



Seek Wisdom, Elevate your Intellect and Serve Humanity



ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
MBA PROGRAM

**THE EFFECT OF TECHNOLOGY ADOPTION ON EMPLOYEES
PERFORMANCE AND CUSTOMERS SATISFACTION: THE CASE OF
BANK OF ABYSSINIA EAST ADDIS DISTRICT**

**A Thesis Submitted to the MBA Program, College of Business and Economics,
Addis Ababa University in Partial Fulfilment of the Requirements for the
Degree of Master of Business Administration**

By: Ali Mohammed

Advisor: Dr. Salehu Anteneh

June, 2024




Addis Ababa

ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
MBA PROGRAM

**THE EFFECT OF TECHNOLOGY ADOPTION ON EMPLOYEES
PERFORMANCE AND CUSTOMERS SATISFACTION: THE CASE OF
BANK OF ABYSSINIA EAST ADDIS DISTRICT**


BY ALI MOHAMMED

Name and Signature of Members of the Examining Board

	Signature	Date
Advisor: Dr. Salehu Anteneh	 -----	-- <u>02 July, 2024</u> -----
External Examiner: Dr. Gebre Sorsa	 -----	-- <u>02 July, 2024</u> -----
Internal Examiner: Dr. Demeke	 -----	-- <u>28 June, 2024</u> -----

DECLARATION

I hereby declare that the research presented in this study is entirely original and reflects my own contributions toward the completion of the Masters of Business Administration. This study has not been previously submitted for any academic credential at any educational institution. I confirm that all sources referenced in this study have been duly acknowledged. I conducted this research independently, with the invaluable guidance and support of my research advisor.

Signature: 

Ali Mohammed

Name of Advisor: Dr. Salehu anteneh

Signature: 

ACKNOWLEDGMENT

First and foremost, Praise to Allah for everything throughout this journey. Then I am immensely grateful to my advisor, Dr. Salehu Anteneh, for his invaluable mentorship, unwavering support, and insightful guidance, which have been instrumental in shaping this research from its inception to completion.

I am indebted to my beloved mother for her unwavering encouragement, endless sacrifices, and unwavering belief in my abilities, which have given me the strength to persevere.

Additionally, I extend my heartfelt appreciation to all my friends for their encouragement, support, and understanding during the challenging times of this research journey.

Finally, I extend my gratitude to the customers and employees of Bank of Abyssinia for their cooperation and participation in the survey study, responding to the questionnaires promptly and thoroughly.

Table of Contents

DECLARATION	i
ACKNOWLEDGMENT	ii
Table of Contents	iii
LIST OF TABLES	v
LIST OF FIGURES	vii
ABSTRACT	viii
CHAPTER ONE	1
Introduction	1
1.1 Background of the Study	1
1.2 Background of Abyssinia Bank	2
1.3 Statement of the Problem	3
1.4 Research Question	4
1.5 Research Hypothesis	4
1.6 Research Objective	4
1.6.1 General Objective	4
1.6.2 Specific Objective	5
1.7 Significance of the study	5
1.8 Scope and limitation of the study	5
CHAPTER TWO	7
Literature Review	7
2.1 Overview of Ethiopian Banking History	7
2.2 Importance of Technology adoption in Banking Industry	8
2.3 Relationship between Technology adoption and Banking Industry	10
2.4 Types of electronic banking in Banking Industry	11
2.5 Challenges of Technology adoption on Private Bank	16
2.6 Theoretical framework	16
2.6.1 Customers Satisfaction Measurement	16
2.6.2 Staff Productivity Measurement	20

2.7 Conceptual Framework	21
CHAPTER THREE.....	24
Methodology.....	24
3.1 Introduction	24
3.2 Research Design	24
3.3 Target population.....	24
3.4 Sampling Design.....	24
3.5 Data Analysis	27
CHAPTER FOUR.....	28
Data Presentation, Analysis, Interpretation and Discussion	28
4.1 Introduction	28
4.2 Demographic Data	28
4.2.1 Customers’ Responses:	28
4.2.2 Staff Responses.....	30
4.2.3 The effect of Technology adoption on Customers’ Satisfaction.....	31
4.3 The effect of Technology adoption on Employees performance.....	39
4.4 Hypothesis Testing	46
4.5 Discussion.....	43
CHAPTER FIVE	51
SUMMARY, CONCLUSION AND RECOMMENDATION.....	51
5.1 Summary of findings	51
5.2 Conclusion.....	51
5.2.1 The effect of Technology adoption on Customer Satisfaction	51
5.2.2 I The effect of Technology adoption on Employees’ productivity	52
5.3 Recommendation	52
5.4 Future Research Recommendation	53
Reference.....	55
Appendix	58

LIST OF TABLES

Table 2.1: Summary of related studies

Table 2.2: Determinants of Customer Satisfaction

Table 4.2.1: Demographic Information of Customers

Table 4.2.2: Demographic Information of Employees

Table 4.2.3: Bank of Abyssinia provides its latest Technology products and they are almost always available.

Table 4.2.4: Bank of Abyssinia's latest technology-based products deliver precise and adequate information that I require.

Table 4.2.5: Bank of Abyssinia's latest Technology products operate accurately, are free of errors, and are reliable.

Table 4.2.6: Bank of Abyssinia's latest Technology -based products facilitate quick transactions, significantly reducing the time I spend.

Table 4.2.7: latest Technology -based products offered by Bank of Abyssinia are secure and have a low associated risk.

Table 4.2.8: When I contact Bank of Abyssinia employees through interactive website my requests are always answered.

Table 4.2.9: Bank of Abyssinia's latest Technology based products easy to use.

Table 4.2.10: Bank of Abyssinia's latest Technology based products ensure convenient banking any time anywhere.

Table 4.2.11: The fees related with Bank of Abyssinia's latest Technology based products are fairly priced

Table 4.2.12: Bank of Abyssinia resolves my concern and solves any error.

Table 4.2.13: In general, I am satisfied with Bank of Abyssinia's latest Technology based product.

Table 4.2.14: I speak positively about Bank of Abyssinia to others

Table 4.2.15: I will promote Bank of Abyssinia to others

Table 4.2.16: Summary of Descriptive Statistics on the effect of Technology adoption on Customer Satisfaction

Table 4.3.1: latest Technology support employees to accomplish a greater volume of tasks.

Table 4.3.2: latest Technology supports employees to maintain consistent productivity level.

Table 4.3.3 latest Technology assists employees to deliver their output punctually.

Table 4.3.4: latest Technology assists employees to minimize errors.

Table 4.3.5: latest Technology assists employees in meeting the required specification for their job.

Table 4.3.6: latest Technology supports employees to enhance their work performance.

Table 4.3.7: latest Technology reduces workload of employees and facilitates faster output delivery.

Table 4.3.8: latest Technology helps employees to enhance their learning efforts.

Table 4.3.9 latest Technology assists flexibility in workplace.

Table 4.3.10: In general, latest Technology improves productivity of bank of Abyssinia employees.

Table 4.3.11: latest Technology has simplified work.

Table 4.3.12: latest Technology enhances the effectiveness of communication flow.

Table 4.3.13: Summary of Descriptive statistics of technology adoption on employee's performance.

Table: 4.4.1: One Sample T-Statistics

Table: 4.4.2: linear Regression Model Summary

Table: 4.4.3: One Sample T-Statistics

Table 4.4.4: linear Regression Model Summary

LIST OF FIGURES

Figure 2.1: Conceptual framework relating technology adoption with customer satisfaction and employee's performance.

ABSTRACT

The emergence and advancement of technology are a major success factor in any economic activities; especially in financial institution like bank technology adoption plays a significant role. The main aims of this study was to determine the effect of technology on customer satisfaction and employees performance on private banking industry, In order to determine the study used technology adoption as independent variable with customer's satisfaction and staff productivity as dependent variable for a measurement tool. The study was conducted in bank of Abyssinia east Addis district. Data was collected by distributing structured questionnaires and analyzed by using SPSS version 25.0. It used t-statistics tests to indicate the significance of independent variable over dependent variable. Additionally, the study employed simple linear regression to determine their impact. The findings revealed to have a positive significant effect of technology adoption on customer's satisfaction and employee's performance. The study recommended that banks should invest heavily in developing technologies to improve customer satisfaction and employee's performance.

Keywords: Technology adoption, Customers Satisfaction, Employees performance, Electronic Banking, Online Banking, Digital Banking

CHAPTER ONE

Introduction

1.1 Background of the Study

The practical implementation of scientific knowledge to meet human needs is known as technology. In today's dynamic business environment, technology's rapid advancement and promotion as a competitive advantage for organizations have become increasingly important. Any production process that significantly improves existing technology in terms of increased production or cost savings is considered latest technology (Encyclopedia Salomon, Jean-Jacques, 1984). According to Agbolde (2011) Technology refers an innovation that significantly affects how businesses conduct their operations.

Currently, the emergence and advancement of new technology are a major success factor in any economic activities.it creates advanced linkage between input and output in different business activity. Especially in financial institution like bank new technology plays a significant role Agbolde (2011).

Over the last decade technological innovation have affected organizational work. Technological advancement on work increases efficiency and effectiveness which gives different business activities competitive advantage.by using advanced technology business organization become stronger in many way and customer can access their product and service easily P Beer (2020).

According to (Talegeta, 2012) In order to become competitive and successful technological innovation is essential and critical which creates production process better and better in many business activities. technological innovation has a greater influence on different economic activities such as on production process, distribution of good and services and so on. According to Agrawal and Jain (2013), technological innovation plays an important role in financial sector which is critical for creation of new product and services. Therefore, in finance sector by using technological advancement customers requirement will be fulfilled and it gives the organization competitive advantage.

As highlighted by Agrawal and Jain (2013), business organizations introduce new product and service in order to sustain their business and to satisfy customer requirement. In the current

competitive market environment business organization like bank must focus on delivering an outstanding customer service and they must create a better customer relationship. Traditionally most banks provide their product and service by using conventional branch banking however; now a day customer prefers remote banking product and service. Thus, new technological innovation has a great influence on banking in the financial institution like banking industry.

Jalal Karim and Hamdan (2010) agree that most business organization globally works on new technological innovation. Particularly the success and failure of banking industry depend mainly on their capacity of technological advancement. They also agree that in banking industry competitive advantage will be gained mainly through new technological innovation Therefore, application of new technology will increase customer service quality and also decrease cost.

According to Gemechu (2012), Bank service in Ethiopia started in 1905.gradually many Ethiopian banks are using technological innovation in order to enhance their product and services. Currently many bank customers prefer remote banking, through digital banking they can access the service of the bank without going to branch. According to Asefa (2011), many Ethiopian banks are working on the strategy of branch expansion in order to be accessible. However, they should also consider the impact of technologies on their performance in order to be profitable.

1.2 Background of Abyssinia Bank

According to Abyssinia Bank's internal portal (www.bankofabyssinia.com), the modern Bank of Abyssinia was founded in 1906 during the reign of Emperor Menelik II, 90 years after the establishment of the first private bank on February 15, 1996. This was done in compliance with the Ethiopian Commercial Law and Banking Licensing and Control Proclamation No. 84/1994 issued in 1960.Abyssinia Bank started its operations with an authorized capital of 50 million birr and a paid-up capital of 17.8 million birr with 131 shareholders and 32 employees. Abyssinia Bank, which has been in existence for more than two decades, has seen significant growth in both paid-up capital and total assets.

The bank has also gathered a large number of skilled employees, respected shareholders and diverse customers. This achievement shows the public's confidence in the bank and their satisfaction with its services. At present, the bank offers unique domestic, international and

specialized banking services to its valued customers using the latest banking technology. Through its network of branches across the country, it strives to cater to all economic and service sectors.

As per the bank's digital division data, Abyssinia Bank serves more than 9.3 million customers in the country through its 825 branches. The bank's strong financial services infrastructure is integrated into the T-24 core banking system. With 1,271 ATMs, 18 Virtual Banking Centres and over 1,256 POS terminals strategically located at various locations, customers can conveniently access their accounts anytime, anywhere. This initiative enabled the bank to increase its capital from 50 million birr to 5.5 billion birr.

1.3 Statement of the Problem

Due to new technological innovation banking industry provides an outstanding customer services and its performance become better and better.as a result of new technology traditional ways of providing product and service such as branch banking are transformed in to digitally enabled product and service like internet banking, mobile banking, ATM. (Yeboah et al, 2013).

In the 21st century banking industry's competition is very high and customers expectation is also high thus to remain in the banking industry competitive banks should highly invest their resource on new technologies like electronic banking (Yeboah et al, 2013).electronic banking is the use of computers, phones and other technologies to facilitate banking product and service without physically going to branch.to improve profitability, efficiency and service quality banks should be alert in electronic product and service (Tiwari and Kumar, 2012).

In banking industry, the major sources of their revenue and competitive advantage now become an application of new technology. Most of banks give so much attention for technological impacts on quality service, customer's satisfaction and staff work productivity because it affects profitability of the bank (Yeboah et al., 2013).

Now a day the most critical weakness of banking industry is that being inactive to notice the influence of new technology by the top management level of the bank. Moreover, when the banks strategies are not linked with new technological progress the banks performance will be affected Agbolade (2011).

Studies (Amdemikael Abera, 2012, Ayana Gemechu, 2012, Gardachew Worku, 2010) have been conducted Related with the impact of new technologies on bank performance, such as electronic banking in Ethiopian banking industry, ICT impact on banking industry. Those researches try to determine technologies and their impact on banking industry on their current banking technology.

In order to encourage new technology in developing countries, a better understanding technology adoption and the barriers is critical (Zhao et al. 2008). Technology dynamically changes; therefore, it is necessary to conduct further research in order to know latest technologies effect on customers, employees and the challenge to use.

An in-depth understanding of new technology is beneficial for industry decision maker, to be competitive in the industry, to deploy latest technology in the future, to know feedbacks of the customer. As a result, this study determines the effects of technology adoption on customers satisfaction and employee's performance on private bank.

1.4 Research Question

- ✓ Does the adoption of technology affect customer satisfaction on private banking industry?
- ✓ Does the adoption of technology affect the ability of employees to effectively carry out their tasks and fulfill their duties responsibilities?

1.5 Research Hypothesis

The following hypotheses are tested in this study;

- ✓ Hypothesis 1: The adoption of technology has a significant effect on customer's satisfaction in private banking industry.
- ✓ Hypothesis 2: adoption of technology has affected employee's productivity in private banking industry.

1.6 Research Objective

1.6.1 General Objective

The main objective of the research is to determine how the adoption of technology has affected the private banking sector.

1.6.2 Specific Objective

- To determine the effect of technology adoption on customer satisfaction on private banking industry.
- To investigate how the adoption of technology affects employee performance in the private banking industry?

1.7 Significance of the study

technology adoption is transforming the banking industry in multitude of ways, from advancing customer service quality (meeting customer's expectation) to increasing its profitability and reducing cost. as new technological progress continues to emerge banks' will gain competitive advantage and remain competitive in the industry. technology adoption has revolutionized how banking sector operates and serve their customers. Therefore, private banks must consider the consequences that will come from the impacts of new technology. Additionally, top level management of the bank should consider the technological influence.

Despite the significance of technology adoption in banking services in Ethiopia, there are a few studies that explore it. Thus, the aim of this study is to examine the impact of new technology on banking industry in selected cases. The study's findings assist private banks (top management of the bank, other employees of the bank) and any party involving in banking industry to understand the impact of new technology on the performance of private banks. Furthermore, for the future research, the study's result provides additional research insight into how new technologies affect banking.

1.8 Scope and limitation of the study

This study seeks to investigate how the adoption of technology affects customer satisfaction and employee productivity within the Bank of Abyssinia's East Addis District. The study focuses on Bank of Abyssinia East Addis District, which has been a trailblazer in incorporating new technologies and establishing a network among its branches. It has also shifted towards Core

Banking, which offers technology-based services and products. The study participants were selected from branches of the Bank of Abyssinia located within Addis Ababa.

The research is limited to selected ten Branches of bank of Abyssinia east Addis district and the study may not assess the financial impact of implementing technologies in the bank.

CHAPTER TWO

Literature Review

2.1 Overview of Ethiopian Banking History

The emergence of Bank of Abyssinia with the Anglo-Egyptian National Bank in 1905 marked the onset of contemporary banking in Ethiopia. Additionally, two other foreign banks and the New Development Bank were established in 1908. However, these institutions faced scrutiny for being predominantly under foreign ownership (Abera, 2012). In 1931, the Bank of Ethiopia succeeded the Bank of Abyssinia, acting as Ethiopia's monetary authority until the Italian invasion in 1936. During the Italian occupation, Italian banknotes were used as legal currency. The State Bank of Ethiopia was founded in 1943 and operates with two divisions, each specializing in distinct roles of an issuing bank and a commercial bank.

The nationalized banks underwent restructuring, resulting in the establishment of one commercial bank, the Commercial Bank of Ethiopia, and a national bank, recreated in 1976. Additionally, two specialized banks emerged: the Agricultural and Industrial Bank later renamed the Development Bank of Ethiopia, and a Housing and Saving Bank, which became the Construction and Business Bank before merging with the CBE. Furthermore, one insurance company, the Ethiopian Insurance Company, was founded (Vijay and Asefa, 2011).

Following the collapse of the Derg regime in 1991, the Ethiopian People's Revolutionary Democratic Front introduced a liberal economic framework. As part of this transition, the Monetary and Banking proclamation of 1994 established the National Bank of Ethiopia as an independent judicial entity, delineating its primary responsibilities apart from the government. The legal foundation for investment in the banking sector was established by Monetary and Banking proclamation No. 83/1994 and the Licensing and Supervision of Banking Business No. 84/1994 (Ayele, 2012).

Since financial liberalization, many local financial institutions have appeared, although the banking sector in Ethiopia is still underdeveloped compared to other countries, cash is still the most common form of transaction. Government institutions, NGOs, and a few private businesses

and joint share companies are the main users of non-cash product of the bank like check (Worku, 2010).

2.2 Importance of adoption of Technology in Banking Industry

One of the most significant effects of technology adoption in banking is the rise of digital banking. With the widespread use of smartphones and the internet, banks have developed mobile apps and online platforms that allow customers to perform a range of financial transactions from the comfort of their own homes. This has made banking more convenient and accessible than ever before, enabling customers to check their account balances, fund transfer, and payment various bill with just a few clicks Batra and Bhatia (2014).

According to Ayana (2014) adoption of technology is making a big impact in the fight against fraud and cybercrime. Banks are investing heavily in cybersecurity measures to protect against cyberattacks and data breaches, and are using advanced analytics and machine learning to identify and prevent fraudulent activity. This not only protects customers' money and personal information but also helps to maintain the integrity of the financial system as a whole.

Recently, it has been possible to provide high-quality services by using new technology-related products such as Internet banking, electronic payment, security investments and information exchange in service industries, especially in the banking industry. Less effort from customers (Jalil-Karim and Hamdam, 2010). E-banking, introduced by banking businesses (Mai et al., 2007), represents a new approach. The latest generation of electronic banking brings new opportunities for established banks and financial institutions. To achieve zero latency, real-time settlements facilitate business process re-engineering, borderless marketing, enhanced customer service levels, and improved risk management (Agrawal & Jain, 2013).

Ayanda et al. (2011) suggest that bank management should boost investment in latest technology products to deliver quick, convenient, and precise services. Failing to do so could result in losing customers to competitors. Agrawal and Jain (2013) agree that intense competition among banks has transformed the entire banking system. Banks are not only focused on attracting new customers but also on retaining existing ones and gaining a competitive advantage. As they

enhance customer interactions and shift toward "relationship banking," customers are increasingly abandoning traditional branch banking in favour of remote electronic banking.

Batra and Bhatia (2014) listed three benefits of technology adoption in banking industry.

For the customer: Self-inquiry service, remote banking, anytime banking, telebanking, electronic banking and fast single window services.

For the Bank: Over the last years, banks have used technologies for various front and back office functions in addition to countless new products. Availability of various query service, helping the bank in business development and monitoring, are the main advantages of deploying new technology. Administrators and general managers have access to the terminals, so faster responses to customer inquiries without involving the bookkeeper. Automatic and rapid execution of standing orders and production of reports. Generating multiple MIS reports and submitting returns on time. Integrating the computerized branches and the control office (core bank) enables quick and timely transfer of information to enable quick judgments.

For Employees: thanks to latest technology, they are more productive in the following ways: Automating the printing of cover schedules, deposit receipts and passbooks frees employees from performing these time-consuming tasks and allows them to focus more on the needs of the customers. Accurately calculate tasks that take days, such as balancing and interest calculations. The ability to retrieve signatures, which helps users verify transactions from the comfort of their own terminal, also eliminates duplicate entries using single-point data entry. Automatic and rapid execution of standing orders and production of reports. Generating multiple MIS reports and submitting returns on time. Quick and timely exchange of information facilitates speedy judgments by linking computerized branches and the Controlling Office (Core).

Overall, technology is transforming the banking industry in a multitude of ways, from improving customer experiences to increasing security and reducing costs. With the continuous advancement of new technologies, we can expect further innovations within the financial sector in the years ahead.

2.3 Relationship between Technology adoption and Banking Industry

R.K. Uppal (2008) argues that the relationship between technology adoption and banking is mutually beneficial. He suggests that adoption of technology can help reduce costs, boost transaction volumes, and provide customized solutions in the banking sector. Similarly, for technology to flourish, it needs the support of banking and financial services. Alade et al. (2014) identify this interdependence as the most significant weakness in the banking industry today. He emphasized that to stay relevant in the rapidly changing landscape of New technology, banks need to reassess their service and delivery methods. Numerous studies have demonstrated a strong link between the adoption of new technology and banking success, highlighting benefits such as enhanced service quality, customer attraction, increased employee productivity, cost reduction, higher profitability, and improved decision-making.

Technological innovation has significantly enhanced service delivery standards in the banking sector. Automated teller and deposit machines, in their most basic form, now allow customers to make transactions outside of regular business hours. People no longer need to visit the bank hall to check their account balances or check their accounts thanks to internet banking. Furthermore, mobile banking allows users to manage their accounts and transfer funds using their smartphones. As a result, consumers ultimately do not need to use cash for all of their purchases (Wisdom, 2012). Finally, they agreed that improved service delivery has become more feasible than ever through the implementation and implementation of Internet-based technology.

Many sectors are planning to increase customer satisfaction by investing in new tools to increase their business efficiency. Daoud and Akinbade (2011) agree that investing in technology will enhance operational processes and improve both the quality and quantity of product and services. Banks can offer their customers fast, cost-effective services. Online banking strengthens customer relationships by providing financial services directly to their homes and offices, resulting in higher satisfaction and loyalty, which benefits the bank (Shaikh, 2014). Wisdom (2012) highlights that banks offering services outside of traditional branches ensure customer satisfaction. Moreover, e-banking has significantly expanded the customer base by enhancing satisfaction and loyalty.

According to Piget and Kossai (2013), the economic performance of countries, sectors and businesses is also determined by labor productivity. Labor productivity and overall product productivity of the company are both increased by adoption of technology. One of the sectors that has benefited the most from technology enhancement is the banking sector (Luke and Frank, 2012). According to Dowd and Akingbade (2011), bankers' performance and technological innovation have a significant and favorable relationship.

Technological investment enables revenue development by opening up new market and sales channels and improving lifecycle management. Higher customer satisfaction increases loyalty, which ultimately increases revenue growth. According to Piget and Kossai (2013), new technology aids businesses in lowering operational, general, administrative, and marketing expenses. By enhancing information sharing and tightening supply chain coordination, new technology facilitates cost reductions.

2.4 Types of Electronic Banking in Banking Industry

Technological advancements are expected to enhance banks' distribution channels. Electronic banking encompasses all methods of electronic service delivery and represents an effort to integrate various technologies. Although each of these developed in a unique way, in recent years they have realized how critical the collaboration of organizations and sectors (Oppong et al., 2014).

Automated Teller Machines (ATM)

According to Noorah et al. (2009), an ATM is an electronic terminal that allows customers to access banking services at any time. To withdraw cash or transfer funds, customers need an ATM card and a personal identification number (PIN). ATMs also enable customers to check account balances, deposit cash or checks, and transfer money between accounts. In order to get ATM services, customers need ATM cards and secret PIN codes. An ATM card is a smart card primarily used for security purposes. Combined with a PIN code, it provides an advanced authentication method known as two-factor authentication. This card can also be used for other banking services, such as depositing funds, transferring money to other accounts via ATM machines, and making payments for purchases at point-of-sale (POS) outlets. The primary

advantages of ATMs are they save the customer's time in service delivery and it is cost efficient way of yielding higher productivity per period than human tellers. Furthermore, as the ATMs continue when human tellers stop, therefore, there is continual productivity for the banks even after banking hours. (Tilahun, 2015)

As per the internal portal of the bank (www.bankofabyssinia.com), some of bank of Abyssinia ATM cards are:

Habesha Prepaid Debit: Prepaid debit services are one of mostly used banking services. With features like pre-paid gift card, pre-paid student card, pre-paid expense card and pre-paid salary cards, these cards offer wide array of options and functionalities. Customer whether they have an account at Boa or not, they are eligible to have a prepaid card.

Habesha gold debit card- The product features include a maximum daily payment or purchase limit of ETB 350,000.00 and a maximum daily cash advance (cash withdrawal) limit at branches of up to ETB 150,000. Maximum of 3 withdrawals per day and minimum of 50 Birr and Maximum daily cash withdrawal limit from ATM is ETB 15,000.

Habesha Ameen Debit Card: Ameen interest free banking offers Habesha Ameen debit card which gives a massive purchasing power. With up to ETB 200,000 daily purchases are offered as exceptional services through this card.

Debit Card

Debit cards, also referred to as check cards; resemble credit cards or ATM cards in appearance but function like cash or personal checks. Unlike credit cards, debit cards operate differently.

A credit card allows users to 'pay later,' whereas a debit card enables them to 'pay now.' When customers use a debit card, funds are promptly withdrawn from their checking or savings account. Debit cards are widely accepted at numerous places, such as grocery stores, retail shops, gas stations, and restaurants (Noorah et al., 2009).

Internet Banking

Internet banking, also known as online banking, web banking, or virtual banking, is an electronic home banking system that utilizes web technology. It allows bank customers to conduct transactions and manage their accounts via personal computers. This system enables users to access account information, learn about bank products and services, and perform various transactions directly with the bank using the internet as the delivery channel.

Customers can access all their accounts via the bank's website, enabling them to perform banking activities such as transferring funds, paying bills, checking account balances, paying mortgages, and purchasing financial instruments and certificates of deposit (Imola and Claudia, 2014).

According to Noorah et al. (2009), Internet banking allows users to manage numerous banking transactions using their personal computers. These computers connect through a network service provider directly to the bank's host computer system, enabling automatic processing of customer service requests without needing customer service representatives. The system can differentiate between requests that can be fulfilled automatically and those that need a representative's assistance.

As per the internal portal of the bank (www.bankofabyssinia.com), Through Abyssinia online systematized and stylish online banking platform, customers can avoid unnecessary queues to be served. Abyssinia online banking enables to manage financial activity without any problem.

Mobile Banking

Mobile banking is a system enabling bank customers to perform various financial transactions using a mobile device, being the newest service in electronic banking; mobile banking relies on WAP (Wireless Application Protocol) technologies since a mobile device requires a WAP browser installed in order to allow access to information. (Driga and Isac, 2014).

According to Shah and Clarke (2009), some banks are heavily investing in mobile systems to achieve various business benefits, such as enhanced efficiency, reduced costs, improved operational effectiveness, and better customer service, thereby gaining a competitive edge.

In those countries where traditional telecommunication infrastructure is not well developed, mobile technologies is transforming accessibility to the Internet based services. Mobile

banking is the latest electronic banking channel, offering a convenient way to conduct transactions via mobile phones or other mobile devices. Its potential surpasses traditional desktop access since mobile phone users greatly outnumber online PC users. The rise of “mobile lifestyles” is likely to drive the growth of applications that can be used anytime, anywhere (Shah & Clarke, 2009).

As per the internal portal of the bank (www.bankofabyssinia.com), Bank of Abyssinia offers a safe and secure banking system with the most flexible structure and allows you access to your account from anywhere and everywhere. Simple and user-friendly feature allows the customer to roam around its application with ease. Money transfer, bill payment, and withdrawal are just a click away. With product feature of Mobile Airtime Top-up, School fee payment, US VISA Payment and so many functions.

Agent Banking

Agent banking is a retail or postal outlet contracted by a financial institution or mobile network operator to handle clients’ transactions. Instead of a branch teller, the owner or an employee of the retail outlet conducts transactions, allowing clients to deposit, withdraw, transfer funds, pay bills, check account balances, or receive government benefits and direct deposits from their employer.

Banking agents can include pharmacies, supermarkets, convenience stores, lottery outlets, post offices, and more. They are typically equipped with tools such as point-of-sale (POS) card readers, mobile phones, barcode scanners for bill payments, PIN pads, and sometimes personal computers that connect to the bank’s server via dial-up or other data connections. Customers use card or their mobile phone to access their bank account or e-wallet, with identification typically done through a PIN. In terms of transaction verification, authorization, and settlement, banking agents function similarly to other remote bank channels (Solomon, 2016).

As per the internal portal of the bank (www.bankofabyssinia.com), Through GizePay bank of Abyssinia extends its network of branches and services to seamlessly remote and unreachable areas without having to open actual branches. Because Cash deposit, cash withdrawal, fund

transfer, bill payment, balance inquiry, mobile airtime top-up, and minis statement are as they can possibly be.

Apollo

According to the internal portal of the bank (www.bankofabyssinia.com), The Apollo mobile banking app, recently introduced by Abyssinia Bank, marks a groundbreaking advancement in the Ethiopian banking sector, it enables customers to open and manage bank accounts entirely remotely, without the need for a physical visit to a branch. Furthermore, the app offers a highly competitive interest rate of 9%, and the entire process of account creation and money transactions is fully digital and paperless.

The app features state-of-the-art security measures, including fingerprint and facial recognition for account access, in addition to seamless transfer capabilities. Customers can instantly transfer funds using EthSwitch and RTGS to other banks, making it easy to move money quickly and easily between accounts. Additionally, the app allows customers to make payments for services such as DSTV, and includes a built-in Visa payment service, enabling customers to make purchases directly from the app without the need for a physical card.

Another unique feature of the Apollo app is its ability to schedule payments even when the user is offline in a remote location. This means that customers can set up payments to be made at a later date, even if they are not connected to the internet at the time.

Point-of-Sale Transfer Terminals (POS)

A POS (Point of Sale) system enables customers to make retail purchases using a check card or debit card, which resembles a credit card but operates differently. When a debit card is used, the payment amount is instantly transferred from the cardholder's account to the retailer's account. Electronic Fund Transfer at Point Sale would provide service for customers to pay cheques and cash withdrawals for shopping without clerical duties. Moreover, the system operates beyond regular banking hours, ensuring continuous productivity for the bank even when branches are closed. This also saves customers time by eliminating the need to visit bank branches or ATMs (Tilahun, 2015).

2.5 Challenges of Technology Adoption on Private Bank

Due to their speed, simplicity, cost-effectiveness, and high level of customization and personalization, electronic banking services are deemed superior to traditional banking services. Self-service technologies like the Internet and ATMs offer flexibility, convenient locations, greater control over service delivery, high customization, enjoyment, and sudden customer delight, as noted by Oppong et al. in 2014. However, according to Oppong et al. (2014), the banking sector encounters several obstacles in adopting advanced technology and e-banking applications. Similarly, R.K. Uppal (2008) recognizes that despite the clear benefits of electronic banking, significant issues impede its widespread adoption.

- **Start-up cost:** The concern of high start-up cost associated with entering the e-banking market has been raised by many banks.
- **Maintenance and training:** To fulfill the demands of the e-banking sector both internally and externally, a well-trained and capable team is essential. This is necessary to provide 24/7 support, ensure high-quality service for end users, and effectively collaborate with other partners.
- **Shortage of qualified manpower:** In an environment where technology is evolving rapidly, there is always a need for skilled manpower.
- **Security:** There are several security issues with paperless financial transactions.
- **Restricted Trading:** Not all transactions can be completed online.
- **Disruption of pricing system:** New competitors in the market have lower prices than the established institutions. Therefore, they can compete significantly with the established banks by lowering their rates.

2.6 Theoretical framework

2.6.1 Customers Satisfaction Measurement

According to Hansemark and Albinson (2004), customer satisfaction is the overall perception or emotional response of a service provider to a discrepancy between what customers expect and what they get in terms of meeting a particular need, objective or need. According to Oliver (1997), satisfaction is the degree to which a product provides (or is providing) a pleasurable consumption-related end.

The link between operational success and customer satisfaction has been important. Customer satisfaction significantly affects the efficiency and financial success of banks, according to Qureshi et al. (2013) significantly affects the efficiency and profitability of the institutions. He also said that satisfied customers promote banks' products and services through clear word-of-mouth recommendations. Positive word-of-mouth advertising is especially effective in strengthening the banks' relationships with the community. Numerous studies have demonstrated a strong correlation between customer satisfaction and both organizational performance and financial efficiency. The level of satisfaction is influenced by several elements, which together form psychological, economic and physical elements. One of the key factors affecting customer satisfaction is service quality (Kumbhar, 2011).

According to Wandagogu and Jalulah (2011), service quality is determined by how well the service meets the user's expectations regarding the performance of the service before the customer actually receives it. Several previous studies have developed various parameters and factors to measure service quality. In the analysis of GAP and Extended GAP, Parasuraman and his colleagues (1985 and 1988) identified key aspects of service quality, which led to the development of the well-known SERVQUAL model, as noted by Vandagogu and Jalula (2011).

Table 2.1: Summary of related studies

S.No.	Service/Scale	Author/s	Attributes/Dimensions used in the study
1	Kano's Model	Kano (1984)	Must-be requirements, One-dimensional requirements, Attractive requirements, Reverse Quality.
2	Perceived SQ Model	Gronroos (1984)	Technical service quality, Functional service quality, Corporate image
3	SERVQUAL	Parasuraman, Zeithaml and Barry (1985; 1998)	Reliability, Responsiveness, Assurance, Empathy and Tangibles
4	SERVFERF	Cronin & Taylor (1994)	Reliability, Responsiveness, Assurance, Empathy and Tangibles
5	E-Commerce	Scheffter & Reichheld (2000)	Customer support, on-time delivery, compelling product presentations, convenient and reasonably priced shipping and handling, clear and trustworthy privacy

6	e-SQ and e-SERVQUAL	Zeithaml, Parasuraman, and Malhotra (2000)	efficiency, reliability, fulfillment, privacy, responsiveness, compensation, and contact
7	e-Satisfaction	Szymanski and Hise (2000)	Convenience, Merchandising, Easiness, Information, Deign, Financial security
8	E-loyalty	Gommans, Krishnan, and Scheffold (2001)	Website & Technology, Value Proposition, Customer Service, Brand Building and Trust & Security
9	SITEQUAL	Yoo and Donthu (2001)	Ease of use, aesthetic design, processing speed, and Security
10	WebQua	Loiacono, Watson and Goodhue (2002)	Information fit to task, interactivity, trust, responsiveness, design, intuitiveness, visual appeal, innovativeness, websites flow, integrated communication, business process and viable substitute, accessibility, speed, navigability and site content.
11	e-Satisfaction	Anderson and Srinivasan (2003)	convenience motivation, purchase size, inertia, trust and perceived value
12	E-S-QUAL and E-RecS-QUAL	Parasuraman, Zeithaml & Malhotra in (2005)	Efficiency Fulfillment, System availability, Privacy, Responsiveness, Compensation and Contact
13	Movie-Related Websites	Cho Yoon, and Joseph Ha (2008),	Ease of use, Usefulness, involvement, information factor, Convenience, technology, Community Factor, Entertainment Factors, Brand Name, Price Factor
14	BANKZOT	Nadiri, et al (2009)	Desired, adequate, predicted and perceived service quality

Source: Kumbhar (2011)

By employing principal component analysis on the aforementioned models, he pinpointed the factors that impact customer satisfaction within the banking sector.

Table 2.2: Determinants of Customer Satisfaction

S.NO	FACTORS	DESCRIPTION
1	System Availability	Includes modern equipment and physical facilities such as full branch computerization, core banking, ATM, POS, internet

		banking, mobile banking, SMS alerts, credit card facilities, EFT, ECS, and e-bill payment.
2	E-Fulfillment	Encompasses the range of services offered, availability of a global network, digitalization of business information, and variety of services provided.
3	Accuracy	Refers to error-free e-services delivered through e-banking channels.
4	Efficiency	Relates to the speed of service in activities like clearing, depositing, enquiry, information retrieval, money transfer, and responsiveness, ensuring immediate and quick transactions with minimal time consumption.
5	Security	Involves elements such as trust, privacy, believability, truthfulness, and security, aiming to build customer confidence by ensuring protection from risks like money losses, fraud, PIN and password theft, hacking, etc.
6	Responsiveness	Includes aspects like problem handling, resolution of issues, prompt service, timeliness, employee courtesy, and recovery assistance for PINs, passwords, and money losses.
7	Easiness	Refers to the user-friendly functioning of ATMs, mobile banking, internet banking, credit cards, debit cards, etc.
8	Convenience	Encompasses customized services, banking accessibility anywhere and anytime, appropriate language support, and time-saving features.
9	Cost Effectiveness	Relates to pricing aspects such as fees, charges, commissions, including those for fund transfers, interest rates, clearing charges, bill collection, transaction fees, and charges associated with ATM usage and processing. It emphasizes the need to reduce costs and fees levied by telecommunication companies, device manufacturers, and internet service providers.

10	Problem Handling	Involves the process of resolving issues related to computerized banking.
----	------------------	---

Source: Kumbhar (2011)

(Kumbhar, 2011) his conceptual framework states that, Customer satisfaction is assessed through service quality, which is evaluated using various tools and instruments developed by researchers and marketing consultancy organizations. In his study, he summarized various models constructed by scholars to measure service quality as stated in the above table.

2.6.2 Staff Productivity Measurement

In an unpredictable business environment with intense competition, companies must improve their performance to meet high demands. Failure to do so can lead to numerous problems, including the risk of business closure. Human resources are seen as the most important aspect in determining whether or not an organization's objectives are achieved at both organizational and individual levels (Muda et al., 2014). Whether it's the performance of a car or the performance of individuals and teams within organizations, the concept of performance captures everyone's interest. According to some predetermined objectives, a successful employee is one who produces positive results (Ojokuku & Sajuyigbe, 2012). Imran and others (2014) agreed that the wealth of an organization is critical to its success and human capital is one of its main resources. The performance of the corporation has a positive effect on the high productivity of the employees. Employee productivity will suffer, however, if they are not given the tools they need to do their jobs quickly and efficiently.

Employers can boost productivity through new technological innovations. According to Daoud and Akingbade (2011), such innovation mainly depends on human creativity. People can use their knowledge to create new tools, processes, and techniques that can affect the quality of goods and services positively or negatively. Technological progress is crucial for enhancing performance. Imran (2014) found that technological advancement greatly influences employee performance, indicating that as technology advances, employee performance improves.

Technological advancements like computer automation and electronic banking impact the speed of banking services, the quality of management decisions, and save time (Dauda and Akingbade,

2011).their findings indicate a significant positive relationship between technological innovation and the productivity of bank employees. For instance, electronic bank transfers allow employees to deliver improved service, enhancing customer loyalty and satisfaction. How the development of technology has affected the workers, it is easy for them to perform all these tasks Technological development has made it easier for workers to perform their tasks. Ojokuku and Sajuigbe (2012) concluded that implementing electronic banking systems has significantly boosted the productivity of bank employees, leading to more efficient and effective service delivery. Several factors have been identified that impact employee performance.,

Saeed et al. (2013) identified five elements that influence employee performance: manager's attitude, organizational culture, personal issues, job nature, and financial rewards. Conversely, Muda et al. (2014) discovered that communication, motivation, and workload were the three most impactful factors on employee performance. An organization's performance can be assessed by the quality, quantity, knowledge, or creativity of each employee, as well as the amount of work completed within a specific timeframe. Drawing on the related literature, this study evaluates employee performance in the banking industry using three parameters: quality of work, quantity of work, and the speed required to complete a task.

2.7 Conceptual Framework

The conceptual framework of this study is devised based on the above reviews of related literature mentioned on customers satisfaction and staff productivity measurement section (Daoud and Akinbade (2011), Qureshi et al. (2013), Piget and Kossai (2013), Ojokuku and Sajuigbe (2012)). It presents how does the adoption of technology affects customers satisfaction and employee performance of Bank of Abyssinia. The conceptual link between technology adoption with customer's satisfaction and employees performance underpins the research questions, hypothesis, and the entire study.

In this study customer satisfaction and employee performance has been identified as the dependent variable. The independent variables in this study are the adoption of technology.

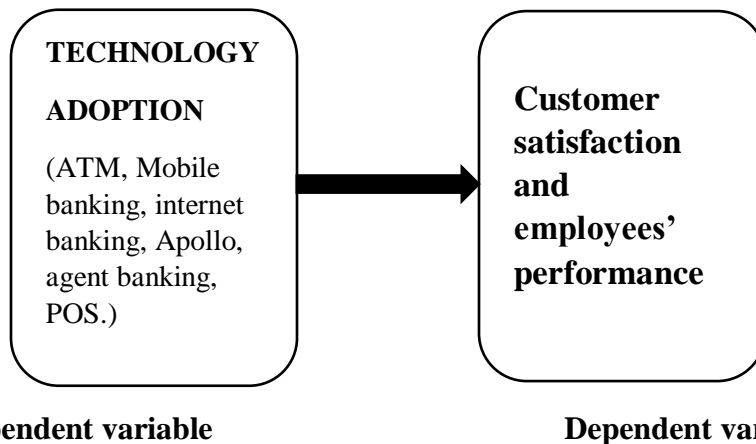


Figure 2.1: Conceptual framework relating technology adoption with customer satisfaction and employee's performance.

Source: *Alalade et. al., (2014).*

Namirembe (2007) states that technology adoption enhances the delivery of banking products and services electronically, including ATMs, internet banking, mobile banking, POS systems, and agent banking to provide a better service in order to satisfy customers, they can access what they want without going to branch, as a result a satisfied customer recommend the bank, be loyal to that specific bank and new technology facilitate good working conditions for employees.

To examine the effect of technology adoption on customer's satisfaction, this study utilized 10 factors which identified in customers satisfaction measurement section based on previous study (Kumbhar, 2011). Similarly, to examine the effect of technology adoption on employee's performance the study utilized the three employee's performance measurement factor which identified in staff productivity measurement section based on previous study Najeeb (2013),

The following factors mentioned clearly on customer satisfaction section and staff productivity measurement section respectively.

Customer satisfaction factor	Employees performance measurement factor
1.System Availability: the presence of up-to-date and well-maintained equipment and facilities.	1. Quality of work- is the service/task an employee completes successfully within the estimated time, with the end output satisfying the expectation of everyone involved including oneself.
2. E-Fulfillment: E-Fulfillment: Range of services provided, global network accessibility, and digitalization.	2. Quantity of work- The extent to which an employee completes work within given or reasonable time limit.
3.Accuracy: Error-free electronic services via e-banking channels.	3. Speed needed to perform a certain task- Refers to the rate at which the task must be completed or the time it takes to accomplish the task.
4. Efficiency: Fast service delivery.	
5.Security: Trust, privacy, credibility, reliability, and security to build customer confidence.	
6.Responsiveness: Effective problem resolution, prompt recovery, and quick service.	
7. Easiness- Easy to use & functioning.	
8.Convenience- Customized services, anywhere and anytime banking.	
9. Cost Effectiveness- Price, fee, charges.	
10.Problem Handling- problem solving process regarding computerized banking services.	

Source: Najeeb (2013), Kumbhar (2011)

CHAPTER THREE

Methodology

3.1 Introduction

Research methods are the strategies, process or techniques utilized in the collection of data or evidences for analysis in order to find solution to the research problem. On the other hand, research methodology a theoretical approach to collect and evaluate data throughout the research process (Saunders et al., 2009).

3.2 Research Design

- **Mixed-Method Approach:** This study utilized a mixed-method approach, incorporating both qualitative and quantitative
- **Case Study Method:** The research employed the case study method; this method allows for a detailed and in-depth understanding of the subject matter.
- **Explanatory Research:** This study is explanatory in nature, focusing on determining cause-and-effect relationships between variables.

Source of Data

- **Primary Data:** Structured questionnaires were distributed to relevant participants to collect primary data.
- **Secondary Data:** To strengthen the results and findings, the study also examined various articles, academic journals, and reports as secondary data.

3.3 Target population

The studies target group focuses on customers and senior staff from Bank of Abyssinia East Addis district. The researcher selectively chose customers who have utilized bank of Abyssinia new technology-based services or products, as well as employees who have worked for the bank for a minimum of two years.

3.4 Sampling Design

This study employed convenience sampling. Convenience sampling is non-probability sampling which focuses on gaining information from participant (the sample) who are convenient for the

researcher to access (Saunders et. al., 2009). Convenience sampling was utilized in this study because it is challenging to sample participants from a list of customers who have used at least one new technology product.

This approach is based on the practical limitations of conducting research on a large population within the constraints of time and resources available for the study. To mitigate potential biases and increase the likelihood of representing the population as accurately as possible, efforts are made to ensure diversity and variation among the selected participants.

Cochran's Sample Size Formula

Cochran's formula for determining sample size for a large (potentially infinite) population is given by:

$$n_o = Z^2 * p * (1 - p) / e^2$$

Where:

n_o = sample size

Z = Z-value (the number of standard deviations from the mean, based on the desired confidence level)

p = estimated proportion of the population that has the attribute in question

e = margin of error

Margin of Error Calculation for Selected Sample Sizes

Using Cochran's formula rearranged to solve for the margin of error e:

$$e = \sqrt{(Z^2 * p * (1 - p) / n)}$$

For 200 Customers:

$$e = \sqrt{((1.96)^2 * 0.5 * (1 - 0.5) / 200)}$$

$$e = \sqrt{(3.8416 * 0.25 / 200)}$$

$$e = \sqrt{(0.9604 / 200)}$$

$$e = \sqrt{0.004802}$$

$$e \approx 0.0693$$

The margin of error for 200 customers is approximately 6.93%.

For 60 Employees:

$$e = \sqrt{((1.96)^2 * 0.5 * (1 - 0.5) / 60)}$$

$$e = \sqrt{(3.8416 * 0.25 / 60)}$$

$$e = \sqrt{(0.9604 / 60)}$$

$$e = \sqrt{0.016007}$$

$$e \approx 0.1265$$

The margin of error for 60 employees is approximately 12.65%.

Sample sizes of 200 customers and 60 employees provide reasonable margins of error given the practical constraints of the study. This balance between statistical rigor and practical feasibility ensures that the study's findings are still meaningful and reliable.

As recommended by Saunders et al. (2009), non-probability method is a technique in which the researcher selects the sample based on subjective judgment rather than random selection. In this method not all the members of the population have a chance to participate in the study. For this study, a total of 200 customers and 60 employees (from 10 GRADE III branches, 20 customers & 4 senior and 2 junior employees from each branch at bank of Abyssinia east Addis district) selected. There are two types of Questionnaire which distributed to customers and staffs.

S.NO	Branch Name	Branch Grade	Number of Customers to be selected	Number of staffs to be selected
1	BOLE CORPORATE BRANCH	GRADE III	20	6
2	GERJI BRANCH	GRADE III	20	6
3	FILUHA BRANCH	GRADE III	20	6
4	GOTERA BRANCH	GRADE III	20	6
5	URAEI BRANCH	GRADE III	20	6
6	AIRPORT BRANCH	GRADE III	20	6
7	OLYMPIA BRANCH	GRADE III	20	6
8	MEGENAGNA BRANCH	GRADE III	20	6
9	SIGNAL BRANCH	GRADE III	20	6
10	GURD-SHOLLA BRANCH	GRADE III	20	6

3.5 Data Analysis

This research examined how new technology affects the performance of private banking and examine the key issues involved. The study collected data through surveys and analyzed it using the Statistical Package for Social Sciences (SPSS). Frequency table's helps to identify how many respondents share their opinions on specific topics, leading to reliable findings. The study utilized descriptive statistics to analyze and describe the data using frequency tables generated by SPSS. Furthermore, it applied one-sample t-tests and linear regression models to further assess the research hypothesis.

CHAPTER FOUR

Data Presentation, Analysis, Interpretation and Discussion

4.1 Introduction

The presentation, analysis, and interpretation of gathered data are covered in this chapter. To gather data on the impact of new technologies on customer satisfaction, 200 questionnaires were distributed to purposefully selected customers at 10 chosen branches of Bank of Abyssinia in the East Addis District. Furthermore, 60 questionnaires were distributed among the chosen branch staff members in order to gather data regarding how new technologies affect employees' performance. Out of the questionnaires distributed to 200 customers and 60 employees, replies were obtained from 194 customers and 54 employees respectively.

4.2 Demographic Data

4.2.1 Customers' Responses:

Table 4.2.1: Demographic Information of Customers

Variables	Classification	Frequency	Percent	Valid Percent	Cumulative Percent
1.Gender	Male	117	60.3	61.6	61.6
	Female	73	37.6	38.4	100.0
	Total	190	97.9	100.0	
	Missing	4	2.1		
	Total	194	100.0		
2.Age	18 or below	6	3.1	3.1	3.1
	19-28	82	42.3	42.3	45.4
	29-38	91	46.9	46.9	92.3
	39 or above	15	7.7	7.7	100.0
	Total	194	100.0	100.0	
3.Marital Status	SINGLE	93	47.9	47.9	47.9
	MARRIED	76	39.2	39.2	87.1
	DIVORCE	25	12.9	12.9	100.0
	Total	194	100.0	100.0	
4.Academic Background	High school diploma or below	36	18.6	18.6	18.6
	Junior college diploma	42	21.6	21.6	40.2
	Undergraduate	114	58.8	58.8	99.0

	degree (Bachelor's degree)				
	Graduate degree (Master's degree) or above	2	1.0	1.0	100.0
	Total	194	100.0	100.0	
5.Occupation	Missing	4	2.1	2.1	2.1
	Business Managerial	81	41.8	41.8	43.8
	Government officer	23	11.9	11.9	55.7
	Professional	32	16.5	16.5	72.2
	Student	11	5.7	5.7	77.8
	Self-employed	18	9.3	9.3	87.1
	Unemployed	5	2.6	2.6	89.7
	Other	20	10.3	10.3	100.0
	Total	194	100.0	100.0	
6.Length of new Technology usage	Less than 1 year	41	21.1	22.0	22.0
	1-2 years	52	26.8	28.0	50.0
	2 and above years	93	47.9	50.0	100.0
	Total	186	95.9	100.0	
	Missing	8	4.1		
	Total	194	100.0		

Source: SPSS Survey Results, 2024

According to the provided table, the total number of respondents is 194. Out of these, 117 are male while 73 are female. The largest number of respondents in age group 91 people falls within the age group of 29-38 years. The age group of 19-28 years and 39 or older follow.

According to the table, the largest proportion of respondents, 47.9%, are single. Married participants make up 39.2%, while divorced individuals account for 12.9% of the total respondents. Moreover, the table indicates that 114 respondents have a bachelor's degree, while 42 have a diploma. Additionally, there are 36 respondents who have less than a diploma and an equal number of participants with a master's degree. Out of all the respondents, 41.8% were

administrative staff. 47.9% had been using the bank's new technology product for 2 years or more, while 26.8% had been using them for 1-2 years.

4.2.2 Staff Responses

Table 4.2.2: Demographic Information of Employees

Variables	Classification	Frequency	Percent	Valid Percent	Cumulative Percent
1.Gender	MALE	38	70.4	73.1	73.1
	FEMALE	14	25.9	26.9	100.0
	Total	52	96.3	100.0	
	Missing	2	3.7		
	Total	54	100.0		
2.Age	19-28	16	29.6	30.2	30.2
	29-38	21	38.9	39.6	69.8
	39 or above	16	29.6	30.2	100.0
	Total	53	98.1	100.0	
	Missing	1	1.9		
	Total	54	100.0		
3.Marital Status	Single	22	40.7	41.5	41.5
	Married	26	48.1	49.1	90.6
	Divorce	5	9.3	9.4	100.0
	Total	53	98.1	100.0	
	Missing	1	1.9		
	Total	54	100.0		
4.Academic Background	Junior college diploma	3	5.6	5.7	5.7
	Undergraduate degree (Bachelor's degree)	46	85.2	86.8	92.5
	Master's degree or above	4	7.4	7.5	100.0
	Total	53	98.1	100.0	
	Missing	1	1.9		
	Total	54	100.0		
	5.Position	Non-Managerial	26	48.1	51.0
Managerial		25	46.3	49.0	100.0
Total		51	94.4	100.0	
Missing		3	5.6		

	Total	54	100.0		
6. Work Experience	More than 2 year	5	9.3	9.4	9.4
	3-5 years	16	29.6	30.2	39.6
	5 years and above	32	59.3	60.4	100.0
	Total	53	98.1	100.0	
	Missing	1	1.9		
	Total	54	100.0		

Source: SPSS Survey Results, 2024

The data in the table shows that 38 respondents were male, while 14 were female. Regarding age, the majority of respondents were in the 29-38 age group, followed by the 19-28 age group, and then those aged 39 and above.

Based on the table provided, it can be observed that the majority of the respondents were married, making up 48.1% of the total participants. Single and divorced individuals accounted for 40.7% and 9.3% of the total respondents, respectively. Among the participants, 46 individuals had a bachelor's degree while 4 had a master's degree. Only 3 employees had a college diploma. The table also shows that only 6 respondents had been with their current bank for less than three years. In contrast, 32 respondents (59.3%) had been with their bank for five years or more, while the remaining 16 employees (29.6%) had been employed there for more than five years.

4.2.3 The effect of technology adoption on Customers' Satisfaction

Table 4.2.3: Bank of Abyssinia provides its latest Technology product and they are almost always available.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	2.6	2.6	2.6
	Disagree	18	9.3	9.3	11.9
	Neutral	38	19.6	19.6	31.4
	Agree	106	54.6	54.6	86.1
	Strongly Agree	27	13.9	13.9	100.0
	Total	194	100.0	100.0	

Source: SPSS Survey Results, 2024

Based on the provided table, out of the total respondents, 106 people agreed that the bank offers a wide range of new technology-based products, which are almost always available. 19.6% of the respondents were neutral, while 13.9% strongly agreed with this statement.

Table 4.2.4: Bank of Abyssinia’s latest Technology -based products deliver precise and adequate information that I require.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	5.2	5.2	5.2
	Disagree	29	14.9	14.9	20.1
	Neutral	56	28.9	28.9	49.0
	Agree	79	40.7	40.7	89.7
	Strongly Agree	20	10.3	10.3	100.0
	Total	194	100.0	100.0	

Source: Survey result SPSS, 2024

Based on the survey results, it was found that out of all the participants, 79 customers agreed that Bank of Abyssinia’s new technology-based products deliver precise and adequate information that I require. Only 10 respondents strongly disagreed with this statement, while 56 respondents remained neutral.

Table 4.2.5: Bank of Abyssinia’s latest Technology products operate accurately, are free of errors, and are reliable.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.0	1.0	1.0
	Disagree	11	5.7	5.7	6.7
	Neutral	40	20.6	20.6	27.3
	Agree	95	49.0	49.0	76.3
	Strongly Agree	46	23.7	23.7	100.0
	Total	194	100.0	100.0	

Source: SPSS Survey Results, 2024

Based on the survey results, it was discovered that 95 customers agreed that Bank of Abyssinia’s new technology-based products operate accurately, are free of errors, and are reliable. Only 2 respondents strongly disagreed with this statement, while 40 respondents remained neutral.

Table 4.2.6: Bank of Abyssinia’s latest Technology -based products facilitate quick transactions, significantly reducing the time I spend.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.5	.5	.5
	Disagree	15	7.7	7.7	8.2
	Neutral	38	19.6	19.6	27.8
	Agree	109	56.2	56.2	84.0
	Strongly Agree	31	16.0	16.0	100.0
	Total	194	100.0	100.0	

Source: SPSS Survey Results, 2024

Based on the survey's findings, 109 customers agreed that Bank of Abyssinia’s new technology-based products facilitate quick transactions, significantly reducing the time I spend. Only 1 respondent strongly disagreed, while 38 respondents were neutral.

Table 4.2.7: latest Technology -based products offered by Bank of Abyssinia are secure and have a low associated risk.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	1.5	1.6	1.6
	Disagree	7	3.6	3.7	5.3
	Neutral	32	16.5	16.8	22.1
	Agree	86	44.3	45.3	67.4
	Strongly Agree	62	32.0	32.6	100.0
	Total	190	97.9	100.0	
	Missing	4	2.1		
Total		194	100.0		

Source: SPSS Survey Results, 2024

According to table presented, 86 respondents agreed that The new technology-based products offered by Bank of Abyssinia are secure and have a low associated risk..On the other hand, 16.5% of the respondents remained neutral, while only 1.5% strongly disagreed with the statement.

Table 4.2.8: When I contact Bank of Abyssinia employees through interactive website my

requests are always answered.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	4.6	4.7	4.7
	Disagree	31	16.0	16.1	20.8
	Neutral	62	32.0	32.3	53.1
	Agree	58	29.9	30.2	83.3
	Strongly Agree	32	16.5	16.7	100.0
	Total	192	99.0	100.0	
	Missing	2	1.0		
Total		194	100.0		

Source: SPSS Survey Results, 2024

Based on the data presented in the table 58 respondents agreed that their requests were promptly answered by customer by employees of bank of Abyssinia. Additionally 62 respondents were neutral towards this statement, while 31 respondents disagreed with it.

Table 4.2.9: Bank of Abyssinia's latest Technology based products easy to use.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.5	.5	.5
	Disagree	15	7.7	7.9	8.4
	Neutral	25	12.9	13.1	21.5
	Agree	109	56.2	57.1	78.5
	Strongly Agree	41	21.1	21.5	100.0
	Total	191	98.5	100.0	
	Missing	3	1.5		
Total		194	100.0		

Source: SPSS Survey Results, 2024

Based on the above table, 56.2% of the respondents agreed that Bank of Abyssinia's New Technology based products are easy to use. 12.9% of the respondents chose neutral with this statement, while only 7.7% of the respondents disagreed with the statement.

Table 4.2.10: Bank of Abyssinia's latest Technology based products ensure convenient banking any time anywhere.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	2.1	2.1	2.1
	Disagree	20	10.3	10.4	12.4
	Neutral	40	20.6	20.7	33.2
	Agree	80	41.2	41.5	74.6
	Strongly Agree	49	25.3	25.4	100.0
	Total	193	99.5	100.0	
	Missing	1	.5		
Total		194	100.0		

Source: SPSS Survey Results, 2024

According to table provided, out of the total number of respondents, 80 individuals agreed. 40 of the respondents were neutral, while only 4 of the respondents strongly disagreed.

Table 4.2.11: The fees related with Bank of Abyssinia’s latest Technology based products are fairly priced.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.0	1.0	1.0
	Disagree	11	5.7	5.7	6.8
	Neutral	39	20.1	20.3	27.1
	Agree	85	43.8	44.3	71.4
	Strongly Agree	55	28.4	28.6	100.0
	Total	192	99.0	100.0	
	Missing	2	1.0		
Total		194	100.0		

Source: Survey result SPSS, 2024

The table above displays that 85 people agreed. The remaining respondents were neutral or disagreed with this statement, with 20.1% and 5.7% respectively.

Table 4.2.12: Bank of Abyssinia resolves my concern and solves any error.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	3.1	3.2	3.2
	Disagree	28	14.4	14.7	17.9
	Neutral	48	24.7	25.3	43.2

	Agree	66	34.0	34.7	77.9
	Strongly Agree	42	21.6	22.1	100.0
	Total	190	97.9	100.0	
	Missing	4	2.1		
Total		194	100.0		

Source: Survey result SPSS, 2024

The findings reveal that 66 customers agreed. Furthermore, 42 individuals strongly agreed with this statement, while 48 respondents expressed neutrality towards this matter.

Table 4.2.13: In general, I am satisfied with Bank of Abyssinia’s latest Technology based product.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	1.5	1.6	1.6
	Disagree	11	5.7	5.7	7.3
	Neutral	28	14.4	14.6	21.9
	Agree	109	56.2	56.8	78.6
	Strongly Agree	41	21.1	21.4	100.0
	Total	192	99.0	100.0	
	Missing	2	1.0		
Total		194	100.0		

Source: Survey result SPSS, 2024

Based on the table, In terms of their satisfaction 109 customers agreed with the statement. Only 11 customers disagreed. Additionally, 28 customers remained neutral towards the statement.

Table 4.2.14: I speak positively about Bank of Abyssinia to others

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	2.6	2.6	2.6
	Disagree	2	1.0	1.1	3.7
	Neutral	24	12.4	12.6	16.3
	Agree	89	45.9	46.8	63.2
	Strongly Agree	70	36.1	36.8	100.0
	Total	190	97.9	100.0	
	Missing	4	2.1		
Total		194	100.0		

Source: SPSS Survey Results, 2024

Based on the table presented above, the majority of respondents, accounting for 45.9% of the

total, agreed with the statement. 12.4% of the total respondents (24 in number) remained neutral while only 2.6% of the total (5 respondents) disagreed with the statement.

Table 4.2.15: I will promote Bank of Abyssinia to others

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.0	1.0	1.0
	Disagree	9	4.6	4.7	5.8
	Neutral	20	10.3	10.5	16.2
	Agree	85	43.8	44.5	60.7
	Strongly Agree	75	38.7	39.3	100.0
	Total	191	98.5	100.0	
	Missing	3	1.5		
Total		194	100.0		

Source: Survey result SPSS, 2024

Out of all the respondents, 85 customers agreed with the statement. Among these respondents, 75 strongly agreed. While only 9 disagreed with the statement.

Table 4.2.16: Summary of Descriptive Statistics on the effect of Technology adoption on Customer Satisfaction

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
Bank of Abyssinia provides its New Technology product and they are almost always available.	194	1	5	3.68	.917
Bank of Abyssinia's new technology-based products deliver precise and adequate information that I require.	194	1	5	3.36	1.025

Bank of Abyssinia's new technology-based products operate accurately, are free of errors, and are reliable.	194	1	5	3.89	.868
Bank of Abyssinia's new technology-based products facilitate quick transactions, significantly reducing the time I spend.	194	1	5	3.79	.820
The new technology-based products offered by Bank of Abyssinia are secure and have a low associated risk.	190	1	5	4.04	.887
When I contact Bank of Abyssinia employees through interactive website my requests are always answered.	192	1	5	3.38	1.086
Bank of Abyssinia's New Technology based products easy to use.	191	1	5	3.91	.838
Bank of Abyssinia's New technology based product ensures convenient banking anywhere anytime.	193	1	5	3.78	1.009

The fees related with Bank of Abyssinia's New Technology based products are fairly priced.	192	1	5	3.94	.902
Bank of Abyssinia resolves my concern and solves any error.	190	1	5	3.58	1.085
In general, I am satisfied with Bank of Abyssinia's new technology based product.	192	1	5	3.91	.851
I speak positively about Bank of Abyssinia to others.	190	1	5	4.14	.870
I will promote Bank of Abyssinia to others.	191	1	5	4.16	.870

Source: Survey result SPSS, 2024

Based on the above table customers generally rate efficiency, responsiveness easiness more positively compared to other factor influencing customers satisfaction, overall, customers express their high level of satisfaction as evidenced by the mean score for overall satisfaction and the willingness to promote the products to others.

4.3 The effect of technology adoption on Employees Productivity

Table 4.3.1: latest Technology support employees to accomplish a greater volume of tasks.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	3.7	3.8	3.8
	Neutral	1	1.9	1.9	5.7
	Agree	15	27.8	28.3	34.0
	Strongly Agree	35	64.8	66.0	100.0
	Total	53	98.1	100.0	
	Missing	1	1.9		
Total		54	100.0		

Source: Survey result SPSS, 2024

According to the table above, 35 out of 54 employees strongly agree with the above statement, while only 2 disagreed.

Table 4.3.2: latest Technology supports employees to maintain consistent productivity level.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	1	1.9	1.9	1.9
	Agree	23	42.6	43.4	45.3
	Strongly Agree	29	53.7	54.7	100.0
	Total	53	98.1	100.0	
	Missing	1	1.9		
Total		54	100.0		

Source: SPSS Survey Results, 2024

According to the survey, a majority of employees (53.7%) expressed strong agreement with the statement mentioned. significantly, no respondents disagreed with the statement, and just one employee chose to remain neutral.

Table 4.3.3 latest Technology assists employees to deliver their output punctually.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	2	3.7	3.8	3.8
	Agree	22	40.7	41.5	45.3
	Strongly Agree	29	53.7	54.7	100.0
	Total	53	98.1	100.0	
	Missing	1	1.9		
Total		54	100.0		

Source: Survey result SPSS, 2024

Among the respondents, 29 employees strongly agreed and 22 agreed with the statement. Only 2 employees were neutral, and none expressed disagreement.

Table 4.3.4: latest Technology assists employees to minimize errors.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	3.7	3.8	3.8
	Neutral	10	18.5	18.9	22.6

	Agree	20	37.0	37.7	60.4
	Strongly Agree	21	38.9	39.6	100.0
	Total	53	98.1	100.0	
	Missing	1	1.9		
Total		54	100.0		

Source: Survey result SPSS, 2024

Among all respondents, 21 employees strongly agreed and 20 agreed with the statement. Additionally, 10 employees were neutral, and 2 disagreed.

Table 4.3.5: latest Technology assists employees in meeting the required specification for their job.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	3	5.6	5.7	5.7
	Neutral	5	9.3	9.4	15.1
	Agree	29	53.7	54.7	69.8
	Strongly Agree	16	29.6	30.2	100.0
	Total	53	98.1	100.0	
	Missing	1	1.9		
Total		54	100.0		

Source: SPSS Survey Results, 2024

Based on the table, 29 employees agreed with the above statement. Out of all the respondents, 16 employees strongly agreed with the statement, while only 5 employees were neutral.

Table 4.3.6: latest Technology supports employees to enhance their work performance.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	3.7	4.0	4.0
	Neutral	1	1.9	2.0	6.0
	Agree	23	42.6	46.0	52.0
	Strongly Agree	24	44.4	48.0	100.0
	Total	50	92.6	100.0	
	Missing	4	7.4		
Total		54	100.0		

Source: Survey result SPSS, 2024

Out of all the respondents, 24 employees strongly agreed and 23 employees agreed with the above statement. Only one employee was neutral with the statement, and two of the respondents disagreed.

Table 4.3.7: latest Technology reduces workload of employees and facilitates faster output delivery.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.9	1.9	1.9
	Disagree	2	3.7	3.8	5.8
	Neutral	4	7.4	7.7	13.5
	Agree	19	35.2	36.5	50.0
	Strongly Agree	26	48.1	50.0	100.0
	Total	52	96.3	100.0	
	Missing	2	3.7		
Total		54	100.0		

Source: SPSS Survey Results, 2024

Based on the above table, 26 employees strongly agreed and 19 employees agreed with the above statement. 4 employees had a neutral response to the statement, while 2 disagreed.

Table 4.3.8: latest Technology helps employees to enhance their learning efforts.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	5.6	5.9	5.9
	Disagree	2	3.7	3.9	9.8
	Neutral	4	7.4	7.8	17.6
	Agree	21	38.9	41.2	58.8
	Strongly Agree	21	38.9	41.2	100.0
	Total	51	94.4	100.0	
	Missing	3	5.6		
Total		54	100.0		

Source: SPSS Survey Results, 2024

The table above shows that 21 employees strongly agreed and 21 employees agreed with the above statement. Among the total respondents, 4 employees were neutral, while 2 and 3 employees disagreed and strongly disagreed with the statement, respectively.

Table 4.3.9: latest Technology assists flexibility in workplace.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.9	2.0	2.0
	Disagree	2	3.7	3.9	5.9
	Neutral	12	22.2	23.5	29.4
	Agree	20	37.0	39.2	68.6
	Strongly Agree	16	29.6	31.4	100.0
	Total	51	94.4	100.0	
	Missing	3	5.6		
Total		54	100.0		

Source: SPSS Survey Results, 2024

The above table shows, 16 employees strongly agreed and 20 employees agreed with the above statement. 12 respondents were neutral, and only 2 employees disagreed, while 1 employee strongly disagreed.

Table 4.3.10: In general, latest Technology improves productivity of bank of Abyssinia employees.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	2	3.7	4.0	4.0
	Agree	27	50.0	54.0	58.0
	Strongly Agree	21	38.9	42.0	100.0
	Total	50	92.6	100.0	
	Missing	4	7.4		
Total		54	100.0		

Source: Survey result SPSS, 2024

As shown in the table, 27 employees agreed and 21 strongly agreed with the statement. Only two employees were neutral, and none disagreed.

Table 4.3.11: latest Technology has simplified work.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	3.7	3.9	3.9
	Neutral	1	1.9	2.0	5.9
	Agree	24	44.4	47.1	52.9
	Strongly Agree	24	44.4	47.1	100.0
	Total	51	94.4	100.0	
	Missing	3	5.6		
Total		54	100.0		

Source: Survey result SPSS, 2024

Out of all the survey participants, 24 strongly agreed and 24 agreed with the above statement. Meanwhile, 2 employees disagreed, and 1 of the respondents was neutral.

Table 4.3.12: latest Technology enhances the effectiveness of communication flow.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	3.7	3.8	3.8
	Neutral	5	9.3	9.4	13.2
	Agree	26	48.1	49.1	62.3
	Strongly Agree	20	37.0	37.7	100.0
	Total	53	98.1	100.0	
	Missing	1	1.9		
Total		54	100.0		

Source: SPSS Survey Results, 2024

As shown in the table, out of the total population, 26 employees agreed and 20 employees strongly agreed with the above statement. Only 2 employees disagreed with the statement while 5 employees remained neutral.

Table 4.3.13: Summary of Descriptive statistics of technology adoption on employee's performance.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
New technology enables employees to accomplish a higher volume of tasks	53	2	5	4.57	.721

New Technology supports employees to maintain consistent productivity level.	53	3	5	4.53	.541
New Technology assists employees to deliver their output punctually.	53	3	5	4.51	.576
New Technology assists employees to minimize errors.	53	2	5	4.13	.856
New Technology assists employees in meeting the required specification for their job.	53	2	5	4.09	.791
New Technology supports employees to enhance their work performance.	50	2	5	4.38	.725
New Technology reduces workload of employees and facilitates faster output delivery.	52	1	5	4.29	.915
New Technology helps employees to enhance their learning efforts.	51	1	5	4.08	1.093
New Technology assists flexibility in workplace.	51	1	5	3.94	.947
In general, New Technology improves productivity of bank of Abyssinia employees.	50	3	5	4.38	.567
New Technology has simplified work.	51	2	5	4.37	.720

New Technology enhances the effectiveness of communication flow.	53	2	5	4.21	.769
--	----	---	---	------	------

Source: Survey result SPSS, 2024

According to the descriptive statistics for tasks such as accomplishing a greater volume of work, maintaining consistent productivity and delivering output punctually, employees generally rated with high positive score. Overall, employees believe that new technology has a positive impact on employees' performance.

4.4 Hypothesis Testing

Hypothesis 1: The adoption of technology has a major effect on customer satisfaction in the private banking industry.

One-Sample Test (T-Statistics)

To evaluate the hypothesis, the study used a One-Sample T test, comparing the sample's average score to a predetermined value.

Table: 4.4.1: One Sample T-Statistics

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
In general, I am satisfied with Bank of Abyssinia's technology based product.	194	3.91	.851	.061

Interpretation: On average, respondents reported a satisfaction level of 3.91 out of 5 for Bank of Abyssinia's new technology-based product. The standard deviation of 0.851 suggests that there is some variability in satisfaction levels among respondents. Additionally, the standard error of the mean (0.061) indicates the precision of the sample mean estimate. Overall, the majority of respondents appear to be satisfied with the adoption of technology, with relatively minor variability in their satisfaction levels.

One-Sample Test

	Test Value = 0					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
The adoption of new technology has a major effect on customer satisfaction in the private banking industry.	63.606	193	.000	3.906	3.79	4.03

Source: SPSS Survey Results, 2024

Interpretation

It can be concluded that the calculated t-value is 63.606 and the p-value is .000 for the statement, at a 5% significance level with 191 degrees of freedom. **Decision (Rejection Rule: Reject Ho if the p-value $\leq \alpha$, which is 0.05).**

Based on the provided table, the obtained p-value of .000 is lower than the tabulated α value of .05. This leads to the rejection of the null hypothesis (Ho) and the acceptance of the alternative hypothesis (H1). Therefore, it can be concluded that the adoption technology significantly affects customer satisfaction in the private banking industry.

Simple Linear Regression Model

Table: 4.4.2: linear Regression Model Summary

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.968	.113		17.490	.000
	Adoption of technology	.835	.047	.797	17.921	.000

a. Dependent Variable: Overall customers satisfaction

Source: SPSS Survey Results, 2024

Interpretation

The model is mathematically represented as $Y = a + bX$, where Y denotes overall customer satisfaction, X denotes the use of new technology-based products, a is a constant, and b is the coefficient. The given model is $Y = 1.968 + 0.835X$. This means that 83.5% of overall customer satisfaction is influenced by adoption of technology. Thus, it can be inferred that technology adoption has a significant impact on customer satisfaction.

Hypothesis 2: adoption of technology has affected employee’s performance in private banking industry.

One-Sample Test (T-Statistics)

Table: 4.4.3: One Sample T-Statistics

One-Sample Statistics

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
In general, technology adoption improves productivity of bank of Abyssinia employees.	50	4.38	.567	.080

Interpretation: On average, respondents strongly agree (with a mean score of 4.38 out of 5) that technology adoption by Bank of Abyssinia improves the productivity of its employees. The relatively low standard deviation of 0.567 suggests that there is relatively little variability in responses, indicating a high level of agreement among respondents. Additionally, the standard error of the mean (0.080) indicates the precision of the sample mean estimate. Overall, the majority of respondents believe that the technology adoption positively impacts employee productivity at Bank of Abyssinia.

One-Sample Test

One-Sample Test						
	Test Value = 0					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Lower					Upper	
In general, technology adoption improves productivity of bank of Abyssinia employees.	54.576	49	.000	4.380	4.22	4.54

Source: SPSS Survey Results, 2024

Interpretation

It can be concluded that the calculated t-value is 54.576 and the p-value is .000 for the above statement, at a 5% significance level with 49 degrees of freedom. **Decision (Rejection Rule: Reject H_0 if the p-value $\leq \alpha$).**

According to the provided table, the p-value of .000 is below the α value of .05. This leads to the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_1). Therefore, it can be concluded that the adoption of technology significantly impacts customer satisfaction in the private banking industry.

Simple Linear Regression Model

Table 4.4.4: linear Regression Model Summary

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.847	.355		5.204	.000
	Technology adoption	.558	.077	.722	7.228	.000

a. Dependent Variable: Overall employees' productivity.

Source: SPSS Survey Results, 2024

The model is represented as $Y = a + bX$, where Y represents employee productivity, X technology adoption a represents a constant factor, and b represents the coefficient value. According to the provided model, it can be interpreted as $Y = 1.847 + 0.558X$. This implies that approximately 55.8% of the improvement in employee productivity is attributed to the adoption of technology. Thus, it can be concluded that the adoption of technology on employee productivity in the private banking sector is substantial.

4.5 Discussion

- ▶ **The effect of technology adoption on Customers' Satisfaction:** The study's findings were obtained through close questionnaires given to 200 customers of banks of Abyssinia east Addis district. It indicates a positive correlation between the adoption of technologies and customer satisfaction within the private banking sector. The introduction of digital banking platforms, such as mobile banking apps and online account management systems, has streamlined processes and provided customers with greater convenience and accessibility.
- ▶ **The effect of technology adoption on Employees performance:** The study gathered data by distributing questionnaires to 60 employees of Bank of Abyssinia East Addis District. Therefore, employees have reported increased efficiency and job satisfaction as a result of technological advancements. Automation of routine tasks and the availability of real-time data have empowered staff to deliver more personalized and efficient service to clients.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of findings

Now a day, banking industries are integrating technological advancement in to their strategies and day to day operation to improve its client satisfaction, employee's performance, enhance their revenues and to gain competitive advantage. This study mainly determines how the adoption of technology affects customer satisfaction and employee's performance. To address the research objectives, the study used Surveys which Conducted among Bank of Abyssinia's customers to assess their satisfaction following the adoption of technologies. Questionnaires are being distributed to employees at the Bank of Abyssinia to evaluate how the adoption of technology is affecting their performance.

The study's findings, derived from detailed questionnaires distributed to 200 customers of the Bank of Abyssinia in the East Addis district, show a positive correlation between the adoption of technologies and customer satisfaction in the private banking sector. The introduction of digital banking platforms, such as mobile banking apps and online account management systems, has streamlined processes and provided customers with greater convenience and accessibility. Moreover, enhanced data analytics capabilities have enabled the bank to personalize services and offer tailored solutions to meet individual customer needs. Similarly, the study gathered data by distributing questionnaires to 60 employees of Bank of Abyssinia East Addis District. Therefore, employees have reported increased efficiency and job satisfaction as a result of technological advancements. Automation of routine tasks and the availability of real-time data have empowered staff to deliver more personalized and efficient service to clients.

The findings of this study underscore the transformative potential of technology within the private banking sector. By leveraging innovative solutions, banks can not only improve customer satisfaction but also enhance employee productivity and organizational performance.

5.2 Conclusion

5.2.1 The effect of technology adoption on Customer Satisfaction

This study attempted to assess how much the adoption of technology affected customer satisfaction. Therefore, the study drew the following conclusion.

- ❖ Based on the tested hypothesis, it is concluded that the adoption of technology significantly affects customer satisfaction. The linear regression model indicates a strong positive correlation between the adoption of technology and customer satisfaction.
- ❖ Based on the summary statistics, customers agreed that technology adoption has a positive influence on efficiency. Responsiveness and easiness and those are the major factor that affects customer's satisfaction
- ❖ The data in Table 4.2.16 indicates that the study concluded the impact of new technology on customer satisfaction concerning accuracy, the problem handling process, and the complaint resolution process is the least significant among all factors influencing their satisfaction.

5.2.2 The effects technology adoption on Employees performance

The research aimed to examine the effects of technology adoption on employee performance, focusing on the measurement criteria of work quantity, work quality, and task completion speed. Consequently, the following conclusions were reached:

- ❖ The hypothesis test results indicate that adopting technology significantly affects the performance of Bank of Abyssinia employees. Moreover, the linear regression analysis reveals a strong correlation between the use usage of technology and employee performance.
- ❖ Technology adoption significantly affected employees' ability to complete a larger number of tasks, as demonstrated by the higher values in the summary statistics shown in Table 4.3.13.

5.3 Recommendation

This study aimed to explore the effects of technology adoption, focusing on customer satisfaction and employee performance. The study was conducted by surveying the Bank of Abyssinia in the East Addis district, and the findings were used to draw conclusions about private banks. The study formulated various research questions and established hypotheses concerning the variables

under investigation. From the derived conclusions, the following recommendations are being put forward to relevant parties.

- ❖ The research outcomes and conclusions indicate that the integration of technology significantly influences a bank's performance, along with customer satisfaction and employee performance. Therefore, it is crucial for bank of Abyssinia to recognize the importance of technological advancements and incorporate them into their overall strategy and daily operations.
- ❖ The adoption of technology has greatly boosted the efficiency, responsiveness, and convenience of banking services and products. Yet, the accuracy of technology-driven services and products remains an area of consideration, as well as the problem management and compliance resolution processes of banks, are yet to meet the expectations of their customers. This can negatively impact the financial and non-financial performance of banks. Therefore, it is essential for top management to focus on these areas to enhance customer satisfaction.
- ❖ The banking industry handles an enormous number of daily transactions, exceeding that of other industries. Technology adoption has certainly improved the multitasking abilities of employees. However, inadequate internet and mobile network connectivity, coupled with a lack of awareness or understanding among employees and customers, has impeded the ability of these technologies to perform specialized tasks at the same pace as employees. Therefore, banks should invest heavily in developing the knowledge and skills of their employees through awareness programs for customers.

5.4 Future Research Recommendation

Based on this research finding, future research recommendation could focus on further exploring the following areas:

- **Impact of Innovation on Market Competition:** Analyses how technological innovation is shaping market competition in the banking industry to understand its effects on consumer choice and loyalty.

- **Customer Adoption of Banking Technologies** Investigate factors influencing customer adoption of new banking technologies to develop strategies for increasing acceptance and usage.
- **Promoting Digital Inclusion:** Explore strategies to promote digital inclusion and financial literacy among underserved populations to ensure equitable access to banking technologies.
- **Security and Trust in Digital Banking:** Assess perceptions of security and trust among customers regarding digital banking technologies to enhance confidence in online transactions.

Reference

Abdilmumuni Moro Wandaogou and Stephen Pambiin Jalulah, 2011, Evaluation of Customer Satisfaction with Internet Banking Service Quality in the Banking Industry in Ghana, MSc. Thesis, Lulea university of Technology, Ghana

A.Rai, R Patnayakuni and N Patnayakuni, 1996, refocusing where and how Information Technology value is realized: An Empirical investigation, Omega International Journal, Vol. 24, No. 4, pp 399-412.

Alabar, T. Timothy (2012). Electronic banking service and customer satisfaction in the Nigerian banking industry, International Journal of business and management tomorrow, Vol.2 No.3

Amdemikael Abera, 2012, Factors Affecting profitability: An Empirical study on Ethiopian Banking Industry, MSc Thesis, AAU.

Ayana Gemechu, 2012, Adaptation of Electronic banking system in Ethiopia Banking Industry: Barriers and Drivers, MSc Thesis, AAU.

Ayana Gemechu Bultum, 2014, Factors Affecting Adoption of Electronic Banking System in Ethiopian Banking Industry, Journal of Management Information System and Ecommerce, Vol. 1, No.1.

Ayman Zakaria Najeeb, 2013, The Impact of Training and ICT on Employees Performance: An empirical study on pharmaceutical manufacturing in Amman, MBA Thesis, Middle East University.

Agbolade,O.K. (2011) Information and Communication Technology and Banks Profitability in Nigeria. Australian Journal of Business and Management Research, 1, 102-107.

Fenuga,O.J.(2010).*The effect of electronic payment on customer service delivery*. International Journal of Economic Development Research and Investment Vol.1 No.1.

Gardachew Worku, 2010, Electronic-Banking in Ethiopia Practices: Opportunities and Challenges, Journal of Internet Banking and Commerce, Vol. 15, No. 2.

Habtamu Negussie Ayele, 2012, Determinant of Banks Profitability: An Empirical Study on Ethiopia Private Commercial Banks, Msc Thesis, AAU.

Jalal-Karim A. Hamdan,(2010) the impact of information technology on improving banking performance matrix: Jordanian bank as case study.

K. Obiri-Yeboah (2013) The Role of Information Technology on Banking Service Delivery: A Perspective from Customers in Ghana.

Saunders, M., Lewis, P. and Thornhill, A. (2009) Research Methods for Business Students. Financial Times/Prentice Hall, Englewood Cliff.

Kumbhar, V. M. (2011). Factors Affecting the Customer Satisfaction in E-Banking: Some Evidences from Indian Banks. Knowledge Management Research & Practice, 3, 1-14.

Muhammad Imran Qureshi, Adeel Rustum, Sehrish Rustum, Abdullah Bin Omar and Khalid Zaman,2013, Factors influencing customer Satisfaction in banking sector of Pakistan, Report and opinion 2013 (5(2), <http://www.sciencepub.net/report>.

Ojokuku R.M. and Sajuyigbe A.S., 2012, The Impact of Electronic Banking on Human Resource Performance in the Nigerian Banking Industry, International journal of Economic Development Research and Investment, vol. 3, No. 2.

Patrick Piget and Mohamed Kossai, 2013, The relationship between Information and Communication Technology Use and Firm Performance in Developing Countries: A Case Study of Electrical and Electronic Goods manufacturing SMEs in Tunisia, African Development Review, Vol. 25, No. 3.

R.K. Uppal, 2008, Banking Services and Information Technology: The Indian Experience, New Century Publication, New Delhi, India.

Peter Oppong, Hyford Adjei and Kofi Poku, 2014, The role of Information Technology in Building Customer Loyalty in Banking: A case study of Agricultural Development Bank LTD, Sunyani, British Journal of Marketing Studies, Vol. 2, No. 4, pp 9-29.

Salomon, Jean-Jacques (1 January 1984). "What is technology? The issue of its origins and definitions". *History and Technology*. 1 (2):Archived from the original on 4 October 2022. Retrieved 10 September 2022.

Samson Yimka Alalade, Kemi Omoniyi, Bolanle O.Amusa, 2014, Adoption of Information Technology and Banks Performance: A Survey of Selected Banks in Nigeria, *International Journal of Research in Commerce, IT and Management*, Vol. 4, Issue 2.

Shikha Batra and Ambika Bhatia, 2014, Information Technology in Banking Sector, *International Journal of Research in Commerce, IT and Management*, vol. 4, Issue 10.

Sunita Agrawal & Ankit Jain, 2013, Technological Advancement in Banking Sector in India: Challenges Ahead, *National Monthly Refereed Journal of Research in Commerce and Management*, Vol. 2, Issue 1.

Vijay M. Kumbhar, 2011, Factor affecting The Customer Satisfaction in E-Banking: Some Evidences from Indian Banks, *Management Research and Practice*, vol. 3, Issue 4.

Yunus Adeleke Dauda and Waidi Adeniyi Akingbade, 2011, Technology innovation and Nigerian banks performance: The assessment of employee's and customer's responses, *American Journal of Social and Management sciences*, ISSN Print: 2156-1540, ISSN Online: 2151-1559

Bank of Abyssinia Digital department, Internal Portal.bankofabyssinia.com

Appendix

ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
MBA PROGRAM

Questionnaire to be filled by customer

Hello, I am a graduate student in the MBA program at Addis Ababa University, currently researching the impact of new technologies on the performance of private banks, the case of bank of Abyssinia East Addis district. I would greatly appreciate your assistance in completing the attached questionnaire, which is crucial for achieving the research objectives. This study is purely academic, and all responses will be kept confidential.

Your honest and genuine responses will greatly enhance the quality of the study's findings. Thank you for your valuable contribution.

Sincerely,

Ali Mohammed

If you do not use any of the bank's technology-based services or products Please do not fill out the questionnaire including ATM, Mobile Banking, Internet Banking, GIzepay, or Apollo.

I. Demographic information

1. Gender

Male Female

2. Age (years old)

18 or below 19~28 29~38 39 or above

3. Marital Status

Single Married Divorce Separated Widowed

4. Education background

- High school diploma or below Junior college diploma Undergraduate degree (Bachelor’s degree) Graduate degree (Master’s degree) or above

5. Occupation

- Business (enterprise) managerial and technical personnel
 Government officer Professional (science and education, cultural, health)
 Student Self-employed Unemployed Others

6. Which of the Technology-based services/products of the bank do you use?

- ATM Mobile Banking Internet Banking Gizepay Apollo

7. Length of new Technology-based services/products use:

- Less than 1 year 1-2 years 2 years and above

II. This section of the questionnaire focuses on customer satisfaction with the new technology-based products offered by the Bank of Abyssinia. These products include ATM services, mobile banking, internet banking, Gizepay, and Apollo. Please express your level of agreement with each of the following statements by circling the number that best reflects your opinion. Use the following scale: 1 for strongly disagree (SDA), 2 for disagree (DA), 3 for neutral (N), 4 for agree (A), and 5 for strongly agree (SA).

No.	Question	SDA	DA	N	A	SA
	Each question represents the following customer’s satisfaction factors respectively. (1. System Availability 2.E-Fulfillment 3. Accuracy 4. Efficiency 5. Security 6. Responsiveness 7. Easiness 8. Convenience 9. Cost Effectiveness 10. Problem Handling)					
A. Factors Affecting Customer satisfaction						
	1. Bank of Abyssinia provides its New Technology product and they are almost always available.	1	2	3	4	5
	2. Bank of Abyssinia’s new technology-based products deliver precise and adequate information that I require.	1	2	3	4	5

3. Bank of Abyssinia's new technology-based products operate accurately, are free of errors, and are reliable.	1	2	3	4	5
4. Bank of Abyssinia's new technology-based products facilitate quick transactions, significantly reducing the time I spend.	1	2	3	4	5
5. The new technology-based products offered by Bank of Abyssinia are secure and have a low associated risk.	1	2	3	4	5
6. When I contact Bank of Abyssinia employees through interactive website my requests are always answered.	1	2	3	4	5
7. Bank of Abyssinia's New Technology based products easy to use.	1	2	3	4	5
8. Bank of Abyssinia's New technology based product ensures convenient banking anywhere anytime.	1	2	3	4	5
9. The fees related with Bank of Abyssinia's New Technology based products are fairly priced.	1	2	3	4	5
10. Bank of Abyssinia resolves my concern and solves any error.	1	2	3	4	5
B. Overall Customer satisfaction					
1. In general, I am satisfied with Bank of Abyssinia's new technology based product.	1	2	3	4	5
2. I speak positively about Bank of Abyssinia to others.	1	2	3	4	5
3. I will promote Bank of Abyssinia to others.	1	2	3	4	5

ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
MBA PROGRAM

Questionnaire to be filled by employees of bank of Abyssinia

Hello,I am a graduate student in the MBA program at Addis Ababa University, currently researching the impact of new technologies on the performance of private banks, the case of bank of Abyssinia East Addis district. I would greatly appreciate your assistance in completing the attached questionnaire, which is crucial for achieving the research objectives. This study is purely academic, and all responses will be kept confidential.

Your honest and genuine responses will greatly enhance the quality of the study's findings. Thank you for your valuable contribution.

Sincerely,

Ali Mohammed

N.B Please put a “√” mark to all your responses in the box provided beside each statement.

I. Demographic information

1. Gender

Male Female

2. Age (years old)

18 or below 19~28 29~38 39 or above

3. *Marital Status*

Single Married Divorce Separated Widowed

4. Education background

High school diploma or below Junior college diploma Undergraduate degree (Bachelor’s degree) Graduate degree (Master’s degree) or above

5. Work Experience

More than 2 year 3-5 years 5 years and above

II. This section of the questionnaire addresses employees' productivity in relation to the adoption of new technologies (such as the latest core banking solutions, updated hardware infrastructure, and fast network systems) in the bank's daily operations. Please indicate your level of agreement with each of the following statements by circling the number that best reflects your opinion. The scale is as follows: 1 for strongly disagree (SDA), 2 for disagree (DA), 3 for neutral (N), 4 for agree (A), and 5 for strongly agree (SA).

No.	Question	SDA	D A	N	A	SA
	The following questions represent employee's performance measurement factors respectively.					
Quantity of work	1. New technology enables employees to accomplish a higher volume of tasks.	1	2	3	4	5
	2. New Technology supports employees to maintain consistent productivity level.	1	2	3	4	5
	3. New Technology assists employees to deliver their output punctually.	1	2	3	4	5
Quality of work	4. New Technology assists employees to minimize errors.	1	2	3	4	5
	5. New Technology assists employees in meeting the required specification for their job.	1	2	3	4	5
	6. New Technology supports employees to enhance their work performance.	1	2	3	4	5
Speed required to accomplish a specific work	7. New Technology reduces workload of employees and facilitates faster output delivery.	1	2	3	4	5
	8. New Technology helps employees to enhance their learning efforts	1	2	3	4	5
	9. New Technology assists flexibility in workplace.	1	2	3	4	5
	Overall Employees Productivity					

	1. In general, New Technology improves productivity of bank of Abyssinia employees.	1	2	3	4	5
	2. New Technology has simplified work.	1	2	3	4	5