



ADDIS ABABA UNIVERSITY

DEPARTMENT OF MARKETING

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**THE EFFECT OF ELECTRONIC PAYMENT SYSTEM
ON SATISFACTION OF CUSTOMERS THE CASE OF
ABYSSINIYA BANK**

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June , 2024

ADDIS ABEBA ETHIOPIA

Declaration

I, NAZRAWIT ENDALE the under signed, declare that this thesis entitled: “The effect of electronic payment system on the satisfaction of customers the case of Abyssinia bank” is my original work. I have undertaken the research work independently with the guidance and support of the research supervisor. This study has not been submitted for any degree or diploma program in this or any other institutions and that all sources of materials used for the thesis has been duly acknowledged.

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This is to certify that the thesis entitled: **The effect of electronic payment system on the satisfaction of customers the case of Abyssinia bank** submitted in partial fulfilment of the requirements for the degree of Masters of MARKETING of the Postgraduate Studies, Addis Ababa University and is a record of original research carried out by [NAZRAWIT ENDALE] under my supervision, and no part of the thesis has been submitted for any other degree or diploma. The assistance and help received during the course of this investigation have been duly acknowledged. Therefore, I recommend it to be accepted as fulfilling the thesis requirements.

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ACRONYMS

ATM Automatic teller machine

MB Mobile banking

IB Internet banking

POS Point of Sale

EPS Electronic payment system

Giza pay Electronic Banking

CS Customer satisfaction

SPSS Statistical Package for the Social Sciences

AB Bank on Abyssinia

Abstract

One of the major forces behind Ethiopia's economic expansion and prosperity is the service sector and more on the financial sector. The purpose of this study is to look into how several aspects of the Bank of Abyssinia's electronic payment system affect customer satisfaction. The study also looks into the main difficulties the bank faced in providing the service, which could have an impact on how satisfied customers are. The ease use of mobile banking, safety of internet banking, compatibility of Gizepay, and accessibility of automated teller machines—have been chosen as predictors of customer satisfaction in electronic payments based on the body of knowledge. A descriptive and quantitative research methods were used in the study. Sample size was 399, data were collected from 357 individuals using a previously tested questionnaire. Using a purposive sampling strategy, the samples were chosen from five distinct branches namely Bole Michael, Saris, Kality, Maseltgna and Gelan. Using a 5-point Likert scale, the data was collected, and analyzed by 27th version of the Statistical Package for Social Science (SPSS) was used for analysis. A descriptive statistics were used to provide basic information about variables and Correlation analysis were utilized to examine the relationship between e-payment satisfaction and the chosen factors. Mobile banking was the most popular e-banking product, followed by ATM access, internet banking, and Giza pay. And the overall, customers expressed positive ratings for meeting service delivery timelines and round-the-clock availability. However, there is room for improvement in areas such as availability everywhere, accommodation of large volume transactions, and language clarity. Participants generally expressed moderate satisfaction with mobile banking, internet banking, Giza Pay, and overall customer satisfaction. However, individual experiences may vary, and the findings may be limited by small sample sizes. Based on the findings and conclusion the researcher recommend that The financial institution-the bank of Abyssinia should focus on improving mobile banking services, including user experience, features, and security. Efforts should be made to increase awareness and promote the benefits of internet banking services. To enhance customer satisfaction with ATM services, efforts should be made to improve availability everywhere, accommodate large volume transactions, and enhance language clarity. Further studies must a larger-scale survey to obtain a more representative sample.

Key words: Service performance, E-Banking ,customer satisfaction

CHAPTER ONE

INTRODUCTION

1. Background of the Study

The genesis of the business of services can be traced back to antiquity, when individuals or small groups within a community provided services such as healthcare, education, and transportation (James McClenon, 1997).

As societies evolved, the service industry also evolved, with the emergence of professional services such as legal and financial services.

With the emergence of new services such as utilities, transportation, and telephones, the industrial revolution of the nineteenth and twentieth century's drastically transformed the service business. The blossoming of the travel and hospitality sectors also occurred during this time. (John Movaenzader, 2015).

Following the advent of new industries like healthcare, telecommunications, and entertainment, the service business continued to flourish and diversify in the decades that followed. The service sector saw additional transformation as a result of globalization and technology advancements, giving rise to new services including digital marketing, online streaming platforms, and e-commerce. (Fitzsimmons J.A. & Fitzsimmons, M.J., 2013).

Today, the service industry encompasses various sectors, including retail, finance, healthcare, hospitality, transportation, and professional services. It keeps shifting in response to the changing requirements of consumers and innovations in technology, with a growing emphasis on personalized and digital services (Michela Pellicelli, University of Pavia, January 2023).

In a service-based firm, the service is created through interaction between the customer service provider and the consumer. Service businesses that are successful concentrate on both their clients and since good communication relies on the abilities of front-line workers and the systems that support these (Kotler and Armstrong, 2012).

Customers' ratings of a particular service heavily depend on the quality of its offerings. Individuals have different expectations and views of what defines an excellent service, thus exceeding those expectations are crucial to delivering a high-quality solution. Important features anticipated usage of these features, and suitable solutions to service delivery issues can all be found through the use of marketing research (Zeithaml, V.A., Bitner, M.J., & Gremler, D.D., 2018).

A country's financial institution is crucial to its economic operations. The Bank of Abyssinia, which was founded in Ethiopia in the late 1800s, was the country's first modern bank, and it was subsequently followed by the State Bank of Ethiopia and the Bank of Ethiopia (Panurach, 1996).

Our country's experience with electronic payment systems (EPS) began in 2001, when Addis Ababa's ATM payment locations were established by ABISINIYA BANK (AB). Since then, Ethiopian banks have been incrementally implementing and growing e-banking services, albeit slowly because of security risks and inadequate internet and telecommunications infrastructure (FyeriAberhe, 2015).

This study looks at the way individual satisfaction is impacted by the quality of the services delivered by banks, which are trying to boost client convenience, prestigious services, and faster processing times for transactions. This study looks at the Bank of Abyssinia S.C. instance, concentrating on the connection between customer satisfaction and the quality of service (Ayana, 2014).

The results of the investigation might assist businesses and financial institutions employing the EPS system framework organize to take action to increase consumer confidence in the electronic payment system. This could thus ease Ethiopia's transition to an array of e-banking systems in both state and commercial institutions. The results can further expand the corpus of research on the variables influencing customers' perceptions of security and trust as well as how they use EPS. The study can serve as a springboard for additional research in the field.

2.Statement of the problem

The increasing popularity of banking via the internet and e-commerce has been greatly aided by the introduction of the electronic payment system. The majority of bank customers regularly utilize ATMs are spread throughout the world, most notably in first world countries. ATMs are still being implemented in low-income countries' banking sectors, albeit they are a relatively new occurrence in low-income nations like Ethiopia (Ayana, 2014).

The implementation and utilization of EPS are influenced by objective factors such as the state of security and protection systems at that moment and customers' subjective perceptions of security and trust. Four factors are identified as being important: confidence, safety, self-efficacy, and ease to employ (Qatawneh, 2015).discussed as influencing the adoption and use of EPS by customers.

The implied confidence of conventional interpersonal relationships that occur in real interactions among vendors and clients of E-banking services, according to Chellappa and Pavlou (2002), is one of the explanations.

They put to the test a study model of consumers' use of EPS It is affected by the way how users perceive reliability and safety using by Linck et al. (2006). Their findings demonstrate a favorable relationship between consumers' felt security, consumers' perceived trust, and the usage of EPS as well as a positive relationship between consumers' perceived trust and EPS use. They also stated that the findings concur with those of earlier studies on the subject.

In these earlier investigations, participants to be asked about their attitudes toward the dependability of several distinct safety measures deployed applying a five-point Likert scale with a maximum of five responses in the EPS frameworks of the banks that are being assessed. Other studies on e-banking have also been conducted, but their main emphasis was on the adoption of the technology (such as Mintesnot's (2018) study on the possibilities and difficulties in the adoption of e-banking services, the assessment of the prospects as well as challenges of e-banking, and a review of customers' trust as well as the possibilities and difficulties in embracing and advancing the use of electronic banking in the Ethiopian financial institutions in the case of selected privately owned banks.

The widespread use of electronic financial services, mainly its potential and concomitant challenges, was the fundamental subject of all this research. Due to the paucity of studies on the topic, the current study concentrated the impacts on customer contentment by the performance of Abyssinia bank electronic payment system.

Research Questions

The research concerns that follow ought to be generated in order to steer the study:

- How does the accessibility of automated teller machines relate to client satisfaction?
- What ways does the ease of use mobile banking improves client satisfaction?
- What ways does the safety of Internet based banking relate to the increase client satisfaction?
- In what ways does Gizapay's interoperability increase customer satisfaction?

Objective

The General Objective

The aim of this research project is to measure the extent to which customer satisfaction regarding Bank of Abyssinia's electronic payment system (EPS).

Specific Objective

From the general objective, this study's specific goals are as follows.

- To analyze how client satisfaction is affected the accessibility of automated teller machines.
- To evaluate the client satisfaction improvement with the ease of use of mobile banking.
- To identify how the customer happiness is related to the safety of Internet based banking
- To identify customers satisfaction with compatibility of Gizapay.

Scope

The conceptual scope of the research is on the electronic payment systems, the accessibility of the ATM machine, the ease of use of the mobile banking , the security of internet banking and the compatibility of Giza pay and affecting the customers satisfaction. The target population is EPS

users of BOA the sample of 399, was selected with a purposive sampling technique. The research centered on the Bank of Abyssinia and examined how well e-payments performed in Addis Ababa city in particular. Because it is the nation's capital and has a diverse population, Addis Ababa will be chosen for the study because it will include a large number of potential customers. More specifically, the study focused on consumers who use any e-bank products because customers are more likely to provide accurate information about their experiences with e-banking than staff.

Limitations

In summary, the study's limitations regarding its geographical focus on Addis Ababa, the inclusion of only five banks, and the utilization of only four specific EPS may compromise its generalizability and restrict the breadth of insights gained from the research.

Significance of the study

The study's conclusions the study's conclusions also add to the body of information already available about the variables affecting consumers' perceptions of confidence and safety, as well as their use of electronic payment systems. As such, this work acts as a stimulant for future studies and research in this area, opening the door for new developments and understandings in the subject. It may also serve as a reference for financial institutions along with other organizations that provide electronic payment systems as they strive to increase consumer confidence in these methods of payment. Through the integration of research findings, these organizations can develop focused interventions that enhance consumer confidence, ultimately leading to the adoption of various e-banking systems in both public and commercial banks throughout Ethiopia.

Organization of the Study

There are five chapters in this research. The paper's introduction has been addressed in the first chapter. In the second chapter, several connected works of literature are reviewed. The research technique used in the study is described in depth in third chapter. The data analysis and interpretations that lead to a discussion of the findings are covered in fourth chapter. A summary, a conclusion, and a recommendation according to the findings would be included in the last chapter.

Definition of the terms

- Electronic Payment System (EPS): FyeryAbrehe (2015) discussed the introduction of EPS in Ethiopia by ABISINIYA BANK.
- Bank of Abyssinia: Panurach (1996) mentioned the establishment of the Bank of Abyssinia in Ethiopia.
- Customer satisfaction (Kotler and Armstrong, 2012).mentioned about the quality of service on customers perception

CHAPTER TWO

LITERATURE REVIEW

Introduction

Theoretical review

A review of earlier research that was relevant to the current topic was offered in this chapter. Possible ideas that describe various elements thought to influence client happiness with online banking are also covered. The chapter introduction, theoretical review, empirical literature, and conceptual framework are covered.

What is Electronic Payment Systems

Electronic payment systems have emerged as a powerful alternative to traditional cash-based and card-based payment methods. As noted by Vincúrová, Vochozka, Sun, and Zhang (2022), there are many similarities between conventional payment methods and e-payment systems, as they both facilitate the transfer of funds for goods and services. However, electronic payment systems possess distinct advantages, particularly in terms of the sophisticated security measures they employ.

The article by Vincúrová, Vochozka, Sun, and Zhang (2022) highlights the growing prominence of electronic payment systems (EPS) as an alternative to traditional cash-based and card-based payment methods. This shift towards EPS is an important development that has significant implications for customer satisfaction.

From a theoretical perspective, the widespread adoption of EPS can be viewed through the lens of technological innovation and consumer behavior. The convenience, speed, and security offered by EPS align well with customer preferences and expectations in the modern digital landscape. As

customers become more accustomed to the benefits of EPS, their satisfaction with the overall payment experience is likely to increase.

Furthermore, the article's emphasis on the "powerful" nature of EPS suggests that these systems have the potential to transform the customer experience in profound ways. Factors such as reduced transaction times, enhanced security, and the ability to conduct transactions remotely or on-the-go may all contribute to heightened levels of customer satisfaction.

Additionally, the theoretical underpinnings of this topic could be further explored by drawing on theories of technology acceptance, customer service quality, and the role of innovation in shaping customer perceptions and behaviors. These theoretical frameworks can provide a solid foundation for understanding the complex relationships between EPS, customer satisfaction, and broader market trends.

One of the key distinctions is the nature of the goods and services being exchanged. As Mykytyn, Taras, Khyzhniakova, and Rahulina (2023) highlight, electronic payment systems are often used for the purchase of digital goods and services, such as e-books, digital media, and online services. In contrast, conventional payment methods are more commonly associated with the exchange of tangible physical goods. That said, both payment systems can be utilized for a wide range of transactions, from physical to digital.

One key aspect to consider is the difference between tangible goods and intangible services. Banking and financial services like those provided by Abyssinia Bank are primarily service-based rather than physical goods-based. The "product" being exchanged is not a tangible item, but rather the convenience, security, and efficiency of electronic payment processing and related banking services.

This distinction is important because services tend to have different characteristics than physical products. Services are often more perishable, inseparable from the service provider, and variable

in quality compared to standardized goods. This can impact how customers perceive and evaluate the service experience.

Additionally, the shift to electronic payment systems introduces new dimensions to consider. EPS encompasses the technology, processes, and infrastructure enabling digital financial transactions. These digital services may have unique features like 24/7 accessibility, real-time processing, and heightened security concerns compared to traditional in-person banking.

The theoretical review could explore how these service-dominant and technology-enabled aspects of EPS might influence customer satisfaction. Factors like service quality, perceived ease of use, reliability, and responsiveness could be key drivers of satisfaction that differ from a purely goods-based context.

Does this help provide some ideas for broadening the theoretical discussion around the goods/services distinction in your research? Let me know if you need any clarification or have additional context to share.

The concept of "electronic services" is also an important consideration, as discussed by VasnaHassler (2002). Examples of electronic services include automated financial analysis, online reservation systems, and various other technology-enabled services that do not have a physical manifestation. These types of services are well-suited for electronic payment systems, which can facilitate seamless and efficient transactions.

Overall, the literature suggests that while conventional payment methods and electronic payment systems share fundamental similarities in facilitating financial transactions, the latter offers several advantages, particularly in terms of security, accessibility, and the types of goods and services exchanged. The evolution of electronic payment systems has significantly transformed the payment landscape, providing consumers and businesses with more efficient and innovative ways to conduct financial transactions.

Providing information about a financial institution and its amenities through a home page on the World Wide Web (WWW) is the most basic definition of e-banking. Higher-end online banking services let users access all of their accounts, transfer cash across them, and apply to credit or

execute bills using the internet (Daniel (1999). In the present work, this particular kind of service delivery by an entity to its clientele is referred to as e-banking. (Mahmood Shah and Steve Clarke, 2009) These clients could be either a private individual or an alternate business.

The use of computer technology in the financial sector, particularly in the financial transaction dimension, is known as electronic banking. It is made possible through the use of telecommunication networks to process online same-day credit and debit payments of money between the participating banks of a getting mechanism (Anyawaokoro, M. 1999). A system known as "electronic banking" allows bank clients, and share owners to settle transactions electronically through through the utilization of electronic devices such laptops, smartphones, POS machines, ATMs, and Visa debit or credit cards (Edet, O. 2008).

The term "e-banking," which refers to a novel generation of banking systems, describes how automated, participatory communication channels are utilized to provide conventional and new banking products and amenities to clients. Through a network that is either privately or publicly accessible, like as the Internet, it is an offering that gives users the ability to access their account details, carry out transactions, and get updates on financial goods and services. (Driga and Isaac, 2014).

What are the types of E banking

The concept of electronic payment systems has evolved significantly over time. Conventional payment methods like cash and physical checks have given rise to more sophisticated electronic payment systems (Vincúrová, Zuzana; Vochozka, Marek; Sun, Changling; Zhang, Lin, 2022). At the core, electronic payment systems refer to any network-based service that facilitates the exchange of money for goods or services, whether those goods are tangible (e.g. publications, cassettes) or intangible (e.g. electronic articles, entertainment) (Mykytyn, Taras&Khyzhniakova, Nadiia&Rahulina, Viktoriia, 2023).

This broad conceptualization of electronic payment systems encompasses a wide range of financial services and transactions that have been enabled by advances in computer and telecommunications technology. The origins of electronic payment systems can be traced back to the 19th century, with the computerized transfer of funds between banks and the emergence of ATMs providing customers access to their accounts (VasnaHassler, 2002).

More recently, the concept of e-banking has come to the fore, whereby financial institutions provide information and services to customers through online platforms and websites (Daniel, 1999; Mahmood Shah and Steve Clarke, 2009). This allows customers, whether individuals or businesses, to access account information, transfer funds, and execute transactions electronically (Anyawaokoro, M. 1999; Edet, O. 2008).

The broader concept of e-banking thus represents a new generation of banking systems that leverage automated, participatory communication channels to deliver conventional and novel banking products and services to customers (Driga and Isaac, 2014). This shift towards electronic and digital payment systems has been driven by the increasing ubiquity of computing and communication technologies, offering greater convenience, efficiency, and security for financial transactions.

Internet banking

One essential element of the financial services system is internet banking. Banking via the internet has expanded geographically and may see an increase in users. In certain areas where they have no physical branches, a number of banks function by providing all financial services exclusively online. On the other hand, a number of financial firms use sans branches internet banking to attract new customers who are searching for convenience and cost savings as well as to serve their existing ones.(Dr.S. Jayalakshmi& R. Thangavel2024).Customers of the bank can use personal computers to perform commercial operations with the bank using this electronic home banking system that uses web technology.(Peyman and Akbari (2013)

Mobile wallets\banking

The supply and use of banking and financial services via cell phone devices or using smartphones is referred to as mobile banking. Numerous services are involved, including managing personal investments, managing banking transactions, supervising account activity, and gaining access to individual data. For those looking for flexible and effective financial services, mobile banking has become a popular choice due to its accessibility and ease of use. (Nicoletti, Bruno, 2014).

Automatic tailor machine

An electronic terminal known as ATM, for short grants customers access to banking services at any time. A unique identifier (PIN) and a debit card are required in order to perform cash withdrawals and account transfers. An ATM is defined as an autonomous acceptance terminal (ATM) by bank of Abyssinia as an electronic device that can receive pin numbers, send funds, display the status of an account, make cash transfers amongst accounts easier, and perform other functions. (AB, 2012).

Gizepay

With Gizepay, agents are chosen, trained, and given permission to conduct financial operations using a mobile device on the bank's behalf. It's used to reach out to the unbanked population and offer financial services. Consumers may no longer have to drive great distances to visit an AB branch because Gizepay allows them to acquire service from the closest agents. Customers of Gizepay can easily and conveniently deposit, withdraw, transfer, and make payments with their mobile phones. They can also purchase mobile airtime and pay their bills using their phones. To get entry to Gizepay services, a consumer must present their legitimate ID and cellphone number to a nearby approved representative. (<https://www.bankofabyssinia.com/>)

The value of online banking

Comprehending electronic banking is crucial for many stakeholders, including management of banking-related firms, as it enables them to reap its advantages. When it comes to the delivery of services, the Internet differs significantly from previous channels including ATM, cellphone banking, and branch networks. As a result, it poses particular problems that call for creative fixes (Mehamood Shah and Steve Clarke, 2009).

The many conceivable advantages of e-banking have led to many financial institutions and other entities are deploying it already or preparing to do so. A quick summary of a few of these main advantages is provided below.

Customers' options and comfort

The most significant advantages of online banking that surpass any drawbacks. Nobody would want to give up the ability to conduct transactions and make payments at the touch of a switch without ever leaving their residence. Keeping track of accounts digitally is far more convenient and faster than doing so in physically at the bank. Online resources make even non-transactional

tasks easier, such as ordering debit cards, adjusting accounts, and checking out the rate of return of different financial products (Joseph (2005)).

Bringing in valuable clients

Valuable clientele with revenues, Diasporas and clientele that are above average are frequently drawn to online banking, which contributes to the expansion of revenue sources. electronic banking consumers are consequently especially valuable for independent banks, as they are likely to have a greater need for banking products. The majority of them frequently use online platforms for a range of reasons, and some of them don't require frequent in-person interactions with the bank's branch network—a costly channel for banks to maintain (Berger & Gensler, 2007).

According to certain study, bank profitability increases noticeably when a present repertoire of customer service channels is expanded to include a digital distribution channel (Young, 2007). Increases in other revenue from service fees on bank and checking accounts account for the majority of these additional revenues. Additionally, these clients are typically well-off individuals with larger profit margins.

Improved Reputation

Digital banking contributes to the organization's improved reputation as a forward-thinking, customer-focused business. This will be particularly true in the beginning when mainly the most creative companies will be using this channel. Even if they are widely available these days, a bank's reputation is nevertheless improved by an eye-catching banking website that offers a wide range of cutting-edge products. Additionally, this image aids in e-marketing effectiveness and draws in a youthful, professional clientele (Shah and Clark's, 2009).

Increased revenues

Because of potential improvements in client base, customer retention rates, and cross-selling opportunities, increased revenues resulting from the provision of e-channels are frequently documented. There is continuous discussion over whether these revenues provide a reasonable return on investment (ROI) from various sources. It has also made it possible for banks to vary the ways in which they create value. The production and distribution of financial services can now be divided into several businesses, which is one of the many ways that e-banking has altered the old retail banking business model. This implies that banks can boost their income by managing and selling services provided by other banks, frequently foreign banks. This is a particularly alluring option for smaller banks that have a more constrained selection of products.

Cut on expenses.

E-banking's primary economic justification to date has involved the decrease in expense associated with other routes, including physical branches, which need costly premises and a workforce. Additionally, it appears that after a critical mass of clients is reached, the cost per transaction of online banking services frequently declines faster than that of conventional financial services (Mehamood Shah and Steve Clarke, 2009).

Greater efficiency

Organizations frequently need to link systems, encourage agile working habits, and reengineer business processes in order to deploy e-banking. The goal of achieving e-banking frequently pushes these stages to the forefront of the agenda, which makes firms more agile and efficient. Significant modifications to organizations, however, are also frequently associated with hazards, such as low staff motivation, the demise of conventional services, or a declining clientele.

The resolving conventional issues like voice, based on paper and other concerns related to the scattered locations of participants in a company transaction. The expansion of public access

networks has made it possible for businesses to reach a far larger demographic than was previously thought possible, thanks in part to the Internet's widespread use. Moreover, commercial activities that would not be feasible with non-digital technology have been made possible by the characteristics of electronic communication, such as speed and automation (Audrey Gilmore, 2003).

Moving Finance

Money transfers between accounts are easy to execute, and you'll feel the power of each click if you can complete them online. Transferring money across your accounts is possible through the bank website. However, it's critical to understand whether the transmission occurs in an instant. Although the transaction won't be final until later that day or early the following morning, other banks will allow you to see that the funds have been moved (Mary Dixon and Brian Nixon, 2000). Additionally, online banking provides convenience by simplifying the resources, workforce, and time needed for transactions. Through the utilization of comprehensive banking services, financial establishments can effectively compete in untapped markets, attract fresh clientele, and increase their market presence. Moreover, online banking places great emphasis on the protection and confidentiality of customers' information by employing state-of-the-art encryption and security technologies, fostering trust in the realm of digital banking.

Quality Service

Varying perspectives lead to varying perceptions of quality. When using a product-based approach, quality is defined as an innate excellence that can be assessed using particular characteristics or components. Cost is frequently a direct correlation with quality. On the other hand, a user-based approach bases its evaluation of quality on satisfying the needs and preferences of the consumer. Quality is defined as "making it right the first time" by another method, the manufacturing-based approach, which emphasizes engineering and production. A value-based approach defines quality in terms of price and cost.

Customers compare their expectations with their assessment of the service they received, so service quality is very important. Poor quality has the potential to alter customer purchasing habits.

Service quality now has multiple aspects and is a major competitive advantage. Prioritizing and identifying the crucial elements is necessary to providing high-quality services. The whole qualities of a service that allow it to satisfy the needs of clients are referred to as service quality.

Customer satisfaction

Creating client loyalty programs requires careful consideration of customer happiness. Customer satisfaction measures how successfully a customer's expectations are satisfied, while loyalty measures how likely a customer is to make repeat purchases and maintain relationships. Even if clients are happy with the existing service, loyalty can be quickly lost if they find greater value, convenience, or quality elsewhere. Customer happiness is generally recognized in industry, academia, and consultancy as a critical component of overall quality and customer loyalty.

While crucial, consumer contentment does not shown to be a reliable measure of loyalty. Even in cases where customers are extremely happy with a specific store or service, other considerations such as cost, location, and ease of use might still affect their decisions. Customer satisfaction is defined differently by different people. While some define it as the result of the purchasing process, others define it as the difference between the customer's expectations and the actual purchase.

The demands, expectations, and interactions that a customer has with service providers and other consumers all have an impact on their level of satisfaction. Repurchasing decisions, retention, referrals to others and the dissemination of helpful information on service quality are all impacted by the caliber of these interactions. In addition to improving customer retention, lowering transaction costs, and promoting social connections, positive recommendations also boost long-term profitability.

Accessibility and Dependability

In addition to being safe, a system of electronic payments needs to be dependable and readily accessible. It should be available around-the-clock and equipped with defenses against denial-of-service assaults, or the capacity to quickly identify and fend them off. Payment transactions must

be atomic, which means they must either complete and successfully or fail completely, without becoming stranded in an ambiguous or inconsistent state, in order to guarantee reliability (VasnaHassler,2002).

The term "accessibility" describes how simple it is to get in touch with the service provider. It includes elements like location, operation hours, wait times for services, email and cellphone accessibility, and more (Audrey Gilmore, 2003).

Being trustworthy and regularity in service delivery are key components of reliability. It entails providing accurate billing and keeping to scheduled service times, as well as delivering the service accurately on the first try—a practice known as "no defects"—and keeping promises made to users (Audrey Gilmore, 2003).

The Management of Performance

Effectiveness includes both actions and outcomes. Performers' behaviors are the acts they take to convert abstract notions into concrete actions during a performance. They are outcomes in and of themselves, representing the physical and mental labor put into tasks, and they may be evaluated without reference to the results (Michael Armstrong, 2000).

Management of performance includes systems, applications, procedures, parameters, and approaches that control the efficiency of firms. It is all-inclusive, encompassing executives across all tiers and all organizational procedures. The main advantage lies in enabling cross-functional participation in decision-making and prudent risk-taking by offering precise, pertinent data to carry out the company's plan. Because operational performance by itself cannot make up for a mediocre or subpar plan, supporting strategy is essential (John Wiley & Sons, Inc, 2004).

In order to accomplish long-term objectives, performance management is strategic; it addresses larger business concerns and is in line with the organization's direction. To create a cohesive approach to managing and developing people, it is integrated horizontally by connecting various areas of human resource management, such as organizational development, human resource

development, and rewards, and vertically by matching business, team, and individual objectives with core competencies (Michael Armstrong, 2000).

Empirical Literature

There aren't many studies on e-banking customer satisfaction in Ethiopia, but a number of researchers from other nations have looked at this subject. A study conducted in 2015 by Sintayehu examined how e-banking affected Ethiopian customers' satisfaction levels. Three banks (AB, Dashen, and Wogagen) were included in the study, which used a descriptive technique to characterize sample characteristics and an explanatory research approach to explain the link between variables. 954,000 active e-banking users made up the study's population, and there were 300 samples total (100 from each bank). The results showed that age and educational attainment were statistically significant variables affecting e-banking customers' happiness. Reliability, effectiveness, and simplicity of use were also found to be important factors in Ethiopians' increased satisfaction with e-banking.

Furthermore, in two Goder City-based private banks, Million (2013) examined the effects of electronic banking on customer satisfaction. In order to analyze the data, the researcher used both descriptive and inferential statistics.

The study's findings suggested that. Young, educated, employed, and students make up the bulk of e-banking users. Additionally, by allowing users to manage their account transactions and shorten wait times for bank services, e-banking has been found to enhance customer satisfaction.

The goal of Abebe's (2016) study was to pinpoint Dashen Bank's E-banking service adoption and improvement potential and challenges. Using a hybrid methodology, the study made use of qualitative as well as quantitative data. Using SPSS, descriptive and linear regression analytic models were used to evaluate the data. The results showed that the bank has favorable perception and staff configurations that facilitate the uptake of E-banking services. The widespread implementation of electronic bank accounts at Dashen Bank is hampered, nevertheless, by issues like security hazards, technical and management skills, awareness among the public, technological facilities, and restricted internet connection.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

The research approach used for this study has been addressed in this chapter. It provides an explanation of the research design used in this work. There will be a discussion of a number of methodological concerns, such as the research design, methodology, demographic and sampling strategies, data source and collection methods, and data analysis strategy that were employed in the study.

Research approach

For the survey, quantitative techniques had been utilize to test the cause-effct of EPS variables affecting the customer satisfaction in the bank of Abyssinia and to get a more objective findings as the quantitative method is based on more reliable numeric data

Research design

The structure of gathering and analyzing information in a way that seeks to balance procedural economy and significance for the study goal is referred to as research design (Babbie, 2007). Considering the goal of the study is how the e-payment system of BOA features can affects customer happiness and a descriptive survey is employed to discuss each variables. Furthermore, as noted by Jennifer & Wilson, Margaret (2023), the descriptive research approach uses surveys, questionnaires, interviews, rubrics, or evaluations to explain how things are and provide knowledge based on observation.

In regard to this, Bank of Abyssinia reports having 825 branches and 7 million clientele as of the first quarter of 2021–2022. Of Addis Ababa's entire clientele, 225,123 utilize ATMs, 8,674 use data plans, and 356 use internet banking. The 399 people in the sample are those who have used the electronic payment method. Yamane's (1967) formula is used to determine the sample size.

Target population and sample size

In regard to this, Bank of Abyssinia reports having 825 branches and 7 million clientele as of the first quarter of 2021–2022 Of Addis Ababa's entire clientele, 225,123 utilize ATMs, 8,674 use

data plan and 356 use internet banking. The 399 people in the sample are those who have used the electronic payment method. Yamane's (1967) formula is used to determine the sample size.

It has a value equal to $n = N / (1 + N(e)^2)$. Let n is the sample size value.

N is the whole study population; e is the 95% confidence level in this instance. n is equal to 234,153 divided by the quantity of 1 plus 234,153 multiplied by 0.05 squared. Then 234,153 divided by the quantity of 1 plus 585.38, to get 399 sample sizes.

Sampling techniques

A purposive sampling technique was used due to the study deliberately choose particular examples, people, or groups that are the EPS customers of the Bank of Abyssinia which can offer insightful data to address the research. In order to obtain distinctive insights not possible with standard sampling techniques, this sampling strategy entails specifically selecting certain locations, people, or events (Maxwell, 1996).

The study will focus on the EPS customers of the Bank of Abyssinia (AB) located in the city of Addis Ababa. Bole Michel to Kalitygelan branches are among the five unique branches from which the participants will be chosen. Since all of the Bank of Abyssinia's branches are connected and functionally integrated via a single electronic payment system (EPS), it is anticipated that customer behavior does not noticeably differ across various branches.

Data type and Sources

This research study includes both primary and secondary data. Primary data gathered from Bank of Abyssinia clients through questionnaires'. The Webs, and literature, published journals, and the bank's annual report are a source of secondary information.

Data Collection Instruments

In order to collect a lot of survey data about people's attitudes and behaviors in a short amount of time, a questionnaire that was created after reviewing the Likert scale is frequently utilized (Scott W. Vanderstop and Deirdre D. Johnston, 2009). This is supported by the fact that a large number of studies who are interested in examining the relationship between customers' satisfaction and their use of EPS favor the likert scale as a practical tool for assessing customers' EPS and how it affects their pleasure. Therefore, a questionnaire with a five-point Likert scale and five response

options—Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree—will be created.

Methods of Data Analysis

Data analysis is the process of calculating specific metrics and looking for patterns in data (Kothari, 2001).A since the study sought to investigate the effect of e-payment system on customer satisfaction a normality test, multi collinearity test, descriptive statistics, correlation analysis, was taken to analyze each variables with help used SPSS 27 (latest version).

Ethical consideration

In this study on the effect of electronic payment systems on customer satisfaction in Abyssinia Bank, several ethical considerations have been taken into account. Firstly, informed consent was obtained from all participants, clearly explaining the purpose and procedures of the research, as well as the potential risks and benefits involved. Participants were assured of their voluntary participation and the freedom to withdraw at any time without facing any negative consequences. Secondly, strict measures were implemented to ensure the confidentiality and anonymity of the participants. Participants' identities were protected, and their responses were reported in an anonymous manner. Thirdly, data protection and security protocols were implemented to safeguard the collected data. Measures such as encryption, password protection, and restricted access were employed to prevent unauthorized use or disclosure of the data.

Moreover, throughout the research process, efforts were made to minimize potential harm or risk to the participants. Participants were not exposed to any physical, psychological, or emotional harm as a result of their involvement in the study. Finally, transparency and honesty were maintained, ensuring accurate reporting of the findings while disclosing any conflicts of interest or limitations of the study. These ethical considerations were carefully addressed to uphold the rights, privacy, and well-being of the participants, and to maintain the integrity and credibility of the research.

Validity and Reliability test

To ensure the validity and reliability of the measurements in this study, a rigorous validity and reliability test was conducted. For assessing construct validity, a panel of subject matter experts was consulted to review the survey instrument and provide feedback on the relevance and comprehensiveness of the items. Their input was incorporated to refine the questionnaire and

ensure that it adequately captured the intended constructs of the study. Additionally, a pilot study was conducted with a small sample of participants to assess the clarity and understandability of the questionnaire. Feedback from the pilot study was used to further refine the wording and structure of the items, enhancing the face validity of the instrument.

To evaluate the reliability of the measures. The responses from the five administrations were then compared using statistical techniques such as the Pearson correlation coefficient. High correlation coefficients were obtained, indicating good test-retest reliability of the measures.

Overall, the validity and reliability test results indicate that the measurement instrument used in this study is both valid and reliable for capturing the intended constructs. These findings provide confidence in the accuracy and consistency of the data collected, enhancing the robustness and credibility of the study's findings.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSIONS

Introduction

This chapter presents the data analysis and discussions based on the questionnaire survey. The collected data were analyzed using the method as mentioned in Chapter Three and the findings also outlined based on specific objectives of the study.

There were 399 questionnaires distributed to respondents, out of which 357 were returned for analysis 89.5% response rate.

Descriptive Analysis

Respondents demographic analysis

The studies were analyzed using descriptive analysis with the help of SPSS 27th version. The result of the survey is shown in Table 4.1 as follows.

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	193	54.1	54.1	54.1
	female	164	45.9	45.9	100.0
	Total	357	100.0	100.0	

The majority of respondents are male, accounting for 54.1% of the sample. - Female respondents make up 45.9% of the sample.

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	15-24	46	12.9	12.9	12.9
	25-35	192	53.8	53.8	66.7
	36-50	64	17.9	17.9	84.6
	51-60	55	15.4	15.4	100.0

Total	357	100.0	100.0
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Age The data includes information on the age of the respondents. The age groups are categorized as follows: 15-24, 25-35, 36-50, and 51-60. The largest age group is 25-35, accounting for 53.8% of the sample. The next largest group is 36-50, representing 17.9% of the sample. The smallest age group is 51-60, comprising 15.4% of the sample and the last is 15-24 for 12.9%.

Educationlevel

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Illiterate	2	.6	.6	.6
	primary	1	.3	.3	.8
	High school	27	7.6	7.6	8.4
	Diploma	61	17.1	17.1	25.5
	Degree	199	55.7	55.7	81.2
	Ma/Msc	67	18.8	18.8	100.0
	Total	357	100.0	100.0	

Education: - The data provides information on the educational background of the respondents. The categories include Illiterate, Primary, High School, Diploma, Degree, and Master. The most common education level is Degree, with 55.7% of the respondents having completed this level of education. The least common education level is primary, with only 3% of the respondents.

Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	unemployed	47	13.2	13.2	13.2
	student	45	12.6	12.6	25.8
	Employed	160	44.8	44.8	70.6
	Bussiness	105	29.4	29.4	100.0
	Total	357	100.0	100.0	

Occupation the data includes information about the occupation of the respondents. The categories consist of Unemployed, Student, Employed, and Business. The most common occupation is employed, accounting for 44.8% of the respondents. The next most common occupation is Business, representing 29.4% of the sample.

Frequency of Automatic Tailor machine

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	173	48.5	100.0	100.0
Missing	System	184	51.5		
Total		357	100.0		

ATM; The data indicates whether the respondents have access to an ATM. 48.5% have access.

Frequency of Mobile banking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	222	62.2	99.6	99.6
					100.0
	Total	223	62.5	100.0	
Missing	System	134	37.5		
Total		357	100.0		

The data provides information on whether the respondents have a mobile banking, 62.2% have access of mobile banking.

Frequency of Internet banking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	97	27.2	100.0	100.0
Missing	System	260	72.8		
Total		357	100.0		

InternetBanking: the data indicates whether the respondents have access to the internet 27.2% have access

Frequency of Gizapay

		Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	yes	56	15.7	100.0	100.0
Missing	System	301	84.3		
Total		357	100.0		

Gizapay: the data provides information on whether the respondents have a Giza pay. 15.7% have access.

Table 4.1 Source; SPSS output descriptive analysis the frequency of respondent

The SPSS outputs provided contain frequency distributions and percentages for various variables. Let's analyze each of the variables separately:

These findings provide insights into the characteristics of the sample in terms of gender, age, education level, occupation, and the frequency of using specific financial and technological services. The data includes 357 respondents. - The majority of respondents are male, accounting for 54.1% of the sample. - Female respondents make up 45.9% of the sample. Age The data includes information on the age of the respondents. The age groups are categorized as follows: 15-24, 25-35, 36-50, and 51-60. The largest age group is 25-35, accounting for 53.8% of the sample. The next largest group is 36-50, representing 17.9% of the sample. The smallest age group is 51-60, comprising 15.4% of the sample and the last is 15-24 for 12.9%. Education: - The data provides information on the educational background of the respondents. The categories include Illiterate, Primary, High School, Diploma, Degree, and Master. The most common education level is Degree, with 55.7% of the respondents having completed this level of education. The least common education level is primary, with only 3% of the respondents. Occupation the data includes information about the occupation of the respondents. The categories consist of Unemployed, Student, Employed, and Business. The most common occupation is employed, accounting for 44.8% of the respondents. The next most common occupation is Business, representing 29.4% of the sample. E-banking usage, ATM; The data indicates whether the respondents have access to an ATM. 48.5% have access. The data provides information on whether the respondents have a mobile banking, 62.2% have access of mobile banking. Internet Banking: the data indicates whether the respondents have access to the internet 27.2% have access. Gizapay: the data provides information on whether the respondents have a Giza pay. 15.7% have access. Given that Mobile banking were the first banking product and that customers have adopted them more so than other e-banking products, this suggests that there are a lot of Mobile banking users.

Descriptive Analysis

The mean and standard deviation of the respondents have been calculated with the goal of comparing the various elements that determine the degree of customer satisfaction. The table below displays the analysis's conclusion.

Descriptive analysis of ATM

It is an electronic terminal which gives consumers the opportunity to get banking service at almost any time. To withdraw cash, make deposits or transfer funds between accounts, a consumer needs an ATM card and a personal identification number (PIN). (<https://www.bankofabyssinia.com/>)

	N	Minimum	Maximum	Mean	Std. Deviation
ATM1	150	1	4	2.41	.716
At2	150	1	4	2.33	.672
At3	150	1	4	1.97	.893
A4	150	1	3	2.13	.833
A5	150	1	4	2.10	.784
A6	150	1	4	2.05	.801
A7	150	1	4	1.91	.822
Valid N (listwise)	150				

Table 4.2; SPSS Output Automatic teller machine

The mean value of an ATM, as shown in Table 4.2, is; when it comes to providing services exactly when promised, ATM1: The variable ATM1 has a sample size of 150. The minimum value is 1, the maximum value is 4, the mean is 2.41, and the standard deviation is 0.716. Which suggests that, on average, participants rated the ATM service positively in terms of meeting service delivery timelines.

When it comes to offering round-the-clock services At2: The variable At2 also has a sample size of 150. The minimum and maximum values are 1 and 4, respectively. The mean rating for At2 is 2.33, and the standard deviation is 0.672. This indicates that, on average, participants rated At2 around 2.33, with a relatively low level of deviation from the mean. indicating that, on average, participants rated the ATM service positively in terms of availability at all times.

The Third variable is the availability everywhere At3: has a sample size of 150. The minimum and maximum values are 1 and 4, respectively. The mean rating for At3 is 1.97, and the standard deviation is 0.893. This suggests that, on average, participants rated At3 around 1.97, with a relatively high level of deviation from the mean.

Similarly, the variable ATM is simple to understand A4: The variable A4 has a sample size of 150. The minimum value is 1, and the maximum value is 3. The mean rating for A4 is 2.13, and the standard deviation is 0.833. This indicates that, on average, participants rated A4 around 2.13, with a moderate level of deviation from the mean.

Consequently variable of ATM not time consuming. A5: The variable A5 has a sample size of 150. The minimum and maximum values are 1 and 4, respectively. The mean rating for A5 is 2.10, and the standard deviation is 0.784. This suggests that, on average, participants rated A5 around 2.10, with a moderate level of deviation from the mean indicating that, on average, participants rated the ATM service positively in terms of time efficiency.

Sixth variable of large volume transaction, A6: The variable A6 has a sample size of 150. The minimum and maximum values are 1 and 4, respectively. The mean rating for A6 is 2.05, and the standard deviation is 0.801. This indicates that, on average, participants rated A6 around 2.05, with a moderate level of deviation from the mean, suggesting that, on average, participants rated the ATM service relatively lower in terms of accommodating large volume transactions.

The final when it comes to the language is easy to understand A7: Lastly, the variable A7 also has a sample size of 150. The minimum and maximum values are 1 and 4, respectively. The mean rating for A7 is 1.91, and the standard deviation is 0.822. This suggests that, on average, participants rated A7 around 1.91, with a moderate level of deviation from the mean. Implying that, on average, participants rated the ATM service relatively lower in terms of language clarity. Again, there is a moderate level of variability in participant ratings with a standard deviation..

Based on this we can conclude the level of customer satisfaction with ATM services overall, while participants generally expressed positive ratings for aspects such as meeting service promises, round-the-clock availability, simplicity, and time efficiency, there were relatively lower ratings for availability everywhere, restriction to large volume transactions, and language clarity. The

variability in ratings suggests that individual experiences and opinions on these aspects varied among the participants.

Descriptive Analysis of Mobile banking

Mobile banking is the use of mobile communications devices to provide and receive banking and financial services. As per Bernardo Nicoletti's (2014) assertion, the array of offerings could encompass account management, personal investment or banking, and customized data access.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
M1	200	1	4	2.38	.792
M2	200	1	4	2.37	.732
M3	200	1	4	2.20	.777
M4	200	1	4	2.10	.804
M5	200	1	4	1.80	.794
Valid N (listwise)	200				

Table 4.3 SPSS Output Mobile banking

Based on the provided information, we can make the following conclusions regarding the level of customer satisfaction with mobile banking services:

When it comes to ease of use of mobile banking, M1: The variable M1 has a sample size of 200. The minimum value is 1, the maximum value is 4, the mean rating is 2.38, and the standard deviation is 0.792. This suggests that, on average, participants rated mobile banking services around 2.38, with a moderate level of deviation from the mean.

Using mobile banking is not time consuming, M2: The variable M2 also has a sample size of 200. The minimum and maximum values are 1 and 4, respectively. The mean rating for M2 is 2.37, and the standard deviation is 0.732. This indicates that, on average, participants rated mobile banking services around 2.37, with a relatively low level of deviation from the mean.

Third variable Completing transaction through mobile banking is fast and easy, M3: Similarly, the variable M3 has a sample size of 200. The minimum and maximum values are 1 and 4, respectively. The mean rating for M3 is 2.20, and the standard deviation is 0.777. This suggests

that, on average, participants rated mobile banking services around 2.20, with a moderate level of deviation from the mean.

Consequently, mobile banking is the cheapest way of making transaction, M4: The variable M4 has a sample size of 200. The minimum and maximum values are 1 and 4, respectively. The mean rating for M4 is 2.10, and the standard deviation is 0.804. This indicates that, on average, participants rated mobile banking services around 2.10, with a moderate level of deviation from the mean.

The last variable mobile banking is easy to understand, M5: also has a sample size of 200. The minimum and maximum values are 1 and 4, respectively. The mean rating for M5 is 1.80, and the standard deviation is 0.794. This suggests that, on average, participants rated mobile banking services around 1.80, with a moderate level of deviation from the mean.

Based on these findings, we can conclude that, on average, participants expressed moderate satisfaction with mobile banking services across the different aspects like; ease of use of mobile banking, using mobile banking is not time consuming, completing transaction through mobile banking is fast and easy, mobile banking is the cheapest way of making transaction, mobile banking is easy to understand, represented by variables M1, M2, M3, M4, and M5. However, it is important to note that individual experiences and opinions may vary, as indicated by the standard deviations.

Descriptive Analysis of Internet banking

Through this web-based online banking system, customers of a bank can use their own computers to transact commerce using the bank. Customers of the bank can use personal computers to perform commercial operations with the bank using this electronic home banking system that uses web technology. (Peyman and Akbari (2013))

	N	Minimum	Maximum	Mean	Std. Deviation
IB1	92	1	4	2.59	.698
IB2	92	1	4	2.37	.624
IB3	92	1	4	2.08	.880
IB4	92	1	4	1.91	.945
Valid N (listwise)	92				

Table 4.4 SPSS Output Internet banking

Based on the provided information, we can make the following conclusions regarding the level of customer satisfaction with internet banking services:

When it comes to making transaction through mobile is safe IB1: The variable IB1 has a sample size of 92. The minimum value is 1, the maximum value is 4, the mean rating is 2.59, and the standard deviation is 0.698. This suggests that, on average, participants rated internet banking services around 2.59, with a moderate level of deviation from the mean.

Then the Bank securely works 365 days a year. IB2: The variable IB2 also has a sample size of 92. The minimum and maximum values are 1 and 4, respectively. The mean rating for IB2 is 2.37, and the standard deviation is 0.624. This indicates that, on average, participants rated internet banking services around 2.37, with a relatively low level of deviation from the mean.

Similarly, making transactions through internet banking is safe. The variable IB3 has a sample size of 92. The minimum and maximum values are 1 and 4, respectively. The mean rating for IB3 is 2.08, and the standard deviation is 0.880. This suggests that, on average, participants rated internet banking services around 2.08, with a moderate level of deviation from the mean.

Finally, transfer money between accounts domestically and internationally. IB4: The variable IB4 has a sample size of 92. The minimum and maximum values are 1 and 4, respectively. The mean rating for IB4 is 1.91, and the standard deviation is 0.945. This indicates that, on average, participants rated internet banking services around 1.91, with a moderate level of deviation from the mean.

Based on these findings, we can conclude that, on average, participants expressed moderate satisfaction with internet banking services across the different aspects represented by variables IB1, IB2, IB3, and IB4. However, it is important to note that the sample size for these variables is 92, which is smaller compared to the previous analyses. Therefore, the findings may be less representative and should be interpreted with caution. Additionally, the higher standard deviations for IB3 and IB4 suggest a greater variability in participant ratings for these aspects.

Descriptive Analysis of Giza pay

With Giza Pay, agents are chosen, trained, and given permission by the bank to do financial operations via a mobile device on the bank's behalf(<https://www.bankofabyssinia.com/>)

	N	Minimum	Maximum	Mean	Std. Deviation
GZ1	51	1	4	2.35	.976
GZ2	51	1	4	2.51	.857
GZ3	51	1	4	2.35	.890
GZ4	51	1	4	2.33	.841
Valid N (listwise)	51				

Table 4.5 SPSS Output Giza pay

Based on the provided information, we can make the following conclusions regarding the level of customer satisfaction with Giza Pay services:

When it comes to Gizapay is available to everywhere, the variable GZ1 has a sample size of 51. The minimum value is 1, the maximum value is 4, the mean rating is 2.35, and the standard deviation is 0.976. This suggests that, on average, participants rated Giza Pay services around 2.35, with a moderate level of deviation from the mean.

Second, Gizapay is the cheapest way of making transaction; GZ2 also has a sample size of 51. The minimum and maximum values are 1 and 4, respectively. The mean rating for GZ2 is 2.51, and the standard deviation is 0.857. This indicates that, on average, participants rated Giza Pay services around 2.51, with a relatively low level of deviation from the mean.

Similarly, the variable GZ3 / using Gizapay is not time consuming has a sample size of 51. The minimum and maximum values are 1 and 4, respectively. The mean rating for GZ3 is 2.35, and the standard deviation is 0.890. This suggests that, on average, participants rated Giza Pay services around 2.35, with a moderate level of deviation from the mean.

Final there is limited restriction on large volume transaction; GZ4 has a sample size of 51. The minimum and maximum values are 1 and 4, respectively. The mean rating for GZ4 is 2.33, and the

standard deviation is 0.841. This indicates that, on average, participants rated Giza Pay services around 2.33, with a moderate level of deviation from the mean.

Based on these findings, we can conclude that, on average, participants expressed moderate satisfaction with Giza Pay services across the different aspects represented by variables GZ1, GZ2, GZ3, and GZ4. However, it is important to note that the sample size for these variables is only 51, which is relatively small. Therefore, the findings may be less representative and should be interpreted with caution. The higher standard deviations for GZ1, GZ3, and GZ4 suggest a greater variability in participants' ratings for these aspect.

Descriptive Analysis of customer satisfaction

Implementing a customer loyalty program requires careful consideration of consumer happiness. Customer loyalty measures the likelihood that a customer would make additional purchases and participate in relationship-building activities, whereas satisfaction measures how successfully a customer's expectations are met. (Kotler and Armstrong, 2012)

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
CS1	308	1	4	2.27	.847
CS2	308	1	4	2.36	.714
CS3	308	1	4	2.14	.820
CS4	308	1	4	2.30	.791
CS5	308	1	4	2.13	.765
CSALL	308	1	4	2.04	.802
Valid N (listwise)	308				

Table 4.6 SPSS Output Customer satisfaction

Based on the above table, we can make the following conclusions regarding the level of customer satisfaction:

The introduction of Electronic payment system in the bank has positively affect service delivery. CS1 has a sample size of 308. The minimum value is 1, the maximum value is 4, the mean rating

is 2.27, and the standard deviation is 0.847. This suggests that, on average, participants rated their satisfaction around 2.27, with a moderate level of deviation from the mean.

The variable customers' expectations before the use of e banking have been met currently. CS2 also has a sample size of 308. The minimum and maximum values are 1 and 4, respectively. The mean rating for CS2 is 2.36, and the standard deviation is 0.714. This indicates that, on average, participants rated their satisfaction around 2.36, with a relatively low level of deviation from the mean.

The third variable the service is provided on time as promised. CS3 has a sample size of 308. The minimum and maximum values are 1 and 4, respectively. The mean rating for CS3 is 2.14, and the standard deviation is 0.820. This suggests that, on average, participants rated their satisfaction around 2.14, with a moderate level of deviation from the mean.

Similarly, sufficient material is kept to avoid the interruption of service provision. The variable CS4 has a sample size of 308. The minimum and maximum values are 1 and 4, respectively. The mean rating for CS4 is 2.30, and the standard deviation is 0.791. This indicates that, on average, participants rated their satisfaction around 2.30, with a moderate level of deviation from the mean.

The Fourth, The variable of prices charged on the electronic payment system of the bank is to customers' expectations. CS5 has a sample size of 308. The minimum and maximum values are 1 and 4, respectively. The mean rating for CS5 is 2.13, and the standard deviation is 0.765. This suggests that, on average, participants rated their satisfaction around 2.13, with a moderate level of deviation from the mean.

The overall customer satisfaction and also has a sample size of 308. The minimum and maximum values are 1 and 4, respectively. The mean rating for CSALL is 2.04, and the standard deviation is 0.802. This indicates that, on average, participants rated their overall satisfaction around 2.04, with a moderate level of deviation from the mean.

Based on these findings, we can conclude that, on average, participants expressed moderate satisfaction across different aspects represented by CS1, CS2, CS3, CS4, CS5, and CSALL. However, it is important to note that individual experiences and opinions may vary, as indicated by the standard deviations.

Normality assumption test

A bell-shaped form should be visible on the histogram if remaining values are regularly distributed. Bryman, from 1988. The graph's appearance when the data is regularly distributed is tested by the normality assumption. A normal distribution is shown by the symmetrical bell-shaped curve on the histogram..

Additionally, the mean of 3.72 and standard deviation of 0.395 provided in your message are consistent with the observed distribution in the histogram. These values indicate the central tendency and spread of the data.

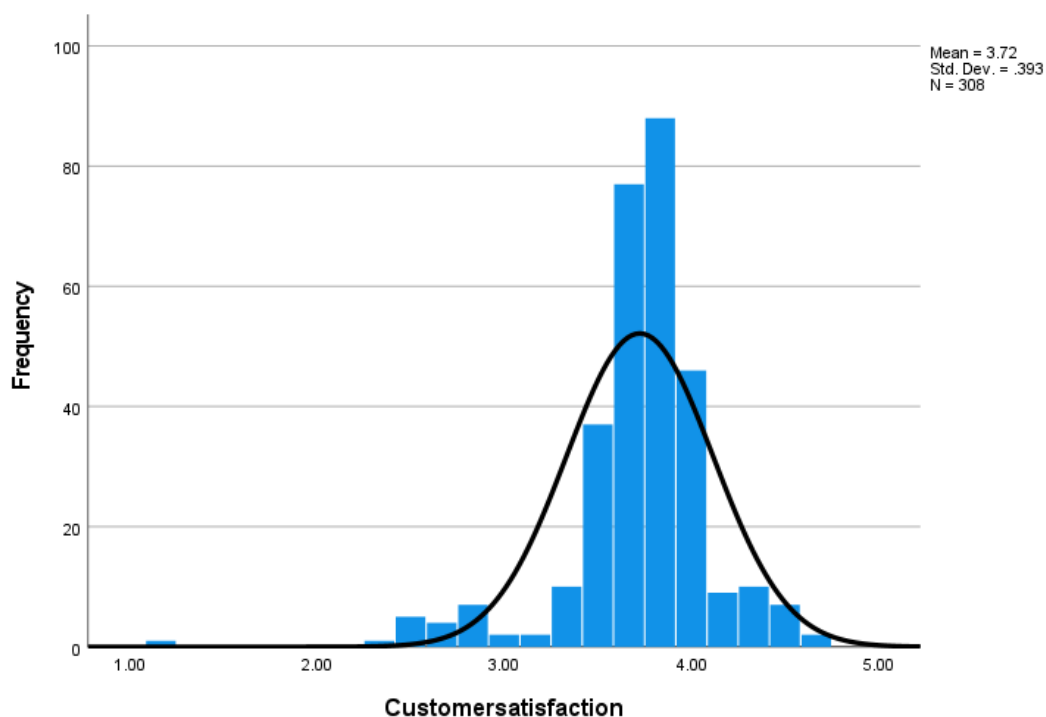


Figure 1 Normality test for residuals

Linearity Test

The extent of relationship between a shift in the independent variable and the change in the dependent variable is known as linearity. This implies that changes in ATM, mobile, online, and Gizapay are correlated with changes in consumer satisfaction.

Therefore the scatter plot of residual shows no greater difference so we can say that their relationship is linear.

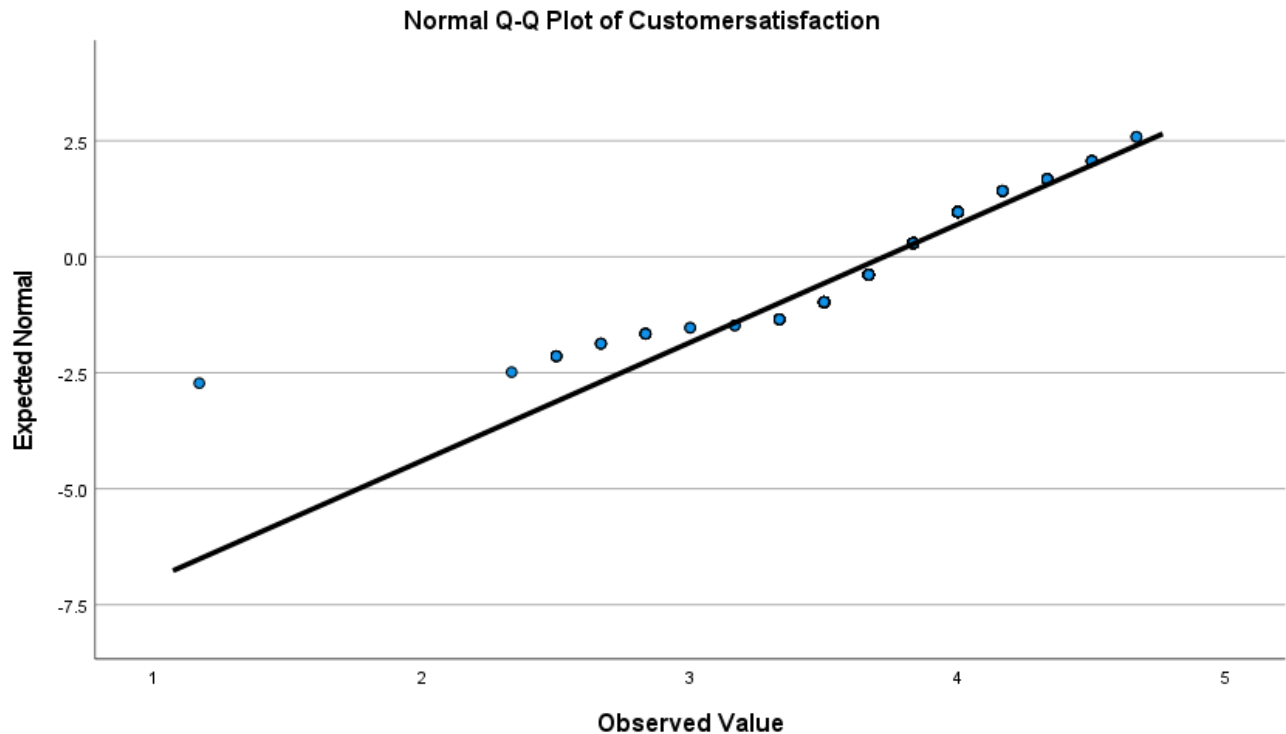


Figure 2 Linearity test for residuals

Multicollinearity

Based on the provided coefficients and collinearity statistics, it appears that there is some degree of multicollinearity among the variables in the model. The tolerance values range from 0.542 to 0.850, which suggests that there is a moderate level of collinearity.

Additionally, the variance inflation factor (VIF) values range from 1.177 to 1.846. Although all VIF values are greater than 1, indicating some level of multicollinearity, they are relatively close to 1. This suggests that the collinearity is not severe enough to cause significant problems in the model.

Therefore, based on the provided information, we can conclude that there is some multicollinearity among the variables in the model, but it is not severe enough to cause significant issues in predicting customer satisfaction.

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	Automatedtailormachine	.719	1.390
	Mobilebanking	.587	1.705
	internetbanking	.850	1.177
	Gizapay	.542	1.846

a. Dependent Variable: Customersatisfaction

Table 4.7 multi collinarity analysis

Correlation Analysis

These correlation coefficients indicate the strength and direction of the relationships between the variables on our correlation analysis we can conclude that there are significant relationships between customer satisfaction and the other variables in the model.

Specifically, there is a strong positive correlation between customer satisfaction and automated tailor machine ($r = .416^{**}$), mobile banking ($r = .442^{**}$), and Gizapay ($r = .635^{**}$). These correlations are all significant at the 0.01 level, suggesting a strong relationship between these variables.

There is also a moderate positive correlation between customer satisfaction and internet banking ($r = .312^{**}$), which is also significant at the 0.01 level. However, the correlation between customer satisfaction and internet banking is weaker compared to the correlations with the other variables.

		Correlations				
		Customersati	Automatedtai	Mobilebankin	internetbanki	Gizapay
		sfaction	lormachine	g	ng	
Customersatisfaction	Pearson	1	.416**	.442**	.312**	.635**
	Correlation					
	Sig. (2-tailed)		.000	.000	.002	.000
	N	308	149	200	92	51

Automatedtailormachine	Pearson Correlation	.416**	1	.428**	-.021	.463
	Sig. (2-tailed)	.000		.000	.886	.209
	N	149	150	84	49	9
Mobilebanking	Pearson Correlation	.442**	.428**	1	.315**	.623
	Sig. (2-tailed)	.000	.000		.003	.054
	N	200	84	200	90	10
internetbanking	Pearson Correlation	.312**	-.021	.315**	1	-.397
	Sig. (2-tailed)	.002	.886	.003		.257
	N	92	49	90	92	10
Gizapay	Pearson Correlation	.635**	.463	.623	-.397	1
	Sig. (2-tailed)	.000	.209	.054	.257	
	N	51	9	10	10	51

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

Table 4.8 Correlation analysis

Overall, based on the correlation results, we can conclude that there are significant positive relationships between customer satisfaction and automated tailor machine, mobile banking, and Gizapay.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND

RECOMMENDATION

Summary of Finding

The study's goal is to evaluate how well the electronic payment system performs in terms of customer satisfaction in the instance of the bank of Abyssinia. Consequently, the main conclusions of the investigation are outlined in this section of the research.

- The study analyzed demographic characteristics of 357 respondents. The majority of the respondents were male (54.1%), while females accounted for 45.9%. The largest age group was 25-35 years old (53.8%), followed by 36-50 years old (17.9%) and 51-60 years old (15.4%). The smallest age group was 15-24 years old (12.9%). In terms of education, the most common level was Degree (55.7%), while the least common was primary (3%). The most common occupation was employed (44.8%), followed by business (29.4%). The data also showed that 48.5% of respondents had access to an ATM, 62.2% had access to mobile banking, 27.2% had access to internet banking, and 15.7% had access to Giza pay. Mobile banking was the most widely adopted e-banking product among the respondents.
- The study analyzed customer ratings of ATM services mobile banking, internet banking, Giza Pay, and overall customer satisfaction. The findings showed that the ATM service was positively rated in terms of meeting service delivery timelines and offering round-the-clock availability. However, there was less satisfaction with availability everywhere and language clarity. The ratings for simplicity and time efficiency were moderate, while accommodation of large volume transactions received a moderate level of dissatisfaction.
- The study examined customer satisfaction with mobile banking, internet banking, Giza Pay, and overall customer satisfaction. Participants expressed moderate satisfaction with these services, with varying ratings across different aspects. However, individual experiences and opinions may vary, and the sample sizes for some variables were relatively small.

- The study examined normality assumptions, linearity, multicollinearity, and correlations between customer satisfaction and various banking services. The data showed a normal distribution, indicating normality assumptions were met. A linear relationship was observed between customer satisfaction and ATM, mobile banking, internet banking, and Giza Pay. Some multicollinearity was present, but it was not severe enough to significantly impact the model. Significant positive correlations were found between customer satisfaction and ATM, mobile banking, and Giza Pay, with a weaker correlation with internet banking.

Conclusion:

- The analysis revealed a diverse sample in terms of gender male was the dominant. The age group the working age 25-35 was dominant which are on the a working and continuous upgrading age group that can easily adopt new technology, education wise most are degree holder therefore we can conclude that the are literate to learn and understand the EPS platforms easily, and most of the data occupation is employees followed by business hat states that there is highest cash flow to the EPS users on BOA . Mobile banking was the most popular e-banking product, followed by ATM access, internet banking, and Giza pay. And the overall, customers expressed positive ratings for meeting service delivery timelines and round-the-clock availability. However, there is room for improvement in areas such as availability everywhere, accommodation of large volume transactions, and language clarity.
- Participants generally expressed moderate satisfaction with mobile banking, internet banking, Giza Pay, and overall customer satisfaction. However, individual experiences may vary, and the findings may be limited by small sample sizes.
- The data met normality assumptions, and a linear relationship was observed between customer satisfaction and banking services. Some multicollinearity was present but not severe. Significant positive correlations were found between customer satisfaction and ATM, mobile banking, and Giza Pay.

Recommendations:

Based on the findings, the recommendations are as follows to further studies and the Bank of Abyssinia and any financial institutions.

- The financial institution-the bank of Abyssinia should focus on improving mobile banking services, including user experience, features, and security.
- Efforts should be made to increase awareness and promote the benefits of internet banking services.
- The bank should expand the availability of ATMs.
- The bank of Abyssinia can promote and incentivize the use of Giza pay.
- To enhance customer satisfaction with ATM services, efforts should be made to improve availability everywhere, accommodate large volume transactions, and enhance language clarity.
- Conduct a larger-scale survey to obtain a more representative sample.
- Researchers can further investigate to other factors contributing to customer satisfaction.
- The bank should regularly monitor and evaluate customer satisfaction levels. Future researches should consider qualitative research for deeper insights. Address multicollinearity through dimensionality reduction or additional variables.
- Studies should Investigate factors contributing to customer satisfaction with specific services.

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APPENDIX-1 QUESTIONNAIRE

ADDISABABA UNIVERSITY SCHOOL OF COMMERCE

DEPARTMENT OF MARKETING

Questionnaire to be filled by the respondents

Dear Sir/Madam

I am marketing management student at Addis Ababa university school of commerce. This questionnaire is prepared to gather data for the study to be conducted on “Assessment of Customers’ Electronic Payment System performance and its effect on their satisfaction in Case of Addis Ababa Bank of Abyssinia .” The researcher would like to assure you that all of your responses filled in the questionnaire was used for only the purpose of this research, and the responses was kept confidential. The questionnaire contains three parts: the demographic part, profile of electronic payment system and the main part containing items on the experience of customers in EPS-use. Please read the instructions before responding the questions. Thank you in advance for the collaboration you made via completion of the questionnaire.

Demographic information

Please put right mark (√) in front of your choice box that express yourself.

- Gender: Male Female
- Age: 15-24 25-35 36-50 51-60 above
- Current education level.
 Illiterate primary High school Diploma
 University degree master Degree above
- Occupation:
 Unemployed Student Employed Business Occupation

Section II- Questions on profile of Electronic Payment System

Please fill the following table by putting a “√” in the spaces provided to show which type of electronic payment system uses in the e banking services.

Which type of electronic payment system do you use mostly?	Automatic teller (ATM)		
	Mobile banking		
	Internet banking		
	Gize pay		

Section III

Customer Feelings about Electronic Banking Please right mark (√) any no. from 1 to 5 on the basis of your experience with Bank of Abyssinia.

s/n	Service dimension	1	2	3	4	5
1	Automatic Teller Machine (ATM)					
A1	ATM delivers the service exactly as promise.					
A2	ATM offers 24/7 services					
A3	The machine is available to everywhere.					
A4	The service is simple to understand.					
A5	Using ATM is not time consuming.					
A6	There is restriction on large volume transaction.					
A7	ATM language is easy to understand					
2	Mobile banking					
B1	Easy-to-use.					
B2	Using mobile bank is not time consuming.					
B3	Completing transactions through mobile banking is fast and easy.					
B4	Mobile banking is the cheapest way making transaction.					
B5	Mobile banking language is easy to understand					
3	Internet banking					
C1	Making transaction through mobile is safe.					
C2	Bank securely 365 days a year					
C3	Making transactions through internet banking is safe.					
C4	Transfer money between accounts domestically and internationally.					
4	Gizepay					
D1	Gizepay is available to everywhere.					
D2	Gizepay is the cheapest way making transaction.					
D3	Using Gizepay is not time consuming.					
D4	There is limited restriction on large volume transaction.					
5	Customer satisfaction					

E1	The introduction of Electronic payment system in AB has positively affect service delivery.					
E2	Your expectations before the use of e banking have been met currently.					
E3	The service is provided on time as promised.					
E4	Sufficient material is kept to avoid the interruption of service provision.					
E5	Prices charged on the electronic payment system of the bank are to your expectations.					
E5	Overall you have satisfied on e payment service of the bank.					

Other, please specify-----

Thank you.