e-services based on a detailed qualitative analysis. The study identifies six key dimensions of service quality in Internet banking: accessibility /availability, accuracy, product/service quality, responsiveness, security /privacy, and usability. It also offers valid methodologies for evaluating the performance of digital banking platforms and introduces new metrics to enhance the assessment of service quality.

Researcher (Ariff, M. S. M., Yun, L. O., Zakuan, N., & Ismail, K. , 2013) expanded the e-service quality scale by adding three elements: assurance, website aesthetics, and fulfillment**.** The study found that the information, instructions, and assistance provided via websites are crucial for customers conducting online banking transactions. Additionally, fulfillment and assurance should emphasize building customer confidence in using the site and ensuring their needs are adequately met.

Researcher (Alawneh, A. A, 2013) Developed a five-dimensional E-service quality scale based on extensive research and modifications to the E-S-QUAL and E-RecS-QUAL models. The dimensions responsiveness**,** reliability/fulfillment, efficiency, and communication are crucial for enhancing customer satisfaction, trust, commitment, and loyalty**.**

Another researcher (Agrawal, V., Seth, N., Seth, D., & Tripathi, V., 2018) identified 10 key elements of E-SERVQUAL efficiency, reliability, fulfillment, ease of use, security and trust, website aesthetics, responsiveness, contact, personalization, and usability based on comprehensive literature research and expert opinions. These dimensions collectively provide a holistic framework for evaluating e-service quality and its impact on customer satisfaction.

The variables for this study are derived from well-established service quality theories and models, including SERVQUAL and E-SERVQUAL. These models have been widely applied in evaluating service quality across various industries, including digital banking.

Based on the theoretical models and prior research, the following key service quality dimensions will be identified as relevant for this study in evaluating digital banking service quality and customer satisfaction: tangibility, reliability, responsiveness, assurance, empathy, and privacy and security.

Reliability: Reliability is the first determinant of customer satisfaction, and the second determinant of customer loyalty to the website (Zeithaml, V.A., Parasuraman, A. And Malhotra, A. , 2002) Reliability is defined as a service-based capability to provide customers with confidence and high resolution (Sung, 2009). To achieve reliability, companies must provide service as promised by the company and reliably. It covers the website's proper technological recruiting as well as accuracy in commitments and service claims (such as the customer order delivery, delivery time, advertising, and product details) (Parasuraman, A., Zethamel, V.A, And Molhotra, A. (2005).), plus the correct completion of the request, and direct delivery of applications, and the accuracy of the advertising (Yang, 2004).

Reliability is measured by providing a website permanently and the right action (Gerrard, 2003). Reliability refers to the company's ability to deliver the quality of information that matches the criteria of timeliness, accuracy, understandability, and relevance, in addition to its ability to fulfill pledges to the customer thereby achieving a high level of satisfaction (Swaid, 2007).

Assurance: -According to (Parasuraman, Anantharanthan and Zeithaml, Valarie A and Berry, Leonard L, 1985) Assurance refers to the group's professionalism, competence, and ability to inspire confidence in their work, as well as the staff members' ability to create confidence and trust by their conduct, knowledge, and politeness. Employees who serve as the company's customers' points of contact may inspire confidence and trust in them (Bolton & Saxena-Iyer , 2009) .

Empathy: According to (Parasuraman, Anantharanthan and Zeithaml, Valarie A and Berry, Leonard L, 1985) Empathy is the thoughtful, individual attention that a business

gives to each of its clients. This includes offering personalised service to customers, hiring staff who are aware of their requirements, and working at suitable hours (Ananth , 2011) Their study on private sector banks described empathy as understanding the distinctive requirements of the customer, providing individualised attention, having convenient operation hours, and keeping the customer's best interests in mind.

Tangibles: -According to (Parasuraman, Anantharanthan and Zeithaml, Valarie A and Berry, Leonard L, 1985) tangibility is the physical appearance of Objects like furniture, machinery, people, and written materials. Researcher (Ananth , 2011) to their analysis of private sector banks, tangibility is characterized by modern technology, a physical location, well-groomed staff, and visually appealing products.

Service and Privacy: One of the key components of the dimensions of electronic service quality that gives users the confidence to conduct business online is privacy (Zeithaml, V.A., Parasuraman, A. And Malhotra, A., 2000a), The author of (Iliachenko, 2006) defines privacy as ' protect customers from fraud and protect their personal information '. Increase privacy by securing the website for customers of intervention and protecting their personal information (Zeithaml, V.A., Parasuraman, A. And Malhotra, A., 2000a). This dimension can be measured by assessing the degree of protection and maintaining customer information from hacks plus how customers feel safe with their special information while dealing with the website (Sheng, 2010) The importance of privacy comes from the ability of internet services to deliver reliable and dependable to build confidence among customers (Madu, C.N. And Madu, A.A. , 2002).

Responsiveness: (Garvin, 1988) The ability to fix issues when they arise because the customer lacks the necessary skills for processing and repair is what is generally meant by responsiveness.. Responsiveness in traditional service centered round the ability of the service to answer customers' questions, respond to them without errors in minutes plus immediate delivery to the customer (Zeithaml, V.A., Parasuraman, A. And Malhotra, A. , 2002).

Customers speed and assistance when searching for and using electronic services is referred to as electronic service responsiveness. Guidance, instructions, and the company's capacity to offer solutions electronically are all included. It is determined by providing services, attending to client needs, and obtaining prompt responses (Iliachenko, 2006).

2.5 Review of Related Works

Previous empirical studies have highlighted the key dimensions and critical determinants that banks must prioritize to deliver effective online banking services. However, compared to other countries, Ethiopian banks continue to lag behind in offering high quality digital banking experiences. Despite some technical advancements, these institutions have struggled to significantly enhance service quality and customer care. Consequently, customers of Ethiopian commercial banks remain largely dissatisfied, particularly in terms of the technical capabilities and digital service delivery. Moreover, only a limited number of studies have explored the quality of electronic banking services in Ethiopia, especially regarding the challenges posed by the country’s underdeveloped technological infrastructure. This gap underscores the need for further empirical investigation within the local context.

A study conducted by (Fikerselassie, 2017) security/privacy and service quality have a significant impact on e-banking users' satisfaction. However, it was found that dependability, accessibility, delivery time, and ease of use had no visible effects on consumer satisfaction.

Similarly, The findings of (Sileshi, 2018) results show that certain aspects of service quality and customer satisfaction are strongly correlated. Customer satisfaction was found to be statistically significantly impacted by assurance and empathy among the SERVQUAL dimensions, but tangibility, responsiveness, and dependability did not exhibit a significant influence. Despite a generally good correlation between customer satisfaction and service quality, the study found that Awash Bank and Dashen Bank have not properly used these aspects of service quality to satisfy customers. As a result, the study suggests that banks

emphasize improving particular elements of service quality in order to improve customer satisfaction.

The researcher work of (Gezahegn, 2018) examined the relationship between Awash Bank's service excellence and customer satisfaction. The findings demonstrated a strong and positive relationship between customer satisfaction and tangibility, assurance, empathy, and responsiveness. Customers reported little satisfaction with the tangible and reliable aspects of service quality, but they were most satisfied with the empathy component. According to the study, these four aspects of service quality account for 80% of the variances in customer satisfaction at Awash Bank S.C. Customers were still less satisfied with the dependable and tangible elements of service.

The researcher (Maria, 2020) investigated the effect of electronic banking service quality on customer satisfaction and loyalty, focusing on Dashen Bank. The study found that assurance, reliability, empathy, and responsiveness significantly influenced both customer satisfaction and loyalty. The positive coefficients of these dimensions indicated their contribution to improvements in customer satisfaction and loyalty. However, tangibility was found to have no significant effect on either metric.

The researcher (Mesfin, 2023) despite looking at the same variables, the different results across these empirical studies suggest that more research is needed to understand the reasons for these differences. The author concluded that all service quality dimensions had a positive and significant effect on customer satisfaction with e-banking services, but that tangibility had a relatively low positive and insignificant impact on customer satisfaction. Future empirical work could help identify strategies for improving e-banking service quality and customer satisfaction in Ethiopia while also bringing light on the differing findings.

2.6 Conceptual Framework

The purpose of this study is to assess how digital banking service quality affects customer satisfaction. Based on theoretical models and empirical findings, the study adopts a

conceptual framework built on seven key dimensions of digital banking service quality. These dimensions are drawn primarily from SERVQUAL and E-SERVQUAL models, which have been extensively used to evaluate customer perceptions of service quality in both physical and electronic service environments. The selected dimensions provide a comprehensive framework for understanding the customer experience in digital banking platforms.

- Reliability is the capacity of the digital banking system to deliver on its promises with accuracy and consistency.
- Responsiveness: The readiness and ability of the bank to offer consumers prompt assistance.
- Assurance: represents how clients view the service provider's professionalism, civility, and reliability.
- Empathy is the degree to which the bank gives each of its clients considerate, personalized attention.
- Tangibility: encompasses the way that facilities, tools, and communication materials look both digitally and physically.
- security and privacy refer to the measures and practices implemented to protect customers financial information, personal data, and online transactions from unauthorized access, fraud, and misuse.

Together, these six dimensions form the foundation of the conceptual framework for this study. The framework guides the research in assessing the extent to which each factor influences customer satisfaction, providing both theoretical insights and practical implications for enhancing the quality of digital banking services.

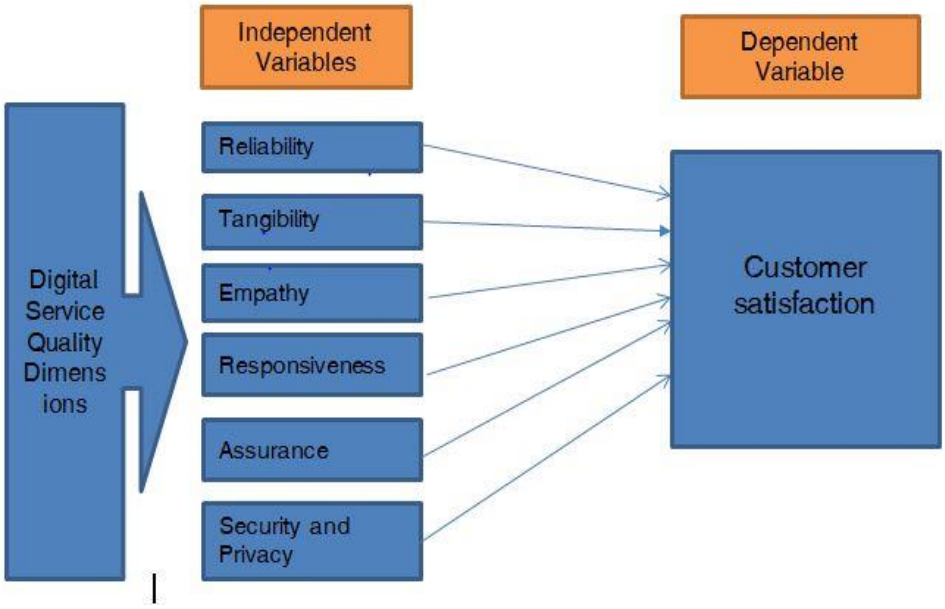

Figure 1. Conceptual Framework

Source: (Parasuraman, A., Zethamel, V.A, And Molhotra, A. (2005).) (Agrawal, V., Seth, N., Seth, D., & Tripathi, V., 2018) (Gezahegn, 2018)
(Fikerselassie, 2017).

➢ Research Hypotheses

Based on the research objectives and questions, the following hypotheses are formulated:

- **H01**: Reliability has no significant effect on customer satisfaction in digital banking services at Abay Bank S.C.
- **H1**: Reliability has a significant positive impact on customer satisfaction in digital banking services at Abay Bank S.C.
- **H02**: Responsiveness has no significant effect on customer satisfaction in digital banking services at Abay Bank S.C.
- **H2**: Responsiveness has a significant effect on customer satisfaction in digital banking services at Abay Bank S.C.
- **H03**: Assurance has no significant effect on customer satisfaction in digital banking services at Abay Bank S.C.

- **H3**: Assurance has a significant effect on customer satisfaction in digital banking services at Abay Bank S.C.
- **H04**: Empathy has no significant effect on customer satisfaction in digital banking services at Abay Bank S.C.
- **H4**: Empathy has a significant effect on customer satisfaction in digital banking services at Abay Bank S.C.
- **H05**: Tangibility has no significant effect on customer satisfaction in digital banking services at Abay Bank S.C.
- **H5**: Tangibility has a significant effect on customer satisfaction in digital banking services at Abay Bank S.C.
- **H06**: Security and Privacy have no significant effect on customer satisfaction in digital banking services at Abay Bank S.C.
- **H6.** Security and Privacy have a significant effect on customer satisfaction in digital banking services at Abay Bank S.C.

Chapter 3: Methodology

This chapter presented the research design and methodology used in the study. It describes the method that is used to gather, examine, and interpret information relevant to the study's goals. The research design, target population, sampling strategies, data collection tools, and data analysis procedures are all covered in detail in this chapter. The methods employed to ensure the quality and dependability of the data is also covered. This chapter assures the study's flexibility, diligence, and repeatability by outlining the specific approach that was used.

3.1 Description of the Study Area

The Study is focused on the ninety (90) selected branches of Abay bank S.C in Addis Ababa. Abay Bank is one of the fast growing financial institution with a strong commitment to digital transformation. The services including mobile banking, internet banking, and ATMs to enhance customer convenience. The branches selected for this study are distinguished by high transaction volumes, substantial deposit levels, large customer bases, and significant adoption of digital banking services.

3.2 Research Approach

The research approach is determined by the research purpose, the nature of the study, the problem area, and the research questions (Ranjit, 2011). Accordingly, a quantitative research approach will be employed in this study. This approach is particularly useful for generating statistical conclusions that provide actionable insights. By focusing on numerical data, quantitative research allows for a more objective perspective, enabling informed and data-driven decision-making. According to (Sumbl, 2019) quantitative research approach plays a crucial role in organizational growth, as conclusions drawn from numerical analysis tend to be more reliable and effective for business decisions.

Hence based on the above explanation and considering the research objective, the study used quantitative research approach.

3.3 Research Design

Research design serves as a structured framework of methods and techniques chosen by a researcher to logically combine various components of a study, enabling efficient handling of the research problem (Sumbl, 2019).

Both explanatory and descriptive research designs were employed in this study. Explanatory Research Design: this design focuses on exploring unexplored aspects of a subject, providing explanations related to the what, how, and why of the research questions (Sumbl, 2019). It is particularly useful in uncovering underlying relationships and patterns within the research subject.

Descriptive Research Design: aims to describe the situation or case under study. It is a theory-driven approach, involving the collection, analysis, and presentation of data to describe characteristics of a population or phenomena as they exist. By implementing this design, the researcher can gain deeper insights into the why and how of the research problem (Sumbl, 2019).

The choice of explanatory and descriptive research designs for this study was based on their ability to comprehensively address the research problem and meet the study's objectives. Both research designs complemented each other, offering distinct advantages in exploring customer satisfaction and service quality within digital banking.

3.4 Population and Sample

The target population for this study consisted of customers who had actively used digital banking services at selected branches of Abay Bank in Addis Ababa. Specifically, the study focused on customers who have engaged with digital banking services such as mobile banking, internet banking, ATM, and POS services over the past two years (2023–2024). The customers selected are expected to provide insights on how digital banking services have impacted their banking experiences and satisfaction levels.

Due to the nature of the research, a convenience sampling method was applied for this study. Convenience sampling is a non-probability sampling technique where participants are selected based on their availability and willingness to participate in the study. In this

case, the researcher selected respondents who are easily accessible at the selected branches and making the data collection process cost-effective and efficient (Rahi, Samar, 2017).

The advantage of using convenience sampling in this study is that it allows for quick access to participants who are likely to have direct experience with the bank's digital services, thereby making the findings more relevant and specific to the research objectives.

The sample size determined using Cochran's formula for sample size calculation, considering the desired level of confidence and margin of error. (Cochran, 1977)

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:

n_0 = Initial sample size

Z = Z-score corresponding to the confidence level (e.g., 1.96 for 95% confidence)

p = Estimated proportion of the population with the characteristic of interest (use 0.5 if unknown, as it maximizes variability)

q = 1−p1 - p1−p (which will be **0.5** if p=0.5p = 0.5p=0.5)

e = Margin of error (commonly **5%** or **0.05)**

Therefore, since the total population is unknown, the sample size for this study will be calculated as follows

$Z^2=(1.96)^2=3.8416$

$Z^2 \cdot p \cdot q=3.8416 \times 0.5 \times 0.5=0.9604$

$e^2=(0.05)^2=0.0025$

$n_0 = = \frac{0.9604}{0.0025} = \mathbf{384.16}$

According to the determined sample size, a total of 384 structured questionnaires were distributed to customers of 90 selected branches of Abay Bank S.C. in Addis Ababa. These customers were specifically chosen based on their active use of the bank's digital banking services within the past two years. The questionnaires were distributed with the assistance of respective branch managers.

The selection of branches followed a clear condition: from the total 160 branches of Abay Bank in Addis Ababa**,** 90 branches were purposively selected based on their grade and customer engagement in digital banking services.

Abay Bank's branch grading system is based on several performance criteria, including: Annual number of transactions**,** Number of years since the branch began operations**,** Customer base size**,** Resource allocation**,** Years of providing non-interest and foreign currency services and Number of active digital banking users.

Each criterion is assigned a specific weight out of 100 points**,** and branches are graded based on their total performance score. The grading scale is as follows: Grade 4**:** Awarded to the best-performing branches, Grade 3**:** Given to branches with the second-highest performance**,** Grade 2**:** Assigned to branches with moderate or average

Performance, Grade 1**:** Indicates poor performance according to the evaluation criteria. This system allows Abay Bank to assess and compare branch performance comprehensively and fairly (Abay, 2022).

Accordingly, the questionnaire distribution was based on branch grade and customers' familiarity with digital banking services, ensuring the selection of respondents who could provide valuable input. Their regular use of digital platforms was expected to yield meaningful insights into the perceived quality of digital banking services.

3.5. Data Sources and Types

This study utilized both primary and secondary data to achieve its objectives. The primary data gathered directly from active digital banking customers of Abay Bank at the selected branches in Addis Ababa through structured questionnaires. All of the variables were assessed on a five Point Likert scale. As a result, 339 valid and usable questionnaires were collected, achieving an effective response rate of 85.6%**,** which was deemed sufficient for data analysis.

The bank's reports provided as the secondary data, which was mostly employed as support for the study's introduction. The questionnaire was adapted from the SERVQUAL model (Parasuraman, A.; Zeithaml, Valarie A.; Berry, Leonard L., 1988) and supplemented with items from previous studies on E-banking service quality (Aladwani, 2002) & (Amin, 2016).

Table 1 Data collection Material

Variables	Questions/Items	Source
Reliability	3 items were used	(Parasuraman, A., Zeithaml, V. A., & Berry, L. L., 1988) (Aladwani, 2002) & (Amin, 2016)
Responsiveness	3 items were used	
Assurance	4 items were used	
Empathy	3 items were used	
Tangibility	5 items were used	
Web Design	4 items were used	
Security and Privacy	4 items were used	
Customer Satisfaction	10 items were used	(Parasuraman, A., Zeithaml, V. A., & Berry, L. L., 1988)

3.6 Data Collection Procedures

A structured questionnaire was used as the primary data collection tool for this study.

The questionnaire is specifically designed for bank customers. A five-point Likert scale for measurement was used. Respondents were initially asked a screening question orally to verify their engagement with the relevant digital banking services, ensuring that only active users participated in the survey.

The structured questionnaire includes predefined, closed-ended questions aimed at gathering relevant primary data. Respondents used the Likert scale to rate their satisfaction with various aspects of the bank’s digital banking services. The scale ranges from

"Strongly Disagree" to "Strongly Agree", with a neutral neither "Neither Agree nor Disagree" option, providing a balanced method to assess customer perceptions and satisfaction.

3.7 Data Analysis

The data collected for this study were analyzed using quantitative techniques, employed both descriptive and inferential statistical methods. Descriptive statistics, including frequency distribution, percentages, means, and standard deviations, were used to summarize and describe the data collected from the questionnaires. These results were presented in tabular form to provide a clear understanding of the respondent characteristics and responses. For inferential analysis, correlation and multiple regression analyses were conducted. Correlation analysis was measured the strength and direction of relationships between service quality dimensions and customer satisfaction, while Multiple regression analysis was assessed the effect and relative importance of the independent variables (service quality dimensions) on the dependent variable (customer satisfaction). The analysis was performed using the Statistical Package for Social Sciences (SPSS) software, Version 26, to ensure accuracy and reliability in processing the collected data.

3.8 Validity and Reliability

3.8.1 Validity

To make sure the research tool measures what it is supposed to measure, validity is crucial. The results could be false or deceptive if they lack validity . (Chih-Pei, H. U., & Chang, Y. Y. John W. Creswell, 2017) During the questionnaire design and data collection phases, steps were taken to guarantee the validity of the research tool. By examining previous research and matching the items to well-known categories like SERVQUAL dimensions which are frequently used to evaluate service quality content validity was proven.

3.8.2 Reliability

To ensure the internal consistency and dependability of the measurement instrument, reliability testing was conducted using Cronbach's Alpha**.** This statistical measure

evaluates how closely related a set of items are as a group. As values above 0.70 are generally considered acceptable for social science research (Hair, J. F., Black, W. C., Babin, B. J., & Anderson,, 2019). A Cronbach's Alpha value of 0.962 was obtained for the entire instrument, indicating excellent reliability.

Table 2. Cronbach Alpha Coefficient

Reliability Statistics	
Cronbach's Alpha	N of Items
.962	7

Source: SPSS Output, 2025

Table 3. Cronbach Alpha Coefficient for all items

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Csatisfaction_Avg	20.7594	25.066	.893	.955
Security_Avg	20.7233	24.860	.837	.959
Reliability_Avg	21.0486	25.243	.864	.957
Responsiveness_Avg	20.7927	24.980	.870	.956
Assurance_Avg	20.7041	24.397	.880	.956
Empathy_Avg	20.8262	25.182	.875	.956
Tangability_Avg	20.8527	25.212	.855	.957

Source: SPSS Output, 2025

The scale's Cronbach's Alpha values, indicating excellent internal consistency, are above the recommended threshold with all dimensions such as reliability, responsiveness, assurance, empathy, tangibility web design and security & privacy.

This demonstrates that the items within each dimension are highly reliable in measuring their respective constructs, thereby ensuring the overall reliability of the research instrument used to assess digital banking service quality.

3.9 Ethical Consideration for the study

The study was obeyed to ethical principles to ensure the integrity of the research process and the rights of participants. Participation in the study was entirely voluntary, and respondents were the right to withdraw at any time. Before data collection begins, participants would be fully informed about the purpose of the study to ensure their consent is based on a clear understanding of its objectives. The confidentiality of respondent information was strictly maintained, and all data were used solely for the purposes of this research. Furthermore, the researcher guaranteed that the data collected were accurately represented, with no modification or misrepresentation, ensuring the credibility and reliability of the findings.

Chapter 4: Data Analysis and Result Presentation

This chapter presents an overview of the data analysis and interpretation done to assess the relationship between customer satisfaction and the quality of digital banking services at Abay Bank S.C. Descriptive statistics, which encompass respondent demographics and variable summaries, are presented as well as key findings from inferential statistics, such as regression and correlation analyses. To provide reliable results, regression assumptions were examined. Based on the statistical results, the chapter directly addresses the study questions and identifies the elements of service quality that have a significant impact on customer satisfaction.

4.1 Descriptive Statistics

To improve the significance, readability, and clarity of the analysis, the demographic profile of the respondents was assessed using descriptive statistics, such as the arithmetic mean, frequency distribution, standard deviation, and percentages. The researcher was in a position to provide the information they had gathered in a structured, accurate, and summary way to descriptive statistics.

4.2 Demographic Profile

The respondent's demographic data collected in nine demographic questions. The purpose of the demographic analysis characteristics is useful to understand and describe the characteristics of the respondents group. Hence, the overview of the demographic data is provided in the below Table 4.1. Presented in terms of frequencies and percentages in order to make it easier to understand how respondents were distributed into various demographic groups.

Table 4. Demographic Information for Abay Bank Customer Respondents

No.	Demographic Profile		Frequency	Percentage
1	Gender	Male	201	59.3
		Female	138	40.7
	Age	Total	339	100.0
2		18-22	16	4.7
		25-34	223	65.8
		35-44	76	22.4
		45-54	18	5.3
		>55	6	1.8
		Total	339	100.0
3	Educational Status	primary school	11	3.2
		High school	10	2.9
		Diploma	21	6.2
		Bachelor Degree	141	41.6
		Master's Degree or Above	156	46.0
		Total	339	100.0
4	Occupation	Student	7	2.1
		Salaried	301	88.8
		business man/women	26	7.7
		Pensioner	1	0.3
		Farmer	4	1.2
		Total	339	100.0
5	Monthly Income (ETB)	<5000	11	3.2
		5001-10000	17	5.0

		10001-20000	96	28.3
		>20000	215	63.4
		Total	339	100.0
6	For what purpose do you frequently use digital banking services?	Cash Withdrawal	171	26.3
		account transfer	269	41.51
		bill payment	163	25.15
		other purposes	45	6.94
		Total	648	100
7	How long have you been a digital banking customer at Abay Bank?	<1 year	6	1.8
		1-2	83	24.5
		3-4	97	28.6
		4-5	55	16.2
		> 5 years	97	28.6
		Total	339	100.0
8	Which Type of digital Banking service do you use most frequently	ATM	181	31.53
		Mobile Banking	280	48.78
		Internet Banking	77	13.41
		POS	20	3.48
		Others	16	2.79
		Total	574	100
9	Before the introduction of digital banking products, how frequent in a month do you visit the bank for transaction?	Rarely	106	31.3
		Frequently	86	25.4
		very frequently	101	29.8
		Total	339	100.0

Source: SPSS Output, 2025

Based on the demographic characteristics of the respondents, the gender distribution indicates that the majority are male (59.3%), while females account for 40.7%. This suggests that male customers are more active users of digital banking services at Abay Bank. In terms of age, a significant proportion of respondents (65.8%) fall within the 25–34 age range, indicating that digital banking services are predominantly used by young adults who are generally more familiar and comfortable with technology.

Regarding educational background, 46.6% of respondents hold at least a master's degree. This highlights that the majority of users are well-educated, which may contribute to their ability to understand and effectively use digital banking platforms.

Occupationally, a large majority (88.8%) are salaried employees, suggesting that individuals with stable and formal employment are the main users of these services. Furthermore, in terms of monthly income, 63.4% of respondents earn more than 20,000 ETB, indicating a relatively high-income user group that may prefer digital banking for its convenience and efficiency.

Lastly, 55.8% of respondents have been using digital banking services for three years or more, demonstrating a high level of experience and familiarity with the system.

Overall, the typical digital banking user at Abay Bank is a young, well-educated, salaried male with a relatively high income and substantial experience using digital banking services. These findings are crucial for the bank to better understand its current user base and to design targeted strategies for enhancing service quality, expanding access, and improving customer satisfaction.

4.3 Mean and Standard Deviations

The mean, median, and mode all show central tendency. The total number of scores is divided by their sum to get the arithmetic average, or mean. The extreme factors may have a substantial effect on the mean. Outliers are the extreme values (Sedai, 2020).

Table 5. Descriptive Statistics

Descriptive Statistics			
	N	Mean	Std. Deviation
Csatisfaction_Avg	339	3.5251	.88898
Security_Avg	339	3.5612	.96083
Reliability_Avg	339	3.2359	.89417
Responsiveness_Avg	339	3.4918	.91793
Assurance_Avg	339	3.5804	.97338
Empathy_Avg	339	3.4583	.89155
Tangability_Avg	339	3.4319	.90491
Valid N (listwise)	339		

Source: SPSS Output, 2025

The above table suggests that Assurance (3.5804) and Security (3.5612) have the highest mean respondents. The highest mean respondents feel most positively about the digital banking service. It implies users generally trust the bank staff's knowledge and ability and have confidence in customer satisfaction (3.5251). On average, respondents are fairly satisfied with digital banking services. Responsiveness (3.4918), Empathy (3.4583) and Tangibility (3.4319) are all around (3.4), meaning a moderate level of agreement with these aspects of the service, and Reliability (3.2359) received a slightly lower score, reflecting a modest level of agreement with this dimension of service quality.

The standard deviations for all variables fall within a narrow range of 0.88898 to 0.97338, which indicates moderate variability in participants' responses. This suggests that while there were differences in how respondents rated each item, the responses were not highly dispersed to cluster around the mean and above satisfactory.

4.4 Inferential Analysis

Inferential statistics are frequently used to compare the variations among study groups. Measurements from a sample of experiment participants are used in inferential statistics to compare these groups and draw conclusions about a larger population.
(C.W. Kuhar, 2010).

4.5 Correlation Analysis

Correlation is measured when two variables have a monotonic relationship. Monotonic relationship between two variables, whereby the values of the two variables increase simultaneously or as one variable's value rises, the other variable's value decreases.
(Schober P, Boer C, Schwarte LA., 2018)

The link between the independent variables, (reliability, responsiveness, assurance, empathy, tangibility, online design, and security & privacy) and the dependent variable (customer satisfaction) was assessed using the Pearson correlation test.

Table 6. The relationship between independent Variables and Customer satisfaction (Correlation)

Source: SPSS Output, 2025

As shown in Table 4.3, the Pearson correlation analysis revealed that all seven dimensions of digital banking service quality had a statistically significant and positive relationship with customer satisfaction. The strongest correlations were observed for assurance ($r = 0.830$, $p < 0.001$), empathy ($r = 0.812$, $p < 0.001$), responsiveness ($r = 0.802$, $p < 0.001$), and security ($r = 0.802$, $p < 0.001$), indicating that these factors are particularly influential. Strong correlations were also found with Reliability ($r = 0.794$, $p < 0.001$) and Tangibility ($r = 0.797$, $p < 0.001$).

Overall, the correlation analysis's findings show that customer satisfaction, the dependent variable, is positively and strongly correlated with each of the seven service quality dimensions.

Correlations								
		Csatisfaction_Avg	Security_Avg	Reliability_Avg	Responsiveness_Avg	Assurance_Avg	Empathy_Avg	Tangability_Avg
Csatisfaction_Avg	Pearson Correlation	1	.802**	.794**	.802**	.830**	.812**	.797**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	339	339	339	339	339	339	339
Security_Avg	Pearson Correlation	.802**	1	.736**	.725**	.757**	.779**	.781**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	339	339	339	339	339	339	339
Reliability_Avg	Pearson Correlation	.794**	.736**	1	.815**	.798**	.781**	.780**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	339	339	339	339	339	339	339
Responsiveness_Avg	Pearson Correlation	.802**	.725**	.815**	1	.843**	.795**	.752**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	339	339	339	339	339	339	339
Assurance_Avg	Pearson Correlation	.830**	.757**	.798**	.843**	1	.793**	.759**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	339	339	339	339	339	339	339
Empathy_Avg	Pearson Correlation	.812**	.779**	.781**	.795**	.793**	1	.796**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	339	339	339	339	339	339	339
Tangability_Avg	Pearson Correlation	.797**	.781**	.780**	.752**	.759**	.796**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	339	339	339	339	339	339	339
**. Correlation is significant at the 0.01 level (2-tailed).								

4.6 Assumptions Testing in Regressions

After making sure the data complied with the requirements for regression, regression analysis was performed. As a result, the study conducted assumption tests to make sure the data was appropriate for regression analysis, including multicollinearity, linearity, homoscedasticity, and normality.

- **Multicolinearity Test**

When two or more independent variables in a regression model are highly correlated, meaning that one predictor can be linearly predicted from the others with a substantial degree of accuracy. This can distort the estimated coefficients and weaken the statistical power of the regression model.

To assess multicollinearity, the Variance Inflation Factor (VIF) and tolerance values are commonly used. Tolerance indicates the proportion of variance in an independent variable that is not explained by the other independent variables in the model. A low tolerance value **(**below 0.1) suggests a high degree of multicollinearity.

Similarly, VIF measures how much the variance of a regression coefficient is inflated due to multicollinearity. A VIF value greater than 10 is generally considered suggestive of serious multicollinearity, necessitating further investigation or corrective measures. . (Gujarati, D. N., & Porter, D. C., 2009).

Table 7. Collinearity Statistics

Coefficients[a]			
		Collinearity Statistics	
Model		Tolerance	VIF
1	Security_Avg	.299	3.345
	Reliability_Avg	.248	4.039
	Responsiveness_Avg	.218	4.591
	Assurance_Avg	.221	4.523
	Empathy_Avg	.239	4.179
	Tangability_Avg	.264	3.793
a. Dependent Variable: Csatisfaction_Avg			

Source: SPSS Output, 2025

According to the findings, each independent variable has tolerance values of 0.299, 0.248, 0.218, 0.218, 0.221, 0.281, and 0.239, in that order. Since any tolerance value ranges 0 to 1, the multicollinearity assumption is not violated. The Variance Inflation Factor (VIF) values, which are 4.052, 4.039, 4.591, 4.523, 4.179 and 3.680, all far below the generally accepted cut-off range of 1 to 10, further confirm this and show that there are no significant multicollinearity problems among the independent variables.

- **Test of Normality of the Data**

Before doing regression analysis, a normality test can be carried out. This test was used to verify whether the sample data came from a regularly distributed population. Data is considered regularly distributed when all scores are focused around the mean and the data is shown on a histogram with a bell-shaped curve created around the score.

Appropriately distributed data is predicated on the idea that it originates from one or more populations with normal distributions. When sample sizes are large, even small deviations from normality for skewness and kurtosis provide significant results (Field A. P., 2005). The large sample will result in smaller standard deviations. Consequently, the values of K (kurtosis) and S (skewness), along with the corresponding standard errors, were ascertained. At p 0.05, skewness and kurtosis absolute values between -2 and +2 are expected to be significant.

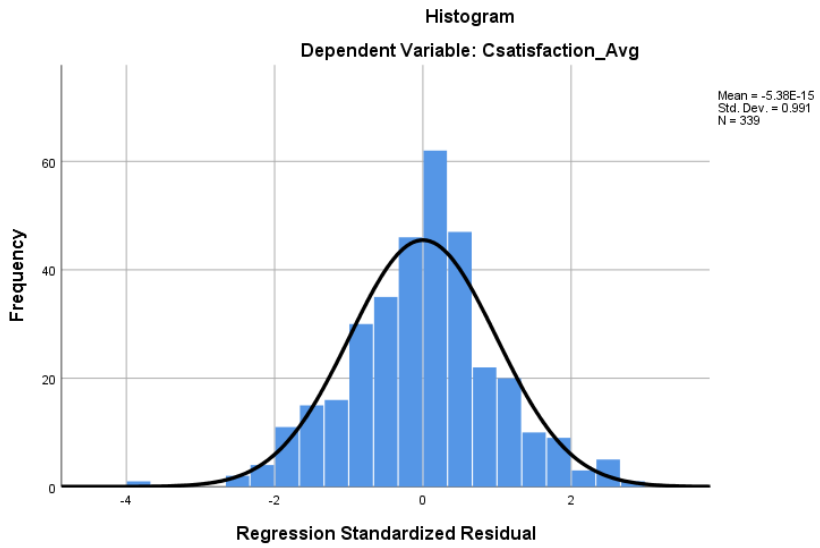

Figure 2. Frequency Distribution of Standardized Residual

As illustrated in Figure 4.1, the distribution of the data forms a bell-shaped, symmetrical curve centered on the mean score of -5.38. The curve shows a gradual increase in frequency toward the central peak, followed by a balanced decline on both sides, indicating a well-shaped distribution. There is no significant evidence of skewness or kurtosis, suggesting that the data closely approximate a normal distribution.

Although there are a few minor outliers and slight deviations from perfect normality, the overall pattern meets the assumptions of normality. This confirms that the data satisfy the normality requirement necessary for applying parametric statistical tests, such as Pearson's correlation and linear regression analysis.

- **Kurtosis and Skewness**

To assess the normality of the data distribution, the skewness and kurtosis values of the research variables were examined. Skewness is a measure of how asymmetrical a distribution is around its mean. A completely symmetrical distribution has a skewness value of zero. Positively skewed distributions have a larger or fatter right tail, whereas negatively skewed distributions have a longer or larger left tail.

(George, D., & Mallery, P. , 2010).

Kurtosis, on the other hand, evaluates the "peakedness" or "tailedness" of a distribution. When expressing excess kurtosis, values of 3 or 0 are expected for a normal distribution. In distributions with increased kurtosis (leptokurtic, outliers are indicated by sharper peaks and heavier tails. On the other hand, symmetrical distributions, or those with less kurtosis, are flatter and have lighter tails (Kline, 2011).

In the majority of social science studies, skewness and kurtosis values between -2 and +2 are regarded as appropriate markers of normality (George, D., & Mallery, P. , 2010) Consequently, it was believed that variables falling within this range would satisfy the normality assumption required for parametric analyses in this study.

Table 8. Kurtosis and Skewness

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Csatisfaction_Avg	339	-.601	.132	.124	.264
Security_Avg	339	-.495	.132	-.181	.264
Reliability_Avg	339	-.274	.132	-.426	.264
Responsiveness_Avg	339	-.483	.132	-.146	.264
Assurance_Avg	339	-.242	.132	.507	.264
Empathy_Avg	339	-.410	.132	-.223	.264
Tangability_Avg	339	-.222	.132	-.454	.264
Valid N (listwise)	339				

Source: SPSS Output,2025

As presented in Table 8, the skewness values fall within the acceptable range, ranging from -0.601 to -0.222, indicating that the data are symmetrically distributed and meet the assumption of normality. Similarly, the kurtosis values also lie within the acceptable limits, ranging from -0.181 to -0.507. Therefore, it can be concluded that the distribution of the data does not exhibit significant deviations from normality. As a result, the assumption of normality is satisfied, and the data are deemed suitable for parametric analyses in this study.

- **Test of Linearity**

The linearity assumption was evaluated in the study using a normal P-P plot of regression scaled residuals. It is anticipated that the points in the normal probability plot will form a fairly straight diagonal line from the bottom left to the top right, signifying that the data are roughly linear and normally distributed.

Partial regression plots and s.catterplots were analysed in order to confirm the linearity assumption. The plots visual examination revealed that the independent and dependent variables had linear connections. A key premise of regression analysis is linearity, which can be violated to produce inaccurate parameter estimates (Tabachnick, B. G., & Fidell, L. S, 2013).

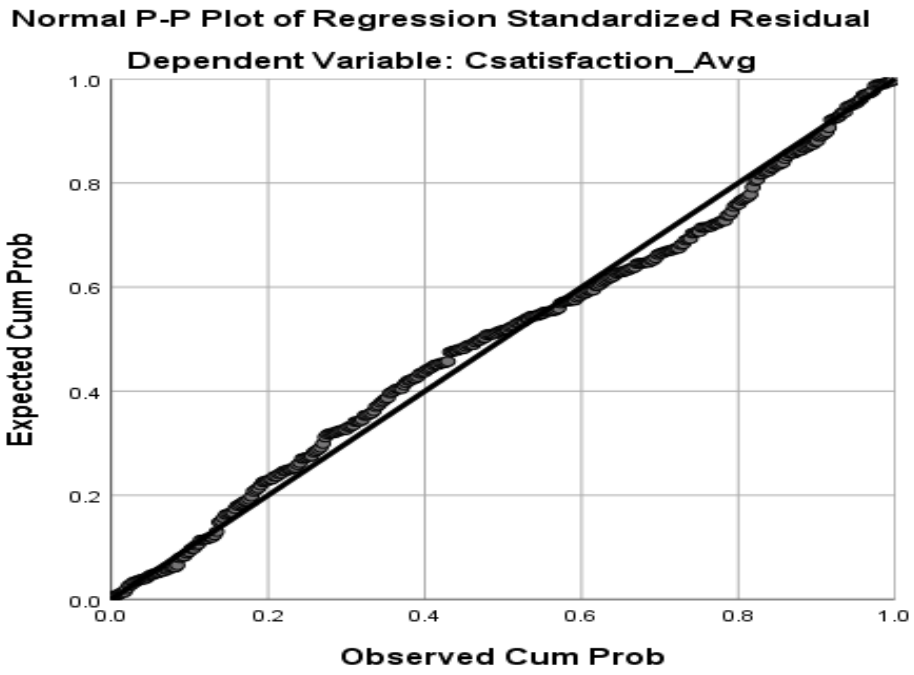

Figure 3. Normal P-P Plot of regression

Source: SPSS Output,2025

Nearly all of the data points, as shown in the figure closely match the diagonal line, suggesting that the residuals vary little throughout the distribution. The assumption of

linearity is supported by this straight-line pattern, which implies that the residuals are normally distributed.In other words, the straight-line pattern of the data points suggests a linear relationship between the independent variables (reliability, tangibility,assurance, responsiveness, empathy, and security and privacy) and the dependent variable, customer satisfaction.

- **Homoscedasticity**

The assumption of homoscedasticity was satisfied, as demonstrated by the scatterplot of standardised residuals versus predicted values, which showed a fairly random distribution of residuals (Hair, J. F., Black, W. C., Babin, B. J., & Anderson,, 2019). The reliability of significance tests in regression models depends on the variance of errors being consistent across observations, which is ensured by meeting this condition. Verifying this assumption is therefore helpful for the quality of the regression model (Field A. , 2009) suggested plotting the standards residuals or errors (ZRESID), on the X axis and the normal projected values of the dependent variable based on the model (ZPRED) on the Y axis to achieve the homoscedasticity result.

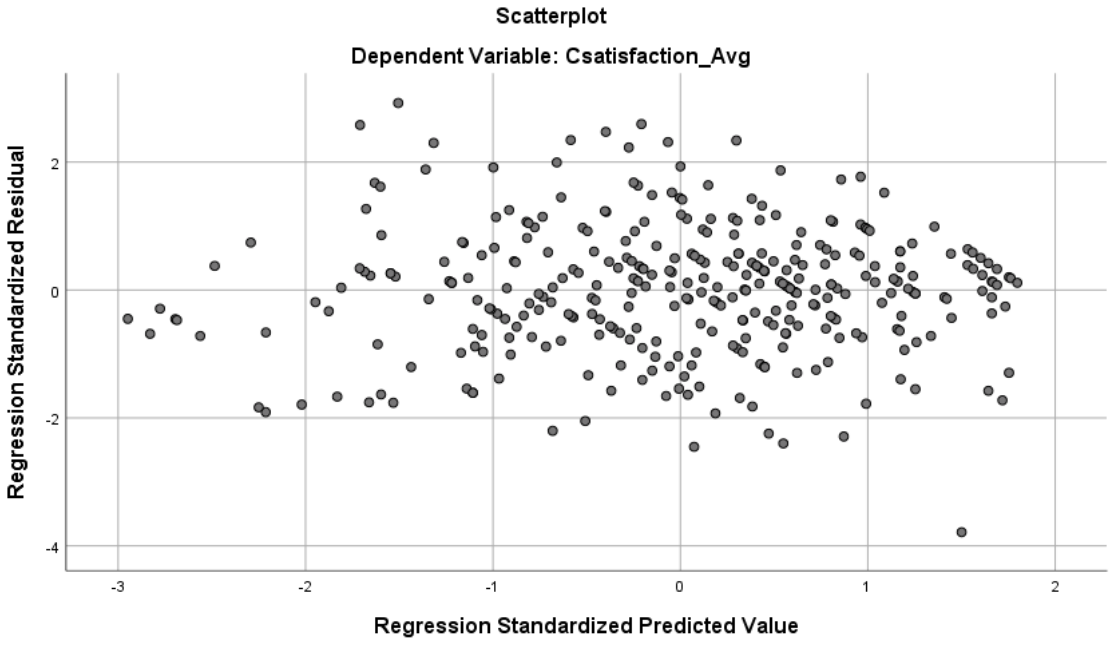

Figure 4. Scatter Plot

Source: SPSS Output,2025

As shown in figure there are no noticeable outliers within the scatterplot of standardized residuals (ZRESID) against standardized predicted values (ZPRED). The graph appears as a random array of dots evenly dispersed around the zero line, indicating no clear pattern or systematic variance. This visual pattern suggests that the assumptions of homoscedasticity and randomness of errors have been satisfied. Therefore, it can be concluded that the residuals are evenly and randomly distributed, supporting the validity of the regression model.

4.7 Regressions Analysis

Regression analysis helps us understand how one variable (the dependent variable) is influenced by one or more independent variables**,** while controlling for other influences. It is particularly valuable in empirical research for evaluating causal relationships, making predictions, and testing hypotheses (Sykes, 1993).

Model Summary

Table 9. Model Summary

Model Summary										
					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.895[a]	.800	.797	.40099	.800	221.545	6	332	.000	1.796
a. Predictors: (Constant), Tangability_Avg, Responsiveness_Avg, Security_Avg, Reliability_Avg, Empathy_Avg, Assurance_Avg										
b. Dependent Variable: Csatisfaction_Avg										

Source: SPSS Output, 2025

According to the provided table, all independent factors contributed roughly 80 % of the total to customer satisfaction (R^2=0.800). As a result, seven factors account for 80% of the variation in customer satisfaction, and additional factors may limit the contribution of those factors to customer satisfaction.Furthermore, the Durbin-Watson result is 1.793, which is close to 2, indicating that there is no autocorrelation issue.

From the above finding the study can develop the following regression model:

$CS = \alpha + \beta_1 REL + \beta_2 RES + \beta_3 ASSU + \beta_4 EMPA + \beta_5 TANG + \beta_6 WEB + B_7 SECPR + ei$

Where:

CS = Customer Satisfaction

α = The constant

β2 – β7 = Coefficients of independent variables

REL= Reliabilitytab

RES = Responsiveness

ASSU = Assurance

EMPA = Empathy

TANG = Tangibility

SECPR= Security and Privacy

Ei=Error term

ANOVA Test

Table 10. ANOVA Test

ANOVA[a]						
Model		Sum of uares	df	Mean Square	F	Sig.
1	Regression	213.734	6	35.622	221.545	.000[b]
	Residual	53.382	332	.161		
	Total	267.117	338			
a. Dependent Variable: Csatisfaction_Avg						
b. Predictors: (Constant), Tangability_Avg, Responsiveness_Avg, Security_Avg, Reliability_Avg, Empathy_Avg, Assurance_Avg						

The significant level in ANOVA as shown Table 10, that the combination of variables significantly predicts the dependent variable. ANOVA that tests whether the model is significantly better at predicting the outcome than using the mean as a best guess; specifically, the F-ratio represents the ratio of the improvements in prediction that results from fitting the model, relative to the inaccuracy that still exists in the model. For these data, F is 221.545 , which is significant at $p<0.001$. This result tells us there is less than 0.1% chance that an F-ratio is larger would happen by chance alone. Therefore, it can be

said that the regression model results in significantly better prediction of customer satisfaction.

Regression Result

Table 11. Regression Coefficient analysis of the model

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.237	.094		2.532	.012
	Security_Avg	.201	.042	.217	4.843	.000
	Reliability_Avg	.107	.049	.108	2.181	.030
	Responsiveness_Avg	.111	.051	.115	2.182	.030
	Assurance_Avg	.230	.048	.252	4.832	.000
	Empathy_Avg	.155	.050	.155	3.093	.002
	Tangability_Avg	.139	.047	.142	2.971	.003
a. Dependent Variable: Csatisfaction_Avg						

Source: SPSS Output,2025

The regression results shown that six of the service quality dimensions had a statistically significant and positive effect on customer satisfaction. Assurance ($\beta = 0.252$, $p < 0.05$) emerged as the strongest predictor, suggesting that customers' confidence in the bank's competence and service reliability plays a central role in shaping their satisfaction. Security & Privacy ($\beta = 0.217$, $p < 0.05$) also had a strong and significant effect, highlighting the importance of safe and secure digital transactions.

Other dimensions such as Empathy**,** Tangibility**,** Reliability, and Responsiveness were also statistically significant, with moderate effects, indicating that personalized service, ease of use, consistent performance, and timely support contribute positively to the overall customer experience.

Generally, the regression analysis supports the SERVQUAL model**,** particularly in showing that Assurance and Security and Privacy are key determinants of customer satisfaction. This is consistent with the earlier findings of (Zeithaml, Parasuraman, and

Berry, 1990), who identified these dimensions as essential components of service quality in the context of customer perceptions and loyalty.

Hypothesis Testing Results

H1: **Reliability has a significant positive effect on customer satisfaction.**

The regression result shows a significant effect (β = 0.108, p = 0.030) indicating that reliability positively influences customer satisfaction in digital banking services. This implies that a one unit increase in reliability results in 0.108 unit increase in customer satisfaction. Thus, the above proposed hypothesis is accepted.

H2: **Responsiveness has a significant positive effect on customer satisfaction.**

The regression result shows a significant effect (β = 0.115, p = 0.030), confirming a significant positive effect of responsiveness on customer satisfaction. This implies that a one unit increase in responsiveness results in 0.115 unit increase in customer satisfaction. Thus, the above proposed hypothesis is accepted. Thus, the above proposed hypothesis is accepted.

H3: **Assurance has a significant positive effect on customer satisfaction.**

Assurance is a highly significant predictor (β = 0.252, p = 0.000), meaning it strongly affects customer satisfaction. This implies that a one unit increase in Assurance results in 0.252 unit increase in customer satisfaction. Thus, the above proposed hypothesis is accepted.

H4: **Empathy has a significant positive effect on customer satisfaction.**

Empathy is statistically significant (β = 0.155, p = 0.002), indicating it contributes positively to customer satisfaction. This implies that a one unit increase in Empathy results in 0.155 unit increase in customer satisfaction. Thus, the above proposed hypothesis is accepted.

H5: **Tangibility has a significant positive effect on customer satisfaction.**

Tangibility is statistically significant (β = 0.142, p = 0.003), indicating it contributes positively to customer satisfaction. This implies that a one unit increase in Tangibility results in 0.142 unit increase in customer satisfaction. Thus, the above proposed hypothesis is accepted.

H6: **Security and Privacy have a significant positive effect on customer satisfaction.** Security and privacy are highly significant (β = 0.217, p = 0.000), showing a strong positive influence on customer satisfaction. This implies that a one unit increase in security and privacy results in 0.217 unit increase in customer satisfaction. Thus, the above proposed hypothesis is accepted.

Summary of Null Hypotheses Testing Result

Table 12 Summary of Null Hypothesis

Hypothesis	Decision	Explanation
H01: Reliability has no significant effect on customer satisfaction.	**Rejected**	Reliability was statistically significant (β = 0.108, p = 0.030) meaning it positively influences customer satisfaction.
2: Responsiveness has no significant effect on customer satisfaction.	**Rejected**	Responsiveness showed a significant (β = 0.115, p = 0.030) meaning positive impact on satisfaction in the regression analysis.
H03: Assurance has no significant effect on customer satisfaction.	**Rejected**	Assurance had the **highest standardized beta** (β = 0.252, p = 0.000) , making it the most influential variable on satisfaction.
H04: Empathy has no significant effect on customer satisfaction.	**Rejected**	Empathy was found to significantly (β = 0.155, p = 0.002) meaning positively affect customer satisfaction.
H05: Tangibility has no significant effect on customer satisfaction.	**Rejected**	Tangibility was statistically significant (β = 0.142, p = 0.003), meaning positive impact on satisfaction in the regression analysis.
H06: Security and Privacy have no significant effect on customer satisfaction.	**Rejected**	Security and Privacy had a strong and significant (β = 0.217, p = 0.000), making it the most influential variable on satisfaction.

4.8 Discussion on Findings and Comparing with the Prior Research

Reliability

According to the regression results, Reliability was statistically significant (β = 0.108, *p* = 0.030), meaning it has a real impact on customer satisfaction. However, it was one of the least influential factors compared to the other service quality dimensions. This suggests that while customers generally view Abay Bank's digital banking services as fairly reliable**,** they may still have concerns about occasional service disruptions, delays, or technical issues**.**

This finding is consistent with the study by (Maria, 2020), who also found that reliability had a positive but relatively small effect on customer satisfaction in the digital banking context. However, the result differs from (Shang, 2004) findings**,** which reported that reliability did not significantly affect customer satisfaction. This difference could be due to changes in customer expectations**,** differences between banks**,** or improvements in technology over time**.**

Responsiveness

Based on the regression's outcome Although Responsiveness had a relatively small effect on customer satisfaction (β = 0.115), it was still statistically significant (*p* = 0.030). This means that even though its impact is not strong compared to other factors, it still plays an important role. The result suggests that some customers may have experienced delays in getting support, such as slow responses during service problems or late confirmations for transactions**.**

This finding agrees with earlier studies by (Zeithaml, V.A., Parasuraman, A. And Malhotra, A. , 2002) Who explained that quick and timely service helps improve how customers feel about digital banking. It also supports the researches (Gezahegn, 2018) and (Maria, 2020), who both found that being responsive and available to help customers is important in increasing satisfaction with digital banking. However, the result does not agree with (Sileshi, 2018), who found that responsiveness had no effect on customer satisfaction.

Assurance

The results of the multiple regression analysis show that Assurance has a strong and statistically significant effect on customer satisfaction ($\beta = 0.252$**,** $p < 0.05$). This indicates that as customers' confidence in the digital banking service increases such as trust in the bank's staff, system, and ability to handle transactions their satisfaction also increases. Specifically, a one unit increase in assurance results in a 0.252 unit increase in customer satisfaction**,** making it the most influential factor among all service quality dimensions included in the model.

This finding is consistent with previous studies of (Sileshi, 2018), (Gezahegn, 2018) and (Maria, 2020) all found that assurance significantly contributes to customer satisfaction in digital banking. These studies highlight the importance of building trust, professionalism, and confidence in the banking service to improve customer experiences.

Empathy

The regression results revealed that Empathy was statistically significant ($\beta = 0.155$**,** $p = 0.002$), indicating that it plays a meaningful role in influencing customer satisfaction. While the effect is moderate compared to other factors, the result suggests that personalized service, attention to individual needs, and proactive support contribute positively to the overall customer experience. However, the result also implies that there is room for improvement**,** especially in areas such as real time assistance and personalized communication particularly during technical issues or service interruptions.

This finding is consistent with earlier studies by (Sileshi, 2018), (Gezahegn, 2018), and (Maria, 2020), who all found empathy to be a relevant contributor to satisfaction in the banking sector. Current study reinforces these insights by showing that tailored financial support and attentive service improve customer satisfaction, even in automated systems.

Tangibility

The regression results showed that Tangibility was statistically significant **(**$\beta = 0.142$**,** $p = 0.003$), indicating that it has a positive effect on customer satisfaction. However, the

relatively low beta value suggests that its influence is less substantial compared to other service quality dimensions. This implies that while customers recognize the importance of user friendly interfaces, functional platforms, and the appearance of the digital service**,** there is still room for improvement in terms of visual design and technical usability.

The findings of this study are partially consistent with previous research of (Maria, 2020), (Eyasu, 2023) and (Mesfin, 2023) found that tangibility had little or no significant impact on customer satisfaction in digital banking. However, the current result contrasts with the findings of (Gezahegn, 2018), who reported a strong positive relationship between tangibility and customer satisfaction, suggesting that the importance of physical and interface features may vary depending on user expectations or platform design quality**.**

Security & Privacy

The regression results indicate that customer satisfaction is significantly influenced by security and privacy ($\beta = 0.217$, $p < 0.05$), suggesting a positive relationship customer satisfaction increases by 0.201 units for every one-unit improvement in perceived security and privacy. This finding emphasizes the critical role of data protection and transactional security in determining customer perceptions in the digital banking environment. Customers must trust that their personal and financial information is safe, making security and privacy among the most influential factors driving satisfaction.

These results are consistent with the findings of (Fikerselassie, 2017), who emphasized the importance of digital trust in e-banking. The study reinforces that secure digital platforms are essential for customer confidence and continued usage, highlighting the need for financial institutions to invest in robust security measures.

Additionally, the study reveals that Assurance ($\beta = 0.252$, $p < 0.01$) and Security & Privacy ($\beta = 0.217$, $p < 0.01$) are the strongest predictors of customer satisfaction. This supports the SERVQUAL model (Parasuraman, A., Zeithaml, V. A., & Berry, L. L., 1988), which identifies trust and security as central components of service quality. It also aligns with (Zeithaml, V.A., Parasuraman, A. And Malhotra, A., 2000a), who noted that customers value reliability and fraud protection in digital banking. Therefore, banks should prioritize

strengthening security protocols and improving transparency to build trust and enhance the overall digital banking experience.

As the result, The regression analysis confirms that all six service quality dimensions significantly contribute to customer satisfaction in Abay Bank's digital banking services.

- **Assurance** and **Security & Privacy** were the most influential predictors, reflecting the importance of customer trust and confidence in secure digital transactions.
- **Empathy** and **Tangibility** showed moderate significance, highlighting the value of personalized support and clear, user-friendly platforms.
- **Responsiveness** and **Reliability**, though with smaller effects, were still statistically significant, confirming that consistent and timely service delivery contributes positively to satisfaction.

Based on the result, the study Answers the following research questions

1. What are the challenges customers face when using digital banking services at Abay Bank?

Based on both descriptive and inferential studies, assurance, as well as security and privacy, emerged as the primary factors influencing customer satisfaction with Abay Bank's online banking services. These dimensions are also closely associated with other service quality factors such as reliability, tangibility, empathy, and responsiveness. In the descriptive analysis, the highest satisfaction ratings were recorded for Assurance (mean = 3.5804) and Security & Privacy (mean = 3.5612). Furthermore, the regression analysis confirmed that both Assurance and Security & Privacy have statistically significant positive effects on customer satisfaction.

Reliability: With a mean score of 3.2359, customer opinions are moderately above neutral but not very positive. Although reliability was one of the least significant predictors of customer satisfaction in the regression study ($\beta = 0.108$, $p < 0.05$), it was still statistically significant. This suggests that even while users assume the system is somewhat reliable, they are still worried about irregular service interruptions or breakdowns (such as

transaction delays or system outages). This suggests that consumers might not have complete faith in the reliability and accuracy of online banking services.

Tangibility: Customers opinions of tangibility are somewhat above neutral but not very favorable, with a mean score of 3.4319. Tangibility remained statistically significant even though it was a moderately significant predictor of customer satisfaction in the regression analysis ($\beta = 0.142$, $p < 0.05$). This suggests that customers can be worried about the service's physical features, like the web platform's look, usability, and functioning. These worries raise the possibility that customer may lack complete trust in the bank's digital services' visual attractiveness, usability, and tangible indicators.

Responsiveness although had a statistically significant effect ($\beta = 0.115$, $p < 0.05$), its relatively low beta value indicates a modest impact. Customers may experience delays in support responses, such as delayed confirmations or unavailability of customer assistance during service interruptions. Digital banking systems may lack real-time feedback or timely support mechanisms, especially during technical issues.

Empathy was moderately significant ($\beta = 0.155$, $p < 0.05$), reflecting that while some personalization exists, there is room for improvement. The digital platform may not fully address individual customer needs, especially for users who require customized advice, guidance, or trouble shooting.

2. How does the quality of digital banking services influence customer satisfaction in selected branches of Abay Bank?

The results of the multiple linear regression analysis indicate that the quality of digital banking services has a strong and statistically significant influence on customer satisfaction at Abay Bank. The model included the six key service quality dimensions**:** Reliability**,** Responsiveness**,** Assurance**,** Empathy**,** Tangibility**,** and Security**.** The coefficient of determination $R^2 = 0.800$ shows that 80 % of the variance in customer satisfaction is explained by the combined effect of the six service quality variables. The model's F-statistic = 221.545, with a p-value < 0.001, indicates that the regression model is highly

statistically significant**.** This confirms that the service quality dimensions together provide a strong explanation of changes in customer satisfaction levels. The regression results identified all the six service quality dimensions with a positive and statistically significant effect on customer satisfaction.

3. How satisfied are customers with the various aspects of Abay Bank's digital banking services?

Customer satisfaction with the various aspects of Abay Bank's digital banking services was measured through seven key service quality dimensions: Reliability**,** Responsiveness**,** Assurance**,** Empathy**,** Tangibility and Security and Privacy**.** Each dimension was rated on a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

On the descriptive analysis, Customers generally satisfied with the various service quality aspects of Abay Bank's digital banking services. All mean scores are above the neutral point of 3.0, indicating positive perceptions across all areas. Specifically, Assurance (Mean = 3.5804) and Security & Privacy (Mean = 3.5612) received the highest satisfaction ratings, showing that customers feel confident and safe using the digital services.

Responsiveness (3.4918) and Empathy (3.4583) also scored well, suggesting that customers are satisfied with the bank's ability to respond quickly and provide personalized care. Tangibility (3.4319) reflect positive but slightly lower satisfaction, indicating that while the systems are usable, there may be opportunities to improve the user interface and platform design. Reliability (3.2359), while still above neutral, had the lowest satisfaction score, suggesting that customers have some concerns about consistent performance or occasional technical issues.

On the other hand, Reliability**,** though rated lowest (3.24), was still a significant factor in determining satisfaction. Assurance (Mean = 3.5804) and Security & Privacy (Mean = 3.5612) rated the highest mean but a significant predictor of overall satisfaction in regression.

4. What are the key factors that contribute to customer satisfaction with Abay Bank's digital banking services?

The analysis shows that Assurance and Security & Privacy are the most critical factor in influencing customer satisfaction, suggesting that trust in the system and information transactions are protected in a digital environment is perceived competence of the bank and it's vital to user experience. While Empathy, Tangibility, Responsiveness, and Reliability demonstrate moderate effects, they remain statistically significant; indicating that personalized support, user-friendly interfaces, timely responses, and consistent service delivery are important contributors to customer satisfaction.

Chapter 5: Summary, Conclusion and Recommendation

5.1 Summary

The objective of this study was to assess the impact of digital banking service quality on customer satisfaction in selected branches of Abay Bank. The analysis was based on seven key dimensions: Reliability, Responsiveness, Assurance, Empathy, Tangibility, and Security and Privacy.

The study distributed questionnaires to selected 384 customers and the researcher able to get back three hundred eighty (339) out of 384 questionnaires administered which gives 88.3% response rate. In line with this, it carried out by constructing a regression model using SPSS through testing relevant assumptions that were adopted from primary sources of data to have well-built quantitative analysis. From the demographic data, the total respondents' male has more coverage than female. And also, the sample of customers was mostly in the age group of 25- 34 years. Related with educational level, most of respondents have Masters' degree. Regarding to occupation of respondents, 88.8% of respondents are salaried. With respect of types of E-banking service used, most of respondents have used Account to Account transfer service. Finally, 55.8% of e-banking service respondents were stays more than three years as clients for the bank.

Thus, the overall result obtained from the regression model indicates that Customers are significantly affected by Assurance and Security and privacy, along with their experiences of responsiveness, empathy, tangibility and the reliability of services**.**

5.2 Conclusion

The study employed a quantitative research approach with a descriptive and explanatory research design to assess the impact of digital banking service quality on customer satisfaction.

The data were obtained using a closed-ended structured questionnaire from a total of 339 participants selected using a convenience sampling technique. Descriptive and inferential data analysis techniques were employed to analyze the quantitative data.

The descriptive analysis indicated that customers were generally satisfied with digital banking service. From the inferential analysis specifically the regression result showed a significant association with responsiveness, tangibility, empathy, and the reliability, assurance and security & privacy with customer satisfaction.

The finding also revealed the strongest relationship was found between Assurance and Security & Privacy with customer satisfaction. While a moderate relationship was found between responsiveness, tangibility, empathy, and the reliability.

These findings emphasize the importance of building trust, ensuring transaction safety, offering helpful and responsive support, and maintaining consistent performance**.** Improving these areas can further enhance customer experience and loyalty.

5.3 Recommendations

The findings of the study discovered that Assurance and Security & Privacy have a significant impact on customer satisfaction. Meanwhile, responsiveness, tangibility, empathy, and reliability demonstrated a moderate effect.These results suggest that focusing on and improving the service quality dimensions that influence customer satisfaction can enhance the overall digital banking experience. Taking targeted actions on these variables may substantially increase customer satisfaction and loyalty.

Based on the findings, several recommendations are proposed.

First, in the area of Security**,** Selected Branches of Abay Bank S.C. should continue investing in secure systems and effective customer communication to reinforce trust and confidence in its digital services. For Assurance, the bank should strengthen staff training both for frontline and digital support teams. Ensuring they are equipped with up to date knowledge of digital banking services to deliver consistent and confident support. Regarding System Reliability, although had a moderate effect on satisfaction. Thus, the bank should regularly update and maintain its digital infrastructure to stabilize performance, reduce downtimes, and minimize transaction errors.

To improve responsiveness, Selected Branches of Abay Bank should enhance its customer support systems by offering 24/7 chatbot assistance and real-time updates through SMS and mobile applications. This approach ensures timely support and keeps customers consistently informed. In terms of Tangibility**,** the bank should ensure that its digital platforms are user-friendly, cleanly designed, and fully functional across all devices, especially mobile applications.

Regarding Empathy**,** Selected Branches of Abay Bank should focus on delivering personalized service by training staff in emotional intelligence, extending support hours, and offering tailored services with proactive communication to build stronger emotional connections with customers.

Overall, the study provides practical insights for bank management, software developers, and digital strategy teams. By concentrating improvement efforts on building trust, enhancing security, ensuring responsive service delivery, and personalizing the customer experience, Abay Bank particularly in the branches covered by this study can significantly strengthen its digital banking service. These improvements will likely lead to higher levels of customer satisfaction, loyalty, and competitive advantage, and can be extended to other regions through further assessments.

5.4 Direction for Future Research

The future study should consider utilization of more robust methodology that may involve qualitative exploration and quantitative survey to get the in-depth perspective of respondents or bank Customers. In addition, other variables should be carried out to determine the effect on customer satisfaction which is not identified in the present study. Finally, the study was conducted only selected branches of Addis Ababa city. Therefore, the result may not generalize other city branches. Thus, to get holistic result additional studies should be needed for other branches in the regions of the country**.**

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Appendix 1

ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF BUSINESS INFORMATION SYSTEM
(GRADUATE PROGARM)

Questionnaire to be filled by Digital banking Customers of Abay Bank S.C

This questionnaire is designed for a research study titled: **"Assessing the Impact of Digital Banking Service Quality on Customer Satisfaction: A Study of Selected Branches of Abay Bank S.C.".** The primary objective of this study is to examine how digital banking services influence customer satisfaction. Additionally, this questionnaire serves as a partial fulfillment of the requirements for a **Master's degree in Business Information Systems**. The data collected will be used only for academic purposes. Your responses will remain confidential and will not be shared with any third party. Please answer each question honestly and without concern for any consequences. There is no need to include your name. I sincerely appreciate your cooperation. Your fair and impartial feedback will contribute significantly to the success of this study.

If you have any questions for further clarification, please feel free to contact me:

Eyerusalem Kasay

Mobile No.: 0901087179

Section I: Respondents Background

1. Gender:

☐ Male ☐ Female

2. Age:

☐ 18–24 ☐ 25–34 ☐ 35–44 ☐ 45-54 ☐ Above 55

3. Education Level:

☐ Primary School ☐ High School ☐ Diploma ☐ Bachelor's Degree ☐ Master's Degree or Above

4. Occupation

☐ Unemployed ☐ Student ☐ Salaried ☐ Business man/women ☐ Pensioner

☐ Farmer ☐ Other…….

5. Monthly Income (ETB):

☐ Less than 5,000 ☐ 5,001–10,000 ☐ 10,001–20,000 ☐ Above 20,000

Section II: <u>Digital Banking Usage of Respondents</u>

6. For what purpose do you frequently use digital banking services ? *(You may select more than one if you use multiple channels.)*?

☐ Cash withdrawal ☐ Account to account transfer ☐ Bill payment ☐ if other, please specify……

7. How long have you been a digital banking customer at Abay Bank?

☐ Less than 1year ☐ 1-2 years ☐ 3-4 years ☐ 4-5 years ☐ above 5 years

8. **Which type of digital banking service do you use most frequently?** *(You may select more than one if you use multiple channels.)*?

☐ ATM ☐ Mobile Banking ☐ Internet Banking ☐ POS ☐ If other, please Specify……

9. Before the introduction of digital banking products, how frequent in a month do you visit the bank for transaction?

☐ Rarely ☐ Frequently ☐ Very frequently

Section III: Dimensions to Measure Digital Banking Service Quality

Listed below are a series of statements that represent digital-banking service quality with respect to your own feeling, please indicate the degree of your agreement or disagreement with each statement by putting a tick mark (√) on one of the five alternatives. Responses are measured on 5- point Likert scales with the following verbal anchors: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly Agree (5).

Table 13. Dimensions to Measure Digital Banking Service Quality

Code	Dimension	1	2	3	4	5
Reliability						
REL1	Abay Bank's digital banking platform is consistently available without unexpected down times.					
REL2	Transactions made through Abay Bank's digital banking platform are accurate and error-free.					
REL3	Abay Bank's digital-banking facility makes accurate promises regarding service delivery.					
Responsiveness						
RES1	Abay Bank's digital banking services respond promptly to any issues I encounter.					
RES2	Abay Bank's digital banking employees and help desks staffs are always willing to assist me.					
RES3	I can always access the details of my account through Abay Bank's digital banking services					
Assurance						
ASSU1	I feel safe and secure when using Abay Bank's digital banking platform.					
ASSU2	Abay Bank's digital banking services make me feel confident in my financial transactions.					
ASSU3	Abay Bank's staffs are knowledgeable and professional in handling digital banking issues.					
ASSU4	The behavior of Abay Bank's digital banking employees inspires confidence in customers.					
Empathy						
EMPA1	Abay Bank's provides personalized assistance for digital banking issues when needed.					

EMPA2	When I face a problem, Abay Bank shows a sincere interest in solving It.					
EMPA3	Abay Bank's digital banking help desk operating hours are convenient for me					
Tangibility						
TANG1	Abay Bank's digital banking platform (ATM, POS, internet Banking and mobile) is user-friendly and easy to navigate.					
TANG2	Abay Bank's ATMs and POS systems are well-maintained and reliable.					
TANG3	The visual appeal and layout of Abay Bank's digital platforms are modern and appealing.					
TANG4	Abay Bank's digital banking service uses up-to-date equipment and technology.					
TANG5	Abay Bank's digital banking device makes you find valuable information easily.					
Security and Privacy						
SECPR1	Abay Bank's digital banking services do not allow others to access my accounts.					
SECPR2	Abay Bank's digital banking service provides high protection for my banking transactions					
SECPR3	Abay Bank's digital banking services are safe from fraud and hacking.					
SECPR4	The security devices of Abay Bank's digital banking services protect the data I send.					

Section IV: Customer Satisfaction

Listed below are a series of statements that represent whether you are satisfied or not with Digital-banking services provided by the bank with respect to your own feeling, please indicate the degree of your agreement or disagreement with each statement by putting a tick mark (√) on one of the five alternatives**.**

Responses are measured on 5- point Likert scales with the following verbal anchors: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly Agree (5).

Table 12. Dimensions to Customer Satisfaction

Code	Dimension	1	2	3	4	5
Customer satisfaction						
CS1	Abay Bank's digital banking service fast transaction processing enhances my satisfaction.					
CS2	I am satisfied with the responsiveness of Abay Bank's digital banking services.					
CS3	I feel that Abay Bank's digital banking services meet my expectations.					
CS4	I would recommend Abay Bank's digital banking services to others.					
CS5	I am likely to continue using Abay Bank's digital banking services in the future					
CS6	I'm satisfied with digital-banking ability to perform the promised/ordered service dependable and accurately					
CS7	I'm satisfied with the willingness of Help desks and the very prompt and quick service of digital-banking					
CS8	I'm satisfied with the knowledge and courtesy of digital banking employees to convey trust and confidence, and digital-banking service safety and security					
CS9	I'm satisfied with accessibility, sensitivity and effort in understanding of my specific needs by digital-banking employees					
CS10	I'm satisfied with the physical facilities, modernity, easy to use and visual appearance of digital-banking service devices					

Thank you for your valuable input and cooperation.

Appendix 2

List of branches the questioner distributed

Table 15. List of branches the questioner distributed

S/N	Name	District	branch_grade	No. OF questioner distributed	S/N	Name	District	branch_grade	No. OF questionner distributed
1	Merkato Branch	South and West Addis District	2	4	**1**	Main Branch	North and East Addis District	4	8
2	Bomb tera Branch	South and West Addis District	2	4	**2**	Tewodros Branch	North and East Addis District	3	6
3	Gotera Branch	South and West Addis District	2		**3**	Megenagna Branch	North and East Addis District	3	6
4	Lebu Branch	South and West Addis District	2	4	**4**	Bole medanialem Branch	North and East Addis District	3	6
5	Lideta Branch	South and West Addis District	2	4	**5**	Africagodana Branch	North and East Addis District	3	6
6	Satin tera6Branch	South and West Addis District	2	4	**6**	Cmc Branch	North and East Addis District	2	4
7	Stadium Branch	South and West Addis District	2	4	**7**	Hayahulet mazoria Branch	North and East Addis District	2	4
8	Mesalemia Branch	South and West Addis District	1	4	**8**	Bole micheal Branch	North and East Addis District	1	4
9	Beklobet Branch	South and West Addis District	1		**9**	Gerji Branch	North and East Addis District	1	4
10	Kaliti Branch	South and West Addis District	1	4	**10**	Meskel Flower Branch	North and East Addis District	1	4

11	Kera Branch	South and West Addis District	1	4	**11**	Addisu gebeya Branch	North and East Addis District	1	4
12	Kolfe Branch	South and West Addis District	1	4	**12**	Bole airport Branch	North and East Addis District	1	4
13	Gojam berenda Branch	South and West Addis District	1		**13**	Mehalse mit Branch	North and East Addis District	1	4
14	Gofa Branch	South and West Addis District	1	4	**14**	Hayahul t adebaba y Branch	North and East Addis District	1	
15	Saris Branch	South and West Addis District	1	4	**15**	Urael Branch	North and East Addis District	1	4
16	Jemo Branch	South and West Addis District	1	4	**16**	Kotebe Branch	North and East Addis District	1	4
17	Militery tera Branch	South and West Addis District	1		**17**	Bole 24 Branch	North and East Addis District	1	4
18	Betel Branch	South and West Addis District	1	4	**18**	Atlas Branch	North and East Addis District	1	4
19	Enkulal fabrika Branch	South and West Addis District	1	4	**19**	Bole millenni um Branch	North and East Addis District	1	4
20	Habte giorgis Branch	South and West Addis District	1	4	**20**	Salite-miheret Branch	North and East Addis District	1	4
21	Alembank Branch	South and West Addis District	1	4	**21**	Ayat-gebeya Branch	North and East Addis District	1	4
22	Mekanisia abo Branch	South and West Addis District	1	4	**22**	Imperial Branch	North and East Addis District	1	4
23	Lebu medanialem Branch	South and West Addis District	1	4	**23**	Shalla Branch	North and East Addis District	1	4

24	Merkato shematera Branch	South and West Addis District	1	4	**24**	Amest kilo Branch	North and East Addis District	1	4
25	Lafto Mebrat Hail Branch	South and West Addis District	1	4	**25**	Jakrose beshale Branch	North and East Addis District	1	4
26	Africa union Branch	South and West Addis District	1	4	**26**	Ferensa y legasion Branch	North and East Addis District	1	4
27	Kara Kore Branch	South and West Addis District	1	4	**27**	Goro sumit Branch	North and East Addis District	1	4
28	Africa Union Adebabay Branch	South and West Addis District	1	4	**28**	Gerji mebrat hail Branch	North and East Addis District	1	4
29	Tekle Haimanot Branch	South and West Addis District	1	4	**29**	Mehal Piassa Branch	North and East Addis District	1	4
30	Tikur Anbessa Branch	South and West Addis District	1	4	**30**	Bambis Branch	North and East Addis District	1	4
31	Gelan Branch	South and West Addis District	1	4	**31**	Wossen Branch	North and East Addis District	1	4
32	Baraka Branch	South and West Addis District	1		**32**	Mehal Gurd Shola Branch	North and East Addis District	1	4
33	Hunegnaw Mera Branch	South and West Addis District	1	4	**33**	Lamber et Branch	North and East Addis District	1	4
34	Merkato Fichegenet Branch	South and West Addis District	1	4	**34**	Gurd Shola Branch	North and East Addis District	1	4
35	Mexico Branch	South and West Addis District	1	4	**35**	Bole Bulbula Branch	North and East Addis District	1	4
36	Tulu Dimtu Branch	South and West Addis District	1	4	**36**	Bole Arabsa Branch	North and East Addis District	1	4

37	Mekanisa Micheal Branch	South and West Addis District	1	4	**37**	Ayat Sebahulet Branch	North and East Addis District	1	4
38	Ayer Tena Branch	South and West Addis District	1	4	**38**	Addey Abeba Stadium Branch	North and East Addis District	1	4
39	Mexico Buna na Shay Branch	South and West Addis District	1	4	**39**	Yerer Branch	North and East Addis District	1	4
40	Mekanisa Branch	South and West Addis District	1	4	**40**	Lem Hotel Branch	North and East Addis District	1	4
41	Amana Alem Bank Branch	South and West Addis District	1	4	**41**	Figa Branch	North and East Addis District	1	
42	Kera Adebabay Branch	South and West Addis District	1	4	**42**	Bole Branch	North and East Addis District	1	4
43	Anwar Meskid Branch	South and West Addis District	1	4	**43**	Arat Killo Branch	North and East Addis District	1	4
44	Karl Adebabay Branch	South and West Addis District	1	4	**44**	Kara Branch	North and East Addis District	1	44
45	Nejashi Branch	South and West Addis District	1	4	**45**	Megenagna Adebabay Branch	North and East Addis District	1	4