



**COLLEGE OF POSTGRADUATE  
DEPARTMENT OF MANAGEMENT  
MASTER OF BUSINESS ADMINISTRATION (MBA) PROGRAMS**

***THE EFFECT OF ELECTRONIC BANKING SERVICE QUALITY  
ON CUSTOMER SATISFACTION: THE CASE OF DASHEN BANK  
IN DEBRE BERHAN TOWN***

**BY  
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**JUNE, 2024  
DEBRE BERHAN, ETHIOPIA**

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CUSTOMER SATISFACTION: THE CASE OF DASHEN BANK AT DEBRE  
BERHAN TOWN.***

***A Thesis Submitted to Debre Birhan University in Partial Fulfillment of the  
Requirements for the Degree of Master of Business Administration***

**BY**  
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**JUNE, 2024**  
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## Declaration

This is to certify that the thesis entitled “The Effect of Electronic Banking Service Quality on Customer Satisfaction: The Case of Dashen Bank In Debre Berhan Town”, submitted in partial fulfillment of the requirements for MA degree in Master of Business Administration in Debre Birhan University, is a record of original work carried out by me and has never been submitted to this or any other institution to get any other degree or certificates. The assistance and help I received during the course of this investigation have been duly acknowledged.

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Place

## **Approval of Thesis for Defense**

I hereby certify that I have supervised, read, and evaluated this thesis titled “The Effect of Electronic Banking Service Quality on Customer Satisfaction: The Case of Dashen Bank In Debre Berhan Town” by Bekelech Adefris prepared under my guidance. I recommend the thesis be submitted for oral defense.

Amare Werku (PhD)

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Signature

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Date

## **APPROVAL OF THE THESIS**

As members of the board of examiners, we examined this thesis entitled “The Effect of Electronic Banking Service Quality on Customer Satisfaction: The Case of Dashen Bank in Debre Berhan Town” by Bekelech Adefris. We hereby certify that the thesis is accepted for fulfilling the requirements for the degree of Master of Business Administration (MBA).

### **Board of Examiners**

Name of the Chairperson	Signature	Date
Name of Major Advisor	Signature	Date
Name of Internal Examiner	Signature	Date
Name of External Examiner	Signature	Date

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## **List of Abbreviations**

ATM-----Automatic Teller Machine

DB-----Dashen Bank

NBE-----National Bank of Ethiopia

IB----- Internet Banking

POS----- Point of Sales

PDA----- Personal Digital Assistant

PIN-----Personal Identification Number

SPSS----- Statistical Package for Social Science

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## **ABSTRACT**

*The main objective of this study was to investigate the effect of electronic banking service quality on customer satisfaction at Dashen Bank in Debre Birhan Town, Ethiopia. The researcher used a quantitative approach and descriptive and explanatory research design to achieve the objective of the study. The study also used primary data sources and the data collection instrument was structured close-ended survey questionnaires using the five-point Likert scale adopted from different scholars in previous studies. The researcher used the Statistical Package for Social Science (SPSS) tool in order to find the results of descriptive and inferential statistics analysis. The findings indicate that all examined seven dimensions of e-banking service quality (reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy/security) have positive and statistically significant effects on customer satisfaction. Assurance was found to be the most influential factor, followed by Convenience and Tangibility, highlighting their importance for customer satisfaction. While reliability also had a positive effect it held the weakest influence among significant factors. In conclusion, the findings of this study suggest that electronic banking service quality has a significant positive impact on customer satisfaction in Dashen Bank at Debre Birhan Town. Banks can improve customer satisfaction by ensuring reliable and responsive services, providing customers with assurances about the security of their transactions, fostering empathetic interactions with customers, and making their services more tangible, convenient, and private. These findings suggest that Dashen Bank should focus on improving the quality of its electronic banking services to enhance customer satisfaction.*

**Key Words:** assurance, convenience, customer satisfaction, electronic banking service quality (e-banking service quality), empathy, privacy/security reliability, responsiveness and tangibility.

# CHAPTER ONE

## INTRODUCTION

This chapter of the study encompasses the background of the study, problem statement, research questions, the objective of the study, hypothesis, significance of the study, scope of study, limitation of the study, definition of key terms, and organization of the paper.

### 1.1 Background of the Study

The first major mission and purpose of any business organization is satisfying customers. Service quality and customer satisfaction are very important concepts that must be understood by companies that want to grow while keeping their competitive edge. In modern competitive environments, delivering high service quality is the key to a sustainable competitive advantage. Customer satisfaction has a positive effect on the organization's profitability (Syapsan, 2019). All the service sectors depend on customer and their satisfaction and the banks are no exception. One of the ways to achieve high customer satisfaction and gain the loyalty of customers is for banks to offer high-quality services (Adugna, 2019).

E-banking is a service that provides customers the opportunity to gain access to their accounts, execute transactions, and obtain information on financial products and services through a public or private network, including the Internet (Drigă & Isac, 2014). E-banking allows customers to check accounts, transfer money, and can have access to numerous banking products and services. It has a vital role in the economy helping buyers and sellers to make financial transactions through the exchange of goods and services without physical contact. On the other hand, e-banking enables banks to offer low-cost, high-value-added financial services and also benefit from the promotional opportunity to cross-sell products such as credit cards and loans (Oluwasegun et al., 2021). Currently, almost all commercial banks in Ethiopia provide E-banking services in one or more ways. Card-based payment through ATM and Point of Sale (POS) machines, Mobile banking, Internet banking, and Agent banking are some of the E-banking services exercised in Ethiopia (Desta, 2018).

Dashen Bank is one of the leading commercial banks in Ethiopia, offering a range of banking services to its customers. With the rapid advancement of technology and changing customer preferences, electronic banking has gained significant popularity and importance in the banking industry. E-banking services provide customers with convenient and accessible banking options,

allowing them to perform various transactions and access financial information online. Dashen Bank started Internet Banking (IB) services of informational which help customers to see account balance and account statements, and transactional IB services which offer additional services like fund transfer from account to account and salary upload free of charge on September 28, 2014, and on February 28, 2015, respectively. By the end of June 2015, it has managed to register 3,540 IB users of which 2,719 are registered by Addis Ababa city Area Bank users. Currently, this service allows users to transact or make fund transfers from one account to another account within DB to the extent of Birr 50,000 for individuals and Birr 100,000 for corporate customers/companies per day (EBSA annual report, 2015). Recently, DB started Mobile and Agent Banking with a total investment cost expected to reach Birr 7.6 million and got a license from NBE on August 19, 2014, save live certification. By the end of June, 2015, DB managed to subscribe and to sign a total of 1,100 mobile banking users and 10 agents respectively. Up on implementation, DB targets two distinct markets based on the geographical location of potential customers. The first one is to have potential customers who are new or rare users of banking services. The second target market is potential customers who have basic access to banking services at a reasonable distance, but their utilization is limited due to various reasons like level of income, age, and physical status (EBSA annual report, 2015).

In Debre Birhan Town, the adoption of e-banking services has been increasing over the years. Dashen Bank has recognized the importance of providing high-quality e-banking services to meet customer expectations and maintain a competitive edge in the market. However, to effectively enhance customer satisfaction, it is essential to understand the specific dimensions of e-banking service quality that influence customer perceptions and satisfaction levels. By conducting this study, valuable insights can be gained regarding the impact of different dimensions of e-banking service quality, such as reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy/security, on customer satisfaction. Understanding these relationships will allow Dashen Bank to identify areas of improvement and develop strategies to enhance the quality of their e-banking services, ultimately leading to higher levels of customer satisfaction.



## 1.2. Statement of the Problem

In Ethiopia both private and government banks E-banking customers are suffering from frequent disruption of E-banking service due to poorly developed telecommunication infrastructure, lack of reliable power supply, and lack of knowledge from customers end (HAILU, 2019). Security risks and lack of trust in the use of technological adoption are other major barriers to the E e-banking system (Hailemicheal, 2020). However, there is a research gap in exploring the specific security concerns and trust-related issues faced by customers in Dashen Bank at Debre Birhan Town. Understanding these concerns and their impact on customer satisfaction is crucial for the bank to address trust and security-related barriers and enhance customer confidence in their e-banking services.

Zewdu, (2019) indicated that network failure, system failure, machine breakdown cash shortage in ATM machines, and non-availability of the Internet are the major problems encountered by customers while using E-banking services. Habte, (2021) also indicated that Slow bandwidth of the internet, banks' delay in providing PIN numbers whenever client loses their Credit or Debit card, Power failure in the outlets, higher charge for the card and traditional habits of common people were common constraint of E-banking. Similarly, the literature suggests that customers face various challenges while using E-banking services, including network failure, system failure, machine breakdown, cash shortage in ATM machines, non-availability of internet, slow bandwidth, delays in providing PINs, power failures, higher charges for cards, and traditional habits of common people. However, there is a research gap in understanding the specific impact of these challenges on customer satisfaction in Dashen Bank at Debre Birhan Town. The existing literature does not adequately address how these challenges affect customers' perceptions of e-banking service quality and their overall satisfaction levels in the specific context of Dashen Bank.

Service quality dimensions reliability, responsiveness, assurance, and empathy have more importance to increasing customer satisfaction in electronic banking because when service quality is high then it has an indispensable contribution to the improvement of customer satisfaction but different challenges could be an obstacle to providing efficient electronic banking based services to customers (Pakurár et al., 2019). Sleimi et al. (2018) also indicated that an increase in reliability, empathy, assurance, and responsiveness of E-banking service leads to an increase in E-banking customer satisfaction however infrastructural barriers like low levels

of the internet, weak telecommunication, and frequent power interruption result in customer dissatisfaction. However, challenges related to infrastructure, including low levels of internet, weak telecommunication, and frequent power interruptions, can hinder the efficient provision of electronic banking services to customers. While the literature acknowledges the importance of service quality dimensions, there is a research gap in understanding the specific impact of infrastructural barriers on these dimensions and their subsequent effect on customer satisfaction in the context of electronic banking services.

Ayinaddis et al. (2023) conducted a study on the effects of ATM service quality on customer satisfaction in the Ethiopian banking industry. However, the researcher did not consider other E-banking products of the banks like Internet banking and Mobile banking. Some other research was also conducted on E-banking but their main focus was related to the adoption of E-banking not on its effect on customer satisfaction. Fetu (2019) researched the opportunities and challenges of the E-banking System in the Commercial Bank of Ethiopia in Gurage Zone. There is a research gap in understanding the effects of various E-banking products, such as Internet banking and mobile banking, on customer satisfaction in the Ethiopian banking industry. Previous studies have primarily focused on the adoption of E-banking and the challenges and opportunities associated with it, without specifically addressing the impact of E-banking services on customer satisfaction. Therefore, there is a need to investigate the level of customer satisfaction with E-banking services and identify areas for improvement.

Nowadays the Ethiopian banking sectors are aggressively competing with each other to satisfy their customers more through technological advancement. Some of the electronic banking services offered by the bank do not meet customers' needs with quality (Li et al., 2021). Currently, there is a research gap in understanding the factors that affect customer satisfaction and service quality in electronic banking services, specifically in the context of Dashen Bank in Ethiopia. While the banking sector in Ethiopia is striving to satisfy customers through technological advancements, there are issues related to the quality and availability of electronic banking services that have not been adequately addressed. These issues include machines out of service, machines running out of cash, failure to provide printing statements, blocked cards, frequent breakdowns of ATM services, lack of sufficient technicians for maintenance, lack of alternative systems during temporary problems, network interruptions, and difficulties in

reversing transactions and issuing refunds. Additionally, there is a lack of fair distribution of e-banking services across all branches of Dashen Bank. Therefore, there is a need to investigate these factors and their impact on customer satisfaction and service quality.

Also, there is a research gap in understanding how different dimensions of e-banking service quality (reliability, responsiveness, assurance, empathy, tangibility, convenience, privacy/security) affect customer satisfaction. While electronic banking has become increasingly popular and important in the banking industry, there is limited research examining the specific impact of these service quality dimensions on customer satisfaction. Therefore, there is a need to investigate the effect of electronic banking service quality on customer satisfaction: the case of Dashen Bank in Debre Birhan Town.

### **1.3. Research Questions**

In view of the problems, the central and sub-research questions of this study are the following:

#### **1.3.1 Main Research Question**

What is the effect of Electronic Banking Service Quality on Customer Satisfaction: The Case of Dashen Bank in Debre Berhan Town?

#### **1.3.2. Sub Research Questions**

- 1)** What is the effect of E-banking service reliability on Customer Satisfaction in Dashen Bank at Debre Berhan Town?
- 2)** What is the effect of E-banking service responsiveness on Customer Satisfaction in Dashen Bank at Debre Berhan Town?
- 3)** What is the effect of E-banking service assurance on Customer Satisfaction in Dashen Bank at Debre Berhan Town?
- 4)** What is the effect of E-banking service empathy on Customer Satisfaction in Dashen Bank at Debre Berhan Town?
- 5)** What is the effect of E-banking service tangibility on Customer Satisfaction in Dashen Bank at Debre Berhan Town?
- 6)** What is the effect of E-banking service convenience on Customer Satisfaction in Dashen Bank at Debre Berhan Town?
- 7)** What is the effect of E-banking privacy/security on Customer Satisfaction in Dashen Bank at Debre Berhan Town?

## **1.4. Objectives of the Study**

The study objectives were given general and specific objectives:

### **1.4.1 General Objective**

The general objective of this study was to investigate the effect of e-banking service quality on customer satisfaction concerning Dashen Bank in the Debre Birhan Town Administration.

### **1.4.2 Specific Objective**

The study addressed the following specific objectives:

- 1)** To examine the effect of E-banking service reliability on customer satisfaction in Dashen Bank at Debre Birhan Town.
- 2)** To examine the effect of E-banking service responsiveness on customer satisfaction in Dashen Bank at Debre Birhan Town.
- 3)** To examine the effect of E-banking service assurance on customer satisfaction in Dashen Bank at Debre Birhan Town.
- 4)** To examine the effect of E-banking service empathy on customer satisfaction in Dashen Bank at Debre Birhan Town.
- 5)** To examine the effect of E-banking service tangibility on customer satisfaction in Dashen Bank at Debre Birhan Town.
- 6)** To examine the effect of E-banking service convenience on customer satisfaction in Dashen Bank at Debre Birhan Town.
- 7)** To examine the effect of E-banking privacy/security on customer satisfaction in Dashen Bank at Debre Birhan Town.

## **1.5. Hypothesis of the Study**

The following hypothesis was tested to achieve the general and specific objectives of the study:

**Ha1:** E-banking service reliability has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Birhan Town.

**Ha2:** E-banking service responsiveness has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Birhan Town.

**Ha3:** E-banking service assurance has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Birhan Town.

**Ha4:** E-banking service empathy has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Birhan Town.

**Ha5** E-banking service tangibility has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Birhan Town.

**Ha6** E-banking service convenience has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Birhan Town.

**Ha7** E-banking privacy/security has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Birhan Town.

## **1.6. Significance of the Study**

The significance of the study is for the researcher, for knowledge dissemination, for policymakers, for the literature review, and other stakeholders. Separately as follows:

The study holds significance for the researcher in several ways. It allows the researcher to contribute to the existing body of knowledge by investigating an important research gap. Conducting this study provides an opportunity to develop research skills, gain expertise in the field of e-banking service quality, and enhance the researcher's academic and professional profile. Additionally, the findings of the study will serve as a foundation for future research and open up avenues for further exploration in the field.

The study's findings contribute to knowledge dissemination by expanding the understanding of the relationship between different dimensions of e-banking service quality and customer satisfaction. The research outcomes are shared through academic publications, conferences, and seminars, allowing other researchers, scholars, and practitioners to access and build upon the findings. This dissemination of knowledge promotes academic and intellectual growth by fostering discussions, collaborations, and advancements in the field of e-banking service quality.

The study holds significance for policymakers in the banking industry. The findings will provide insights into the specific dimensions of e-banking service quality that significantly impact customer satisfaction. Policymakers will utilize this knowledge to develop and implement regulations, guidelines, and standards that prioritize these dimensions. By aligning policies with customer satisfaction drivers, policymakers could foster a more customer-centric banking environment that promotes positive customer experiences and improved service quality.

Similarly, the study's findings contribute to the existing literature on e-banking service quality and customer satisfaction. They serve as valuable empirical evidence that will be referenced and cited by other researchers conducting literature reviews in the field. The study's outcomes will help

researchers identify gaps, validate existing theories, or propose new frameworks related to e-banking service quality. The findings act as building blocks for future literature reviews, enabling a more comprehensive understanding of the subject matter.

The study's outcomes have relevance for various stakeholders in the banking industry. Banks and financial institutions utilized the findings to identify the dimensions of e-banking service quality that require improvement and invest resources accordingly. This could lead to enhanced customer satisfaction, increased customer loyalty, and improved competitiveness. Customers themselves benefit from the study's findings as they shed light on the specific aspects of e-banking services that influence their satisfaction. This knowledge empowers customers to make informed decisions about their banking choices and demand better service quality.

### **1.7. Scope of the Study**

The study was delimited in geographical, conceptual, methodological, and time scope. Geographically, the study considered the 6 branches of Dashen Bank S.C. in Debre Berhan. Conceptually, the study was conducted to assess the effect of E-banking service quality on customer satisfaction based on the seven service quality dimensions E-banking reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy/security. Methodologically, this study used both descriptive and explanatory research designs and a Quantitative research approach. Time scope: The study was conducted within a time framework from October 2023 G.C up to June 2024 G.C.

### **1.8 Limitations of the Study**

The study only focused on seven dimensions of e-banking service quality, such as reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy/security. While these dimensions are important, other variables that may impact customer satisfaction, such as price, accessibility, or perceived value, are not explicitly included in the study. The Second limitation of this study is that it only considers customers' perspective of e-banking and it does not take into consideration what perspective all bankers, employees, and other stakeholders have on the technology.

### **1.9 Operational Definitions of Terms**

*Assurance:* Assurance, within the context of e-banking service quality, pertains to the trustworthiness, competence, and credibility of the bank in providing secure and reliable electronic banking services. It involves aspects such as the bank's reputation, expertise,

adherence to regulations, and the feeling of trust and confidence customers have in the bank (Parasuraman et al., 1988).

**Convenience:** Convenience, as a dimension of e-banking service quality, refers to the ease, accessibility, and user-friendliness of electronic banking services. It includes aspects such as the availability of self-service options, simplicity of transactions, ease of navigation, and the ability to access and manage accounts conveniently from various devices and locations (Liao & Cheung, 2002).

**Customer Satisfaction:** Customer satisfaction, in this study, refers to the overall evaluation or contentment experienced by customers regarding their interactions and experiences with electronic banking services. It encompasses customers' subjective perceptions of the fulfillment of their expectations and requirements related to e-banking, including factors such as ease of use, efficiency, reliability, responsiveness, and the overall value received from the e-banking services (Oliver, 1980).

**E-banking Service Quality:** For the purpose of this study, e-banking service quality refers to the perceived excellence or adequacy of various dimensions of electronic banking services provided by financial institutions. These dimensions may include reliability (consistency and accuracy of online banking systems), responsiveness (timeliness and effectiveness of customer support), assurance (trustworthiness and expertise of the bank), empathy (caring and personalized attention towards customers), tangibility (appearance and functionality of digital banking interfaces), convenience (ease of use and accessibility of online banking platforms), and privacy/security (safeguarding customer information and transactions).

**Empathy:** Empathy, as a dimension of e-banking service quality, relates to the bank's understanding, attentiveness, and consideration of customers' individual needs, concerns, and preferences. It involves aspects such as personalized customer interactions, effective communication, and the bank's ability to anticipate and address customer needs and expectations (Parasuraman et al., 1988).

**Privacy/Security:** Privacy/security, within the context of e-banking service quality, refers to the protection of customer information and transactions from unauthorized access, breaches, or misuse. It encompasses aspects such as the bank's data security measures, encryption

protocols, privacy policies, and customers' perceived level of safety and confidentiality when using electronic banking service (Parasuraman et al., 1988).

**Reliability:** Reliability, as a dimension of e-banking service quality, refers to the consistency, accuracy, and dependability of electronic banking systems and processes. It involves the extent to which online banking services are available, perform as expected, and provide accurate and error-free transactions and information (Parasuraman et al., 1988).

**Responsiveness:** Responsiveness, as a dimension of e-banking service quality, refers to the timeliness, promptness, and effectiveness of the bank's customer support and assistance provided to customers using electronic banking services. It includes aspects such as the speed of issue resolution, availability of customer support channels, and the helpfulness of customer service representatives (Parasuraman et al., 1988).

**Tangibility:** Tangibility, within the context of e-banking service quality, refers to the appearance, functionality, and ease of use of the digital interfaces and platforms provided by the bank for electronic banking services. It encompasses aspects such as the design, user-friendliness, availability of features, and the overall physical and visual presentation of the online banking platform (Parasuraman et al., 1988).

## **1.10 Organization of the Study**

This research paper was organized into five chapters, including this introductory part which addressed the background of the study, statement of the problem, research questions, objectives of the study, research hypothesis, significance of the study, the scope of the study, Limitations of the study, the definition of key terms, and organization of the study. Theoretical, empirical review of related literature and conceptual framework of the study discussed in chapter two, Chapter three forward the research approach, research design, target population, sample size and sampling technique, data collection instruments and variables, reliability, and validity of the instruments, method of data analysis, model specification, and ethical consideration. Chapter four states data presentation, analysis, and interpretation, and the final and fifth Chapters present a summary of findings, conclusions, recommendations, and recommendations for future research.



# **CHAPTER TWO**

## **REVIEW OF RELATED LITERATURE**

### **2.1 Theoretical Review**

#### **2.1.1 Service Quality Theory**

The Service Quality Theory provides a suitable framework for understanding the impact of e-banking service quality on customer satisfaction. According to this theory, service quality consists of various dimensions that influence customers' perception of service excellence. We will adapt this theory to the context of e-banking and identify the relevant dimensions for our study. The SERVQUAL model is a widely recognized framework for assessing service quality. It consists of five dimensions: reliability, responsiveness, assurance, empathy, and tangibles. These dimensions can be adapted to the context of e-banking service quality to examine their impact on customer satisfaction (Shi & Shang, 2020).

#### **2.1.2. Expectancy-Disconfirmation Theory**

The Expectancy-Disconfirmation Theory posits that customer satisfaction is influenced by the comparison between customers' pre-consumption expectations and their post-consumption perceptions of a service. When customers' perceptions exceed their initial expectations (positive disconfirmation), they are more likely to be satisfied. Conversely, when perceptions fall short of expectations (negative disconfirmation), customer satisfaction is likely to decrease. This theory provides a suitable framework to investigate the effect of e-banking service quality on customer satisfaction. This theory posits that customer satisfaction is influenced by the perceived performance of a service in relation to customer expectations (Lee et al., 2022). In the context of e-banking, customers form expectations regarding service quality and their satisfaction is determined by whether the actual service delivery meets or exceeds these expectations.

### **2.2 Conceptual Review**

#### **2.2.1. Concept of Electronic Banking**

Sekhar (2020) defines Electronic banking, or e-banking, is the term that describes all transactions that take place among companies, organizations, and individuals and their banking institutions. First conceptualized in the mid-1970s, some banks offered customers electronic banking in 1985. However, the lack of Internet users, and costs associated with using online banking, stunted growth. The Internet explosion in the late 1990s made people more comfortable with making

transactions over the web. Despite the dot-com crash, e-banking grew alongside the Internet (Shewaye, 2019).

### **2.2.2 Types of E-Banking Services**

E-banking services are banking services which delivered to customers through the channel of electronic intelligent devices (Chaimaa et al., 2021). Tamajong (2020) states that E-banking can be defined as a variety of platforms such as Internet banking or (online banking), TV-based banking, mobile phone banking, and PC (personal computer) banking (or offline banking) where by customers access these services using an intelligent electronic device, like PC, personal digital assistant (PDA), automated teller machine (ATM), point of sale (POS), kiosk, or touch-tone telephone. Thus, the types of E-banking services that are delivered via intelligent electronic devices are here stated as follows.

#### **2.2.2.1 Automated Teller Machine (ATM)**

ATM is a machine where cash withdrawals can be made over the machine without going into the banking hall. It also sells recharge cards and transfers funds, it can be assessed 24 hours/7 days with account balance inquiry (Ogata, 2020). Zeleke & Chauhan (2022)describes ATMs as follows: “An ATM combines a computer terminal, database system, and cash vault in one unit, permitting customers to enter the bank’s bookkeeping system with a plastic card containing a PIN or by punching a special code number into the computer terminal linked to the bank’s computerized records 24 hours a day”. It offers a great deal of banking services to clients. However, as a result of the rapid increase in technology, ATMs go to the extent of given account balances and bill payments. Banks use this E-banking device, to gain a competitive advantage. The combination of automation and human tellers gives more productivity for the bank during banking hours (Zeleke & Chauhan, 2022).

#### **2.2.2.2 Mobile Banking**

In the study by Baabdullah et al.(2019) Mobile banking is a very recent innovation of e-banking services. It is a wireless internet application of banking-sometimes called m-banking. With the combination of internet and mobile phone, a new service (mobile data service) is thus enabled and the first such wireless internet commercial transaction was performed by the banking industry. (Baabdullah et al., 2019) state that Mobile banking is a term used for performing balance checks, account transactions, payments credit applications, and other banking transactions through a mobile device such as a mobile phone or personal digital assistant (PDA).

The mobile banking services were offered over SMS, service known as SMS banking. Mobile banking is used in many parts of the world with little or no infrastructure, especially in remote and rural areas. The scope of offered services may include facilities to conduct bank and stock market transactions, to administrate accounts and to access customized information. In the study by Fikerselassie (2017), Barnes & Corbitt, (2003) Mobile banking is a system or platform in which customers are automatically updated on any changes in their accounts. These changes may come in the form of account debits and credits or any charges to the account. All it needs for mobile banking is a mobile phone with a well-functioning text messaging system. SMS banking falls under this category. This system uses a short text messaging system to inform customers of their accounts.

### **2.2.2.3 Internet Banking**

In the (Tsai & Su, 2021) study, Internet banking gives customers access to their bank accounts via a website and enables them to enact certain transactions on their account, given compliance with stringent security checks. Internet banking provides convenient and flexible services to customers. It enables customers to transact almost all their banking transactions online. One could check accounts, query the bank, and also transfer funds to other people on different accounts; it is the most financially savvy innovative method for yielding higher profitability. Another feature of Internet banking is that, it gives a 24/7 access to customers. Merugu (2018) Define that online/Internet banking is becoming a popular tool to attract new customers and deliver customer satisfaction (Ahmed et al., 2020). A fundamental understanding of factors causing customer satisfaction in online banking has attained greater prominence as more and more banks compete to offer superior services to their clients making it imperative for banks to align their strategies in response to changing customer's needs and technology.

### **2.2.2.4 Point of Sales (POS)**

In the study, by (Shi & Shang, 2020), POS is sometimes referred to as the point of purchase (POP) or checkout is the location where a transaction occurs. A "checkout" refers to a POS terminal or more generally to the hardware and software used for checkouts, the equivalent of an electronic cash register. A POS terminal manages the selling process by a sales person accessible interface. The same system allows the creation and printing of the receipt. POS systems record sales for business and tax purposes. POS enhances customers to make payments for goods and

services without necessarily coming in contact with physical cash as the purchase price would be debited on the buyer's card and credited to the seller's account (Getachew, 2018).

#### **2.2.2.5 Agent Banking**

A banking agent is a retail or postal outlet contracted by a financial institution or a mobile network operator to process clients' transactions. Rather than a branch teller, it is the owner or an employee of the retail outlet who conducts the transaction and lets clients deposit, withdraw, and transfer funds, pay their bills, inquire about an account balance, or receive government benefits or a direct deposit from their employer. Banking agents can be pharmacies, supermarkets, convenience stores, lottery outlets, post offices, and many more. Banking agents are usually equipped with a combination of POS card readers, mobile phones, barcode scanners to scan bills for bill payment transactions, PIN pads, and sometimes personal computers (PCs) that connect with the bank's server using a personal dial-up or other data connection. Clients that transact at the agent use a Magnetic Stripe (Mag-Stripe) bank card or their mobile phone to access their bank account or e-wallet respectively. Identification of customers is normally done through a PIN. With regard to the transaction verification, authorization, and settlement platform, banking agents are similar to any other remote bank channel (Melese, 2020).

#### **2.2.2.6 CBE Birr**

Commercial Bank of Ethiopia (CBE) officially launched its mobile money services dubbed CBE Birr on December 11, 2017, after successfully testing its functionality for six months. It is a mobile-based banking whereby the bank selects, trains, and authorizes agents to provide banking services on behalf of the bank through a mobile phone. It is deployed as a means of extending financial services to the unbanked segment of the public. Customers may no longer need to travel long distances to visit CBE branches as they can get the service from the nearest CBE agents through CBE Birr. A CBE Birr customer can deposit, withdraw, transfer money, make payments, buy mobile airtime and pay bills using a mobile phone in a very simple and convenient way (.combanketh.et/CBE 2020).

### **2.2.3 Dimensions of Electronic Banking Service Quality**

Service quality can be measured using a scale known as SERVQUAL, which will operationalize service quality by calculating the difference between expectations and perceptions, where the gap determines customer satisfaction with service quality (Fekadu, 2018)). In order to provide high-quality e-banking services, the bank needs to know and understand the electronic banking

service quality dimensions and with this, the bank can improve their service quality which will increase customer satisfaction (Sathiyavany & Shivany, 2018)

### **2.2.3.1 Reliability**

Reliability was one of the elements of the seven dimensions of e-SERVQUAL. Li et al. (2021) stated that reliability was one of the key elements that will affect customer satisfaction with e-banking service quality, and reliability represented the range of products or services and information provided. Reliability is also referred to as the ability of employees to correctly fulfill their promises and perform the right service to the customer on time the first time (Tien et al., 2021). (Umer et al., 2020) noticed that reliability was the ability to perform an agreed task accurately and without error. According to (Shah, 2020), the HSBC e-banking website was attacked by the network, and it greatly caused customer dissatisfaction. Thus, these aspects of protection and confidentiality were considered secure. Therefore, some investigators have also identified reliability as an important determinant of digital banking performance. Otherwise, Umer et al. (2020) also examined reliability with customer satisfaction, and they found it had a positive relationship, and the outcome that more accurate and reliable information can lead to high customer satisfaction.

### **2.2.3.2 Responsiveness**

Responsiveness was one of the elements of the E-recS-QUAL. Tien et al. (2021) mentioned that responsiveness was expressed through the desire and willingness of employees to serve customers in a timely manner. Moreover, Ali et al. (2021) stated that responsiveness belonged to the speed and quality of a company's products based on the interests of its customers. It determined the quality of customer service and communication provided. Responsiveness was essential for improving the profitability of a product due to the speed and right made customers very happy and satisfied. This issue also brought an impact on customers' trust, loyalty and satisfaction. Not only that, responsiveness can retain customers' interest and responding in a timely manner can help to improve customer satisfaction and loyalty (Sirait & Purnama, 2022). According to Hammoud et al. (2018), responsiveness can be separated into 4 categories. First, the online banking system can be standardized and run properly; second, online banking can guide the customers to deal with any failures; third, it can provide a quick way to handle any errors in online banking transactions; and fourth to quickly respond to any customer inquiries.

Referring to Hammoud et al. (2018) examined the dimensions of responsiveness of e-service quality, and they found that responsiveness brings a positive relationship with customer satisfaction in the Lebanese banking sector. Apart from that, the outcome of Sharma et al. (2020) and (Sardana & Bajpai, 2020) also stated that responsiveness had a positive relationship with customer satisfaction in e-banking service quality.

### **2.2.3.3 Assurance**

Assurance is an important dimension of service quality that refers to customers' confidence and trust in the reliability, competence, and credibility of the service provider. In the context of e-banking, assurance encompasses elements such as security, privacy, accuracy, and responsiveness. This framework provides a suitable lens to investigate the effect of e-banking service quality on customer satisfaction. Assurance involves issues of confidence and trust that consumers have towards and feeling of safety in usage in case of perceived problems (Hosen et al., 2021). It involves employee knowledge and courtesy as well as their ability to inspire trust and confidence

### **2.2.3.4 Empathy**

Empathy is a crucial element of service quality that refers to the ability of service providers to understand and address customers' needs, concerns, and emotions. In the context of e-banking, empathy encompasses elements such as personalized support, effective communication, and the ability to provide tailored solutions. This framework provides a suitable lens to investigate the effect of e-banking service quality on customer satisfaction. Empathy entails caring and providing individualized attention to customers by employees of the firm (Bahadur et al., 2018). In this respect, the customer feels unique and special. In order to promote empathy, company employees should endeavor to know their customers' names preferences, and needs and then take steps to satisfy them. Empathy includes accessibility, sensitivity, and effort in understanding the needs of users.

### **2.2.3.5 Tangibility**

The physical equipment of the service is referred to as tangibility. The physical facilities of the service provider, the appearance of personnel, materials associated to the service (credit and debit sheets, cheque books etc.), decorations and business hours, the tools and equipment used to provide the service as well as other customers in the service facility are all describe as tangibles.

Tangibility is used by firms to convey image and signal quality (İLTAŞ & DEMİRGÜNEŞ, 2020).

### **2.2.3.6 Convenience**

Convenience is a critical factor in service quality that refers to the ease, speed, and accessibility of using a service. In the context of e-banking, convenience encompasses elements such as user-friendliness, availability, and efficiency. This framework provides a suitable lens to investigate the effect of e-banking service quality on customer satisfaction. E-banking provides a higher degree of convenience that enables customers to access Internet banking at all times and places. Johnston (1995) revealed that there are some service quality determinants that are predominantly satisfiers and other that are predominantly dissatisfies with the main sources of satisfaction being attentiveness, responsiveness, care and friendliness. The main source of dissatisfaction is integrity, reliability, responsiveness; availability and functionality

### **2.2.3.7 Privacy/Security**

Security and privacy were the essential elements in the dimension of service quality of eSERVQUAL. JS, (2022) stated that security and privacy referred to the site's safe interaction with customers, credit and payment, as well as an encrypted shared data area. Privacy and security play a vital role in establishing electronic trust in order that it can reduce customers' concerns about personal information abuse. Therefore, a good security and privacy service that is provided by e-banking can increase customer satisfaction. Not only that, the security or privacy of the website will encourage and motivate customers to continue to use it. JS, (2022) Hammoud et al. (2018) also examined the dimension of security and privacy, and the results showed that privacy and security had a positive relationship with customer satisfaction in the Lebanese banking sector. Besides that, the researchers made the recommendation on the manager's need to improve the system to prevent sharing data with other parties in order to protect customers' privacy and security due to privacy and security have significantly affected customer satisfaction (S. Ali et al., 2021).

Security is the way banks protect their customer data, including data confidentiality, availability and integrity, while privacy refers to the use and control of personal data by authorized individuals (Mahalle et al., 2018). The privacy and security dimension in electronic banking service can gain customers' trust regarding their personal information and bank transactions are safe from any unauthorized persons, which will increase customer satisfaction. Another major

challenge is the issue of security, as many transactions occur online every single day, which could lead to the theft of customers' banking data. The threats may come from inside or outside the system that can threaten the information and transaction of the customers (Abu-Shanab & Matalqa, 2015). Hackers always have ways to steal and manipulate customer information, and banking cybercrime always occurs. Leakage of confidential information by unauthorized persons exceeding the authority of the financial institution can lead to loss of customers (Aqiliyah binti Subahudin & SHAHROM, 2023). This means that when a change is being made in customer data in the system by an unauthorized person, it can bring harm to the bank and its customers. Internet banking transactions are always linked to security issues. Customers behaving inappropriately on the internet can cause abuses in the privacy and security of bank information such as phishing, identity theft, hacking and other misuse (Aqiliyah Binti Subahudin & Shahrom, 2023). When customers use online banking, the possibility of being exposed to threats such as pharming, phishing, man-in-the-browser, man-in-the-middle-attack, and malware attacks is high (Mahmadi et al., 2016).

#### **2.2.4 Electronic Banking Customer Satisfaction**

Customer satisfaction is commonly defined as the feeling about the product or services they expect to receive compared with the real product or service provided (Al Thuwaini et al., 2022). It is always related to customer gratitude for a product or service that provides a sufficient amount of satisfaction and delivers value to the customers (Biesok & Wrobel, 2011). Customers can access different financial operations through Internet banking anytime, anywhere, significantly reducing handling costs (Zaman et al., 2023). Nevertheless, internet banking, in contrast to traditional banking, allows customers to communicate with a website rather than a human, which reduces the cost of the banking system and improves customer relationships. Hence, the e-banking website design is the key element in creating a nice interface that will satisfy customer expectations and help the bank survive in the competitive online business environment.

Although there are benefits and opportunities in using electronic banking, there are also dangers and drawbacks that the bank has to be aware of and appropriately manage in order to continue operating and providing excellent service quality (Oladejo et al., n.d.). Electronic banking makes banks more dependent on information technology, leading to more complex operations, privacy and security concerns and a move towards more unregulated third-party alliances, outsourcing



agreements and transactions. Hence, the ability of a reliable service to deliver its promised accuracy to its clients is of utmost importance. Moreover, good electronic banking service quality is important to increase customer satisfaction, especially during COVID-19 as a lot of people have to purchase online. Good service quality is crucial for maintaining a competitive edge and a positive customer relationship (Kesharwani, 2020).

### **2.3. Empirical Literature Review**

Furthermore, Tetteh (2022) examined the impact of electronic banking service quality on customer satisfaction and customer loyalty using structural equation modeling. The results show that the dimensions of service quality, namely, convenience, ease of use, accessibility, and affordability were found to be significant positive drivers of customer satisfaction. The study also Tetteh, (2022) studied the quality of e-Banking services in the Goa banking industry and found that six factors, such as value-added service, responsiveness, accessibility, services assured, bank charges, and convenience, were identified that influence customer satisfaction. However, no significant difference between customers of public and private sector banks was observed concerning the demographic profile of study participants. Furthermore, based on the standardized beta coefficients, the researcher concluded service quality dimensions together explain 58.8% of the variance in customer satisfaction and loyalty.

#### **2.3.1 E-Banking Service Reliability and Customer Satisfaction**

Reliability in online banking is the capacity of the banking Internet system to operate continuously, without interruption and to deliver reliable service. Shared, (2019)states that reliability refers to the ability of the bank to provide high-quality electronic banking services and keep promises, which makes customers realize the consistency and credibility of electronic banking. Reliability has a positive impact on customer satisfaction and it is important for banks to retain their customers by ensuring their services are always accurate and complete, maintaining precise records and information, and fulfilling their promises to customers regarding the service provided (Pakurar et al., 2019). The growth of internet technology has increased the customer demand for e-banking where customers prefer the reliability of the machine to human reliability (Munusamy et al., 2012). Reliability in electronic banking is the most important feature that customers look for when evaluating electronic banking service quality (Munusamy et al., 2012). Therefore, in order for banks to provide a reliable electronic banking service quality, they need to deliver the services that they have promised to their customers, such as correct

completion of requests, ad accuracy, and application delivery (Al-Hawary & Al-Smeran, 2017). Banking institutions also need to provide services that are up-to-date, accurate, easy to understand and relevant that meet customers' needs, and enhance their satisfaction. Therefore, the following hypothesis was developed:

***Ha1: E-banking service reliability has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town.***

### **2.3.2 E-Banking Service Responsiveness and Customer Satisfaction**

The result of Khatoon et al. (2020) on the examination of the responsiveness dimension of e-service quality in the banking sector of Pakistan had more significant customer satisfaction compared to the assurance, empathy, and tangible dimensions. Moreover, (Nguyen et al., 2021) examined the responsiveness dimensions in Hanoi City, Vietnam, and they found it had a positive relationship between customer satisfaction and responsiveness. Other than that, Beshir & Zelalem (2020) also found out there was a positive relationship between the responsiveness dimension with customer satisfaction in the Commercial Bank of Ethiopia (CBE) in Bahir Dar. Besides that, Yau et al. (2021) also stated that the website design had a positive impact on customer satisfaction in Hong Kong Banking Sector.

Furthermore, (Nguyen et al., 2021) examined responsiveness and customer satisfaction and obtained the result of a positive relationship, while Umer et al. (2020) also found a positive relationship between responsiveness and customer satisfaction and the outcome of more quickly responding to the customers can lead to high customer satisfaction. According to Tabash et al. (2019), they found that responsiveness had a positive relationship with customer satisfaction, and responsiveness also was the key factor that affected customer satisfaction in Islamic banking in Saudi Arabia. The outcome of (Gupta et al., 2023) also mentioned that the responsiveness dimensions had the highest impact on customer satisfaction in India.

Referring to (Angusamy et al., 2022), the research on the dimension of responsiveness of e-banking service quality also impacted customer satisfaction. The outcome of the result was that effective communication and timely response when customer-facing problems would significantly affect customer satisfaction. Besides that, Saravanan & Leelavathi (2020) found a positive relationship between responsiveness and customer satisfaction in e-banking service in

Chennai District, while Sameena & Saroja (2021) also found that responsiveness had a positive relationship with customer satisfaction in MNC banks in Chennai, Tamilnadu. On the contrary, mentioned that responsiveness had a relationship but no significant effect on customer satisfaction in Malaysia. Aside from that, Famiyeh et al. (2018) also found that there was no relationship between responsiveness with customer satisfaction. Therefore, the following hypothesis was developed:

***Ha2: E-banking service responsiveness has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town.***

### **2.3.3 E-Banking Service Assurance and Customer Satisfaction**

In the digital age, e-banking services play a significant role in the financial industry, allowing customers to access their accounts, make transactions, and manage their finances online. With the increasing reliance on e-banking platforms, ensuring service assurance has become crucial for customer satisfaction.

A study conducted by Chaudhary and Sharma (2017) explored the impact of e-banking service assurance on customer satisfaction. The researchers found that customers who perceived high levels of service assurance, including data security, reliability, and efficiency, were more satisfied with their e-banking experience. Furthermore, the study highlighted the importance of continuous monitoring and improvement of e-banking services to meet customer expectations and enhance satisfaction. By focusing on service assurance, banks can build trust with their customers and improve overall satisfaction levels. Therefore, the following hypothesis was developed:

***Ha3: E-banking service assurance has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town.***

### **2.3.4 E-Banking Service Empathy and Customer Satisfaction**

Banking service empathy is a crucial factor in determining customer satisfaction within the banking industry. Research studies have shown that the level of empathy displayed by bank employees towards customers significantly impacts their overall satisfaction and loyalty to the bank (Marinkovic & Obradovic, 2015).

A study by Itani & Inyang (2015) found that customers who perceive a high level of empathy from bank staff are more likely to feel valued and understood, leading to increased satisfaction

with the services provided. This, in turn, enhances customer loyalty and strengthens the customer-bank relationship.

Additionally, research by DeWitt, (Raza et al., 2023) emphasized the importance of training bank employees to display empathy towards customers, as it can positively influence customer perceptions of service quality and ultimately lead to higher levels of satisfaction. Therefore, the following hypothesis was developed:

***Ha4: E-banking service empathy has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town.***

### **2.3.5 E-Banking Service Tangibility and Customer Satisfaction**

Tangibility means the appearance of physical relatedness in including infrastructure, facilities, front-end staff, and communication network, and easiness, and availability of information on the bank, or website. Thus, these features are observed by customers before or upon arriving at the bank premises. For instance, graphic features play as assistant for customers to shape impressions at an early stage. And, the impact of customer perception on service quality and the performance of selected banks in Asaba are depicted in the study of (Raza et al., 2023). In line with that, the study observes and exerts that tangibility significantly contributed to bank customer satisfaction. One of the crucial elements in service marketing is that consumers observe a service but can appreciate the tangibles related to the primary service (Raza et al., 2023). In addition, attractiveness, infrastructure, and visual factors are indicators of tangibility that positively influence the customers' satisfaction when using services at the banks (Selvakumar, 2016). Arguably, tangibility and satisfaction of customers are accepted to be positive relationships. Therefore, the following hypothesis was developed:

***Ha5 E-banking service tangibility has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town.***

### **2.3.6 E-Banking Service Convenience and Customer Satisfaction**

Today, convenience is considered to be one of the influential factors in the customer service delivery of e-base banks. Research has proven that, a positive relationship between convenience and service delivery as a critical factor in the use of Electronic Banking. As a result, it is confirmed that convenience has a significant influence on customer service delivery. These findings are also consistent with other research findings. Normalini et al. (2019) found that

electronic banking provides a higher degree of convenience that enables customers to access bank services at all times around the globe. Therefore, the following hypothesis was developed:

***Ha6 E-banking service convenience has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town***

### **2.3.7 E-Banking Privacy/Security and Customer Satisfaction**

According to Gul et al. (2022), they mentioned that privacy and security were part of the e-banking user's concern. They were concerned about the privacy of personal information and secure financial transactions when using e-banking. There were researchers who found that the dimension of privacy and security had a positive relationship with customer satisfaction in Islamic Banking in Saudi Arabia, and they found that privacy and security issues were the most concern for the e-banking user (Tabash et al., 2019). In keeping with the outcome of Sharma et al. (2020), they also stated that security and privacy had a positive relationship with customer satisfaction in e-banking service quality. Chen et al. (2021) also stated that security and privacy had a positive impact on customer satisfaction in Hong Kong Banking Sector. Reddy, (2021) also found that the security and privacy dimensions of e-service quality had a positive relationship with customer satisfaction even though the impact was lower than other variables in their research in the banking sector of Lebanon. Sameena & Saroja (2019) also got the same result as Reddy & Megharaja (2021) regarding the security and privacy dimensions that affected customer satisfaction in MNC banks in Chennai and Tamilnadu. Otherwise, (Vijayanand, 2021) examined the security and privacy dimensions of e-service quality with customer satisfaction and found out it had a positive relationship between them in Chennai District. The studies of Beshir & Zelalem (2020) also stated that more secure e-banking systems would attract more customers to use them. Therefore, the following hypothesis was developed:

***Ha7 E-banking privacy/security has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town***

## 2.4. Conceptual Framework of the Research

### Independent variable

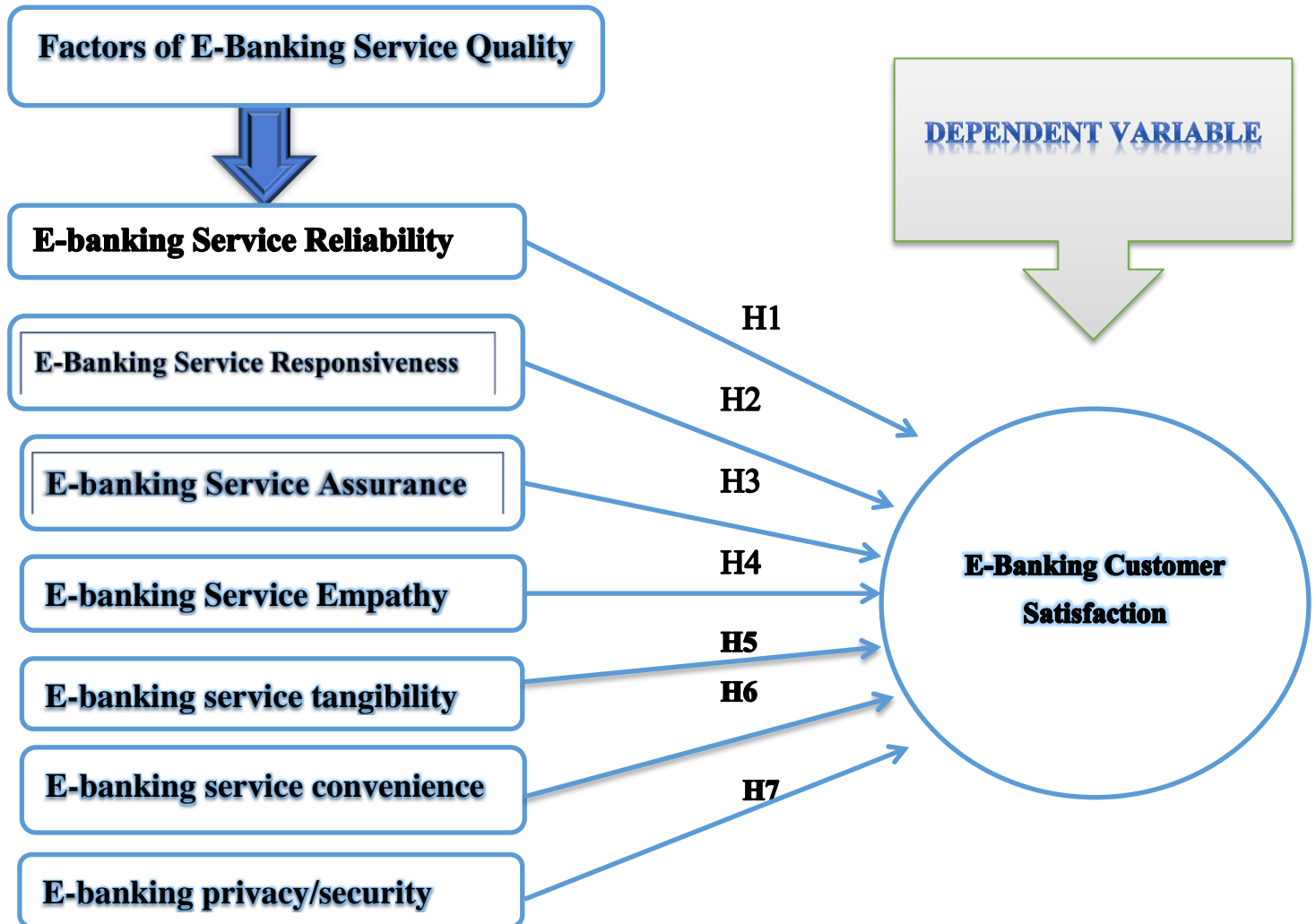


Figure 2:1 Conceptual Frameworks

Sources: adapted from Vincent, K (2018)

# **CHAPTER THREE**

## **RESEARCH METHODOLOGY**

Research methodology is a guide for the study and describes an approach and techniques for studying a research topic. This chapter outlines the methodologies used in this study. It describes the Description of the Study Area, the research approach, research design, population and sampling, instruments and data collection technique, reliability, and validity of instruments, methods of data analysis and interpretation, and research ethics.

### **3.1 Description of Study Area**

Debre Berhan is a city in central Ethiopia. Located in the Semien Shewa Zone of the Amhara Region, about 120 kilometers northeast of Addis Ababa on Ethiopian Highway 2, the town has an elevation of 2,840 meters, which makes it the highest town of this size in Africa. It was an early capital of Ethiopia and afterward, with Ankober and Angolalla, was one of the capitals of the kingdom of Shewa. Today, it is the administrative center of the Semien Shewa Zone of the Amhara Region. Debre Berhan was founded by Emperor Zara Yaqob, in response to a miraculous light that was seen in the sky at the time. Believing this was a sign from God showing his approval for the death by stoning of a group of heretics 38 days before, the emperor ordered a church built on the site and later constructed an extensive palace nearby, and a second church, dedicated to Saint Cyriacus. Zara Yaqob spent 12 of the last 14 years of his life in Debre Berhan. While his son Baeda Maryam did spend the first part of his reign in Debre Berhan, eventually Baeda Maryam returned to the established itinerant practice of living in a permanent encampment that was constantly on the move through the realm. The departure of the court led to a decline in the population and importance of this town. Pankhurst explains that the needs of the imperial court and army—who numbered in the thousands—for firewood and food were so burdensome that, "it could not remain in any one locality for more than four months, nor return to the same place in less than 10 years due to the resultant shortage of food" which prevented the growth of any capital city in this period.

### **3.2. Research Approach**

This study used a quantitative research approach. The researcher wants to collect numerical data from respondents through a questionnaire and conduct numerical data analysis to measure the effect of electronic banking service quality on customer satisfaction: the case of Dashen Bank in Debre Berhan Town. Quantitative research is essentially about collecting numerical data to

explain a particular phenomenon (Sukamolson, 2007). It is the numerical representation and manipulation of observations to describe and explain the phenomena that those observations reflect (S. Ahmad et al., 2019).

### **3.3. Research Design**

In line with the research purpose and the research questions, the study used both explanatory and descriptive types of research design for a reason explanatory research design helps the researcher to identify the nature of the effect of e-banking service quality (independent variables) on customer satisfaction (the dependent variables) at Dashen Bank S.C Debre Berhan branches. An explanatory research design aids the researcher in determining and explaining the characteristics of dependent as well as independent variables (Saunders, et al., 2009). Also, Descriptive research aims to provide an accurate description of the characteristics of a particular phenomenon or population. In this study, a descriptive research design helps you gain an in-depth understanding of the current state of e-banking service quality and customer satisfaction in Dashen Bank at Debre Berhan Town.

### **3.4. Population and Sampling**

#### **3.4.1 Population of the Study**

The target population for the study consists of E-banking users of Dashen Bank S.C., specifically those who are above 18 years old, both male and female. The study focused on customers from all six branches in Debre Berhan Town. The total population of E-banking users of Dashen Bank in Debre Birhan Branches. With a known population size was 3865.

#### **3.4.2. Sampling Technique**

To select participants for the study convenience sampling technique was used. Because it was not possible to get access to the list of E-banking customers to conduct a probability sampling procedure. As a procedure, each respondent was asked whether he/she was a customer and a banking user of the selected branch before the questionnaire distribution. Convenience sampling is a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher (Black et al, cited in Fikerselassie, 2017). Convenience sampling involves selecting haphazardly those cases that are easiest to obtain for your sample and the sample selection process is continued until your required sample size has been reached. It is a sampling technique where samples are obtained from convenient elements. This refers to the happening of the element at the right place at the right time, that is, where and



when the information for the study is being collected. The selection of the respondents is left to the discretion of the interviewer.

### 3.4.3 Sample Size

To conduct the study convenience sampling technique was used and the sample size was determined quantitatively by using Yemane Taro's (1967) sample size determination formula which is presented below. This formula assumes a confidence level of 95%.

$$n = \frac{N}{1 + N(e)^2}$$

Where N= Target population

e = tolerance at the desired level of confidence, at 95% level (0.05)

n = sample size

Accordingly the target population results, in the following number of samples.

$$\frac{3865}{1 + 3865 (0.05)^2} = 363 \text{ respondents}$$

## 3.5. Source of Data and Data Collection Method/ Instruments

### 3.5.1 Sources of Data

Source of data is necessary to conduct research. There are two types of sources of data that most Researcher's primary and secondary source of data. Primary sources of data are those in which the researcher needs to conduct a new survey to gather information at different levels with regard to the inquiry and to achieve the research objectives. In general primary data was needed to get valid information gathered by research only for the first time (coherence). Secondary sources of data are gathered indirectly, it is from published articles in business journals, books, websites, and related studies on Kaizen philosophy. In this study, the researcher collected primary data collected from the electronic banking service quality of the organization and other respondents.

### 3.5.2 Instruments and Data Collection Techniques

The data was collected mainly from primary sources through a survey questionnaire which enables the researcher to gain genuine information. Self-administered questionnaire method was used in this research work as a data collection instrument for the benefit of time, cost, and location for both the data collector and respondent.

### 3.6 Reliability and Validity of the Instrument

#### 3.6.1. Instrument Validity

There are various types of validity used in research studies but for this study, face validity was used. This is because the study has been proven through pre-testing, rewording, and reevaluation of the instrument used. Therefore in determining the face validity, an advisor was taken to ensure the validity of the instruments. Besides, the opinions of experts and academicians in the field are taken to ensure the validity of the instrument. The questionnaire will be finally revised based on the field feedback collected from experts in the field.

#### 3.6.2 Instrument Reliability

An internal consistency reliability test was conducted and the Cronbach's alpha coefficient for the instrument was calculated. Cronbach alpha values vary in values from 0, meaning no consistency, to 1, meaning complete consistency. Cronbach alpha values of 0.80 or higher are considered as high reliability, those between 0.70 and 0.80 are regarded as having good reliability, values between 0.60 and 0.70 are fair, and coefficients lower than 0.60 are questionable (Hair, Wolfinbarger, Ortinaw, & Bush, 2010). Before distributing the questionnaire to all respondents, 20 questionnaires were for a pilot test to make sure the questions were clear and reliable. Hence, a total of 20 questionnaires were distributed to all electronic banking customers working in Dashen banks in Debre Berhan Town. for the pilot survey which helped the researcher to ensure that the questionnaire was clear to respondents and reliable.

Table 3.1 Reliability of the Study Instrument

Dimensions	Cronbach's alpha	No of Items	Remark
Reliability	.808	8	Reliable
Responsiveness	.934	8	Reliable
Assurance	.862	8	Reliable
Empathy	.791	6	Reliable
Tangibility	.855	6	Reliable
Convenience	.891	7	Reliable
Privacy	.916	6	Reliable
Customer Satisfaction	.895	6	Reliable

*Source: own survey, 2024*

### 3.7 Method of Data Analysis

Data analysis aims to obtain results that test the study's research questions or hypothesis as accurately and easily as possible (Tharenou et al., 2007). It implies that the collected data should be changed and interpreted into meaningful information, figures, and statements.

Accordingly, the collected data was analyzed and presented through descriptive and inferential statistics by using Statistical Package for Social Sciences (SPSS) 26 Software.

Descriptive analysis was used to measure and present frequencies, percentages, means, and standard deviation of the collected data; Based on the results of correlation and multiple regression analysis, inferential statistics were used to make generalizations about the independent and dependent variables. The correlation coefficient was used to show the strength and the direction of the relationship between the independent and dependent variables, and multiple regression analysis was also used to investigate the effect of independent variables on a dependent variable.

### 3.8 Model Specification

For this study, the researcher used multiple regression analysis to investigate the effect of electronic banking service quality on customer satisfaction. The mathematical equation of multiple regression in this study is generally built around these independent variables electronic banking service quality on customer satisfaction.

Accordingly, the regression model presented as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + e$$

Where:  $Y$  = the dependent variable (customer satisfaction),

$\beta_0$  = the intercept term-constant which is equal to the mean if all slope coefficients are 0.

$\beta_i$  = ( $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$  and  $\beta_7$ ) are constant regression coefficients representing the condition of the independent variables to the dependent variables.

$X_i$  = ( $X_1, X_2, X_3, X_4, X_5, X_6$  and  $X_7$ ) are the independent variables which means;

$X_1$  = E-Banking Service Reliability

$X_2$  = E-Banking Service Responsiveness

$X_3$  = E-Banking Service Assurance

$X_4$  = E-Banking Service Empathy

$X_5$  = E-Banking Service Tangibility

X6 = E-Banking Service Convenience

X7= E-Banking Privacy/Security

e = Error Term.

### **3.9 Research Ethics**

One ethical consideration in research is research participants should not be subjected to harm in any way. The main aim of this study was for educational purposes so that the respondents should have confidence in their responses to questionnaires. This study does not subject to harm from respondents and, I would not use any names and addresses of respondents in the final report. The conclusion of the study draws based on actual data that by obtaining from respondents, not the researchers' own subjective or emotional values. The conclusion followed the principle of objectivity so that the researcher is free from any bias manner. It is the other ethical consideration in research.

# CHAPTER FOUR

## RESULTS AND DISCUSSIONS

The objective of this research paper was to examine the effect of electronic banking service quality on customer satisfaction: the case of Dashen Bank in Debre Birhan Town. This chapter aimed to present empirical results by explaining descriptive statistics, correlation, and multiple regression analysis techniques. It is faithful to describing the demographic characteristics of respondents, data analysis of descriptive results, correlation results, regression results, hypothesis testing, and discussion.

### 4.1 Response Rate

The researcher was able to get back three hundred five (305) out of the three hundred sixty-three (363) questionnaires dispatched to the customer of the sampled which gives an 84.022% response rate. Babbie, (2010) asserts that a return of 50% was adequate, although Bailey (2007) set the adequacy bar at 75%. This implies that based on these assertions, the response rate of 84.022% was over both assertions, therefore it was very good. The high response could be attributed to the self-administration of the questionnaire.

*Table 4.1 Response Rate of Respondents*

No.	Items	Total	Percent
1	Distributed Questionnaires	363	100
2	Collected Questionnaires	305	84.022
3	Remain uncollected	58	15.78

*Source: own survey, 2024*

### 4.2 Demographic Profile of Respondents

Data on respondents' demographics who participated in the study were collected and analyzed. Variables included were Gender, age, marital status, and educational level. The following subsections present the results:

Table 4.2: Frequency distribution of demographic variables

Frequency of demographic variables			
		Frequency	Percent
Gender	Male	216	70.8
	Female	89	29.2
	Total	305	100.0
Age	18 – 30 Yrs	137	44.9
	31 - 45 Yrs	124	40.7
	Above 45 Yrs	44	14.4
	Total	305	100.0
Marital Status	Single	113	37.0
	Married	190	62.3
	Divorced	1	.3
	widowed	1	.3
	Total	305	100.0
Highest qualification	Primary school	20	6.6
	high school complete	98	32.1
	Diploma	56	18.4
	bachelor degree	112	36.7
	Masters doctor/PhD	19	6.2
	Total	305	100.0

Source: own survey, 2024

Among the total of 305 respondents, 216 (70.8%) were males and the rest 89 (29.2%) were females. This implies that the major participants and users of Dashen Bank's e-banking services are males. So we can say that in Dashen bank, the major users of e-banking services are males.

In the case of age distribution, the majority of respondents belong to the age group of 18 – 30 years which accounts for 44.9%(137 of the total sample undertaken followed by 31 - 45 years 40.7% (124), and above 45 years 14.4% (44 ) from the total sample. and fall within the young-to-middle-aged range (18-45 years old, at 85.6%). This implies that the majority of Dashen Bank's e-banking customers are between the ages of 18 and 30, which means that the service users are dominated by youth age groups and this finding suggests that most of the customers were found in the working age bracket as they might be much involved in transaction daily banking business. Moreover, most of the respondents were married, accounting for 190 participants (62.3%), followed by single making up 37.0% (i.e. 113 respondents), then 1(0.3%) were divorced and 1 of them were widowed constituting 0.3% of the participants. Regarding the educational level, 112 (36.7)% of the respondents were first-degree holders, 98(32.1%) were high school complete holders, 56(18.4%) were diploma holders, 20 (6.6%) were primary or elementary school, 19(6.2%) were master's degree and above holders. This demographic information is used to describe the study's sample, not to directly investigate how these factors influence customer satisfaction with e-banking services. The research itself focuses on seven key dimensions of e-banking service quality (reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy/security) and how they impact customer satisfaction with Dashen Bank's offerings.

### **4.3 Descriptive Statistics of E-Banking Service Quality Dimension**

Descriptive Statistics is used to offer basic summaries of the sample and the measures (Mishra, et al., 2019). The descriptive statistics were discovered to examine valid (N) observations, mean, and standard deviation of the respondents in the investigation. This helps to know the respondents' understanding of the Electronic Banking Service Quality on Customer Satisfaction: the case of Dashen Bank In Debre Berhan Town.

According to Zaidaton & Bagheri (2009), a mean score below 3.39 is considered low, a mean score from 3.40 up to 3.79 is considered moderate, and a mean score above 3.8 is considered high. Based on this explanation, the research has explained the result of mean scores in the preceding sections. Since all the data has been changed continuously by computing each item

with the variables, it is preferable to use mean and standard deviation to measure respondents' agreement with their response and to find out their variation of responses from the five-point Likert scale.

The study is dedicated to interpreting the value of the mean and standard deviation in line with the general concepts. The mean score is the simple average of all values in a given distribution. A low score of mean indicates disagreement of responses and a high score of mean represents agreement with the responses.

### 4.3.1 E-banking Service Reliability

Objective one examined the effects of E-banking service reliability on customer satisfaction in Dashen Bank at Debre Birhan Town. Table 4.3 displays the results.

Table 4.3 the descriptive statistics of E-banking service reliability

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation
1) The reliability of Dashen Bank's E-banking services influences my overall satisfaction with the bank.	305	3.7574	1.15856
2) The online banking system of Dashen Bank processes transactions accurately and without errors.	305	3.8623	1.04852
3) Dashen Bank's online banking system provides timely and up-to-date information about my accounts.	305	3.7639	1.08671
4) To what extent do you agree that Dashen Bank's E-banking services meet your banking needs effectively?	305	3.8230	1.17322
5) Dashen Bank's E-banking services are available and accessible when needed.	305	3.8656	1.12608
6) The E-banking services provided by Dashen Bank are reliable.	305	3.8689	.98133
7) I trust that Dashen Bank's E-banking services will perform consistently.	305	3.9410	1.14268
8) E-banking completes a task Accurately	305	3.9803	1.12665
<b>Grand Mean and Standard Deviation</b>	<b>305</b>	<b>3.8578</b>	<b>1.105</b>

Source – Own survey 2024



According to this study, the above table 4.3 shows that the items are evaluated based on a 5-point Likert scale (5 being strongly agreed to 1 being strongly disagreed). The mean score and standard deviation of e-banking service reliability dimensions were from 3.7574 to 3.9803 and 0.98133 to 1.17322 respectively. From this predicting variable, the highest mean score is that E-banking completes a task Accurately (M=3.9803, SD= 1.12665) while the lowest mean score is that the reliability of Dashen Bank's E-banking services influences my overall satisfaction with the bank (M=3.7574, SD=01.15856). The grand mean and standard deviation were 3.8578 and 01.105 which is similar to each item. This implies that according to customer responses, the effects of e-banking service reliability on customer satisfaction in Dashen Bank in Debre Berhan Town were at a high level. This is as per the standard of (Zaidaton & Bagheri, 2009), which is mentioned in detail in the descriptive statistics section in Table 4.3 above.

The finding that e-banking service reliability has a high-level effect on customer satisfaction is consistent with recent research. A study by Ali and Raza (2017) examined the impact of e-banking service quality dimensions on customer satisfaction in the Pakistani banking sector. They found that e-banking service reliability had the strongest positive effect on customer satisfaction compared to other dimensions. The authors argued that the reliability of the e-banking system, in terms of performing services accurately and dependably, is a crucial factor in determining customer satisfaction.

Similarly, a study by Mohamad et al. (2021) on e-banking service quality in Malaysia revealed that reliability was the most significant predictor of customer satisfaction. Customers placed the highest importance on the bank's ability to provide e-banking services accurately and consistently, which directly influenced their overall satisfaction.

### 4.3.2 E-banking Service Responsiveness

The second research objectives examine the effect of E-banking service responsiveness on customer satisfaction in Dashen Bank at Debre Berhan Town. Table 4.4 provides the results.

Table 4.4 The descriptive statistics of E-banking service responsiveness

Descriptive Statistics			
	N	Mean	Std. Deviation
1) The responsiveness of the E-banking services provided by Dashen Bank meets my expectations.	305	4.1377	.92519
2) The speed and efficiency of Dashen Bank's E-banking	305	3.9836	1.08658

services contribute to my overall satisfaction with the bank.			
3) The availability of customer support for E-banking services at Dashen Bank is satisfactory.	305	4.0820	1.00484
4) I feel that my concerns and issues regarding E-banking services are addressed promptly by Dashen Bank.	305	4.0262	.99965
5) Dashen Bank's customer support is readily available when I need assistance with e-banking services.	305	4.1148	1.05908
6) Dashen Bank's customer support representatives are knowledgeable and helpful in resolving issues related to e-banking services.	305	4.1836	.91356
7) Dashen Bank responds to customer queries or complaints regarding e-banking services in a timely manner.	305	3.9279	1.22261
8) Dashen Bank's responsiveness to customer needs and concerns regarding e-banking services has a positive impact on my overall satisfaction.	305	4.0262	1.04471
<b>Grand mean and Standard Deviation</b>	<b>305</b>	<b>4.060</b>	<b>1.032</b>

Source – Own survey 2024

As shown in above table 4.4, the mean score and standard deviation of e-banking service responsiveness range from 3.9279 to 4.1836 and 0.91356 to 1.22261 respectively. The highest mean score is that Dashen Bank's customer support representatives are knowledgeable and helpful in resolving issues related to e-banking services (M=4.1836, SD= 0.91356) while the lowest mean score is that Dashen Bank responds to customer queries or complaints regarding e-banking services in a timely manner with (M=3.9279, SD=1.22261). The grand mean and Standard deviation were 4.060 and 1.032 which is similar to individual items. This implies that according to customer responses, the effect of E-banking service responsiveness on customer satisfaction in Dashen Bank at Debre Berhan Town was at a high level. This is as per the standard (Zaidaton & Bagheri, 2009), which is mentioned in detail in the descriptive statistics section in Table 4.4 above.

The finding that e-banking service responsiveness has a high-level effect on customer satisfaction is consistent with research. A study by Santouridis & Kyritsi (2021) on e-banking service quality and customer satisfaction in Greece found that responsiveness was a key

determinant of customer satisfaction. The researchers highlighted that the willingness of the e-banking service provider to assist customers and provide prompt service played a significant role in driving customer satisfaction.

Similarly, a study by Al-Hawari & Mouakket (2020) on the impact of e-banking service quality on customer satisfaction in the United Arab Emirates revealed that responsiveness was one of the most important factors. Customers valued the bank's ability to respond quickly to their inquiries and provide timely assistance, which directly contributed to their overall satisfaction with the e-banking services.

### 4.3.3 E-banking Service Assurance

Objective three examines the effect of E-banking service assurance on customer satisfaction in Dashen Bank at Debre Berhan Town. Table 4.5 provides the results.

Table 4.5 the descriptive statistics of E-banking service assurance

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation
<b>1)</b> E-banking should ensure that customers ‘s personal information remains safe and private	305	4.1213	.91139
<b>2)</b> I feel secure when using E-banking services at Dashen Bank.	305	4.0557	1.00664
<b>3)</b> The E-banking platform at Dashen Bank is user-friendly.	305	3.9672	1.06942
<b>4)</b> I trust the security measures implemented by Dashen Bank's E-banking	305	3.9082	1.27660
<b>5)</b> The customer service provided for E-banking issues at Dashen Bank is satisfactory.	305	4.0885	1.09816
<b>6)</b> Dashen Bank's e-banking service provides clear and transparent information about the terms and conditions, privacy policy, and security measures in place.	305	4.0721	1.07363
<b>7)</b> Dashen Bank ensures the confidentiality and privacy of customer transactions and information through its e-banking service.	305	4.0787	.93912

<b>8)</b> Dashen Bank ensures the confidentiality and privacy of customer transactions and information through its e-banking service.	305	3.8525	1.10078
<b>Grand Mean and Standard Deviation</b>	<b>305</b>	<b>4.018</b>	<b>1.0594</b>

Source – Own survey 2024

The mean score and standard deviation of E-banking Service Assurance as shown in Table 4.5 above range from 3.8525 to 4.1213 and 0.91139 to 1.27660 respectively. The highest mean score E-banking should ensure that customers' personal information remains safe and private (M=4.1213, SD = 0.91139) while the lowest mean score is that Dashen Bank ensures the confidentiality and privacy of customer transactions and information through its e-banking service (M=3.8525, SD=1.10078). The grand mean and Standard deviation are 4.018 and 1.0594. This implies that according to customer responses, the effect of E-banking service assurance on customer satisfaction in Dashen Bank at Debre Birhan Town was at a high level. This is as per the standard (Zaidaton & Bagheri, 2009), which is mentioned in detail in the descriptive statistics section in Table 4.5 above.

The finding that e-banking service assurance has a high-level effect on customer satisfaction is consistent with research. A study by Munusamy et al. (2020) on the impact of e-banking service quality on customer satisfaction in Malaysia found that assurance was one of the most significant predictors. The authors argued that when customers perceive the e-banking service provider to be knowledgeable, trustworthy, and able to inspire confidence, it directly contributes to their satisfaction with the overall e-banking experience.

Similarly, a study by Karim & Chowdhury (2021) on e-banking service quality and customer loyalty in Bangladesh revealed that assurance was a key determinant of customer satisfaction. Customers valued the bank's ability to instill a sense of trust and confidence in the e-banking services, which in turn influenced their overall satisfaction and loyalty.

#### **4.3.4 E-banking Service Empathy**

Objective four examines the effect of E-banking service empathy on customer satisfaction in Dashen Bank at Debre Birhan Town. Table 4.6 displays the outcomes.

*Table 4.6 the descriptive statistics of E-banking service empathy*

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation

1) Do you believe that Dashen Bank's E-banking service representatives have your best interests in mind when assisting?	305	4.1443	.94530
2) The level of empathy displayed by E-banking services in Dashen Bank positively impacts my overall satisfaction.	305	3.9574	1.02669
3) The customer service representatives at Dashen Bank demonstrate a high level of empathy in handling my E-banking queries.	305	4.0295	1.03035
4) The empathy shown by E-banking services at Dashen Bank makes me feel valued as a customer.	305	3.8164	1.10875
5) The empathetic response from E-banking services at Dashen Bank increases my trust in the bank's services.	305	3.7934	1.13553
6) I am more likely to recommend Dashen Bank to others based on the empathy shown by E-banking services.	305	3.7607	1.09353
<b>Grand mean and Standard Deviation</b>	<b>305</b>	<b>3.916</b>	<b>1.0566</b>

Source – Own survey 2024

The mean score and standard deviation of e-banking service empathy as shown in Table 4.6 above range from 3.7607 to 4.1443 and 0.94530 to 1.13553 respectively. The highest mean score is that Do you believe that Dashen Bank's E-banking service representatives have your best interests in mind when assisting ( $M = 4.1443$ ,  $SD = 0.94530$ ) while the lowest mean score is that I am more likely to recommend Dashen Bank to others based on the empathy shown by E-banking services ( $M = 3.7607$ ,  $SD = 1.09353$ ). The grand mean and standard deviation are 3.916 and 1.0566. This implies that according to customer responses, the effect of E-banking service empathy on customer satisfaction in Dashen Bank at Debre Berhan Town was at a high level. This is as per the standard (Zaidaton & Bagheri, 2009), which is mentioned in detail in the descriptive statistics section in Table 4.6 above.

The finding that e-banking service empathy has a high-level effect on customer satisfaction is consistent with research. A study by Afshan & Sharif (2019). on the impact of e-banking service quality on customer satisfaction in Pakistan found that empathy was a significant predictor. The researchers emphasized that when customers perceive the e-banking service provider to be caring, understanding, and responsive to their individual needs, it positively influences their overall satisfaction with the e-banking services.

Similarly, a study by Farooq et al. (2021) . on e-banking service quality and customer loyalty in the United Arab Emirates revealed that empathy was one of the key drivers of customer satisfaction. The authors argued that the ability of the e-banking service provider to show genuine concern and provide personalized attention to customers is crucial in enhancing their satisfaction and loyalty.

### 4.3.5 E-banking Service Tangibility

Objective five the effect of E-banking service empathy on customer satisfaction in Dashen Bank at Debre Berhan Town. Table 4.7 provides the results.

Table 4.7 The Descriptive Statistics of E-banking Service Tangibility

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation
1. The tangibility of E-banking services influences my decision to continue banking with Dashen Bank.	305	3.8852	.93363
2. The physical appearance of the E-banking facilities in Dashen Bank is modern and appealing.	305	3.8656	1.01549
3. The E-banking services in Dashen Bank provide clear and understandable information to customers.	305	3.9314	.85372
4. The online platform of Dashen Bank's E-banking services is user-friendly and easy to navigate.	305	3.9049	1.04542
5. The tangible aspects of E-banking services in Dashen Bank (ATMs, kiosks, etc.) enhance my overall banking experience.	305	3.9869	.88843
6. The availability of physical branches enhances my confidence in Dashen Bank's E-banking services.	305	4.0459	1.08724

<b>Grand mean and Standard Deviation</b>	<b>305</b>	<b>3.936</b>	<b>0.970</b>
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Source – Own survey 2024

As shown in above table 4.7, the mean score and standard deviation of the e-banking service tangibility range from 3.8656 to 4.0459 and 0.85372 to 1.08724 respectively. The highest mean score is that the availability of physical branches enhances my confidence in Dashen Bank's e-banking services (M=4.0459, SD= 1.08724) while the lowest mean score is that the physical appearance of the E-banking facilities in Dashen Bank is modern and appealing (M=3.8656, SD= 1.01549). The grand mean and Standard deviation were 3.936 and 0.970. This implies that according to customer responses, the effect of E-banking service tangibility on customer satisfaction in Dashen Bank at Debre Berhan Town was at a high level. This is as per the standard (Zaidaton & Bagheri, 2009), which is mentioned in detail in the descriptive statistics section in Table 4.7 above.

The finding that e-banking service tangibility has a high-level effect on customer satisfaction is consistent with recent research. A study by Hanafizadeh et al. (2021) on the factors influencing customer satisfaction with e-banking services in Iran found that tangibility was a significant predictor. The researchers argued that the visual appeal, user-friendliness, and overall aesthetics of the e-banking platform play a crucial role in shaping customer perceptions and satisfaction.

Similarly, a study by Kaura et al. (2020) on the impact of e-banking service quality on customer loyalty in India revealed that tangibility was one of the key determinants of customer satisfaction. The authors emphasized that the physical evidence and the appearance of the e-banking interface contribute to customers' overall evaluation and satisfaction with the e-banking services.

### 4.3.6 E-banking Service Convenience

Objective six examines the effect of E-banking service convenience on customer satisfaction in Dashen Bank at Debre Berhan Town. Table 4.8 provides the results.

Table 4.8 the descriptive statistics of E-banking service convenience

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation
1) The website or mobile app of Dashen Bank is user-friendly and easy to navigate.	305	3.9934	1.04502

2) Using E-banking services at Dashen Bank is convenient.	305	3.8885	1.08247
3) I find it easy to perform transactions using E-banking services at Dashen Bank.	305	3.6197	1.23794
4) I am satisfied with the overall convenience of using E-banking services at Dashen Bank.	305	3.7541	1.23352
5) The availability of E-banking services at Dashen Bank has improved my banking experience.	305	3.7115	1.16502
6) The convenience of Dashen Bank's e-banking services contributes to my overall satisfaction as a customer.	305	3.9803	1.05426
7) Dashen Bank's e-banking platform allows me to perform a wide range of banking transactions and activities conveniently from any location with Internet access.	305	3.4656	1.14978
<b>Grand mean and Standard Deviation</b>	<b>305</b>	<b>3.773</b>	<b>1.1382</b>

Source – Own survey 2024

As shown in above table 4.8, the mean score and standard deviation of the e-banking service convenience range from 3.4656 to 3.9934 and 1.04502 to 1.23794 respectively. The highest mean score is that the website or mobile app of Dashen Bank is user-friendly and easy to navigate (M= 3.9934, SD= 1.04502) while the lowest mean score is that Dashen Bank's e-banking platform allows me to perform a wide range of banking transactions and activities conveniently from any location with Internet access (M=3.4656, SD= 1.14978). The grand mean and Standard deviation were 3.773 and 1.1382. This implies that according to customer responses, the effect of E-banking service convenience on customer satisfaction in Dashen Bank at Debre Birhan Town was at a moderate level. This is as per the standard (Zaidaton & Bagheri, 2009), which is mentioned in detail in the descriptive statistics section in Table 4.8 above.

The finding that e-banking service convenience has a moderate-level effect on customer satisfaction is consistent with recent research. A study by Kazemi et al. (2021) on the factors influencing customer satisfaction with e-banking services in Iran found that convenience was a significant but less impactful factor compared to other dimensions of service quality. The researchers suggested that while convenience is important, other aspects such as reliability,



responsiveness, and security may be more crucial in driving customer satisfaction with e-banking services.

Similarly, a study by Duque-Oliva et al. (2022) on the determinants of customer satisfaction with e-banking in Colombia revealed that convenience had a moderate effect on satisfaction. The authors argued that while convenience is a desirable feature, customers may prioritize other service quality attributes such as efficiency, privacy, and problem-solving in their overall evaluation of e-banking services.

### 4.3.7 E-banking Service privacy/security

Objective seven examines the effect of E-banking privacy/security on customer satisfaction in Dashen Bank at Debre Berhan Town. Table 4.9 provides the results.

Table 4.9 the descriptive statistics of E-banking service privacy/security

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation
1) To what extent do you agree that Dashen Bank's E-banking platform adequately protects your personal information from unauthorized access?	305	4.1377	.89629
2) I trust that Dashen Bank's e-banking platform keeps my personal and financial information secure.	305	4.0787	.91067
3) Dashen Bank's e-banking platform provides adequate safeguards to protect against unauthorized access or fraudulent activities.	305	4.1639	.96621
4) Dashen Bank communicates clearly about its privacy and security measures for e-banking services, including data protection and encryption protocols.	305	3.9607	.95202
5) The security features offered by Dashen Bank's E-banking platform meet my expectations.	305	3.8197	1.08076
6) I am satisfied with the level of privacy and security provided by Dashen Bank's e-banking platform for my personal and financial information.	305	3.8820	.94894
<b>Grand mean and Standard Deviation</b>	<b>305</b>	<b>4.007</b>	<b>0.959</b>

Source – Own survey 2024

As shown in above table 4.9, the mean score and standard deviation of the e-banking service privacy/security range from 3.8197 to 4.1639 and 0.89629 to 1.08076 respectively. The highest mean score is that Dashen Bank's e-banking platform provides adequate safeguards to protect against unauthorized access or fraudulent activities (M= 4.1639, SD= 0.96621) while the lowest mean score is that the security features offered by Dashen Bank's E-banking platform meet my expectations (M= 3.8197, SD= 1.08076). The grand mean and Standard deviation were 4.007 and 0.959. This implies that according to customer responses, the effect of E-banking service privacy/security on customer satisfaction in Dashen Bank at Debre Berhan Town was at a high level. This is as per the standard (Zaidaton & Bagheri, 2009), which is mentioned in detail in the descriptive statistics section in Table 4.8 above.

The finding that e-banking service privacy/security has a high-level effect on customer satisfaction is consistent with the research. A study by Alalwan et al. (2020) on the factors influencing customer adoption of e-banking services in Jordan found that security and privacy were the most significant predictors of customer satisfaction. The researchers emphasized that the perceived safety and protection of customers' personal and financial information are crucial in building trust and satisfaction with e-banking services (Alalwan et al., 2020).

Similarly, a study by Bashir & Madhavaiah (2022) on the determinants of e-banking service quality and customer satisfaction in India revealed that privacy and security were the most important factors. The authors argued that when customers perceive the e-banking platform as secure and their data as protected, it positively influences their overall satisfaction with the e-banking services.

#### 4.3.8 E-Banking Customer Satisfaction

This research tried to examine E-Banking Customer Satisfaction in Dashen Bank at Debre Berhan Town. Table 4.10 provides the results.

*Table 4.10 The descriptive statistics of E-Banking Customer Satisfaction*

Descriptive Statistics			
	N	Mean	Std. Deviation
1. The electronic banking services provided by Dashen Bank in Debre Berhan Town are convenient and user-friendly.	305	4.1148	.91584

2. The quality of Dashen Bank's electronic banking services contributes to my overall satisfaction as a customer.	305	4.0066	.95626
3. I find Dashen Bank's electronic banking platform user-friendly and easy to navigate.	305	4.0131	1.02268
4. The customer support provided for electronic banking services in Dashen Bank is responsive and helpful.	305	4.0525	.92687
5. I trust the security measures implemented by Dashen Bank for its electronic banking services.	305	3.8754	1.02801
6. Overall, I am satisfied with the customer service experience provided by Dashen Bank's electronic banking services.	305	3.9148	.98639
<b>Grand Mean and Standard Deviation</b>	<b>305</b>	<b>3.9962</b>	<b>0.9726</b>

Source – Own survey 2024

The responses of the respondents for each specific statement are balanced using the mean score and standard deviation. The degree of agreement and disagreement of the respondents for the provided statement was analyzed by summarizing the five-point Likert scale responses.

Table 4.10 above shows that the grand mean and standard deviation value revealed that (M= 3.9962, and SD= 0.9726) respectively. The mean and standard deviation scores of each 6-item response range from a mean of 4.1148 to 3.8754 and a standard deviation of 0.91584 to 1.02801. According to Zaidaton & Bagheri (2009), the mean scores of Electronic Banking service quality are considered as high and the standard deviation is also shown as low variation of responses.

The results of descriptive statistics indicate that the mean score is the simple average of all values in a given distribution. A low score of mean indicates disagreement of the responses and a high score of mean represents agreement with the responses.

### 4.3.9 Summary of Results of Descriptive Statistics

Table 4.11 Summary of Results of Descriptive Statistics

Descriptive Statistics			
	N	Mean	Std. Deviation
Electronic Banking service Reliability	305	3.8578	1.105
Electronic Banking Service Responsiveness	305	4.060	1.032
Electronic Banking Service Assurance	305	4.018	1.0594
Electronic Banking Service Empathy	305	3.916	1.0566
Electronic Banking Service Tangibility	305	3.936	0.970
Electronic Banking service Convenience	305	3.773	1.1382
Electronic Banking Service Privacy	305	4.007	0.959
Electronic Banking Service Customer Satisfaction	305	3.9962	0.9726

Source – Own survey 2024

Table 4.11 summary of statistics of dependent and independent variables in the study shows that the overall mean for the perception of e-banking service reliability is 3.8578 with a standard deviation of 1.105. This suggests a high level of perceived reliability in Dashen Bank's e-banking services. Customers generally have faith in the system's ability to function correctly and consistently. Similarly, the overall mean for the perception of electronic banking service responsiveness is 4.060 with a standard deviation of 1.032. This suggests a high level of perceived responsiveness. Customers feel the bank responds to their inquiries and requests promptly through e-banking channels.

The overall mean for the perception of electronic banking service assurance is 4.018 with a standard deviation of 1.0594. This reflects a high level of perceived assurance. Customers are confident in the bank's ability to handle their e-banking transactions securely and address any problems that may arise. Moreover, the overall mean for the perception of electronic banking service empathy is 3.916 with a standard deviation of 1.0566. This indicates a high level of

perceived empathy. Customers feel the bank understands their needs and provides personalized support through its e-banking platform. Likewise, the overall mean for the perception of electronic banking service tangibility is 3.936 with a standard deviation of 0.970. This suggests a high level of perceived tangibility. Customers find the e-banking interface and design to be appealing and user-friendly. Similarly, the overall mean for the perception of electronic banking service convenience is 3.773 with a standard deviation of 1.1382. This dimension has the lowest mean score among service quality aspects, falling within the moderate range. This suggests that customers perceive the most difficulty or inconvenience in using the e-banking service. Convenience is an area requiring significant improvement. Furthermore, the overall mean for the perception of electronic banking service privacy/security is 4.007 with a standard deviation of 0.959. This reflects a high level of perceived privacy and security. Customers feel their information is protected and transactions are secure when using the bank's e-banking services.

#### 4.4 Correlation Analysis

The possible values of correlation coefficients range from  $-1$  (a perfect negative relationship) to  $+1$  (a perfect positive relationship) or a direct relationship between two variables. A value of 0 indicates no linear relationship between two variables (Kothari, 2004). In this section, the independent variables were analyzed one by one using correlation analysis in order to identify their individual relation with the dependent variable. For this purpose, independent variables such as reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy, were tested for their degree of relationship with customers' satisfaction before conducting the regression analysis. Table 4.12 shows the correlation between customers' satisfaction and Electronic Banking service quality (reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy). Interpretation of correlation coefficient ( $r$ ) size is as follows: if the correlation coefficient falls between 0.1 to 0.20, it is a slight correlation or small; if it is between 0.20 to 0.40 is a low correlation or weak relationship, if it lies between 0.40 to 0.70 moderate; if it falls along 0.70 to 0.90 high correlation or substantial relationship and if it is within 0.90 to 1.00 it is very high correlation or very strong correlation between variables (Burns, 2018).

*Table 4.12 Correlation of Independent Variables with Dependent Variables*

		Correlations						
		Reli	Res	Ass	Emp	Tang	Conv	Privacy
Reliability	Pearson Correlation	1						

(Reli)	Sig. (2-tailed)							
	N	305						
Responsiveness (Res)	Pearson Correlation	.575**	1					
	Sig. (2-tailed)	.000						
	N	305	305					
Assurance (Ass)	Pearson Correlation	.501**	.719**	1				
	Sig. (2-tailed)	.000	.000					
	N	305	305	305				
Empathy (Emp)	Pearson Correlation	.491**	.669**	.556**	1			
	Sig. (2-tailed)	.000	.000	.000				
	N	305	305	305	305			
Tangibility (Tang)	Pearson Correlation	.509**	.702**	.610**	.559**	1		
	Sig. (2-tailed)	.000	.000	.000	.000			
	N	305	305	305	305	305		
Convenience (Conv)	Pearson Correlation	.381**	.538**	.497**	.484**	.482**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000		
	N	305	305	305	305	305	305	
Privacy	Pearson Correlation	.464**	.589**	.681**	.534**	.670**	.516**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	305	305	305	305	305	305	305
Customer Satisfaction	<b>Pearson</b>	<b>.543**</b>	<b>.683**</b>	<b>.663**</b>	<b>.606**</b>	<b>.641**</b>	<b>.563**</b>	<b>.629**</b>
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000
	N	305	305	305	305	305	305	305

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

Source – Own survey 2024

The correlation analysis shows that reliability has a moderate, positive, and statistically significant relationship with customer satisfaction ( $r = 0.543^{**}$ ,  $p < 0.01$ ). This indicated that the moderate positive correlation indicates that customers who perceive the e-banking service as reliable (consistent and error-free) tend to also have higher customer satisfaction. There's a connection, but improvements in reliability could lead to stronger satisfaction gains.

In the same manner, responsiveness has a moderate, positive, and statistically significant relationship with customers' satisfaction ( $r = 0.683^{**}$ ,  $p < 0.01$ ). Customers who perceive their inquiries and issues are addressed quickly and efficiently are more likely to be satisfied with the

e-banking service. Similarly, assurance has a moderate positive and statistically significant relationship with Customer satisfaction ( $r = 0.663^{**}$ ,  $p < 0.01$ ). Customers who feel confident in the bank's security measures and staff expertise tend to have higher satisfaction with the e-banking service. Equally, empathy has a moderate positive and statistically significant relationship with customer satisfaction ( $r = 0.606^{**}$ ,  $p < 0.01$ ). A perception that the bank understands their needs and provides personalized support through e-banking contributes to customer satisfaction. Also, tangibility has a positive and statistically significant association with Customer satisfaction ( $r = 0.641^{**}$ ,  $p < 0.01$ ). Similarly, convenience has a positive and statistically significant association with Customer satisfaction ( $r = 0.563^{**}$ ,  $p < 0.01$ ). Easy access and efficient transaction processing through e-banking contribute to a more satisfied customer base. Finally, privacy or security has a positive and statistically significant association with customer satisfaction ( $r = 0.629^{**}$ ,  $p < 0.01$ ). Customers who perceive strong privacy and security measures in e-banking are more likely to be satisfied with the service.

Generally: The correlation analysis reveals that all dimensions of electronic banking service quality (reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy/security) have positive and statistically significant relationships with customer satisfaction in Dashen Bank. This suggests that focusing on improving each of these aspects can contribute to enhancing overall customer satisfaction with the bank's e-banking services. A study by Kasiri et al. (2017) on the impact of service quality and customer satisfaction in the banking industry in Malaysia found that reliability, responsiveness, assurance, empathy, and tangibility were all positively correlated with customer satisfaction. The researchers emphasized that banks need to focus on enhancing these service quality dimensions to improve overall customer satisfaction (Kasiri et al., 2017). Similarly, a study by Mohamad et al. (2021) on the determinants of e-banking service quality and customer loyalty in Indonesia revealed that convenience and privacy/security were significant predictors of customer satisfaction. The authors argued that customers value the ease of use and data protection provided by e-banking services (Mohamad et al., 2021).

#### **4.5 Testing Assumptions of Multiple Linear Regression**

To accept the regression results, the most common assumptions such as multicollinearity problem, linearity, and normality assumptions should be considered and fulfilled. For this reason,

the following tests were conducted to check whether the assumptions of multiple linear regression were violated or not.

#### 4.5.1 Test of Multicollinearity

Among the assumptions of multiple linear regression is that the independent variables should not have very high association or correlation. When the independent variables are highly correlated, it is regarded as a problem in the model and this problem is called multi-collinearity. Gujarati and Porter (2010) stated that the existence of multi-collinearity can be diagnosed by analyzing the values of tolerance and Variance Inflation Factors (VIF). A tolerance of  $< 0.10$  and/or a VIF  $> 10$  indicates a multicollinearity problem.

As indicated in Table 4.13, the result from the regression analysis of this current study showed that the value of VIF and tolerance is 1.578 to 3.319 and 0.301 to 0.634 respectively indicating that there is no multi-collinearity problem in the regression model used for this study. Because, Variance Inflation Factors (VIF) and tolerance all fall within the acceptance range (VIF = 1 - 10, or tolerance = 0.1 – 1.0).

Table 4.13 Multicollinearity Test

Coefficients <sup>a</sup>			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Reliability	.623	1.605
	Responsiveness	.301	3.319
	Assurance	.378	2.648
	Empathy	.502	1.993
	Tangibility	.400	2.502
	Convenience	.634	1.578
	Privacy	.409	2.446

a. Dependent Variable: Customer Satisfaction

Source – Own survey 2024

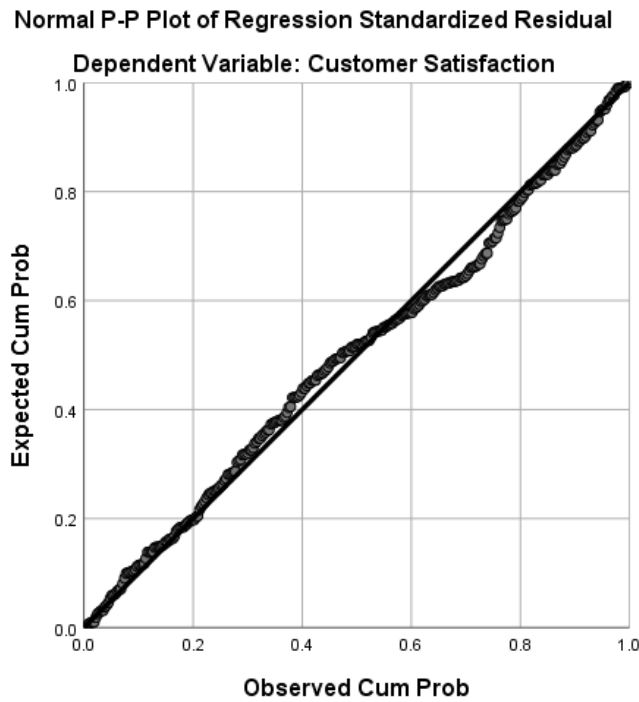
#### 4.5.2 Linearity Test of Independent Variables

Linearity defines the dependent variable as a linear function of the predictor (independent) variables (Junhui et.al.2021). According to Laura Kanyifa Aduma (2018), the model should



be linear in the parameters regardless of whether the explanatory and the dependent variables are linear or not. This is because of the difficulty of estimating the parameters if they are non-linear and do not know their value given with data of both dependent and independent variables. Plot the standardized residuals against the standardized predicted values to check for linearity and equality of variances. From the diagram below the data is distributed without any increment or decrement. This indicates the dependent and independent variables are linear.

Figure 4.1 Linearity Test of Customer Satisfaction



Source – Own survey 2024

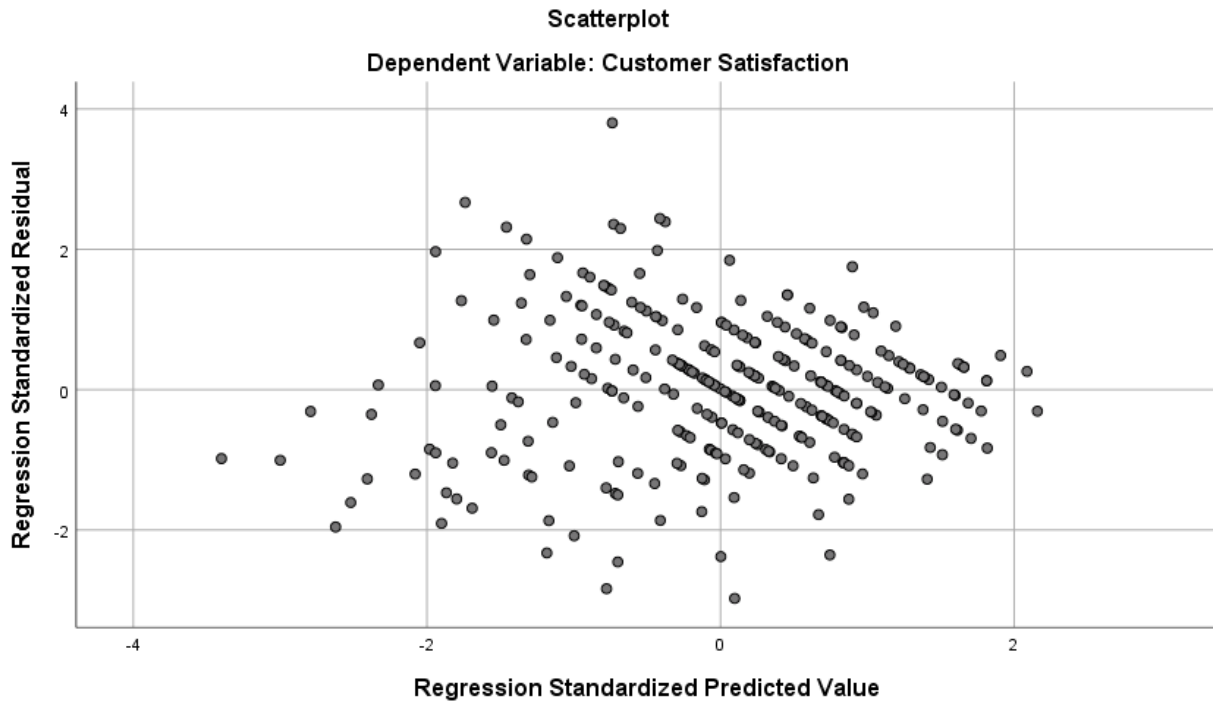
### 4.5.3 Test of Homoscedastic of Independent Variables

According to Tabachnick & Fidell, (2013), homoscedastic assumption tells that the variance remains constant for all observations. For each value of the predictors, the variance of the error term should be constant. But there are many situations in which this assumption may not hold. So, plot the standardized residuals against the standardized predicted values to check for linearity and equality of variances.

For example, the variance of the error term may increase or decrease. Based on the graph below it can be concluded that there is no Heteroscedasticity problem the point distributes randomly

and no increment or decrement behaviors. For basic analysis, we first plot \*ZRESID (Y-axis) against \*ZPRED (X-axis) on SPSS because this plot is useful to determine whether the assumptions of random errors and homoscedasticity have been met (Field, 2009).

Figure 4.2 Test of Homoscedastic

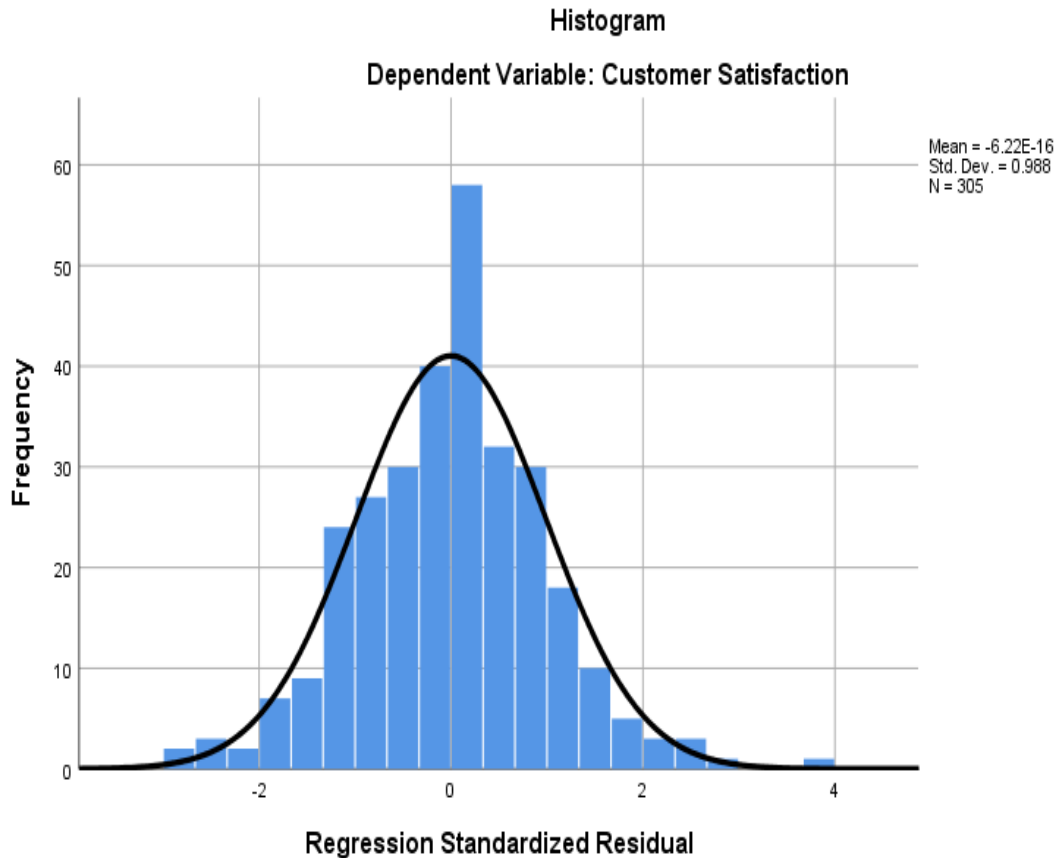


Source – Own survey 2024

#### 4.5.4 Normality Assumption

The variables in the multiple linear regression models must follow the normal distribution. To check the normality of variables which is incorporated in the multiple linear regression model results were shown in the following diagram.

Figure 4.3 Tests of Normality



**Source – Own survey 2024**

From the diagram above the points are not more far from the line and the curve of the histogram. This indicates the normality of the data by using the histogram.

#### **4.6. Multiple Linear Regressions Model Specification**

To determine the effect of each independent variable on the dependent variable, multiple regression analysis is applied. The main problem with any linear regression approach is that it ignores the possibility that a collection of variables, each of which is weakly associated with the outcome, can become an important predictor of the outcome when taken together (Fagerland & Hosmer, 2012).

#### 4.6.1. Regression Model Analysis

Table 4.14 Table of model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.785 <sup>a</sup>	.617	.608	.34891
a. Predictors: (Constant), Privacy, Reliability, Convenience, Empathy, Tangibility, Assurance, Responsiveness				

*Source: own survey, 2024*

According to the model summary of multiple linear regression analysis, the R-value of the model as per Table 4.14 was 0.785 which shows the highest degree of relationship between independent and dependent variables. The R<sup>2</sup> value of the regression model was 0.617, indicating that 61.7% of the variance in customers' satisfaction was accounted for by reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy or security. The remaining 38.3% of the variance in customer satisfaction was not accounted for by reliability, responsiveness, assurance, empathy, tangibility, convenience, privacy, or security

#### 4.6.2. Analysis of variance (ANOVA)

Table 4.15 Results of ANOVA Output

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.145	7	8.306	68.231	.000 <sup>b</sup>
	Residual	36.157	297	.122		
	Total	94.301	304			
a. Dependent Variable: Customer Satisfaction						
b. Predictors: (Constant), Privacy, Reliability, Convenience, Empathy, Tangibility, Assurance, Responsiveness						

Source – Own survey 2024

This model examines whether the complete multiple regressions model is a good fit for the data (Field, 2009). Table 4.15 represents the report of ANOVA on the general significance of the model. The result of the model gives the F value of 68.231, which is significant with p =000

which is less than 0.05. This result confirms that the independent variables under the study can significantly affect the dependent variable of customer satisfaction. Therefore, the combined effects of independent variables (privacy, reliability, convenience, empathy, tangibility, assurance, responsiveness) significantly predict the dependent variable (Customer Satisfaction) under the study.

#### 4.6.3. Coefficient of variables

Table 4.16 coefficients

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.365	.177		2.066	.040
	Reliability	.108	.042	<b>.117</b>	2.570	.011
	Responsiveness	.121	.056	<b>.141</b>	2.157	.032
	Assurance	.159	.051	<b>.184</b>	3.140	.002
	Empathy	.124	.047	<b>.134</b>	2.651	.008
	Tangibility	.128	.052	<b>.139</b>	2.448	.015
	Convenience	.156	.045	<b>.157</b>	3.479	.001
	Privacy	.125	.058	<b>.120</b>	2.143	.033
a. Dependent Variable: Customer Satisfaction						

Source – Own survey 2024

It is clear that if the Beta value of the predictor variables is positive, it can be concluded that there is a positive relationship between the predictor variables and the dependent variable; while the coefficient is negative, it represents a negative relationship (Field, 2009).

Table 4.16 shows the standardized beta coefficients, a unit change in the independent variables (service quality dimensions), would produce an effect on the dependent variable (customer satisfaction). From the above table,

📖 **Reliability:** A one-unit increase in perceived reliability of e-banking services is associated with a 0.117 unit increase in customer satisfaction, holding other factors constant. This effect is statistically significant (p-value = 0.011), indicating that reliability has a positive effect on customer satisfaction.

📖 Responsiveness: A one-unit increase in perceived responsiveness of e-banking services is associated with a 0.141 unit increase in customer satisfaction, holding other factors constant. This effect is statistically significant (p-value = 0.032), suggesting that responsiveness positively impacts customer satisfaction.

📖 Assurance: A one-unit increase in perceived assurance of e-banking services is associated with the strongest increase (0.184 unit) in customer satisfaction, controlling for other factors. This effect is highly statistically significant (p-value = 0.002), indicating a strong positive relationship between assurance and customer satisfaction.

📖 Empathy: A one-unit increase in perceived empathy (understanding customer needs) in e-banking services is associated with a 0.134 unit increase in customer satisfaction, controlling for other factors. This effect is statistically significant (p-value = 0.008), suggesting that empathy positively impacts customer satisfaction.

📖 Tangibility A one-unit increase in perceived tangibility (user-friendliness) of e-banking services is associated with a 0.139 unit increase in customer satisfaction, controlling for other factors. This effect is statistically significant (p-value = 0.015), indicating that a user-friendly interface contributes to higher customer satisfaction.

📖 Convenience: A one-unit increase in the perceived convenience of e-banking services is associated with a 0.157 unit increase in customer satisfaction, controlling for other factors. This effect is highly statistically significant (p-value = 0.001), suggesting that convenience plays a significant role in customer satisfaction.

📖 Privacy: A one-unit increase in perceived privacy of e-banking services is associated with a 0.120 unit increase in customer satisfaction, controlling for other factors. This effect is statistically significant (p-value = 0.033), indicating that strong privacy measures contribute to higher customer satisfaction.

📖 The findings of this study also indicated that assurance is the most important factor to have a positive and significant effect on customer satisfaction, followed by convenience and responsiveness.

Overall: The regression analysis confirms that all dimensions of electronic banking service quality (reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy/security) have positive and statistically significant effects on customer satisfaction in

Dashen Bank. This suggests that focusing on improving each of these aspects can significantly enhance customer satisfaction with the bank's e-banking services.

 **The regression model was presented as follows:**

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + e$$

Where:  $Y$  = the dependent variable (customer satisfaction),

$\beta_0$  = the intercept term-constant which is equal to the mean if all slope coefficients are 0.

$\beta_i$  = ( $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$  and  $\beta_7$ ) are constant regression coefficients representing the condition of the independent variables to the dependent variables.

$X_i$  = ( $X_1, X_2, X_3, X_4, X_5, X_6$  and  $X_7$ ) are the independent variables which means;

$X_1$  = E-Banking Service Reliability

$X_2$  = E-Banking Service Responsiveness

$X_3$  = E-Banking Service Assurance

$X_4$  = E-Banking Service Empathy

$X_5$  = E-Banking Service Tangibility

$X_6$  = E-Banking Service Convenience

$X_7$  = E-Banking Privacy/Security

$e$  = Error Term.

$$Y = 0.365 + 0.117 X_1 + 0.141 X_2 + 0.184 X_3 + 0.134 X_4 + 0.139 X_5 + 0.157 X_6 + 0.120 X_7$$

#### 4.7 Hypothesis Testing and Discussions

*Table 4.17 The hypothesis was tested given as follows:*

Hypothesis	Statement of hypothesis	Beta value	t-value	P-value	Decision
Ha1	E-banking service reliability has a positive and significant effect on customer satisfaction.	.117	2.570	.011	Accepted
Ha2	E-banking service responsiveness has a positive and significant effect on customer satisfaction.	.141	2.157	.032	Accepted
Ha3	E-banking service assurance has a positive and significant effect on customer satisfaction.	.184	3.140	.002	Accepted

Ha4	E-banking service empathy has a positive and significant effect on customer satisfaction.	.134	2.651	.008	Accepted
Ha5	E-banking service tangibility has a positive and significant effect on customer satisfaction.	.139	2.448	.015	Accepted
Ha6	E-banking service convenience has a positive and significant effect on customer satisfaction.	.157	3.479	.001	Accepted
Ha7	E-banking privacy/security has a positive and significant effect on customer satisfaction.	.120	2.143	.033	Accepted

*Source – Own survey 2024*

**Hypothesis 1 E-banking service reliability has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Birhan Town.**

The results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service reliability has a positive and significant effect on customer satisfaction ( $\beta=0.117$ ,  $t=2.570$ ,  $P=0.011$ ). Hence, the hypothesis is fully supported. This finding is supported by Al-Hawary et al. (2011) reported that reliability has a positive and significant effect on customer satisfaction. This indicates that the behavior of Dashen bank employees creates confidence in customers; the bank internet service is provided at the promised time; bank employees do understand the specific needs of their customers; and the bank keeps its records accurately. This finding is supported by Sintayehu (2015) found that reliability has a positive and significant effect on customer satisfaction. This finding is also supported by Sherefedin (2018) found that reliability has a positive and significant effect on customer satisfaction. However, John (2016) indicated that reliability has insignificant effects on customer satisfaction.

**Hypothesis 2: E-banking service responsiveness has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town.**

The results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service responsiveness has a positive and significant effect on customer satisfaction ( $\beta=0.141$ ,



$t=2.157$ ,  $P=0.032$ ). Therefore, the researcher accepted hypothesis two which states responsiveness has a significant effect on customers' satisfaction at Dashen Bank at Debre Berhan Town. This result is supported by Simon (2016) reported that responsiveness has a positive and significant effect on customer satisfaction. This finding is also, similar from the results by Mayikl (2019) found responsiveness has a positive and significant effect on customer satisfaction. However, this result is different from the results by Kassa (2012) as cited by Simon (2016) reported that responsiveness has an insignificant effect on customer satisfaction

**Hypothesis 3: E-banking service assurance has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town.**

The results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service assurance has a positive and significant effect on customer satisfaction ( $\beta=0.184$   $t=3.140$   $P=0.002$ ). Therefore, the hypothesis is fully supported. This result is supported by Mayikl (2019) found that assurance has a positive and significant effect on customer satisfaction. This result also supported by Mohammad and Alhamadani (2011) found that assurance has a positive and significant effect on customer satisfaction. However, this result is different from the results by Simon (2016), which indicates that assurance has a negative and insignificant effect on customer satisfaction.

**Hypothesis 4: E-banking service empathy has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town.**

The results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service empathy has a positive and significant effect on customer satisfaction ( $\beta=0.134$ ,  $t=2.651$ ,  $P=0.008$ ). Therefore, this hypothesis is fully supported. In supporting this finding, Tizazu (2012) approved that empathy has a positive and significant effect on customer satisfaction. This implies that Dashen Bank employees of service provider do show a sincere interest in solving it; and will give customers individual attention; the bank has convenient working hours, and employees of bank understand customers' specific needs.

**Hypothesis 5: E-banking service tangibility has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town.**

The results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service tangibility has a positive and significant effect on customer satisfaction ( $\beta=0.139$ ,

t=2.448, P=0.015). Therefore, this hypothesis is fully supported. This finding is supported by Habtie (2019) found that tangibility has a positive and significant effect on customer satisfaction. This finding is supported by Simon (2016) found that tangibility has a positive and significant effect on customer satisfaction.

**Hypothesis 6 E-banking service convenience has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town.**

The results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service convenience has a positive and significant effect on customer satisfaction ( $\beta=0.157$ ,  $t=3.479$ ,  $P=0.001$ ). Therefore, this hypothesis is fully supported. In supporting this finding, Maiyaki (2011) stated that customers consider the size of the bank total assets, the nearness of the bank to the working office or residence, convenient access to bank location, personal security of customers, and ease of procedures of account opening as most important in customers' satisfaction. Similarly, Ahmed (2011) found that the availability of large branch networks has a great influence on customers' satisfaction.

**Hypothesis 7 E-banking privacy/security has a positive and significant effect on customer satisfaction in Dashen Bank at Debre Berhan Town.**

The results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service privacy/security has a positive and significant effect on customer satisfaction ( $\beta=0.120$ ,  $t=2.143$ ,  $P=0.033$ ). Therefore, this hypothesis is fully supported.

# CHAPTER FIVE

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter is the final section which presents summary of finding, conclusion and recommendation of the study. The chapter reported summary for main findings of study as presented in result and discussion section. Then, conclusion and recommendations were made based on the findings. The researcher also, provided suggestion for future study.

### 5.1 Summary of Findings

The primary objective of this study was to investigate the effect of Electronic Banking Service Quality on Customer Satisfaction: the case of Dashen Bank In Debre Berhan Town. In order to do this, seven determinants of e banking service quality variables are used. These are reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy or security. Hence, this study has attempted to identify which determinant has the highest influence on the customer satisfaction of e-banking of Dashen Bank S.C. The demographic data provided shows the sample consisted of 305 participants, with a majority being male (70.8%). Most participants fell within the 18-45 age range (85.6%). Married individuals made up the largest marital status group (62.3%), and a bachelor's degree was the most common educational qualification (36.7%). It's important to note that while the demographic data provides context for the study's participants, the research itself is centered on understanding how the quality of Dashen Bank's e-banking services influences customer satisfaction, not how these demographics directly affect it.

According to the data analysis in the previous section, a summary of the findings is presented as follows. The finding from the descriptive statistics result showed that the overall mean for the perception of e-banking service reliability is 3.8578 with a standard deviation of 1.105. This suggests a high level of perceived reliability in Dashen Bank's e-banking services. Customers generally have faith in the system's ability to function correctly and consistently. Similarly, the overall mean for the perception of electronic banking service responsiveness is 4.060 with a standard deviation of 1.032. This suggests a high level of perceived responsiveness. Customers feel the bank responds to their inquiries and requests promptly through e-banking channels. The overall mean for the perception of electronic banking service assurance is 4.018 with a standard deviation of 1.0594. This reflects a high level of perceived assurance. Customers are confident in the bank's ability to handle their e-banking transactions securely and address any problems that

may arise. Moreover, the overall mean for the perception of electronic banking service empathy is 3.916 with a standard deviation of 1.0566. This indicates a high level of perceived empathy. Customers feel the bank understands their needs and provides personalized support through its e-banking platform. Likewise, the overall mean for the perception of electronic banking service tangibility is 3.936 with a standard deviation of 0.970. This suggests a high level of perceived tangibility. Customers find the e-banking interface and design to be appealing and user-friendly. Similarly, The overall mean for the perception of electronic banking service convenience is 3.773 with a standard deviation of 1.1382. This dimension has the lowest mean score among service quality aspects, falling within the moderate range. This suggests that customers perceive the most difficulty or inconvenience in using the e-banking service. Convenience is an area requiring significant improvement. Furthermore, the overall mean for the perception of electronic banking service privacy/security is 4.007 with a standard deviation of 0.959. This reflects a high level of perceived privacy and security. Customers feel their information is protected and transactions are secure when using the bank's e-banking services.

The Pearson correlation in this study was used to examine the relationship between each of the independent variables and the dependent variable. As observed in the SPSS output the correlation analysis reveals positive and statistically significant relationships between all dimensions of electronic banking service quality (reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy) and customer satisfaction in Dashen Bank. However, the strength of these associations varies. Responsiveness, assurance, tangibility, and privacy exhibit moderate to strong positive correlations (0.641 - 0.683) with customer satisfaction, indicating that improvements in these areas can lead to significant gains in satisfaction. Reliability, empathy, and convenience show moderate positive correlations (0.543 - 0.606), suggesting that while they are positively related to satisfaction, there's more potential to strengthen these connections to further enhance customer experience. Overall, the findings highlight the importance of focusing on all aspects of electronic banking service quality to achieve high customer satisfaction in Dashen Bank.

The results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service reliability has a positive and significant effect on customer satisfaction ( $\beta=0.117$ ,  $t=2.570$ ,  $P=0.011$ ). Customers who perceive the e-banking platform as reliable tend to be more satisfied. Similarly, the results of multiple regressions, as presented in Table 4.16 above,

revealed that E-banking service responsiveness has a positive and significant effect on customer satisfaction ( $\beta=0.141$ ,  $t=2.157$ ,  $P=0.032$ ). Likewise, the results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service assurance has a positive and significant effect on customer satisfaction ( $\beta=0.184$   $t=3.140$   $P=0.002$ ). Customers who perceive a higher level of assurance in the e-banking services tend to be more satisfied. Also, the results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service empathy has a positive and significant effect on customer satisfaction ( $\beta=0.134$ ,  $t=2.651$ ,  $P=0.008$ ). Customers who feel the e-banking platform understands their needs and offers personalized services are more satisfied. Likewise, the results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service tangibility has a positive and significant effect on customer satisfaction ( $\beta=0.139$ ,  $t=2.448$ ,  $P=0.015$ ). The results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service convenience has a positive and significant effect on customer satisfaction ( $\beta=0.157$ ,  $t=3.479$ ,  $P=0.001$ ). Emerged as the strongest influence on customer satisfaction among all the examined dimensions. Furthermore, the results of multiple regressions, as presented in Table 4.16 above, revealed that E-banking service privacy/security has a positive and significant effect on customer satisfaction ( $\beta=0.120$ ,  $t=2.143$ ,  $P=0.033$ ). indicates that customers who perceive strong privacy and security measures in the e-banking service tend to be more satisfied.

The regression equation can be written as:  $Y=0.365 + 0.117 X1 + 0.141X2 + 0.184X3 + 0.134X4 + 0.139X5+ 0.157X6+ 0.120X7$

## 5.2. Conclusions

Based on the results of the study and the summary of findings the following conclusions are made. The correlation analysis reveals that all dimensions of electronic banking service quality (reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy/security) have positive and statistically significant relationships with customer satisfaction in Dashen Bank. This suggests that focusing on improving each of these aspects can contribute to enhancing overall customer satisfaction with the bank's e-banking services.

Inferential analysis indicates that the study concludes that All seven electronic banking service quality dimensions (reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy/security) examined in this study were found to have a statistically significant positive effect on customer satisfaction at Dashen Bank in Debre Berhan Town. This indicates that for

each dimension, when the bank prioritizes improvements in those areas (e.g., consistent service, prompt response to inquiries, user-friendly platform, data security), customer satisfaction is likely to increase. The study concludes that the e-banking service reliability examined in this study was found to have a statistically significant positive effect on customer satisfaction at Dashen Bank in Debre Berhan Town. This indicates that when customers perceive the electronic banking services to be reliable (consistent, dependable), their satisfaction with those services increases. Similarly, the study concludes that the e-banking service responsiveness examined in this study was found to have a statistically significant positive effect on customer satisfaction at Dashen Bank in Debre Berhan Town. This means that customers are more satisfied when they feel the bank responds promptly and efficiently to their inquiries and requests related to electronic banking services. Also, the analysis revealed that e-banking service assurance has a statistically significant positive effect on customer satisfaction. This suggests that when customers feel confident and secure using Dashen Bank's electronic banking services (due to factors like knowledgeable staff and clear information), their satisfaction level increases. Similar to the previous objectives, e-banking service empathy has a statistically significant positive effect on customer satisfaction. This implies that when customers perceive the bank understands their needs and shows a willingness to help with electronic banking concerns, their satisfaction is positively impacted. Moreover, The findings demonstrate a statistically significant positive effect of e-banking service tangibility on customer satisfaction. In the context of electronic banking, tangibility might relate to the user-friendliness and modern design of the e-banking platform, influencing customer satisfaction. Also, the analysis indicates that e-banking service convenience has a statistically significant positive effect on customer satisfaction. This suggests that when customers find Dashen Bank's electronic banking services convenient and easy to use (e.g., accessible, user-friendly mobile app), it leads to higher satisfaction. Furthermore, There's a statistically significant positive association between e-banking privacy/security and customer satisfaction. This implies that when customers feel their personal information and financial transactions are secure while using Dashen Bank's electronic banking services, their satisfaction increases.

### **5.3. Recommendations**

Based on the result of this study the following recommendation is suggested

- 📖 The results of this study revealed that service quality dimensions have a statistically significant positive effect on customer satisfaction at Dashen Bank in Debre Berhan Town. Hence, managerial efforts better aim at boosting customer satisfaction. In doing so, appropriate consideration better be given to the service quality dimensions identified as having a significant effect on customer satisfaction. To boost satisfaction, more effort should be exerted toward the reliability, responsiveness, assurance, empathy, tangibility, convenience, and privacy/security dimensions.
- 📖 Dashen Bank should invest in infrastructure upgrades to minimize downtime and ensure the smooth operation of the e-banking platform. Improve customer support response times to inquiries and issues related to e-banking services.
- 📖 Dashen Bank should implement robust security protocols and data encryption to ensure customer privacy and financial information protection. Train staff on best practices for handling customer information securely. Promote transparency by clearly communicating security measures taken by the bank.
- 📖 Dashen Bank should design a user-friendly e-banking platform that is intuitive and easy to navigate for customers with varying technical skills. Offer the platform in multiple languages if relevant to the customer base. Ensure accessibility for users with disabilities.
- 📖 Dashen Bank should conduct user research to understand customer needs and preferences for e-banking features. Integrate features that offer convenience and add value to the customer experience, such as mobile banking options, bill payments, and personalized financial management tools.
- 📖 Dashen Bank should explore options to personalize the e-banking platform based on customer profiles and banking habits. This could involve suggesting relevant financial products or highlighting frequently used features.
- 📖 The empathy dimension was also one of the most important factors influencing customer satisfaction. So Banks should treat customers with great respect, giving individual attention to customers, serving customers based on their specific needs, and treating customers in a friendly manner. This is to say, the bank management should focus on this factor to maximize customer satisfaction.
- 📖 Dashen Bank should need to increase the confidence of their customers as well as develop their skills and knowledge in using e-banking services. They could also employ the use of

video presentations at bank branches and on television to showcase the user-friendliness of such services. This will help customers to be more familiar with the e-banking services.

#### **5.4. Suggestion for Further Research**

The current research focused on Dashen Bank in Debre Berhan Town. Conducting a comparative study with other banks in the region or nationally could reveal how Dashen Bank's e-banking service quality dimensions compare and identify areas for improvement relative to competitors. Also, this study used quantitative data collected through surveys. Further Research supplementing this with qualitative research methods like interviews or focus groups could provide deeper insights into customer experiences, frustrations, and unmet needs regarding the e-banking service. Also, the study focused on seven dimensions of e-banking service quality. Further research could explore the influence of other potential factors, such as E-banking service features: Investigate how specific features like bill payment options, money transfers, and financial management tools impact satisfaction. Customer demographics: Analyze if the effect of service quality dimensions differs between customer age groups, technical proficiency levels, or other demographic segments.



## REFERENCES

- Abu-Shanab, E., & Matalqa, S. (2015). Security and Fraud Issues of E-banking. *International Journal of Computer Networks and Applications*, 2(4), 179–188.
- Adejoke, H. T., Louis, H., Amusan, O. O., & Apebende, G. (2019). A review on classes, extraction, purification and pharmaceutical importance of plants alkaloid. *Journal of Medicinal and Chemical Sciences*, 2, 130–139.
- ADUGNA, M. (2019). *THE EFFECT OF E-BANKING ATTRIBUTES ON CUSTOMER SATISFACTION: THE CASE OF COMMERCIAL BANK OF ETHIOPIA*.
- Ahmed, R. R., Romeika, G., Kauliene, R., Streimikis, J., & Dapkus, R. (2020). ES-QUAL model and customer satisfaction in online banking: Evidence from multivariate analysis techniques. *Oeconomia Copernicana*, 11(1), 59–93.
- Al Thuwaini, S., Khan, M. N., Ahmad, S. R., Shabbir, M. S., Rehman, M. Z., & Khokhar, I. (2022). The effect of customer service quality on customer satisfaction in the Gulf Cooperation Council’s Islamic Banking Industry. *Cuadernos de Economía*, 45(127), 20–31.
- Ali, B. J., Saleh, P. F., Akoi, S., Abdulrahman, A. A., Muhamed, A. S., Noori, H. N., & Anwar, G. (2021). Impact of service quality on the customer satisfaction: Case study at online meeting platforms. *Ali, BJ, Saleh, Akoi, S., Abdulrahman, AA, Muhamed, AS, Noori, HN, Anwar, G.(2021). Impact of Service Quality on the Customer Satisfaction: Case Study at Online Meeting Platforms. International Journal of Engineering, Business and Management*, 5(2), 65–77.
- Ali, S., Dogan, E., Chen, F., & Khan, Z. (2021). International trade and environmental performance in top ten-emitters countries: the role of eco-innovation and renewable energy consumption. *Sustainable Development*, 29(2), 378–387.
- Angusamy, A., Yee, C. J., & Kuppusamy, J. (2022). E-banking: An empirical study on customer satisfaction. *Journal of System and Management Sciences*, 12(4), 27–38.
- Aqiliyah binti SUBAHUDIN, S. N., & SHAHRUM, M. (2023). The effect of electronic banking service quality on customer satisfaction. *Romanian Journal of Information Technology & Automatic Control/Revista Română de Informatică Și Automatică*, 33(2).
- Ayinaddis, S. G., Taye, B. A., & Yirsaw, B. G. (2023). Examining the effect of electronic banking service quality on customer satisfaction and loyalty: an implication for technological innovation. *Journal of Innovation and Entrepreneurship*, 12(1), 22.

- Baabdullah, A. M., Alalwan, A. A., Rana, N. P., Kizgin, H., & Patil, P. (2019). Consumer use of mobile banking (M-Banking) in Saudi Arabia: Towards an integrated model. *International Journal of Information Management*, 44, 38–52.
- Bahadur, W., Aziz, S., & Zulfiqar, S. (2018). Effect of employee empathy on customer satisfaction and loyalty during employee–customer interactions: The mediating role of customer affective commitment and perceived service quality. *Cogent Business & Management*, 5(1), 1491780.
- Barnes, S. J., & Corbitt, B. (2003). Mobile banking: concept and potential. *International Journal of Mobile Communications*, 1(3), 273–288.
- Chaimaa, B., Najib, E., & Rachid, H. (2021). E-banking overview: concepts, challenges and solutions. *Wireless Personal Communications*, 117, 1059–1078.
- Chen, H., Tse, D., Si, P., Gao, G., & Yin, C. (2021). Strengthen the security management of customer information in the virtual banks of Hong Kong through business continuity management to maintain its business sustainability. *Sustainability*, 13(19), 10918.
- Desta, Y. (2018). *Customers' e-banking adoption in Ethiopia*. PhD Dissertation, Addis Ababa University, Ethiopia.
- Drigă, I., & Isac, C. (2014). E-banking services–features, challenges and benefits. *Annals of the University of Petrosani. Economics*, 14, 49–58.
- Fekadu, A. (2018). *SERVQUAL and SERVPERF Model to Assess Service Quality and Customer Satisfaction: The Case of Bank of Abyssinia Share Company*. St. Mary's University.
- Fetu, A. (2019). *Opportunity and challenges of electronic-banking system in commercial bank of Ethiopia (A case study on Gurage zone)*.
- Getachew, T. (2018). *Assessment of Customer Satisfaction on Point of Sale (POS) Terminals in Commercial Bank of Ethiopia (South Addis District)*. St. Mary's University.
- Gul, M. A., Imran, Z. K., Khan, M. A., & Kalwar, M. A. (2022). Analysis of Legal and Security Issues of Internet Banking: Case Study of Karachi. *Int. Res. J. Mod. Eng. Technol. Sci*, 4(4), 2572–2584.
- Gupta, A., Singh, R. K., Mathiyazhagan, K., Suri, P. K., & Dwivedi, Y. K. (2023). Exploring relationships between service quality dimensions and customers satisfaction: empirical study in context to Indian logistics service providers. *The International Journal of Logistics Management*, 34(6), 1858–1889.

- HABTE, B. (2021). *PRACTICES AND CHALLENGES OF E-BANKING SERVICE DELIVERY: THE CASE OF BANK OF ABYSSINIA*. ST. MARY'S UNIVERSITY.
- HAILEMICHEAL, B. (2020). *DETERMINANTS OF ADOPTING E-BANKING SERVICE: IN THE CASE OF SOUTH ADDIS ABABA DISTRICT, AWASH BANK CUSTOMERS*. ST. MARY'S UNIVERSITY.
- HAILU, M. (2019). *AN ASSESSMENT ON BENEFITS AND RISKS OF E BANKING ON CUSTOMER SAVING: IN THE CASE OF CBE UNDER NORTH ADDIS ABABA DISTRICT*. ST. MARY'S UNIVERSITY.
- Hammoud, J., Bizri, R. M., & El Baba, I. (2018). The impact of e-banking service quality on customer satisfaction: Evidence from the Lebanese banking sector. *Sage Open*, 8(3), 2158244018790633.
- Hosen, M. N., Lathifah, F., & Jie, F. (2021). Perception and expectation of customers in Islamic bank perspective. *Journal of Islamic Marketing*, 12(1), 1–19.
- İLTAŞ, Y., & DEMİRGÜNEŞ, K. (2020). Asset tangibility and financial performance: A time series evidence. *Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 6(2), 345–364.
- Itani, O. S., & Inyang, A. E. (2015). The effects of empathy and listening of salespeople on relationship quality in the retail banking industry: The moderating role of felt stress. *International Journal of Bank Marketing*, 33(6), 692–716.
- JS, A. (2022). *A STUDY ON THE USAGE OF E-BANKING SERVICES IN THE SUBURB AREA OF COIMBATORE CITY*. Anna University, Chennai.
- Kesharwani, S. (2020). E-service quality in banking industry-a review. *Global Journal of Enterprise Information System*, 12(2), 111–118.
- Khatoon, S., Zhengliang, X., & Hussain, H. (2020). The Mediating Effect of customer satisfaction on the relationship between Electronic banking service quality and customer Purchase intention: Evidence from the Qatar banking sector. *Sage Open*, 10(2), 2158244020935887.
- Lee, C.-P., Hung, M.-J., & Chen, D.-Y. (2022). Factors affecting citizen satisfaction: examining from the perspective of the expectancy disconfirmation theory and individual differences. *Asian Journal of Political Science*, 30(1), 35–60.
- Li, F., Lu, H., Hou, M., Cui, K., & Darbandi, M. (2021). Customer satisfaction with bank services: The role of cloud services, security, e-learning and service quality. *Technology in*

*Society*, 64, 101487.

- Mahalle, A., Yong, J., Tao, X., & Shen, J. (2018). Data privacy and system security for banking and financial services industry based on cloud computing infrastructure. *2018 IEEE 22nd International Conference on Computer Supported Cooperative Work in Design ((CSCWD))*, 407–413.
- Mahmadi, F. N., Zaaba, Z. F., & Osman, A. (2016). Computer security issues in online banking: an assessment from the context of usable security. *IOP Conference Series: Materials Science and Engineering*, 160(1), 12107.
- Marinkovic, V., & Obradovic, V. (2015). Customers' emotional reactions in the banking industry. *International Journal of Bank Marketing*, 33(3), 243–260.
- Melese, Y. (2020). *The Effect of Agency Banking Services on Customer Satisfaction: In the case of Commercial Bank of Ethiopia*. ST. MARY'S UNIVERSITY.
- Munusamy, J., Annamalah, S., & Chelliah, S. (2012). A study of users and non-users of internet banking in Malaysia. *International Journal of Innovation, Management and Technology*, 3(4).
- Nguyen, L., Nguyen, T. H., & Tan, T. K. P. (2021). An empirical study of Customers' satisfaction and repurchase intention on online shopping in Vietnam. *The Journal of Asian Finance, Economics and Business*, 8(1), 971–983.
- Normalini, M. K., Ramayah, T., & Shabbir, M. S. (2019). Investigating the impact of security factors in E-business and internet banking usage intention among Malaysians. *Industrial Engineering & Management Systems*, 18(3), 501–510.
- Ogata, H. (2020). *A Study on ATM Security Measures by Command Verification*.
- Oladejo, M. O., Yinus, S. O., Abeebe, A. O., Shittu, S. A., & Tajudeen, S. (n.d.). *WHY THE QUEUING IN THE BANKING ENVIRONMENT IN THE ERA OF ELECTRONIC BANKING*.
- Oluwasegun, G., John, O. O., & Segun, A. (2021). E-Banking System and Financial Performance in Nigerian Banking Sector. *Dutse International Journal of Social and Economic Research*, 6(1), 16–29.
- Pakurár, M., Haddad, H., Nagy, J., Popp, J., & Oláh, J. (2019). The service quality dimensions that affect customer satisfaction in the Jordanian banking sector. *Sustainability*, 11(4), 1113.
- Raza, B., St-Onge, S., & Ali, M. (2023). Frontline employees' performance in the financial

- services industry: the significance of trust, empathy and consumer orientation. *International Journal of Bank Marketing*, 41(3), 527–549.
- Reddy, A. K. (2021). Impact of E-Banking on Customer Satisfaction. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18(08), 4220–4231.
- Sardana, S., & Bajpai, V. N. (2020). E-banking service quality and customer satisfaction: An exploratory study on India. *International Journal of Services and Operations Management*, 35(2), 223–247.
- Sathiyavany, N., & Shivany, S. (2018). E-banking service qualities, e-customer satisfaction, and e-loyalty: a conceptual model. *The International Journal of Social Sciences and Humanities Invention*, 5(6), 4808–4819.
- Sekhar, S. C. (2020). A Study on Effectiveness of Electronic banking System. *Sanshodhan*, 9(1), 8–13.
- Shah, I. (2020). *Analysis of Cyber Crime in Banking Sector*.
- Shared, H. A. (2019). The relationship between e-service quality and e-customer satisfaction: An empirical study in Egyptian Banks. *International Journal of Business and Management*, 14(5), 171–182.
- SHEWAYE, Y. (2019). *CHALLENGES AND OPPORTUNITIES OF ELECTRONIC BANKING IN THE CASE OF COMERCIAL BANK OF ETHIOPIA*.
- Shi, Z., & Shang, H. (2020). A review on quality of service and servqual model. *HCI in Business, Government and Organizations: 7th International Conference, HCIBGO 2020, Held as Part of the 22nd HCI International Conference, HCII 2020, Copenhagen, Denmark, July 19–24, 2020, Proceedings 22*, 188–204.
- Sleimi, M. T., Karam, A. A., & Qubbaj, I. S. (2018). The impact of e-banking services quality on customers satisfaction moderated by customer trust: survey on Arab Bank in Amman, Jordan.
- Sukamolson, S. (2007). Fundamentals of quantitative research. *Language Institute Chulalongkorn University*, 1(3), 1–20.
- Syapsan, S. (2019). The effect of service quality, innovation towards competitive advantages and sustainable economic growth: Marketing mix strategy as mediating variable. *Benchmarking: An International Journal*, 26(4), 1336–1356.
- Tamajong, C. F. (2020). *E-banking Acceptance: An empirical study of Cameroonian Customers*.

Cardiff Metropolitan University.

- Tetteh, J. E. (2022). Electronic banking service quality: Perception of customers in the Greater Accra region of Ghana. *Journal of Internet Commerce*, 21(1), 104–131.
- Tharenou, P., Donohue, R., & Cooper, B. (2007). *Management research methods*. Cambridge University Press.
- Tien, N. H., Anh, N., Dung, H., On, P., Anh, V., Dat, N., & Tam, B. (2021). Factors impacting customer satisfaction at Vietcombank in Vietnam. *Himal. J. Econ. Bus. Manag*, 2, 44–51.
- Tsai, C.-H., & Su, P.-C. (2021). The application of multi-server authentication scheme in internet banking transaction environments. *Information Systems and E-Business Management*, 19(1), 77–105.
- Umer, W., Li, H., Yantao, Y., Antwi-Afari, M. F., Anwer, S., & Luo, X. (2020). Physical exertion modeling for construction tasks using combined cardiorespiratory and thermoregulatory measures. *Automation in Construction*, 112, 103079.
- Vijayanand, S. (2021). Analyzing the impact of service quality on satisfaction in e-banking services-an empirical study. *Kinerja*, 25(2), 270–286.
- Zaman, S. I., Khan, S. A., Qabool, S., & Gupta, H. (2023). How digitalization in banking improve service supply chain resilience of e-commerce sector? a technological adoption model approach. *Operations Management Research*, 16(2), 904–930.
- Zelege, S., & Chauhan, S. (2022). The Effect Of Electronic Banking Service On Customer Satisfaction: Evidence From Commercial Banks Of Ethiopia Operating In Hawassa City Administration. *Journal of Positive School Psychology*, 6(8), 3228–3246.
- ZEWDU, H. (2019). *ASSESSMENT OF THE CHALLENGES AND BENEFITS OF ATM BANKING SERVICE (THE CASE OF COMMERCIAL BANK OF ETHIOPIA)*. st. mary's University.

**Appendix**  
**Questionnaire**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF MANAGEMENT**  
**(MBA PROGRAM)**

**Dear respondent;**

The following questionnaire is part of a survey being conducted on “The Effect Of Electronic Banking Service Quality On Customer Satisfaction: The Case Of Dashen Bank In Debre Berhan Town”. This information is purely for academic purposes and therefore its confidentiality is highly guaranteed. Your co-operation and support were appreciated in advance. Thank you in advance for all the effort you made in this regards!! After you read each of the factors, evaluate them in relation to your business and then put a tick mark (√) under the choices below or circle it on your choose.

**Part A: Personal information of respondents**

1. Your Gender    Male     Female
2. Your age range: 18 – 30 yrs     31 - 45 yrs        Above 45 yrs
3. Marital status: Single     Married     Divorced     widowed
- 3 Education level: Primary school     high school complete     Diploma/TVET     Bachelor Degree    MSc/MA and above

**Section B: Electronic Banking Service Dimensions.**

Please answer items below by putting (X) mark on a number from **1 to 5** that best reflects your perception about your organizational justice. Use the following rating scale: 1=Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly agree

N.o	Factors/Dimensions	Scales				
<b>📖 Items Related to E-banking Service Reliability</b>		1	2	3	4	5
1.	The reliability of Dashen Bank's E-banking services influences my overall satisfaction with the bank.					
2.	The online banking system of Dashen Bank processes transactions accurately and without errors.					
3.	Dashen Bank's online banking system provides timely and up-to-date information about my accounts.					
4.	To what extent do you agree that Dashen Bank's E-banking services meet your banking needs effectively?					
5.	Dashen Bank's E-banking services are available and accessible when needed.					
6.	The E-banking services provided by Dashen Bank are reliable.					
7.	I trust that Dashen Bank's E-banking services will perform consistently.					
8.	E-banking completes a task Accurately					
<b>📖 Items Related to E-banking Service Responsiveness</b>		1	2	3	4	5
1.	The responsiveness of the E-banking services provided by Dashen Bank meets my expectations.					
2.	The speed and efficiency of Dashen Bank's E-banking services contribute to my overall satisfaction with the bank.					
3.	The availability of customer support for E-banking services at Dashen Bank is satisfactory.					
4.	I feel that my concerns and issues regarding E-banking services are addressed promptly by Dashen Bank.					
5.	Dashen Bank's customer support is readily available when I need assistance with e-banking services.					
6.	Dashen Bank's customer support representatives are knowledgeable and helpful in resolving issues related to e-banking services.					
7.	Dashen Bank responds to customer queries or complaints regarding e-banking services in a timely manner.					
8.	Dashen Bank's responsiveness to customer needs and concerns regarding e-banking services has a positive impact on my overall satisfaction.					



<b>📖 Items Related to E-banking Service Assurance</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>1.</b>	E-banking should ensure that customer's personal information remain safe and private					
<b>2.</b>	I feel secure when using E-banking services at Dashen Bank.					
<b>3.</b>	The E-banking platform at Dashen Bank is user-friendly.					
<b>4.</b>	I trust the security measures implemented by Dashen Bank's E-banking					
<b>5.</b>	The customer service provided for E-banking issues at Dashen Bank is satisfactory.					
<b>6.</b>	Dashen Bank's e-banking service provides clear and transparent information about the terms and conditions, privacy policy, and security measures in place.					
<b>7.</b>	Dashen Bank ensures the confidentiality and privacy of customer transactions and information through its e-banking service.					
<b>8.</b>	Dashen Bank ensures the confidentiality and privacy of customer transactions and information through its e-banking service.					
<b>📖 Items Related to E-Banking Service Empathy</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>1.</b>	Do you believe that Dashen Bank's E-banking service representatives have your best interests in mind when providing assistance?					
<b>2.</b>	The level of empathy displayed by E-banking services in Dashen Bank positively impacts my overall satisfaction.					
<b>3.</b>	The customer service representatives at Dashen Bank demonstrate a high level of empathy in handling my E-banking queries.					
<b>4.</b>	The empathy shown by E-banking services at Dashen Bank makes me feel valued as a customer.					
<b>5.</b>	The empathetic response from E-banking services at Dashen Bank increases my trust in the bank's services.					
<b>6.</b>	I am more likely to recommend Dashen Bank to others based on the empathy shown by E-banking services.					
<b>Items Related to E-banking Service Tangibility</b>						
<b>1.</b>	The tangibility of E-banking services influences my decision to continue banking					

	with Dashen Bank.						
2.	The physical appearance of the E-banking facilities in Dashen Bank is modern and appealing.						
3.	The E-banking services in Dashen Bank provide clear and understandable information to customers.						
4.	The online platform of Dashen Bank's E-banking services is user-friendly and easy to navigate.						
5.	The tangible aspects of E-banking services in Dashen Bank (ATMs, kiosks, etc.) enhance my overall banking experience.						
6.	The availability of physical branches enhances my confidence in Dashen Bank's E-banking services.						
	<b>📖 Items Related to E-banking Service Convenience</b>						
1.	The website or mobile app of Dashen Bank is user-friendly and easy to navigate.						
2.	Using E-banking services at Dashen Bank is convenient.						
3.	I find it easy to perform transactions using E-banking services at Dashen Bank.						
4.	I am satisfied with the overall convenience of using E-banking services at Dashen Bank.						
5.	The availability of E-banking services at Dashen Bank has improved my banking experience.						
6.	The convenience of Dashen Bank's e-banking services contributes to my overall satisfaction as a customer.						
7.	Dashen Bank's e-banking platform allows me to perform a wide range of banking transactions and activities conveniently from any location with internet access.						
	<b>Items Related to E-banking Privacy/Security</b>						
1.	To what extent do you agree that Dashen Bank's E-banking platform adequately protects your personal information from unauthorized access?						
2.	I trust that Dashen Bank's e-banking platform keeps my personal and financial information secure.						

<b>3.</b>	Dashen Bank's e-banking platform provides adequate safeguards to protect against unauthorized access or fraudulent activities.					
<b>4.</b>	Dashen Bank communicates clearly about its privacy and security measures for e-banking services, including data protection and encryption protocols.					
<b>5.</b>	The security features offered by Dashen Bank's E-banking platform meet my expectations.					
<b>6.</b>	I am satisfied with the level of privacy and security provided by Dashen Bank's e-banking platform for my personal and financial information.					
<b>7.</b>	Overall, I feel confident in the security measures implemented by Dashen Bank for its e-banking services.					
<b>📖 Items Related to Customer Satisfaction</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>1.</b>	The electronic banking services provided by Dashen Bank in Debre Berhan Town are convenient and user-friendly.					
<b>2.</b>	The quality of Dashen Bank's electronic banking services contributes to my overall satisfaction as a customer.					
<b>3.</b>	I find Dashen Bank's electronic banking platform user-friendly and easy to navigate.					
<b>4.</b>	The customer support provided for electronic banking services in Dashen Bank is responsive and helpful.					
<b>5.</b>	I trust the security measures implemented by Dashen Bank for its electronic banking services.					
<b>6.</b>	Overall, I am satisfied with the customer service experience provided by Dashen Bank's electronic banking services.					

**Thanks for your cooperation once again!**