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THE EFFECT OF DIGITAL BANKING SERVICE QUALITY ON CUSTOMER EXPERIENCE: EVIDENCE FROM SELECTED COMMERCIAL BANKS IN ADDIS ABABA

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Thesis Submitted to Department of Marketing Management School of Commerce for the Degree of Masters of Science in Marketing Management

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DECLARATION

I, Robsan Berhanu hereby certify that all the corrections and recommendation suggested by the Board of Examiners are incorporated into the Thesis entitled "THE EFFECT OF DIGITAL BANKING SERVICE QUALITY ON CUSTOMER EXPERIENCE: EVIDENCE FROM SELECTED COMMERCIAL BANKS IN ADDIS ABABA" is my original work and has not been presented for a degree in any university, and all sources of material used for this thesis have been duly acknowledged.

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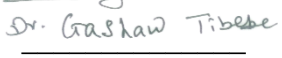
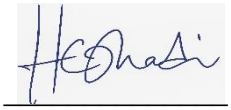
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This is to certify that the thesis prepared by Robsan Berhanu, entitled "THE EFFECT OF DIGITAL BANKING ON CUSTOMER EXPERIENCE: EVIDENCE FROM SELECTED COMMERCIAL BANKS IN ADDIS ABABA" and submitted in partial fulfillment of the requirements for the Degree of Masters of Science in Digital Marketing and E-Commerce with the regulations of the college and meets the accepted standards with respect to originality and quality.

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Abbreviations

AB – Awash Bank

ATM – Automated Teller Machine

BOA – Bank of Abyssinia

CBE – Commercial Bank of Ethiopia

CE – Customer Experience

DOI – Diffusion of Innovation

INFQ – Information Quality

IS – Information System

NBE – National Bank of Ethiopia

PEU / PEOU – Perceived Ease of Use

PU – Perceived Usefulness

SQ – System Quality

TAM – Technology Acceptance Model

Abstract

This study aims to investigate the impact of digital banking service quality dimensions on customer experience in selected commercial banks of Addis Ababa, Ethiopia. The four dimensions of digital banking service quality system quality, information quality, perceived ease of use and perceived usefulness formed the basis of the study. This study was primarily based on the premise that digital banking service quality influences customer experience. The research design used was a quantitative research with an explanatory research design in which a cause-and-effect relationship is identified and explained between digital banking service quality variables and customer experience. In order to draw conclusion and test the hypotheses, primary and secondary data was collected from the sample digital banking customers. The primary data was collected from a structured self-administered questionnaire on 354 samples of digital banking users of various banks in Addis Ababa through a convenience sampling technique, and secondary data was collected from published journal articles, reports of National Bank of Ethiopia, and banks annual reports. The data was analyzed with the help of SPSS and multiple linear regression analysis was used to do the hypothesis testing and find the impact of each variable on customer experience. The result of the study found that all four variables of service quality of digital banking (system quality, information quality, perceived ease of use, perceived usefulness) have found with positive and statistically significant effect on customer experience. Perceived usefulness has the highest level of influence followed by perceived ease of use and system quality while information quality has the least influence. The study implies that customers focus more on functional benefit and usability and less on information aspects of digital banking services in forming their overall experience. The study makes the conclusion that it is vital for banks to adopt a holistic view in improving customer experience by improving all attributes of digital banking service quality through systematic reliability, usability and useful services that meet the needs of customers. Based on the research findings, the study recommends that banks should adopt a user centered approach in designing digital banking platforms as well as invest in good digital infrastructures with continuous focus on improving the services' usefulness.

Keywords: *Digital Banking, Customer Experience, System Quality, Information Quality, Perceived Ease of Use, Perceived Usefulness, Ethiopia*

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

This study examines the effect of digital banking on customer experience in Ethiopia's banking sector, focusing on key variables to address a critical research gap. Customer experience, represents the holistic internal responses of customers arising from direct or indirect interactions with digital banking services, encompassing cognitive, emotional, and behavioral dimensions (Meyer & Schwager, 2007). “It is influenced by variables including system quality, information quality, perceived ease of use and perceived usefulness”. These variables, drawn from the DeLone and McLean IS Success Model and Technology Acceptance Model (TAM), form the core framework for analyzing how digital attributes drive long-term user perceptions and behaviors.

Nowadays, the majority of financial institutions offer online services, and internet banking is already widely recognized and used worldwide. In addition to new business and service opportunities, this poses obstacles for banks to survive and prosper in the financial market. With just one click and an internet connection, users may check their bank accounts using these e-services. (Serrah and Maideen, 2022). “Technology and the internet are now more prevalent in our daily lives and are taking on greater significance. A revolution in electrical technology is currently taking place, mainly in the phone, information, and communications industries. A number of services for the Internet have been made possible by the widespread acceptance of digital services across all socioeconomic segments and age groups” (Emad, 2021)

This study focuses on customer experience, there is limited evidence linking digital banking service quality to customer experience among bank customers in Ethiopia. Research (Cohen et al., 2006) “indicate that most banks across the globe do not have a systematic digital strategy to provide a seamless and positive customer experience which is crucial for both new customer acquisition and experience of existing customer base. Banks need to formulate and fine tune their digital strategies. This study examines the drivers of digital banking from the customer perspective, impact of digitalization on customer experience and the correlation between digitalization and components of customer experience which are customer satisfaction, customer effort and customer recommendation”.

A major gap in the literature is tackled in this research by exploring how features of digital banking namely system quality, information quality, perceived ease of use, and perceived usefulness shape the customer experience for clients of certain commercial banks in Addis Ababa. Treated as the outcome variable, customer experience reflects an overall view formed through service encounters, going past momentary satisfaction and pointing instead to enduring net gains within the DeLone and McLean IS Success Model (DeLone & McLean, 2003). Earlier work, including Verhoef et al. (2009), emphasizes that it supports loyalty via both thinking and feeling components, and Klaus and Maklan (2013) stress that digital settings require measures that capture multiple facets.

The independent variables are well established in literature. System quality, involving efficiency, reliability, and responsiveness, has been shown to enhance user outcomes; Petter et al. (2008) validated its positive correlations with satisfaction across information systems. Information quality, emphasizing accuracy, relevance, and timeliness, builds trust and aids decisions, as integrated with technology acceptance by Wixom and Todd (2005) and linked to e-loyalty in banking by Ghane et al. (2011). Perceived ease of use, the belief in minimal effort required, drives adoption; Davis (1989) introduced it in the Technology Acceptance Model (TAM), with Benedict (2020) confirming its impact on mobile platform success. Perceived usefulness, the expectation of performance gains, correlates with efficiency; Davis (1989) and Zoohan and Maung (2019) demonstrate its effects on intentions and satisfaction in mobile apps.

Unlike prior research focused on satisfaction or adoption (e.g., Cohen et al., 2006), this study prioritizes customer experience. A cross-sectional survey will gather user perceptions via structured questionnaires, with regression analysis testing relationships. Targeting Commercial Bank of Ethiopia, Awash Bank, and Bank of Abyssinia leaders in digital transformation representing public and private sectors the investigation accounts for time and financial constraints.

1.2. Backgrounds of selected commercial banks

1.2.1 Commercial Bank of Ethiopia

Commercial Bank of Ethiopia (CBE) traces its origins to 1942, when the State Bank of Ethiopia was founded. In 1963, CBE was formally created as a share company under the law. Over the years that followed, it has contributed in important ways to the nation’s progress. At present, CBE

serves over 43+ million customers with accounts and operates more than 1950 branches and service locations. Mobile Banking users now exceed 6.6 million, while Internet Banking users have climbed to above 37k. The total of active ATM card holders has likewise risen past 8.3 million, and the number of CBE-Birr users is above 17 million.

1.2.2 Awash Bank

Awash Bank, Ethiopia's pioneering private bank, was established on November 10, 1994 after the downfall of the socialist regime. The Bank was established by 486 founding shareholders with a paid-up capital of Birr 24.2 million and started banking operations on Feb. 13, 1995. Recent performance report shows that Awash Bank has achieved substantial progress in digital banking usage. In the 2024/25 fiscal year, the bank processed over 1 trillion birr in digital transaction, representing more than 75% of its total transaction volume. This indicates a strong customer shift toward digital channels. The bank also disbursed nearly 493 Million birr in unsecured digital loan to over 300,000 customers, demonstrating the growth trust and engagement with its digital platforms. The bank operates one of the largest digital banking services in Ethiopia by more than 1200 ATMs and 2300 POS terminals supporting digital payments across major commercial centers.

1.2.3 Bank of Abyssinia

"In an era where commercial banking services were in an inchoate stage and striding towards transforming different sectors of the economy, Bank of Abyssinia's founders believed in the need for a bank that gives comprehensive commercial banking services. Thus, the Bank of Abyssinia (BoA) was open for business in 1996 with enthused initiation and determination. Through its 929 branches in the country, BoA serves over 11,510,000 customers. BoA's well-structured financial service system is connected through the T-24 core banking system. This coupled with the 1,757 ATM machines, 73 virtual banking centers, and more than 3,466 POS placed in different locations to enable customers acces their accounts from anywhere at any time".

1.3. Statement of the Problem

Banks are offering almost identical services because their product advancements are easily adaptable. Therefore, in order retain customers, banks must concentrate on differentiating

themselves through high-quality goods and services. In the highly competitive marketplace of today, good customer experience is a crucial part of banking strategy.

“The proliferation of ownership of digital devices like mobile phones, personal computers, tablets and laptops has spurred the demand for financial services on these devices. In recognition of the digital technology potential opening up service opportunities, enabling banks to benefit from digital banking for service marketing. This means that banks can efficiently offer services, which customers can access through digital channels. With rapid technological change, banks face the challenge of improving their customer loyalty. The customer broad perspective should be taken as a key success factor for a financial institution to differentiate itself from other competitors that, in turn, should allow increasing market share and position itself on best possible customer experience. Rapid development of digital economy is propelling rise of innovation, competitiveness and growth opportunities within the financial industry. Advancement and adoption of digital technologies and integration into business models is key for banks to achieve greater scale, penetrate new markets swiftly, thorough understanding of customers‟ needs which leads to higher profitability and scalability” (Peppers & Rogers, 2016).

Rogers (2016) “argues that we are in the age of the customer, where there is a fundamental need for banks to reinvent their strategies or be forgotten. This requires top management of banks to make bold decisions to overcome the threats and leverage of opportunities brought in by digitalization”.

“Further argument is that digitalization would transform the existing banking ecosystem where existing banking products and services are highly commoditized with digitalization becoming a key differentiator for banks to stay relevant in ensuring customers‟ financial well-being. Review of existing research also leads to the fact that most published researches are conducted in developed countries and focus primarily on electronic banking adoption”(Chan and Lu, 2004; Jayawardhena and Foley, 2000; Kolodinsky, Hogarth, and Hilgert, 2004; Yiu, Grant, and Edgar, 2007). In the Ethiopian context, limited empirical studies exist due to the relatively slow pace of digital banking adoption and infrastructural challenges. Additionally, customer perceptions of shifting from traditional to digital banking may vary based on demographic factors, regulatory conditions, and competitive pressures within the industry. Therefore, understanding how digital banking influences customer experience in Ethiopia remains a critical research gap.

In light of these facts, this study looks at how digital banking affects customer experience from the perspective of the customers, concentrating on users in particular Addis Ababa commercial banks (Commercial Bank of Ethiopia, Awash Bank, and Bank of Abyssinia). In an increasingly competitive and digitally transformed financial sector, the goal is to evaluate how customer views of digital banking such as system quality, convenience, ease of use, and system reliability shape their experience behaviors.

1.4 Research Questions

1. What is the effect of system quality of digital banking on customer experience among customers of selected commercial banks in Addis Ababa?

2. What is the effect of information quality of digital banking on customer experience among customers of selected commercial banks in Addis Ababa?

3. What is the effect of perceived ease of use of digital banking on customer experience among customers of selected commercial banks in Addis Ababa?

4. What is the effect of perceived usefulness of digital banking on customer experience among customers of selected commercial banks in Addis Ababa?

1.5 Objectives of the Study

1.5.1. General Objective

The general objective of the study is to examine the effect of digital banking service quality on customer experience in the Ethiopian Banking Industry at selected Commercial Banks in Addis Ababa.

1.5.2. Specific Objectives

- To assess the effect of system quality of digital banking on customer experience in the Ethiopian banking industry at selected commercial banks in Addis Ababa.
- To evaluate the effect of information quality of digital banking on customer experience in the Ethiopian banking industry at selected commercial banks in Addis Ababa.
- To investigate the effect of perceived ease of use of digital banking on customer experience in the Ethiopian banking industry at selected commercial banks in Addis Ababa.

- To analyze the effect of perceived usefulness of digital banking on customer experience in the Ethiopian banking industry at selected commercial banks in Addis Ababa.

1.6. Significance of the Study

This study is significant because it will clarifies how digital banking affects customer experience in a few Addis Ababa commercial banks. Customers now have a wide range of banking options, and if the digital services they receive fall short of their expectations, they can quickly move to another bank. This study will give the participating banks useful information by determining the digital banking elements that are most important for customer experience.

The findings will help bank management in determining which areas such as system quality, information quality, and security need to be improved in order to lower customer attrition and foster enduring customer relationships. Enhancing these areas can boost the banks' overall competitiveness in the expanding digital banking market and increase customer loyalty.

This study is also important for scholars and researchers. There is a scarcity of research in Ethiopia that investigates digital banking from a customer experience standpoint, despite the rapid expansion of digital services. By applying the DeLone and McLean IS Success Model and Technology Acceptance Model (TAM), this study adds new knowledge to the existing literature and can serve as a reference for future studies in the field.

Finally, the findings of this research will be useful for policymakers, system developers, and other banking stakeholders. The recommendations generated from the study can help guide decisions on improving digital banking systems, enhancing customer trust, and supporting the long-term digital transformation of the Ethiopian banking sector.

1.7. Scope of the Study

The scope of the study can be discussed in terms of Conceptual scope, target scope, and methodological scope.

Conceptually, this study is aimed at investigating how digital banking influences the experience of customers. The research focuses on examining the effects of certain dimensions of digital banking including information quality, system quality, perceived ease of use, and perceived usefulness on customer experience to the bank. It is also restricted in terms of the scope of the customers, i.e. only the experiences, perceptions, and behavior of digital banking users is taken

into account. The research fails to evaluate the opinions of the employees and management of the bank and other internal stakeholder. Also, the paper is limited to the digital bank platforms, such as mobile banking, internet banking, ATM services, and other electronic delivery platforms. The conceptual boundaries are beyond the traditional face-to-face banking services.

Geographical scope of the study will be restricted to Addis Ababa, the capital city of Ethiopia, where there is the greatest level of digital banking users and modern banking infrastructure. Specifically, the study focuses on customers of three major commercial banks:

Commercial Bank of Ethiopia (CBE) - a main state owned bank and one of the leading in digital banks.

Awash bank (AB) and Bank of Abyssinia (BOA) are one of the leading privately owned banks those which has a major investment in digital transformation.

These banks were chosen as they reflect the state-owned banks and the private banking sector and are known to have sophisticated digital banking services thus can be considered as the best example to investigate the experience of customers in a digitalized world.

The research methodology is quantitative in nature, in which through measurement and analysis of relationships between digital banking features and customer experience would be achieved.

The research design integrates both Descriptive research design to characterize the customer profiles, the digital banking use trends, and customer perceptions and Explanatory research design to investigate causal correlations between factors of digital banking (independent variables) and customer experience (dependent variable).

Data collection is conducted through a structured questionnaire administered to customers who actively use digital banking services. Only customers with experience using digital platforms are included because the aim is to evaluate experience related specifically to digital service delivery. Statistical tools such as regression analysis, correlation, and descriptive statistics are used to analyze the data, ensuring objective measurement and reliable conclusions.

1.8. Limitations of the Study

The study is subject to several limitations. First, the research does not include all customers of the selected banks; only customers who use digital banking services and who were available at the

time of data collection were included. Second, the study is geographically restricted to three selected commercial banks in Addis Ababa, which limits the breadth of the findings. As a result, the outcomes largely rely on the subjective responses of the sampled participants. Therefore, the findings may not be fully generalizable to all customers of the selected banks or to other banks operating outside the study area.

1.9. Organization of the Study

"This study is organized in five chapters. Chapter one is introduction to the study. It provides a background of the study, objectives of the study, significance of the study, scope and limitations of the study, definition of key terms, and organization of the study. Chapter two provides a critical literature review of different aspects of the study. It draws on the literary, theoretical, academic and industry basis of the research. It also presents the implications of digital banking on customer experiences, conceptual framework of the study and research hypotheses. Chapter three introduces the research methodology. Specifically, it includes the research approach and design, data sources, methods of data collection, population, sampling techniques and sample size, reliability and validity of data collection instruments, and data analysis techniques, and ethical considerations".

1.10 Definition of Terms

Digital Banking

Digital banking refers to the delivery of banking services through digital channels such as mobile banking, internet banking, ATM services, and other electronic platforms. It enables customers to access financial services remotely without visiting a branch (AL-Hawary & Hussien, 2017).

System Quality

System quality represents the desirable attributes of an information system, including efficiency, reliability, ease of use, and responsiveness. In digital banking, system quality measures how well the platform performs technically (DeLone & McLean, 2003).

Information Quality

Information quality refers to the accuracy, relevance, completeness, and timeliness of information delivered through digital platforms (Wixom & Todd, 2005). High information quality ensures customers receive correct and updated transactional and account information.

Perceived Usefulness (PU)

The degree to which a person believes that using a particular system would enhance his or her job performance (Davis, 1989, p. 320).

Perceived Ease of Use (PEOU)

The degree to which a person believes that using a particular system would be free of effort. (Davis, 1989).

Customer Experience

"Customer Experience is the internal and individual customer response as a result of any direct or indirect interaction with a business organization" (Meyer and Schwager, 2007).

Mobile Banking

"Mobile banking is a form of digital banking that allows customers to carry out financial transactions using mobile devices such as smartphones and tablets" (Aker & Mbiti, 2010).

Internet Banking

Internet banking refers to the provision of financial services through web-based platforms, enabling customers to access their accounts and perform transactions online (Kim & Kang, 2018).

ATM Services

Automated Teller Machine (ATM) services are electronic banking services that allow customers to withdraw cash, check balances, and perform limited transactions without visiting a bank branch (Tilahun, 2016).

DeLone and McLean IS Success Model

"The DeLone and McLean IS Success Model is a framework for assessing the success of information systems based on six dimensions: system quality, information quality, service quality, use, user satisfaction, and net benefits" (DeLone & McLean, 2003).

CHAPTER TWO
REVIEW OF RELATED LITERATURE

Introduction

An overview of related theoretical and empirical studies on digital banking and customer experience will be found in this section. As a result, a lot of work is done to investigate important terms and conceptual issues related to the primary subject of the study. As a result, it provides data from actual study together with a theoretical analysis of the concepts, terminology, and theory of digital banking.

2.1. Theoretical Review

2.1.1 Concepts of Digital banking

Digital banking refers to the offering of modern financial goods and services by banks to their customers through electronic channels. This technical term also includes banks' use of information and communication technology (ICT) to manage client interactions and provide services more quickly and satisfactorily. “According to AL-Hawary and Hussien (2017), digital banking truly protects both computer and telephone banking. The tendency toward digital banking services increases client services while solidly binding customers to the bank for many banking companies. The adoption of digital banking is also seen as a fresh way to grow the clientele while fending off the aggressive push made by traditional financial organizations” (Perera and Priyanath, 2018).

“The bulk of banking operations, including as bill payment, inter-account transfers, and account balance queries, may be completed online by customers using digital banking. Therefore, e-banking refers to systems that give financial institutions, consumers, individuals, and enterprises access to accounts, business transactions, and information collection about financial products and services across public or private networks. To access digital banking services, customers use electronic devices such as a PC, PDA, automated teller machine (ATM), and phone lines. Actually, only contributors (financial institutions, consumers, business owners, and third-party service providers) who have accepted the terms of membership are permitted access to "closed" private networks. Meanwhile, "open" public networks lack these kinds of membership restrictions”(Bismark, Bismark, Eric and Isaac, 2015).

It reveals that using digital banking apps raises security issues because they mostly rely on state-of the art information technologies that put businesses, financial institutions, and possibly even individuals at danger. Interoperability, which is essential to electronic payments, is the ability of different systems and sometimes even different goods to readily interact or share data. This system or electronic service is intended to reuse all relevant governmental platforms, including the interoperability platform, in order to promote the expansion of the current service, reduce investment costs, and guarantee its sustainability (Edmundo and Oxana, 2017). "According to a report, becoming more accustomed to using electronic payment methods holds the promise of numerous benefits for both consumers and businesses, including lower expenses, better suitability and more secure, consistent means of payment and settlement for a potentially vast range of goods and services offered wide-reaching over the internet or other electronic networks" (Tilahun. 2016).

"A more blatant inclination of businesses to use these networks to conduct a new sort of commerce, the electronic commerce, through the internet has been brought on by the rapid development of the high tech financial system or the interconnectedness of computers in the internet in all segments of society. All banking transactions are now completed through an online application, thanks to the banking sector's recent leadership in this trend is sometimes called digital banking" (Sewalem, 2018).

2.1.2 Theories of Digital banking

"Banks may now provide their financial services to customers whenever they need them using a number of communication channels, such as the internet and mobile networks, thanks to technological advancements. Evident invention technology attributes are important components that may be observed and tested in specific ways in different analytical units. These observations and tests can expose each attribute's deficiencies, which can subsequently be improved upon or eliminated" (Mekonen, 2020).

2.1.2.1 Diffusion of Innovation Theory

Diffusion is the process by which an innovation gradually spreads among the members of a social system via certain channels and forms of communication. The environment in which innovations are developed and utilized has a big influence on the rate of adoption, and the diffusion process can be conceived of as having many intricate components. Diffusion is not a passive or inactive process, despite the fact that it requires a complicated process

with few adjustments to guarantee all of the system's components work together. The communications deal with new ideas, making it a distinctive mode of communication (Edmundo and Oxana, 2017).

“Because digital banking is seen as a commercial bank innovation that offers an alternative to services that are only available through conventional payment systems in this case, cash payments on several platforms this argument is not supported by the study. It also describes how ideas are shared, how messages are sent from one person to another, and how two individuals might communicate more effectively. It either did not support the functional aspects of digital banking or ignored the degree of post technology acceptability. It uses the Theory of Planned Behavior (TPB), and Theory of Reasoned Action (TRA)”.

In addition, almost all of the models stated above addressed perceived behavioral control, or how someone feels about how easy or difficult it is to perform a particular behavior (Gofe and Tulu, 2019). “The behavioral intention, which is influenced by attitudes, subjective norms, and perceived behavioral control, is the next aspect in the theory of planned conduct. Conversely, actual conduct is determined by behavioral intention. The four general principles of the theory of reasoned action (TRA) have been helpful in explaining behavior that transcends technical acceptability”(Bultum, 2014; Mekonnen, 2020).

“Technological advances have multiplier effects. Advances in technology in the field of communications and mobile phones are very influential in the development of payment systems (Hidayati, 2014). The technology of this payment system is moving towards an increasingly efficient direction. The efficiency of the payment system can be measured by the level of accuracy and speed. The need of payment systems is higher, where the efficiency of the payment system is a major factor of economic activity undertaken by the community and entrepreneurs. The number of population in Indonesia amounts to 29% of people who use the internet for online transactions. In other words, of the entire population of Indonesia, only 39% of urban society and 11.1% of rural communities perform online transactions” (MARS, 2016). “This shows that with all the benefits gained in using online financial transactions does not necessarily encourage people in Indonesia to use it. Technology encourages the banking world in utilizing the internet. Banking transactions provide convenience and convenience for customers to conduct financial transactions online” (Widyarini, 2005).

“Based on Innovation Diffusion Theory which explains that the characteristics of innovation are the nature of the diffusion of innovation, where the characteristics of innovation are one that determines the successful use of technology. (Rogers, 1983) suggests there are 5 characteristics of innovation, namely: Relative advantage, compatibility, complexity, trialability and observability. In the research (Kapoor, 2013) states that only three variables of Innovation Diffusion Theory. Relative Advantage, Compatibility, and Complexity that affect the acceptance of online financial transactions”.

“Innovation diffusion theory explains that the characteristics of innovation are the nature of the diffusion of innovation, where the characteristics of innovation are one that determines the successful use of technology. All products do not have the same possibilities for consumer acceptance, some products can become popular in just one night while others require a very long time to receive or even never be widely accepted by consumers. Innovation Characteristics determine the speed of innovation adoption process at farmers level as technology users. In the speed of the process of adoption of innovation is determined by several factors such as communication channels, characteristic features of social systems, promotional activities and the role of communicators”. According to (Rogers, 1962) and (Schiffman and Kanuk, 2010), there are five characteristics of these innovations that can be used as indicators in measuring perceptions, among others:

1. Relative advantages: “Relative advantages is the degree to which an idea is considered a better than the ideas that exist before, and is economically profitable”.

2. Compatibility: “Compatibility is the extent to which the past of an innovation is considered consistent with existing values, past experiences, and needs of the adopter. Therefore innovations that are not compatible with prominent social system features will not be adopted as quickly as compatible ideas”.

3. Complexity: “Complexity is a level where an innovation is considered relatively difficult to understand and use. Difficulty to understand and use will be an obstacle to the process of speed adoption of innovation”.

4. Trialability: “Trialability is a level where an innovation on a small scale. New ideas that can be tried on a small scale are usually adopted more quickly than innovations that can not be tried first”.

2.1.2.2 Taxonomy of Information System (De Lone and McLean IS success model)

“The taxonomy of information system (IS) success or effectiveness is one of this stream's key contributions. This comprehensive IS success taxonomy is sometimes referred to as the Original System quality, information quality, user happiness, system use, individual impact, and organizational effect are the six key components of the DeLone and McLean IS success model. Soon after it was released, many researchers used the original DeLone and McLean IS success model in their IS success studies” (Basheer et al., 2015).

“The article suggested and critically examined the four constructs of the original DeLone and McLean IS success model: system quality, information quality, user satisfaction, and system use, as well as their relationships. It is a comprehensive framework that effectively integrated earlier IS success research. Drawing from the work of DeLone and McLean, the taxonomy model also suggested significant extensions to incorporate other cognitive components and beliefs, such as attitude, trust, and perceived usefulness, in the study of the digital banking setting”. Therefore, it was expected and requested that the DeLone and McLean IS success taxonomy be expanded.

“It was observed that most of the DeLone and McLean IS success taxonomy's extensions involved combining the taxonomy's IS success metrics with pre-existing perceptual cognitive elements and beliefs discovered in the context of technological acceptance. In keeping with the objectives of the study, this research also will employee the theory of Taxonomy of Information Systems, which DeLone and McLean's EC success model suggested as a theoretical basis. It also proposed a modified model to identify the underlying causes of continuous usage intention in the context of digital banking and look into their relationships”.

The DeLone and McLean IS success model remains one of the most widely recognized frameworks for evaluating the effectiveness of information systems, particularly in technology-driven environments such as digital banking. What makes this model particularly valuable is its ability to integrate multiple dimensions of system performance into a unified structure, linking system quality and information quality with system use and user satisfaction to explain overall success. Rather than examining isolated factors, the model provides a comprehensive perspective

that connects technical performance with user outcomes. In the context of digital banking, this holistic approach is highly relevant, as customer experience is influenced not only by system functionality but also by the quality and usefulness of the information provided (DeLone & McLean, 1992; DeLone & McLean, 2003).

Over time, researchers have extended the original taxonomy to better reflect the dynamic nature of information systems and evolving user expectations. These extensions have incorporated additional constructs such as perceived usefulness, trust, and user attitudes, drawing from complementary theories like the Technology Acceptance Model (TAM). This shift represents a movement from a purely system-oriented evaluation toward a more user-centered perspective that emphasizes cognitive and behavioral factors. In digital banking environments, this is particularly important, as users' perceptions of usefulness and trust significantly shape their willingness to adopt and continue using digital services (Davis, 1989; Venkatesh et al., 2003; Basheer et al., 2015).

In line with these theoretical developments, the present study adopts the DeLone and McLean IS success model as its primary foundation while integrating constructs relevant to the digital banking context. By focusing on system quality, information quality, perceived ease of use, and perceived usefulness, the study combines both technical and perceptual dimensions of system success. This integrated approach enables a more comprehensive analysis of the factors influencing customer experience and provides a stronger explanatory framework for understanding how digital banking services deliver value to users (DeLone & McLean, 2003; Petter et al., 2008).

2.1.2.3 Technology Acceptance Model

"TAM explains why users accept or reject information technology based on their Theory of Reasoned Action adaptability the researcher can track the effects of external variables on belief, attitude, and intention to use this model. Perceived usefulness and perceived ease of use are the two cognitive that TAM proposes. According to TAM, an individual's actual use of a technological system is influenced directly or indirectly by the user's behavioral objectives, attitude, perceived usefulness, and perceived ease of the system" (Akbari et al., 2020). "According to the model, external factors can also affect intention and actual usage through mediated impacts on perceived usefulness and perceived ease of use. This model is will employed in this research to test the effect

of digital banking on customer experience by using perceived usefulness and perceived ease of use".

Originally created by Davis (1989), the Technology Acceptance Model (TAM) offers a well-known framework for explaining why people either accept or reject information technology. Built on the Theory of Reasoned Action, TAM links beliefs, attitudes, intentions, and actual system usage to explain user behavior. The model holds that people create behavioral intentions toward a system based on their views, which are then reflected in their actual usage. TAM is especially helpful in the context of digital banking for studying how consumers choose whether to adopt and keep using electronic banking services (Davis, 1989; Fishbein & Ajzen, 1975).

"TAM depends on two main cognitive drivers: perceived value and perceived simplicity of use. Perceived ease of use reflects the extent to which a person believes that using the system will be free of effort, while perceived usefulness refers to the degree to which an individual believes that using a particular system enhances their performance". These two ideas together affect users' attitudes toward the system, therefore molding their behavioral intentions and actual usage behavior. These perceptions in digital banking have a major impact in determining customer experience since users are more inclined to interact with systems that are both helpful and simple to use (Davis, 1989; Venkatesh & Davis, 2000).

TAM also acknowledges the part external factors play in influencing user opinions. Perceived usefulness and perceived ease of usage can be influenced by elements including system design, user interface quality, training, and past experience, therefore indirectly impacting user attitudes and behavioral intentions. External factors such system reliability, accessibility, and informational clarity in the digital banking landscape shape consumer views and so influence the degree of system acceptance (Venkatesh et al., 2003; Akbari et al., 2020).

Over time, TAM has been improved and broadened to increase its explanatory power in many technical scenarios. Including social influence, enabling circumstances, and trust, models like TAM2 and the Unified Theory of Acceptance and Use of Technology (UTAUT) include more elements. These extensions recognize that social and organizational elements, in addition to personal impressions, affect technology adoption. Trust and seen risk have been found especially

crucial in influencing user acceptance and continuing use behavior in the context of digital banking (Venkatesh et al., 2003; Alalwan et al., 2017).

In line with these theoretical perspectives, the present study uses TAM as a complementary framework to investigate the influence of digital banking on customer experience. Specifically, the research examines perceived convenience and perceived usability as main explanatory factors affecting consumer ratings of digital banking services. Using TAM in conjunction with the DeLone and McLean IS success model, the research grabs both the technical and behavioral facets of system success and so offers a more complete grasp of customer experience in the digital banking context (Davis, 1989; DeLone & McLean, 2003).

Summary of the theory's

"This study adopts an integrated theoretical framework by combining selected constructs from the DeLone and McLean Information Systems (IS) Success Model and the Technology Acceptance Model (TAM) to examine the effect of digital banking on customer experience in selected commercial banks in Addis Ababa".

The Diffusion of Innovation (DOI) Theory primarily explains how new technologies spread within a social system and focuses on the initial adoption stage of an innovation. While DOI is useful for understanding awareness creation and early adoption behavior, it places limited emphasis on post adoption outcomes, system performance, and users' experiential evaluation of digital services. Since digital banking in Ethiopia has already been introduced and adopted by many customers, the DOI theory is less suitable for analyzing ongoing usage, system quality, and customer experience, which are central to this study.

The DeLone and McLean IS Success Model provides a strong foundation for evaluating post-adoption success of information systems. The model explains how system quality, information quality, and service quality influence user experience and lead to net benefits. In the context of digital banking, these constructs directly relate to customers' experiences with system reliability, accuracy of information, security, availability, and overall performance. Therefore, the DeLone and McLean model is particularly appropriate for assessing how the quality dimensions of digital banking systems shape customer experience.

However, while the DeLone and McLean model explains system success outcomes, it does not explicitly account for users' perceptions of ease of use and usefulness, which are critical in digital

service environments. To address this limitation, this study integrates the Technology Acceptance Model (TAM). TAM complements the IS Success Model by explaining how perceived ease of use and perceived usefulness influence users' acceptance, continued usage, and overall experience with digital banking platforms.

By combining these two models, the study captures both:

- System related quality factors (from DeLone & McLean)
- User perception and acceptance factors (from TAM).

"This integrated framework enables a more comprehensive analysis of customer experience by linking digital banking system performance and user perceptions to experiential outcomes. Consequently, the combined use of the DeLone and McLean IS Success Model and TAM provides a robust and contextually appropriate theoretical basis for examining the effect of digital banking on customer experience in the Ethiopian banking sector".

2.1.2 Definition of Customer Experience

"Customer experience is the internal and individual customer response as a result of any direct or indirect interaction with a business organization (Meyer and Schwager, 2007). It is the customers overall experience associated with the brand throughout the life cycle of the product or service offered" (Schmitt, 2010). Businesses must prioritize customer adoption as an ongoing imperative by developing customer-centric strategies throughout all organizational segments. This includes leveraging technological advancements to enhance the overall value of the customer base, acquiring new customers, and retaining existing ones (Peppers and Rogers, 2016).

"Customer experience encompasses a set of interactions (e.g. rational, emotional, sensorial, physical, and spiritual) between a customer, product and company, the value created through that set of interactions (Meyer and Schwager, 2007; Verhoef et al., 2009; Klaus and Maklan, 2013), and customers‟ purchasing behavior (Klaus and Maklan, 2013). Customers compare their service expectations and their experiences interacting with firms‟ offerings during different service contacts".

Reflecting the change from product-centered to customer-centered approaches, customer experience has become a major concept in modern marketing and service management. It describes the whole vision consumers develop based on their total interactions with a company over several

touch points. Before, during, and after service use, these interactions help to define how consumers view the brand over time. Thus, client experience is not confined to a single transaction but rather develops over the whole customer path, hence becoming a major factor of long-run satisfaction and loyalty (Meyer & Schwager, 2007; Schmitt, 2010).

Companies are starting to see the strategic value of carefully managing customer experience in the technology-driven and cutthroat world of today. Companies should create and provide flawless, customized, and value-adding experiences matching consumers' changing expectations. This calls for the incorporation of digital technologies, data analytics, and customer insights into corporate operations to improve engagement and service delivery. Doing so will enable companies to increase customer retention and acquisition as well as improve client happiness, hence attaining a long-lasting competitive advantage (Peppers & Rogers, 2016; Lemon & Verhoef, 2016).

Moreover, customer experience is naturally multidimensional, including cognitive, emotional, behavioral, and sensory reactions resulting from engagement with a company's offerings. These reactions are guided by consumers' expectations and past experiences, which they continually contrast with actual service encounters. Customers who believe the actual experience meets or beyond expectation are more likely to grow positive attitudes and good behavioral intentions. On the other hand, unpleasant events can result in dissatisfaction and diminished loyalty. Organizations wanting to provide great customer value (Verhoef et al., 2009; Klaus & Maklan, 2013) therefore must understand and control these dynamic interactions.

2.2 Empirical Review

Numerous studies have been carried out to investigate factors impacting customer experience employing a wide range of variables in relation to the empirical works of literature. The next paragraphs discuss the customer experience variables based on past studies.

Sarokolaei et al.‟s (2012) “examined the barriers to e-banking and argues that reliability, security and customer satisfaction affect uptake, while recent research shows that brand in Israeli (Levy & Hino, 2016) and service quality in Saudi Arabian (Amin, 2016) banks, affect customer satisfaction and loyalty. This is not surprising as customer satisfaction has a financial effect on banks (Nagar & Rajan, 2005). The literature implies that further research attention should be focused towards

customer experience. This gap in research needs closing. As part of new knowledge, this research investigates security issues, brand, customer experience, and satisfaction and employee perceptions of digital banking".

"Some customers are reluctant to use e-banking due to perceived risk and trust (Martins et al., 2014; Kim, Tao, Shin & Kim, 2010). Featherman and Pavlou (2003) define perceived risk as the potential for loss in the pursuit of a desired outcome of using an e-service. They identify seven types of risk associated with e-banking: performance, financial, time, psychological, social, privacy and overall risks. Jun and Palacios‟s (2016) recent study also finds security to be an issue for customers, while Wu (2011) investigates the location convenience effect on customer satisfaction. Thus, this research investigates perceived risks and trust further, and explores other digital banking risks to see if they affect customer experience".

Cunningham (2003) "although current evidence shows that banks are accepting digital banking, improving customer experience is key to meeting their expectations, as investigated in the research. The suggestion also means that customers‟ and managers‟ opinions are important in digital banking uptake. Privacy and security were major barriers to early digital banking acceptance (Dimitriadis & Kyrezis, 2010; Howcroft et al., 2002), but research by Darwish and Hassan (2012) has identified howsecurity can be improved. Nevertheless, privacy may still be an issue, as recent research shows that perceived usefulness, trust, and self-efficacy are predicting factors to use telebanking in"

Jordanian banks (Alalwan et al., 2016) "this evidence shows that digital banking has evolved, however further research is required to give clear direction. Research should address the experience factors, which make customers choose one bank‟s digital banking services over another, hence this research".

Howcroft, Hamilton and Hewer (2002) "investigated the motives for and barriers to using e-banking and t-banking, and concluded that customers are continued to use bank branches, but eventually digital banking will replace them. Whilst digital banking has become challenge to bank branches (Stone & Laughlin, 2016), it has not completely replaced them, and recent research has refocused on digital banking qualities (Alalwan et al., 2016). E-banking knowledge is improving, however understanding customers, organizational flexibility, security, brand name, integrated marketing and good customer services are critical for banks (Shah a& Siddiqu, 2006). Martins et al. (2014) and Lee (2009) also argue that limited research has been done to find e-banking positive

and resistance factors, even though it is a cost-efficient way of banking, while Maenpaa, Kale, Kuuselaand Mesiranta (2008) advocate a shift in research towards e-banking experience. Subsequently, Piyathasanan et al. (2015) argue that few guidelines exist on how to improve customers‟ internet experience, showing that further research is required".

2.2.1 System Quality

Digital banking remains popular because it is believed to be less costly than alternative payment options. "The development of the digital banking system calls for expertise and knowledge. As a result, there is less understanding to apply technologies, apply payment systems, and provide remedies for system failure (Ahmad, Mohammed and Abdel Aziz, 2019). Digital banking systems are recognized to require a strong network infrastructure. However, smart card-based digital banking systems do not necessarily require network infrastructure. However, the smart card must meet strict security requirements as a result. There are a number of security threats that digital banking applications need to deal with, such as the threat related to data breach and unauthorized access, which could cause sensitive customer's information leakage that may lead to disruption of banking operations (Windasari et al., 2022). With the growing attacks amongst bank establishments and other economic misappropriation of their systems, there is an urgent need for protection of bank payment systems" (Oyewole et al., 2024).

H_1 – System Quality of digital banking has a positive and significant effect on customer experience.

2.2.2 Information quality

"Information quality within IS literature generally refers to the desirable characteristics of the IS outputs (Petter et al., 2008). DeLone and McLean (2004) proposed that accuracy, relevance, completeness, currency and dynamic content are examples of characteristics of desirable content. It is generally accepted that the measurement instrument of information quality should be developed according to the type of IS under study (Petter et al., 2008; Wixom and Todd, 2005). The proposed model follows the Delone and McLean IS success taxonomy and conceptualizes M-banking information quality as the desirable characteristics of outputs of M-banking applications".

H_2 – Information Quality of digital banking has a positive and significant effect on customer experience.

2.2.3 Perceived Ease of Use

The Internet provides a cutting-edge new virtual environment that stimulates and improves bankers' and customers' learning as well as the operational procedure. The simplicity of use of the new technology is the main factor influencing the intention to adopt digital banking. The perceived usability of the aforementioned technology has been a significant component in research on informational acceptability. “The degree to which an innovation is thought to be simple to comprehend, learn, or use is known as perceived ease of use. (Rogers, 1983). Further, Rogers (1983) the degree to which consumers believe a new product or service is superior to its alternatives is known as perceived ease of use. Perceived ease of use, as it relates to digital banking, is a measure of how simple it is to use the digital services and how intuitive they are. Ease of use can be used to gauge system adoption and information systems success. When using this concept in an online banking environment, banks should focus on their websites and pertinent features to meet the needs of their customers. The idea is that an application that customers find easier to use than another is more likely to be recognized by them and enhance their objective or capacity to use the innovation”.

H_3 – Perceived Ease of Use of digital banking has a positive and significant effect on customer experience.

2.2.4 Perceived Usefulness

Digital banking has become more sophisticated and sophisticated as a result of the rapid changes in modern development and advancement brought about by information technology. Consumer attitudes about online banking are influenced by a number of elements, such as demographic background, motivation and behavior toward different financial innovations, and personal preferences and wishes from the new technology (Abdullah, 2011). Consumer perceptions of online banking are influenced by several ambient factors (Davis, 1989) as well as related computer and new technology understanding (Laforet, 2005). Customers must be concerned about data encryption, hacking, password integrity, privacy, and the security of personal data when using digital banking. Large adoption or consumer satisfaction with the services cannot occur if the perceived usefulness of the service is not greater than the concerns. Other qualities like loyalty, dedication, and referrals to others may rise in response to perceived usefulness. The adoption of these novel digital banking delivery channels will increase with the degree of perceived usefulness.

H_4 – Perceived usefulness of digital banking has a positive and significant effect on customer experience.

2.3 Research Gap

Digital banking has become a new option for Ethiopian consumers to obtain banking services and goods. Ethiopia's financial technology development aims to give clients improved services, like simple access to their funds and other banking data they may need. The usage of ATMs, telebanking, and smart cards for banking are examples of digital banking in its broadest sense, which is favored by several Ethiopian financial institutions. However, banks have actually integrated online channels into their computerized banking systems. This is predicated on the idea that only a small percentage of companies have actually advanced their electronic banking services beyond Tasman digital banking and smart card usage (Mekonen, 2020).

In the banking industry, customer experience is crucial, and studies have shown that banks struggle to keep their clients (Haripersad & Sookdeo, 2018). Prior studies (Auniel & Obino, 2018; Makonnen, 2016; Daniel, 2016) attempted to evaluate the variable elements that influence customer experience by concentrating on the organization's general practices, which are not unique to digital banking services.

"Tamuliene & Gabryte (2014) tried to identify the factors influencing customer experience in the case of Lithuanian mobile operators by focusing on three variables i.e customer satisfaction, relationship quality, switching costs. The result showed that there is a statistically significant positive correlation between the variables and customer experience".

2.4 Conceptual Framework

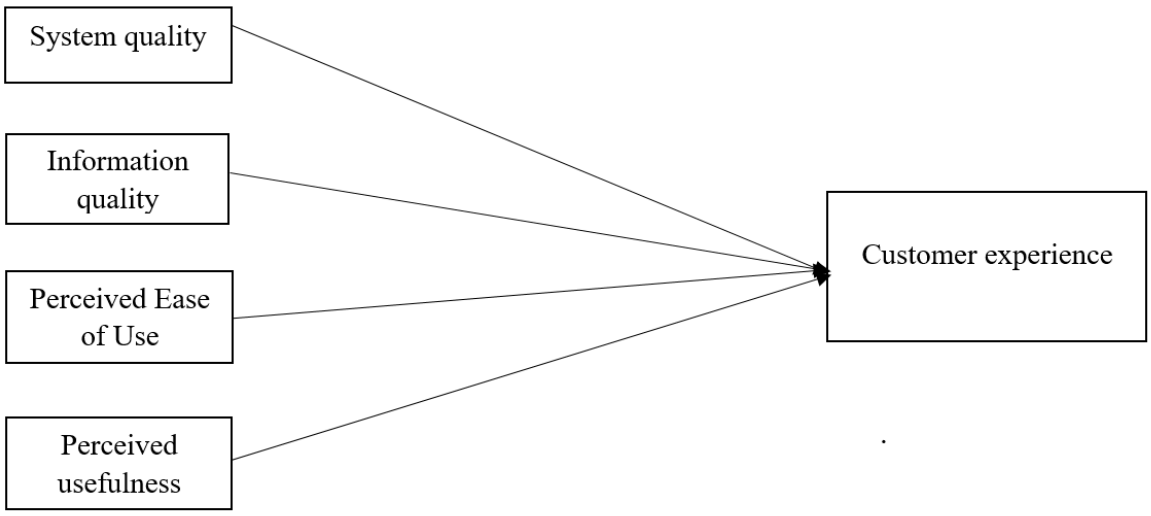


Figure 1 Conceptual framework/*Adapted from Davis, 1989; DeLone & McLean, 2003*/

The framework model was created with the knowledge that System quality, Information quality, "Perceived Ease of Use, Perceived usefulness are all independent elements that are crucial to the caliber of digital banking services and affect how satisfied and loyal clients are with them. the introduction of a new market, which is a market that the specific manufacturing sector of the concerned nation has not yet entered, regardless of whether this market has previously existed; and the introduction of a new production technique, which need not be based on a novel scientific discovery but can instead take the form of a novel commercial handling of a good".

"For the purposes of the study, bank-based electronic payments were seen as advancement in international electronic payment systems for banking services that offer a substitute for those services that are only accessible through antiquated payment systems and cash transactions completed across a variety of platforms".

The model put forth by Basheer et al. (2015), who envisioned a research model that explains the causes behind digital banking user happiness, experience, and the existing interrelationships, was changed in this study. Users' high levels of satisfaction with digital banking are demonstrated by their regular use of it and their active participation in the electronic banking system.

As a result, a satisfied or loyal user who had previously adopted digital banking did so once more. Therefore, from the standpoint of IS acceptance, satisfaction with Android mobile banking apps is

a post-adoption phenomenon (an operational aspect), and the basic theory for creating the study model should offer a comprehensive understanding of the factors influencing IS continuous usage intention. In order to evaluate user experience for digital banking in the post-adoption scenario, this study offered a single, broadly applicable, yet thorough method that essentially integrates both descriptive and relational investigations. This chapter goes into great detail on the dimensions and how they might interact.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Research approach

This research utilized a quantitative research methodology. Quantitative techniques are suitable as the aim of the study is to analyze the impact of digital banking characteristics such as system quality, information quality, Perceived Ease of Use, and Perceived Usefulness on customer experience through numerical and statistically quantifiable data. As noted by Mujis (2010), the quantitative method is crucial in business research since data obtained from samples can be employed to estimate parameters concerning the entire population; it is the most effective means to elucidate phenomena and is particularly well-suited for hypothesis testing.

3.2 Research Design

As noted by Sekaran (2016), a research design serves as a framework or strategy for gathering, measuring, and analyzing data to address the research inquiries. This study employs an explanatory (causal) research design. The aim of the explanatory design is to ascertain and quantify the cause-and-effect relationships that exist between dependent and independent variables. Since this research investigates how different digital banking quality factors influence customer experience, the explanatory design is well suited to uncovering these relationships

3.3 Data Types and Data Sources

The data required for the research paper is gathered from both primary and secondary sources. Likert-type closed-ended surveys are used to collect primary data. Primary data is used because it allows the researcher complete control over the design, methodology, and data analysis procedures to be employed, which contributes to the generation of reliable and accurate data. Additionally, since the data is real and doesn't come from outdated sources, it helps the study come to the right conclusions and suggestions. In addition to raw data, published journals are another source of information.

Secondary data will be obtained from National Bank of Ethiopia reports, annual reports of commercial banks, on digital banking, and theoretical foundations of the DeLone and McLean IS Success Model. These sources help validate the theoretical justification, support the development of hypotheses, and provide context for the research.

3.4 Population of the Study

The target population for this study consists of active digital banking users of selected commercial banks operating in Addis Ababa**.** Since the objective of the study is to assess how digital banking influences customer experience, the population must include customers who have firsthand experience with mobile banking, internet banking, ATM services, card payments, and other electronic banking channels**.**

Customer Demographic Characteristics

Respondents in the population typically vary by age, including young adults (18–35), middle-aged individuals (36–55), and older adults (55+). They also differ in terms of education level, with respondents having education above secondary school. In addition, employment status varies among employed individuals, self-employed persons, students, and business owners, while levels of digital literacy range from basic to advanced technology familiarity.

By Geographical Characteristics the study is limited to the capital city of Ethiopia, Addis Ababa where the adoption of digital banking is the most taken, there is more developed ICT infrastructure, the technology readiness among customers is increased, banking institutions operate biggest urban branches and online service clusters.

This renders Addis Ababa a good location to evaluate the effect of digital banking systems, system quality, information quality, perceived ease of use, perceived usefulness, and their impact on customer experience.

3.5 Sampling Procedure

3.5.1 Sample size

Because the population of digital banking users in the selected banks is very large, the sample size is determined using Cochran's (1977) formula for infinite populations at a 95% confidence level and 5% margin of error:

$$n_0 = \frac{Z^2 \, \mathrm{P}(1 - \mathrm{p})}{e^2}$$

Where:

- Z = 1.96 (95% confidence level)
- P = 0.5 (maximum variability)
- e = 0.05

This yields a sample size of 384 respondents.

3.5.2 Sampling Technique

The study aims to investigate the effect of digital banking on customer experience and the influencing factors in selected branches of Commercial Bank of Ethiopia (CBE), Awash Bank, and Bank of Abyssinia located in Addis Ababa. A total of twelve branches four from each bank were selected using a convenience sampling technique, which is a non-probability sampling method.

Accordingly, the selected CBE branches include Salo Gora Branch, Gelan Kersa Branch, Melka Shane Branch, and Kilinto Branch. In addition, four branches from Awash Bank Salo Gora Branch, Kilinto Branch, Akaki 08 and Head Office Branch and four branches from Bank of Abyssinia, Ras Branch, Kality Meneharia Branch, Saris Branch and Gelan Condominium Branch were included in the study.

The branches that were selected were determined by selecting highly diversified, dense cross section of city population which has customer base span of university students and open market merchants and also based on their ease of access for data gathering, significant customer footfall, and the readiness of branch managers to support the data collection efforts by permitting

engagement with customers at service counters. To ensure sample captured the highest volume and tech savvy clients one branch from awash bank headoffice branch is included strategically.

Utilizing the convenience sampling method, 384 participants were chosen according to their availability and readiness to fill out the questionnaire. The researcher identified participants who satisfied fundamental inclusion criteria, which encompassed familiarity with electronic services offered by commercial banks, previous experience with digital banking platforms, and involvement in financial transactions. Customers who satisfied these criteria and were willing to participate in the survey during their visit to the selected branches were included as sample respondents.

Beyond privacy constraints, the use of convenience sampling is justified by the specific need to access a 'hidden' population within the general bank clientele. Since digital banking users are not visibly distinguishable from traditional customers without interaction, a probability sampling method would risk high non-response rates or the inclusion of dormant users.

Convenience sampling allows for purposive screening at the point of data collection. By intercepting customers at branches and online, the researcher can immediately verify their eligibility (i.e., confirming they have actively used digital banking services within the last months) before administering the survey. This ensures that the data is derived exclusively from knowledgeable participants who can provide valid perceptions of system quality and user experience, thereby enhancing the internal validity of the study.

3.6 Data Gathering Instruments/variables and measures

Closed-ended, five-point Likert scale questionnaires were employed as the method for data collection in this study to ascertain clients' perceptions regarding the Bank's digital banking services and their levels of customer experience. The questionnaire comprised two sections. In the first section, the researcher gathered information about the participants' gender, age, educational background, and the length of their banking relationship, which constituted a demographic profile. The researcher inquiry into the impact of bank digital banking on customer experience was aided by some of the things in the second part. Items from previous research are going to include in the questionnaire that clients must fill out in order to evaluate the construct dimensions. The five-point

Likert scale (Likert, 1922) was used to modify Benedict (2020) and Emad (2021), with 1 representing "strongly disagree," 2 "disagree," 3 "neutral," 4 "agree," and 5 "strongly agree." Respondents were asked to indicate how much they agreed or disagreed with each of the presented questions. Because it is fairly simple for respondents to use and because responses from such a scale are likely to be trustworthy, many researchers use this methodological technique.

3.7 Data Analysis Technique

Data collected from the structured questionnaires were organized, coded, and analyzed using the Statistical Package for Social Sciences (SPSS). The Statistical Package for Social Sciences (SPSS) were used to organize, code, and analyze the data gathered from the structured questionnaires. The analysis was concentrate on identifying the relationships and causal effects between the independent variables system quality, information quality, Perceived Ease of use and Perceived Usefulness and the dependent variable, customer experience, as the study employs a quantitative and explanatory research approach.

To test the hypotheses and determine the effect of each independent variable on customer experience, multiple linear regression analysis was applied. The regression model to be estimated is:

$$\mathbf{CE = \beta_0 + \beta_1 SQ + \beta_2 INFQ + \beta_3 PEU + \beta_4 PU + \varepsilon}$$

Where:

- **CE** = Customer Experience
- **SQ** = System Quality
- **INFQ** = Information Quality
- **PEU** = Perceived Ease of Use
- **PU** = Perceived Usefulness
- β_0 = Constant
- $\beta_1 - \beta_4$ = Regression coefficients
- ε = Error term

Regression output will reveal:

- Significance (p-values)
- Strength of effect (beta coefficients)
- Model fit (R^2 and adjusted R^2)

3.8 Reliability and Validity

- **Reliability**

Reliability testing of the data instrument (questionnaire) is a crucial test for accurate measurement. If a measuring device yields consistent data, it is considered reliable. Reliable measurement equipment increases an instrument's validity, but it doesn't guarantee it. Reliability is less valuable than validity because it is simpler to assess (Kothari, 2014).

Table 1: Reliability Statistics

Variables	**Cronbach's Alpha**	**No of items**
System Quality	.771	5
Information Quality	.760	4
Perceived ease of use	.799	4
Perceived usefulness	.746	5
Customer Experience	.800	4
Overall	.873	22

Source: SPSS output, 2026

Validity

Validity refers to the extent to which a data collection instrument accurately measures the concepts it is intended to measure. According to Kothari (2014), validity reflects how well the variation captured by a measurement instrument represents the true variation among the study subjects. In the context of this study, validity is essential to ensure that the questionnaire items appropriately measure the key constructs derived from the DeLone and McLean IS Success Model and the Technology Acceptance Model, namely system quality, information quality, perceived ease of use, perceived usefulness, and customer experience.

For this research proposal, content validity was employed to assess how well the questionnaire items represent the domain of digital banking and customer experience. Since content validity cannot be statistically tested, it was ensured through expert judgment. Accordingly, the

questionnaire was reviewed by the academic supervisor and professionals with expertise in digital banking operations and information technology to confirm the relevance, clarity, and adequacy of the measurement items before data collection.

3.9 Ethical Consideration

In this research, the researcher was strictly followed the standard ethical principles in conducting an academic research involving human subjects. During the research, dignity, privacy, cultural values and voluntary participation of respondents were considered a priority. Only willing and available individuals were used to gather data and no participant was forced and coerced to participate in the study.

Prior to the start of data collection, the respondents were informed of the objective of the study, which is to investigate the impact of online banking on customer experience in the chosen commercial banks in Addis Ababa. Each questionnaire was accompanied by a short introductory statement and a cover letter that was explicitly describe this information and assure the participants that their answers were anonymous and kept confidential. No personal information (names, phone numbers, and account details) was gathered.

The participants were also told that the information they were provide was not distributed to third parties and it was used only in academic purposes. The researcher was mad sure that the gathered data is safely stored and privacy of the respondents is respected at every step. The academic institution ethics was taken into consideration and integrity, transparency, and respect to the participants were observed throughout the research process

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the study survey results of collected data, and also discussion of how results were interpreted and how they were they contrasted with existing literature. The analysis includes a breakdown of response frequencies and participant demographic, utilizing descriptive statistics to fulfill the study's primary objectives.

The targeted respondents were encouraged to share their views on system quality, information quality, perceived ease of use, perceived usefulness, and their experiences on using digital banking in selected commercial banks. 4.51 And above was categorized as extraordinary, 3.51-4.50 as good, 2.51-3.50 as average and below 2.50 as poor (Rahi, 2019). It determines the consensus level of respondents under each category.

4.2 Response Rate

Successfully carried out administration of questionnaires during March and April months. From 384 questionnaires, 354 are analyzed among twelve branches of chosen commercial banks with response rate of 92.18%. The data are processed by SPSS version 31 and analyzed with use of descriptive, regression and correlation analysis.

4.3 Demographic Characteristics of Respondents

The demographic information of respondents includes gender, age and educational level.

Table 2: Sampled Profile of Respondents

Category		N	%
Gender	Male	218	61.6
	Female	136	38.4
	Total	354	100
Age	Less than 20	26	7.3
	21 to 30	155	43.8
	31 to 40	135	38.1
	41 and above	38	10.7
	Total	354	100
Educational Level	Below 12 grade	6	1.7
	Completed 12 grade	43	12.1
	First Degree	235	66.4
	Master's Degree	68	19.2
	PHD and Above	1	0.3
	Total	354	100

Source: Survey result, 2026

The above table describe that the demographic data of sampled respondents. The majority of respondents in terms of gender is Male 218 (61.6%) and the rest 136 (38.4%) is Female. In terms of age of respondents the majority of respondents is age group of 20 to 30 by 155 (43.8%) and the second largest age group is 31 to 40 by 135 (38.1%) and followed by age between 41and above group by 38 (10.7%) and the smallest portion from age category is age group of less than 20 by 26 (7.3%). This show that majority of the respondents are at their adult age and this indicate that collected survey is filled by mostly responsible respondents.

Based on the educational backgrounds of the respondents, 235 individuals (66.4%) held first degree, while 43 individuals (12.1%) completed 12^{th} grade and 68 respondents which will cover 19.2% of the sample have master's degree. A smaller segment of the sample consists 1 individual

holds PHD and 6 individual with below 12 grade educational background. This suggest that well educated individuals often have diverse preferences and concerns regarding digital banking infrastructure.

4.4 Descriptive Analysis

Targeted respondents were asked to give their opinions on system quality, information quality, perceived ease of use, perceived usefulness and general experience over digital banking among selected commercial banks. Ranks scores greater than 4.51 as extraordinary, 3.51 to 4.50 as good, 2.51 to 3.50 as a good, and 2.51 to 3.50 as satisfying as and lower than 2.50 as unsatisfactory Rahi (2019). This analysis rates the respondent's degree of agreement by every direction.

The response analysis provides an overall assessment of how customers perceive different dimensions of digital banking services across the selected commercial banks. By categorizing mean scores into defined ranges, the study offers a clearer interpretation of respondents' attitudes toward system quality, information quality, perceived ease of use, perceived usefulness, and overall customer experience. This approach enables the researcher to move beyond simple numerical values and meaningfully classify the level of satisfaction and agreement among respondents. This allows for easy identification of which dimensions of e-banking are being adequately fulfilled and which are not. In addition, by identifying how customer perception varies between the different service quality dimensions, it allows for comparative analysis between the dimensions; Dimensions within the 'Good' and 'Extraordinary' category display good performance and alignment with customer needs, and dimensions falling within the 'Satisfying' and 'Unsatisfactory' categories illustrate where deficiencies in service delivery may exist. Consequently, the response analysis not only summarizes customer opinions but also serves as a diagnostic tool for understanding strengths and weaknesses in digital banking services, thereby providing a foundation for subsequent statistical analysis and discussion.

4.4.1 System Quality

The descriptive statistics for "System Quality" as determined by five distinct items, are shown in the table below. The system overall quality was rated with grand mean of 3.32996 and standard deviation of 1.138064. This shows that, although there is a noticeable range in individual experiences and also respondents generally had moderate to positive opinion of the banks digital system quality.

Table 3: The descriptive statistics for System Quality

Item	Mean	S.D
I feel satisfied by my banks digital banking technical performance.	4.0311	.67463
My banks Digital banking is reliable and available whenever I need it.	3.9718	.68102
My digital banking system responds instantly to my commands without delay.	4.0000	.69396
I trust my digital banking system security features to keep my money safe.	4.0113	.69794
The digital banking system operates reliably without frequent failures.	3.9322	.70685

Source: Survey result, 2026

From the results given in Table 3, it can be clearly seen that customers had a favourable view on the system quality of the digital banking service provided by their banks. Each of the items has a mean value greater or equal to 3.9, meaning that the customers were agreeing that the digital banking systems were usable, trustworthy, responsive and efficient in a technical context. In general, customer is happy with the performance of their banking digital system and can trust their bank's digital banking system for conducting their transactions. Item "I feel satisfied by my bank's digital banking technical performance" receives the highest mean (Mean=4.0311, S.D.=.67463). This indicates that customers are satisfied with the overall technical functioning of the digital banking system. The relatively low standard deviation further suggests that respondents shared similar positive opinions regarding the technical performance of the system. It indicates that the digital systems of banks are effective to meet the customers' expectations for the operational performance of digital banking systems.

Similarly, statement "I am confident in the security features in the digital banking system to maintain the safety of my money" got a high mean score (Mean = 4.0113, S.D. = .69794),

indicating that the customers have trust toward the digital banking systems. The dimension of security is the most important dimension for digital banking, because the customer will likely use e-services when they feel that their information and transactions are secured. The positive perception of system security therefore reflects growing customer trust in the banks' digital services.

The item "My digital banking system responds instantly to my commands without delay" also showed a favorable mean score (Mean = 4.0000, S.D. = .69396), suggesting that respondents perceive the system as responsive and efficient. Fast response time is important in digital banking because delays or interruptions can negatively affect user satisfaction and confidence in the service. The result therefore implies that the digital banking platforms are capable of providing timely and efficient services to customers.

In addition, the statement "My bank's digital banking is reliable and available whenever I need it" recorded a mean score of 3.9718 (S.D. = .68102), indicating that respondents generally agreed that the system is accessible and dependable during use. Likewise, the item "The digital banking system operates reliably without frequent failures" had a mean score of 3.9322 (S.D. = .70685). Although this item recorded the comparatively lowest mean score among the variables, the result still indicates agreement, implying that customers generally perceive the system as stable and reliable with minimal technical interruptions.

As a conclusion, the findings reveal that respondents have positive perceptions toward the system quality of digital banking services. The consistently high mean scores and relatively low standard deviation values indicate a strong level of agreement among customers regarding the reliability, responsiveness, technical performance, and security of the digital banking systems. These findings support the argument of DeLone and McLean (2003), who identified system quality as a critical determinant of user satisfaction and information system success. The results also imply that improving technical reliability, responsiveness, and security can strengthen customer confidence and enhance overall customer experience in digital banking services

4.4.2 Information Quality

Table 4: Information Quality

Item	Mean	S.D
The information provided by my banks digital banking services is accurate	3.9689	.67042
The information displayed on my banks digital banking platforms is clear and understandable	3.9294	.69240
The information provided through my banks digital banking is up-to-date.	3.9576	.69062
Digital banking provides relevant information for making banking decisions	4.0254	.62246

Source: Survey result, 2026

Table 4 illustrates that the participants generally tend to hold a positive perspective regarding the quality of information given via their respective banks' digital banking systems. All the items in this section obtained mean scores of greater than 4.00, which indicate that the customers agree that the quality of information provided on their banks' digital banking systems is accurate, understandable, relevant, and up to date. The small standard deviation values on this section indicate that respondents agree on the quality of information provided on digital banking systems.

Among the items, the statement "Digital banking provides relevant information for making banking decisions" recorded the highest mean score (Mean = 4.0254, S.D. = .62246). This result implies that customers consider the digital banking services as information useful in making financial and banking related decisions. The relatively low standard deviation value also shows the agreement of respondents on the usefulness of information is high. Since the customers have to utilize digital banking environment to view and study transactions, examine the activity account and conduct other financial related decisions, the relevance of the information in the digital banking environment is extremely important.

With similar analysis, "Information provided by digital banking service of my bank is accurate." gets a high mean score as well (Mean = 3.9689, S.D. = .67042), which means that customers trust on the accuracy and reliability of the information displayed through the digital banking system. The accuracy of information is very important in banking service. If there are wrong information,

the customer will lack of confidence and reduce satisfaction. The positive evaluation therefore suggests that the banks' digital platforms are capable of providing dependable financial information to users.

The item "The information provided through my bank's digital banking is up-to-date" also received a favorable response (Mean = 3.9576, S.D. = .69062). This implies that customers believe the system provides current and timely information regarding their transactions and account activities. In the context of digital banking, the availability of updated information is important because customers expect real-time access to financial data for effective transaction management and decision-making. The result therefore reflects the effectiveness of the digital banking systems in maintaining information currency and timeliness.

In addition, the statement "The information displayed on my bank's digital banking platforms is clear and understandable" recorded a mean score of 3.9294 (S.D. = .69240). This item scored the relatively lowest mean score of all the information quality variables. However, this result also suggests agreement among the respondents. Thus, the information given by the digital banking systems are understood by most customers and it is easy for them to use, even though the customer may face some little problems in understanding some financial data and system interface.

In conclusion, the study suggests that the respondents generally possess positive attitude toward information quality of digital banking. It is clear from the results that customers generally perceive that the information in digital banking is accurate, relevant, timely and understandable due to high average score of the factors. It confirms the fact by DeLone & McLean (2003) that information quality is the most important factors for success of information systems and it also have positive impact toward user satisfaction. It makes more customers trusts more in digital banking system and enhances the decision making performance as well as customers satisfaction of digital banking services.

4.4.3 Perceived Ease of Use

Table 5: Perceived Ease of Use

Item	Mean	S.D
My bank Digital banking is easy to use and understand the features.	4.0198	.66661
It was easy to communicate and resolve issues with service provider about my digital banking	3.9831	.66028
The instruction and error messages on my digital banking are easy to understand and follow.	3.9576	.68650
It is easy for me to become skillful at using my digital banking service	4.0904	.64555

Source: Survey result, 2026

From the table 5, the respondents mostly consider digital banking service to be easy to use and easy to understand. In all cases, the mean values are above or equal to 4.00, the perceptions of customer towards easy to use and learn, and easy are positive. The relatively low standard deviation values further suggest consistency among respondents in their evaluation of the ease of use of the systems. These results imply that customers are comfortable interacting with the digital banking services and can use the systems with minimal difficulty.

Among the items, the statement “It is easy for me to become skillful at using my digital banking service” recorded the highest mean score (Mean = 4.0904, S.D. = .64555). This finding indicates that customers believe they can quickly learn and develop the necessary skills to use digital banking services effectively. The relatively low standard deviation is also representative of a high agreement from the customers. This shows that the bank's digital banking platform are user friendly and it was designed in such a way to ensure the customers can get adjusted easily to the banking system with less need for knowledge of computers and system training. In the same way the statement 'My bank digital banking is easy to use and understand the features', obtained a high mean (Mean = 4.0198, S.D. = .66661). This means that respondents believe it is easy to use and the features on the banking system are understood by them. This is important because customers are more likely to adopt and continuously use digital banking services when the systems are convenient and uncomplicated. Easy-to-use systems reduce user frustration and increase customer confidence in performing financial transactions electronically.

It was easy to communicate and resolve issues with service providers on my digital banking was the other question and the response recorded was favourable (Mean=3.9831, S.D.=.66028). The finding implies that customer support and communication with regard to digital banking services are accessible and supportive for any technical or service related problems. It is important that customer communication with service providers be helpful to clients and support them when they face problems with the system for digital banking services.

The response for "The instruction and error messages on my digital banking are easy to understand and follow" were (Mean=3.9576, S.D.=.68650). Although this item had the relatively low average mean, there was general accord between the respondents. It can be argued that customers understand instructions and error messages displayed by the digital banking system, and some may not have been able to clearly interpret certain system messages at the first contact with them.

In conclusion, the research results indicate that users believe that digital banking service are user friendly, simple to understand and learn. High average mean value on every variables indicate that users do feel very convenient to use digital banking services and communicate effectively through the interface of the digital banking platform. All these indicate that the findings are supporting to the technology acceptance model proposed by Davis (1989), in which perceived ease of use significantly influence users to use the new technology. Customers will feel convenient to use digital banking platform and get satisfaction to digital banking services when they perceived that it is simple and easy to use.

4.4.4 Perceived Usefulness

Table 6: Perceived Usefulness

Item	Mean	S.D
Using my bank's digital banking services enables me to complete banking transactions more quickly	4.1299	.62530
My bank's Digital banking services improve the efficiency of my banking activities.	4.0593	.64697
My bank's Digital banking makes it easier for me to manage my banking transactions.	4.0452	.63709
My bank's Digital banking services are useful for my day to day banking needs.	3.9463	.62972
My bank's digital banking enhances the quality of my banking experience.	3.9859	.63185

Source: Survey result, 2026

As can be seen in Table 6, digital banking is deemed highly useful by all the respondents to facilitate their banking and further, their overall banking experiences. The high mean values, all were close to or exceeded 4.00 which confirmed that the customers believe that digital banking makes transaction and the other banking activities much easier to manage and that it is very helpful. The low standard deviations implied that, it was no much difference in the usefulness for all the customers.

Among the items, the statement "Using my bank's digital banking services enables me to complete banking transactions more quickly" recorded the highest mean score (Mean = 4.1299, S.D. = .62530). This finding indicates that customers strongly believe digital banking services save time and facilitate faster transaction processing. The low standard deviation further reinforces the consistency in which customers perceive the speed benefits from digital banking. It indicates that for the majority of customers, digital banking is useful in banking tasks due to its speed and elimination of traditional banking process. Similar result was found in the statement "My bank's digital banking services improve the efficiency of my banking activities" with a mean of 4.0593 (S.D. = .64697). This suggests that customers believed that the digital banking services is effective

in enhancing productivity in performing banking transactions and it helps them to conduct financial transaction at a minimized level of effort and time.

Likewise, the statement "My bank's digital banking makes it easier for me to manage my banking transactions" achieved positive rating with a mean of 4.0452 (S.D. = .63709). This shows that customers believe that the digital banking is helpful in monitoring their transactions and activities easily. Managing of transactions is a key component to the success of digital banking, as customers rely on digital systems to keep track of their bank accounts balance, transfers money and reviewing transaction histories readily and efficiently.

"My bank's digital banking enhances the quality of my banking experience" shows a mean score of 3.9859 (S.D. = .63185) suggesting that most of the respondents agreed on that it would help in enhancing their banking experience. Similarly, the statement "My bank's digital banking services are useful for my day-to-day banking needs" gained a mean score of 3.9463 (S.D. = .62972). Although it has the least mean score among the perceived usefulness constructs, the overall findings revealed the respondents had consistency in their perception towards the usefulness of digital banking for conducting banking transactions on daily basis.

Overall, the respondents agreed positively with their perceptions on the usefulness of digital banking. High mean score revealed that customers found that digital banking could assist them in achieving efficient, practical and useful results in their banking activities in terms of speedy delivery of banking tasks, convenient level of banking operations and enhanced banking experience. These findings are in line with Technology Acceptance Model (TAM) presented by Davis (1989), in which it assumes that perceived usefulness is an important predictor in understanding technology adoption and continued usage behaviors. This means that the higher the perception of utility toward digital banking the higher the usage of digital banking services, hence a positive attitude towards using digital banking services would result.

4.4.5 Customer experience

Table 7: Customer experience

Item	Mean	S.D
My interactions with the digital banking system are always smooth and hassle free.	4.0113	.66893
I enjoy using this bank's digital services more than visiting the branch.	4.0198	.64939
The digital banking service makes me feel valued as a customer.	4.0035	.60903
Overall, my experience with the digital platform exceeds my expectations.	3.9470	.61340

Source: Survey result, 2026

Table 7 shows that customers generally have a positive experience with the digital banking services offered by their banks. All items obtained the mean score over or close to 4.00 showing the high agreement among the customers for these items. This means that the customers are satisfied with the quality of these digital banking services such as the service interaction quality, convenience, performance etc. The low values for standard deviation reflect a high agreement among the customers on the customer experience toward these services. It could be concluded that the digital banking services are meeting customer expectations successfully and the experience is positive among the users.

The item 'I enjoyed more to use this bank's digital services rather than visiting the branch' had the highest mean score (Mean = 4.0198, S.D. = .64939). This result implies that the customers feel more pleasant to use digital services than to visit the branch to get it done. The use of digital services has become much popular and it's found to be convenient, time-saving and accessible alternatives to the branch. The customers may value it due to flexibility and efficiency provided by digital service delivery.

Another significant result shows that 'My interaction with the digital banking system has always been smooth and hassle free' has high mean score (Mean = 4.0113, S.D. = .66893). This shows the satisfaction about system efficiency during the online transactions with their banks. A positive perception towards the system efficiency may assure the customer about using this system rather

than others or physical services. The positive result therefore implies that the banks' digital systems are functioning effectively in delivering convenient banking services.

The item "The digital banking service makes me feel valued as a customer" also received a favorable response (Mean = 4.0035, S.D. = .60903). This indicates that customers believe the digital banking services contribute positively to their relationship with the bank by providing accessible, responsive, and customer-oriented services. Feeling valued as a customer is essential because it strengthens trust, loyalty, and long-term engagement with the banking institution.

In addition, the statement "Overall, my experience with the digital platform exceeds my expectations" recorded a mean score of 3.9470 (S.D. = .61340). Even though the average mean for this item was the lowest compared to the other customer experience variables, the result still shows a consensus among the respondents. It is perceived that customers have positive experiences with the digital banking systems as it appears that customers have a satisfied level with the current services, and still have an intention for improvement in service quality and performance.

In conclusion, the results suggest that respondents are having favorable customer experiences with digital banking systems. The consistent high mean value indicates that customers consider the digital banking systems convenient, convenient, stable and able to improve their overall banking experience. The finding of this study supports the idea from Parasuraman et al. (1985) as high level of perceived service quality leads to a higher level of customer satisfaction. Similarly, Meyer and Schwager (2007) emphasized that customer experience is shaped by customers' interactions with service systems and directly influences satisfaction and loyalty. Therefore, the positive customer experience observed in this study suggests that effective digital banking services can strengthen customer satisfaction, increase loyalty, and improve the overall relationship between customers and banks.

4.5. Inferential Statistics

The analysis of inferential statistics allows researchers to draw conclusions about the entire population from sample data. In this context, correlation analysis is utilized to assess the nature and strength of the relationship between the variables employed in the study, whereas regression analysis is used to explore the impact of the explanatory variables, specifically system quality, information quality, perceived ease of use, and perceived usefulness, on customer experience.

4.5.1 Correlation Analysis

The Bivariate correlation procedure calculates the pair-wise relationship among a set of variables and presents the findings in a matrix format. This method is beneficial for assessing both the strength and direction of the relationship between two scale or ordinal variables. The Pearson correlation coefficient quantifies the linear relationship between two scale variables. As noted by Pallant (2010), it is advisable to create a scatter plot prior to conducting a correlation analysis to observe the overall trend of the data, given that only linear relationships are appropriate for such analysis. Pearson correlation is a method that is used to measure the extent to which two variables are linear related. The value used to estimate Pearson correlation is called the correlation coefficient. The correlation coefficient ranges between -1.00 and +1.00; 0 denotes a non-existence of relationship between the two variables. The correlation coefficient may be positive or negative, which means the relationship may exist in either direction (Hair et al., 2003). Table 7 below illustrates the interpretations of the various ranges of correlation coefficients.

Table 8: Range of Correlation Coefficient

Coefficient Range	Strength
+0.91 to +1.0	Very Strong
+0.71 to +0.90	High
+0.41 to +0.70	Moderate
+0.21 to +0.40	Small but definite relationship
0 to +0.20	Slight, almost negligible

Source: Hair et. al, (2020)

Correlation coefficients range between -1.0 and +1.0. The sign of the coefficients denotes the direction of relationship, where + denotes positive correlation (increase in one variable leads to increase in other) and-denotes negative correlation (increase in one variable leads to decrease in other). The table below illustrates the correlation analysis between the dimensions of relationship factors and the dependent variable, customer experience.

Table 9: Pearson's Correlation Matrix for predictors and customer experience

Correlations

		System Quality	Information Quality	Ease of Use	Usefulness	Customer Experience
System Quality	Pearson Correlation	1	.645**	.644**	.591**	.655**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	354	354	354	354	354
Information Quality	Pearson Correlation	.645**	1	.585**	.587**	.669**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	354	354	354	354	354
Ease of Use	Pearson Correlation	.644**	.585**	1	.613**	.681**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	354	354	354	354	354
Usefulness	Pearson Correlation	.591**	.587**	.613**	1	.707**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	354	354	354	354	354
Customer Experience	Pearson Correlation	.655**	.669**	.681**	.707**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	354	354	354	354	354

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

Source: Survey result, 2026

From Table 9, the result of the Pearson correlation analysis shows that all independent variables: system quality, information quality, perceived ease of use, and perceived usefulness are positively and significantly related to customer experience. Because all significance values are below .01 (p=.000), all indicators are thus significant. It means that increase in the attributes of digital banking lead to better customer experience. The positive correlation coefficients indicate that when digital banking system perceived by customers as credible, meaningful, easy to use, and functional, then the customers would perceive their banking experience as positive.

Among the independent variables, perceived usefulness has the strongest positive relation to customer experience ($r = .707$, $p<.01$). It seems that if customers perceive digital banking system helpful, it will increase their banking experience. The result indicates that the more users believe

digital banking services help to enhance the efficiency and convenience of banking, the more satisfaction they obtain.

The result indicates that perceived ease of use is the second highest and positive correlation with customer experience ($r = .681$, $p<.01$). If customers perceive the digital banking system is easy and understandable to use, customers obtain a high positive perception. This is consistent with prior literature that simple and understandability of the system will bring a more favorable experience.

Information quality has a strong positive relation to customer experience ($r = .669$, $p<.01$). When the information provided by digital banking system is of good quality (credible, informative, relevant, and up-to-date), it would affect customer experience positively. The customers will be more confident and trust the digital banking system.

In terms of system quality, it also has a significant positive correlation with customer experience ($r = .655$, $p<.01$). If the digital banking system is reliable, fast and easy to access, then customer would experience more positively.

Additionally, the correlation matrix reveals that the correlations between independent variables are all significant positive. It can be seen from Table 9 that there are significant positive relations among all independent variables, such as system quality, information quality, perceived ease of use, and perceived usefulness. Specifically, the correlations among these attributes, ranging from $r=.613$ to .645 and $p<.01$, were significant and positively associated with each other. For instance, system quality has strong correlation with information quality and perceived ease of use. Also, there is a positive correlation between perceived ease of use and perceived usefulness.

From all, all attributes in digital banking are correlated closely and would enhance customer experience together. The result would support DeLone and McLean Information Systems Success Model and Technology Acceptance Model since all the hypothesized relationships with independent variables were confirmed by their significant positive correlation values with customer experience.

4.5.2. Linear Regression Analysis

Regression and correlation are intricately linked. Both methodologies examine the relationship between two variables and employ the same set of paired scores derived from identical subjects.

However, while correlation focuses on the strength and direction of this relationship, regression is primarily concerned with leveraging this relationship for predictive purposes. As noted by Marczyk et al. (2005), linear regression serves as a technique for estimating or forecasting a value of a dependent variable based on the values of one or more independent variables. In contrast to correlations, the main objective of regression is prediction. There are two fundamental types of regression analysis: simple regression and multiple regression. Simple regression aims to predict the dependent variable using a single independent variable, whereas multiple regression allows for the inclusion of multiple independent variables to forecast the dependent variable. Consequently, this study employs multiple regression analysis to determine the extent to which the independent variables, or factor dimensions, elucidate or impact the dependent variable, which is Customer experience. R stands for the correlation between the observed values of y and the predicted values of y from the multiple regression models. Therefore, higher multiple R is stronger between the predicted and observed values of the outcome. Table in model summary tells how strongly related the independent variable (factor dimensions) is to the dependent variable (Customer experience).

1. Tests for Normality

Commonly applied techniques include correlation, regression and design of experiment. All of these, however, are based on the assumption of normality of the observations. It is therefore, assumed that populations, from which the sample is taken, are normally distributed. Consequently, it is presumed that the populations from which the samples are drawn are normally distributed. Therefore, inferential methods necessitate the verification of the normality assumption. R. Gnanadesikan (1977), as cited in Keya Das (2016), noted that 'the effects on classical methods of departure from normality are neither clearly nor easily understood.' Nonetheless, there is evidence indicating that such departures can lead to adverse effects in various contexts. In the realm of regression analysis, Huber (1973) examined the impact of deviations from normality on estimation. He highlighted that, in the presence of non-normality, it becomes challenging to establish necessary and sufficient conditions for all parameter estimates to be asymptotically normal. These tests were employed to ascertain whether the variables exhibited symmetrical distribution and were free from outliers, as well as to confirm the existence of a linear relationship among the variables. Reliability is defined as the consistency of measurement (Bollen, 1989). Thus, based on the Shapiro-Wilk test ($p>0.05$) (Shapiro and Wilk, 1995; Razali and Wah, 2011) and a visual examination of their histograms, the normal Q-Q plots indicated that customer

experience was approximately normally distributed (Cramer, 1998; Cramer and Howitt, 200; Doane and Seward, 2011). This data met the specified parameters as shown in the table below:

Table 10: Test of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Customer experience	0.060	354	0.200*	0.987	354	0.081

Source: Survey result, 2026

2. Tests for Linearity

"These tests were used to test whether the variables were symmetrically distributed and without outliers and that there was linear relationship among the variables. Reliability is uniformity of measurement (Bollen, 1989). A linearity test is carried out to determine if the data set is well- modeled by a normal distribution and if the pattern is neither parabola nor exponential then it is liner (Paul& Zhang, 2010). Reliability is uniformity of measurement" (Bollen, 1989). Therefore; from the visual inspection of their scatterplot showed that Customer experience was approximately linearily distributed

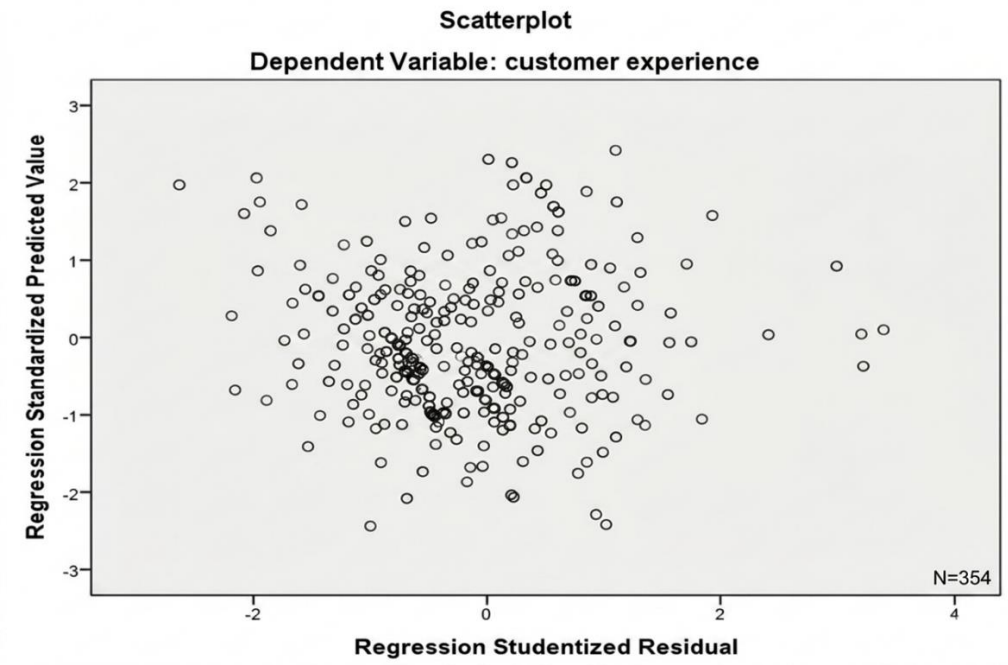


Figure 2: Tests for Linearity

All assumptions for regression analyses have been met with a good sample size (N=354). As evident by the scatterplot of standardized residuals, linearity assumptions have also been met because the standardized residuals were scattered randomly and were not showing any pattern or curvature.

Test of Homoscedasticity

This assumption states that the variance of the error terms remains constant across all levels of the independent variables. Homoscedasticity exists when the residuals display equal variation throughout the range of predicted values. One common method of assessing this assumption is through a scatterplot of standardized residuals against standardized predicted values, where the points should appear randomly and evenly distributed.

According to James Lani (2011), homoscedasticity refers to a condition in which the error term, or random disturbance in the relationship between the independent and dependent variables, remains consistent for all values of the independent variables.

Tests of homogeneity of covariance, also known as homoscedasticity tests, are widely applied in statistical analysis. In incomplete data analysis, these tests are used to examine whether missing data patterns occur completely at random among different groups (Mortaza J. & Siavash J., 2010). On the other hand, when the variance of the residuals changes across different values of the independent variables, the problem of heteroscedasticity occurs.

Researchers such as William Berry and Stanley Feldman (1985), as well as Barbara Tabachnick and Linda Fidell (1996), explained that minor heteroscedasticity may have little impact on statistical significance tests. However, severe heteroscedasticity can distort the results and reduce the reliability of the regression analysis.

In this study, the assumption of homoscedasticity was assessed through visual examination of a scatterplot of standardized residuals against standardized predicted values, as presented in Figure 2 below:

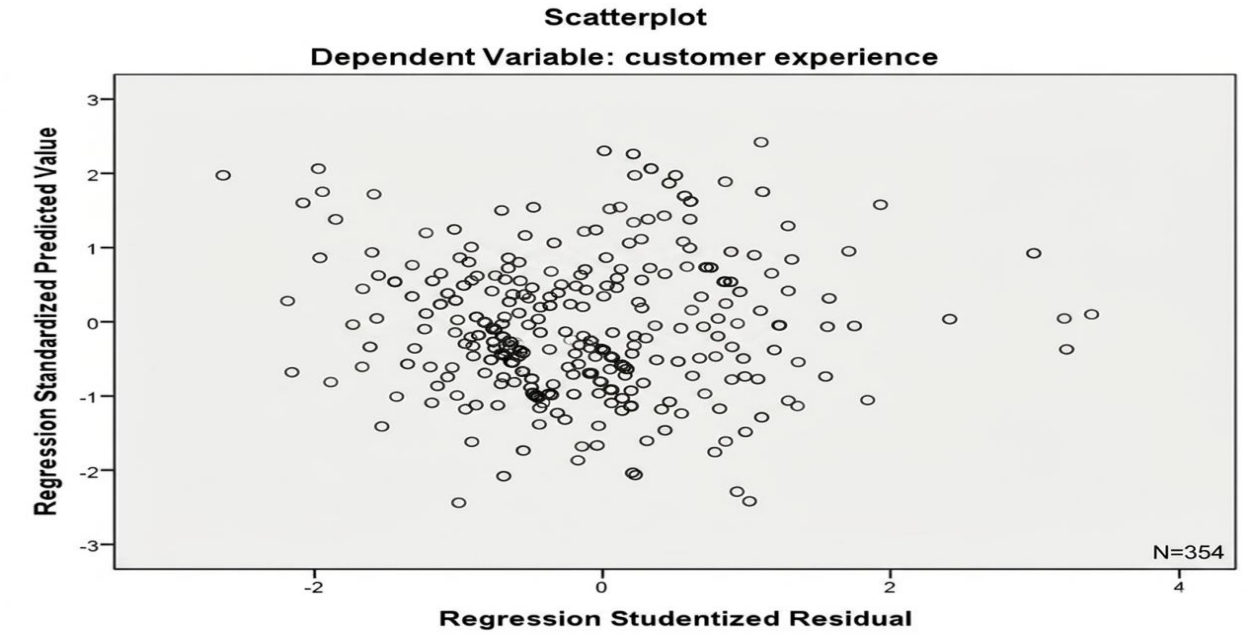


Figure 3: Test of Homoscedasticity

The scatterplot of standardized residuals against standardized predicted values showed that the residuals were randomly dispersed around zero without any clear pattern or funnel shape. This indicates that the assumption of homoscedasticity was satisfied.

Table 11. Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.810[a]	.655	.651	.32682

a. Predictors: (Constant), system quality, information quality, Perceived Ease of use and Perceived Usefulness

The researcher noted from the model summary analysis displayed in the table above that R (.810a) signifies a robust correlation between the four independent variables and the dependent variable, customer experience. The weighted aggregation of the predictor variables (dimensions of digital banking) accounted for roughly 65.5% (R Square) of the variance in customer experience, whereas the remaining 34.5% was attributed to extraneous variables. This finding further suggests that there could be additional variables not considered in the present study that influence customer experience.

Table 12: ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70.881	4	17.720	165.905	.000[b]
	Residual	37.277	349	.107		
	Total	108.158	353			

a. Dependent Variable: Customer experience

b. Predictors: (Constant), system quality, information quality, perceived ease of use and perceived usefulness

The result of the ANOVA test given above tells that the value of F as 165.905 is significant to a value of 0.000 or we say significant at 1% (alpha=0.05 level). The result of the ANOVA test indicated that the independent variables had explained a significant 65.5% (R-square) of the customer experience and hence the model appropriately captured the construct as intended by researcher. Significance of the model The biggest takeaway of Table 12 is the value of the Significance (Sig.) which is. 000. This basically states that probability of getting this value purely by chance is below 0.1%. This confirms that the combination of the predictors system quality, information quality, perceived ease of use, and perceived usefulness has a statistically significant impact on customer experience.

Table 13: Estimated Unstandardized and Standardized Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.326	.144		2.270	.024
	System Quality	.138	.042	.152	3.268	.001
	Information Quality	.213	.040	.236	5.309	.000
	Ease of Use	.233	.043	.243	5.388	.000
	Usefulness	.328	.043	.329	7.565	.000

Based on Table 13 which presents the results of regression analysis it is observed that all the independent variables such as system quality, information quality, perceived ease of use and perceived usefulness exert a positive and statistically significant influence on customer experience.

Since the significance values of all the predictors were less than 0.05, it is verified that all the dimensions of digital banking service quality contribute significantly towards the improvement of customer experience. The study thus concludes that the technical and functional qualities of digital banking platform enhance customer experience in the digital banking.

Of the predictors, perceived usefulness has been found to be the best predictor of customer experience (= .329, B = .328, p = .000). This suggests that the perceived usefulness significantly influences a customer's experience in digital banking service when customers perceive that digital banking offers numerous benefits to the users. For example, a customer's experience becomes significantly positive if they perceive that digital banking allows them to perform a transaction in minimal time, increases their efficiency of transaction and is also efficient in enabling them to do many banking related tasks. Similar findings have been documented in the Technology Acceptance Model (TAM) by Davis (1989) who considered it to be the key determinant of technology adoption and satisfaction.

Next in order of significance comes perceived ease of use which was the second best predictor (= .243, B = .233, p = .000). It means that perceived ease of use is positively related with the positive customer experience in digital banking services. In case, perceived ease of use increases positively, the customer experience enhances. The findings of this study support the findings of previous studies of Anouze and Alamro (2019) and Zavareh et al. (2012) in the field of e-services, particularly, the electronic banking where it was said that perceived ease of use significantly affects customers' satisfaction.

Information quality was also found to be significantly and positively associated with the positive customer experience in digital banking services (= .236, B = .213, p = .000). This means that information quality has a significantly positive impact on the customer experience in digital banking. This could be due to the fact that the customers rely upon clear, correct, up-to-date and relevant information for performing transaction effectively.

The last one to contribute positively to positive customer experience was system quality (= .152, B = .138, p = .001). This implies that system quality also has a significant positive impact on positive customer experience in digital banking. In the event that system performance, in terms of reliability, security, responsiveness, and consistency, is higher then customers tend to perceive the experience to be more positive.

4.6 Hypothesis Testing Results

Table 14: Summary of Hypothesis Testing Results

Hypothesis	Statement	Result	Decision
H1	System quality of digital banking has a positive and significant effect on customer experience.	Significant Positive Effect	Accepted
H2	Information quality of digital banking has a positive and significant effect on customer experience.	Significant Positive Effect	Accepted
H3	Perceived ease of use of digital banking has a positive and significant effect on customer experience.	Significant Positive Effect	Accepted
H4	Perceived usefulness of digital banking has a positive and significant effect on customer experience.	Significant Positive Effect	Accepted

The hypothesis testing results indicate that all proposed hypotheses were accepted because all independent variables showed positive and statistically significant effects on customer experience. This implies that improvements in system quality, information quality, perceived ease of use, and perceived usefulness contribute significantly to enhancing customer experience in digital banking services among selected commercial banks in Addis Ababa.

4.7 Discussion of Findings

This section provides a discussion on the results of the study by triangulating findings with past empirical evidence and related theoretical perspectives. The section primarily focuses on the impact of system quality, information quality, perceived ease of use, and perceived usefulness on customer experience in digital banking services of selected commercial banks in Addis Ababa.

The results of the study indicated that there is a positive and statistically significant impact of system quality on customer experience in digital banking services. The implication is that customers gain a higher level of satisfaction when the system quality in digital banking services is good, reliable, secure, fast, accessible and is operating in a efficient manner without technical issues and system failures.

This finding aligns with the Information System Success Model of DeLone and McLean (2003), which highlighted that the system quality has been a strong predictor for user satisfaction and system success. Similarly, research studies conducted by Mekonnen (2020) and Haripersad and Sookdeo (2018) demonstrated that a secure and efficiently working digital banking system brings about a positive experience and satisfaction for customers, and is further reinforced by Basheer et al. (2015) who established that system reliability and technical performance strongly affects customer experience in digital banking services.

This finding indicates that commercial banks have to take steps toward continuous system improvement by focusing on reliability, accessibility and security to ensure customer satisfaction with their digital banking systems.

The findings of the study demonstrated that there is a positive and statistically significant impact of information quality on customer experience. This implies that the information provided on the digital banking systems are up-to-date, accurate, complete, relevant and easily understandable which will lead to a higher customer satisfaction level and trust. Customers like to have precise and clear information regarding their bank account, balance, and recent transactions on their online account.

This finding is in line with DeLone and McLean (2004) who said that the quality of information is an important component of information system success and influences user satisfaction. A number of other studies have corroborated this finding including that of Wixom and Todd (2005), who found that information quality improves user satisfaction, trust, and system usability while Auniel and Obino (2018) established that accurate and up-to-date information can contribute positively to customer perceptions and experiences with digital banking.

This result implies that commercial banks must improve on their delivery and provision of quality information in order to enhance the customer experience in their digital banking services.

The results of the study indicate that there is a positive and statistically significant impact of perceived ease of use on customer experience in digital banking services. The implication is that customers obtain a greater level of satisfaction when the digital banking systems are easily

navigable, user friendly, easily comprehensible and the technology is simple to use, with minimum effort.

This finding is also in line with the technology acceptance model by Davis (1989), which identified the ease of use as a crucial factor affecting technology acceptance, user satisfaction and a user friendly system provides enhanced experience. Other authors like Rogers (1983), have found that simpler the technology is, the more likely it is that users would accept and integrate it into their routines. Similar research finding was observed by Abdullah (2011) in relation to online banking where ease of use had a significant impact on the attitudes and experiences of the customers.

This finding suggests that commercial banks should ensure that their digital banking application systems are as simple, intuitive and easy to use as possible to achieve superior customer experience and maintain their customer loyalty towards the service.

The results of the study indicate that there is a positive and statistically significant impact of perceived usefulness on customer experience. This finding suggests that customers achieve increased satisfaction when their digital banking services can help them complete banking activities efficiently, conveniently and effectively thereby saving time, money, and enhancing accessibility to banking services.

This finding aligns with Davis (1989) who established that perceived usefulness is the most critical predictor of technology acceptance and customer satisfaction with systems and this has also been supported by Laforet (2005) and Daniel (2016) who discovered a positive correlation between perceived usefulness and customer experience of digital banking services.

The implication is that commercial banks need to constantly strive to demonstrate the utility, functionality and practical benefits offered by their digital banking systems to reinforce and maintain customer relationships with them.

In conclusion, the study reveals that all four variables (system quality, information quality, perceived ease of use, and perceived usefulness) significantly and positively influence customer experience in the digital banking services of commercial banks in Addis Ababa. In general, the findings concur with prior research evidence and established theories including the Technology

Acceptance Model (TAM) and the De Lone and McLean IS Success Model. Triangulation of findings of the present study with that of previous empirical research established that the use of quality information, a usable and easy-to-learn and easy-to-use as well as reliable and functional systems is imperative for a good customer experience of the digital banking systems. It is hence, vital for the commercial banks in Addis Ababa to take positive steps toward technological enhancements, system design centered on user satisfaction, quality of information, and efficiency to deliver exceptional customer experience and stay competitive.

CHAPTER FIVE

SUMMARY OF FINDING, CONCLUSION AND RECOMMENDATION

5.1. Summary of Finding

The main results of the study are summarized in this chapter along with recommendations for practice and future research based on the empirical conclusions. Concentrating on four main dimensions system quality, information quality, perceived simplicity of usage, and perceived utility the research investigated how digital banking influenced customer experience in chosen commercial banks in Addis Ababa.

The data's analysis provided some key observations about the correlation between customer experience and dimensions of digital banking service quality.

First, the results indicated that system quality has a positive and statistically significant effect on customer experience. Elements like system dependability, responsiveness, availability, and technical performance were found to affect how consumers view and engage with digital banking services. While the general opinion of system quality was somewhat positive, some variance in answers indicates not all consumers have consistent system performance, especially in aspects like speed and dependability.

Second, customer experience was much improved by information quality as well. Most consumers thought the information given via digital banking portals was current, unambiguous, and correct. Nevertheless, its relative impact was somewhat less than other factors, showing that even if information quality is crucial, it might not be the main engine driving customer experience.

Thirdly, the results showed that customer experience is greatly impacted by how easily people view things. Users, who discovered digital banking systems simple to navigate, understand, and use had more positive experiences. This implies that improving consumer engagement with digital banking products calls for simplicity, clear instructions, and user-friendly interface design.

Fourth, projected utility showed up as the strongest indicator of customer experience. Clients who thought digital banking solutions boosted their productivity, streamlined their transactions, and

assisted their daily banking activities were more inclined to register greater levels of happiness. This underlines how crucial it is to use digital channels to provide actual value.

All four independent variables system quality, information quality, perceived simplicity of use, and perceived utility have a positive and statistically significant influence on customer experience in general, according to the regression analysis. Perceived usefulness had the biggest impact among these; ease of use, system quality, and information quality followed.

5.2 CONCLUSION

The study aims to explore the impact of digital banking dimensions on customer experience. Specifically on the selected commercial banks of Addis Ababa by considering system quality, information quality, perceived ease of use and perceived usefulness as independent variables and customer experience as dependent variable.

From the study conducted we could infer that all the research questions were answered accordingly, as all the independent variables have positive and significant impacts on the customer experience. This shows that digital banking can affect the customer experience greatly in the case of Ethiopia banking industry.

The study found that system quality had a significant positive impact on the customer experience in the case of digital banking. Customers would more likely be satisfied if a system is of good quality such as being reliable, secured, responded, and accessible. The quality of banking platform would greatly influence customer experiences while using the banking service.

Regarding the effect of information quality on the customer experience, the study revealed that if a system of digital banking can provide up to date, timely and comprehensive information, then the quality of information is important in achieving the high customer experience. A quality system helps customers trust the service in information that would be provided by banks and it is likely to become frequent users.

For perceived ease of use, the study also finds a positive significant impact on customer experience. This indicates that an easy to use system such as it can reduce customers' work, easy and convenient way and could lead a customer into high experience, but if a system is too

complicated to use, customers are less satisfied, so a system that users feel easy to use would improve customer experience toward the use of banking service.

From perceived usefulness, the finding clearly states that perceived usefulness has one of the highest significant impact on customer experience. If the system is viewed as useful then customers are more likely to use it at highest extent possible. For example, customers appreciate the useful part in terms of completing banking transactions effectively, time saving and convenience.

Hence, in general, we can find that quality of system quality, information quality, perceived ease of use, perceived usefulness of digital banking system have positively influence the customer experience of selected commercial banks in Addis Ababa. Banks would more likely to have more satisfied customers if the system quality, information quality, perceived ease of use, perceived usefulness of the digital banking platform is of high standard. Though information quality affects a significantly less than other elements, it is still a needed part of a good client experience. Timely and accurate information encourages knowledgeable decision-making and increases consumer faith in digital channels.

The correlation analysis revealed that digital banking has a positive relationship with consumer experience. And the digital banking significantly and positively affects the experience of customers. Furthermore, the findings of regression analysis and result of the hypothesis testing show to the same result. So, it can be concluded that digital banking has great effect on customer experience.

Research finding emphasizes the importance of digital banking in influencing the experience of customers that ultimately impact the end results of the selected commercial Banks.

In general, the study concludes that improving customer experience in digital banking requires a holistic approach, where banks simultaneously enhance system performance, usability, information quality, and the overall usefulness of their services.

5.3 RECOMMENDATIONS

Based on the empirical evidence from this study and the statistical validation of the regression model, the following strategic recommendations are proposed to enhance the digital banking landscape:

- Based on the findings of the study, the following practical and actionable recommendations are forwarded to improve customer experience in digital banking services among commercial banks in Addis Ababa.
- Commercial banks should improve the usefulness of digital banking platforms by expanding service features such as instant fund transfer, real-time transaction notification, online customer support, bill payment services, and personalized financial management tools. As perceived usefulness was a significant factor in customer experience, banks can keep digital banking time efficient, cost efficient and convenient.
- Banks should make the digital banking applications easy to use by keeping the application features and operation simple. Some actions banks can take include designing application with ease of use in mind, providing simplified instructions in simple language, eliminating multiple-step transactions if possible and providing application instructions and support in local languages. Additionally, banks can seek customer feedback on application ease of use and incorporate the feedback into design and system navigation improvements.
- Commercial banks should enhance the quality and dependability of digital banking systems through continuous investment on the robust technological platforms, regular system maintenance and sound cyber security protection strategies. Commercial banks should reduce the occurrence of system outages, delayed transactions and application failures as they would adversely impact customer experience and confidence.
- Improving information quality Electronic banking is faced with some information quality problems. Commercial banks need to make sure that the information on banking transactions, account balance, notifications, and updates on services is provided with relevant, timely and correct. Providing comprehensible information will benefit both customers and banks themselves.
- Banks should put in place dedicated on-going customer awareness and training programs to enhance the customers' knowledge and confidence to use digital banking services. The

training will be provided by means of demonstrations inside branches, videos, through social media and at the contact center. Particular care should be taken to ensure that customers with poor digital literacy will also be empowered to access digital banking services.

- Future researcher should introduce more other variables, such as, perceived risk, trust, customer loyalty, service quality, and technology readiness to have a more comprehensive understanding of the concept 'customers experience in digital banking'. Besides that, future research using comparative research, longitudinal research design to study the differences of customer experience among certain region at different time.

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ANNEX

Appendix I – Questionnaire

ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE

(Customer Survey)

My name is Robsan Berhanu, and I am a postgraduate student in the Department of Digital Marketing and E-Commerce at Addis Ababa University. I am currently conducting an academic research study as part of the requirements for the award of a Master's degree in Digital Marketing and E-Commerce.

The general purpose of this study is to examine the effect of digital banking on customer experience, with specific reference to selected commercial banks in Addis Ababa. The study is entitled "The Effect of Digital Banking on Customer Experience: Evidence from Selected Commercial Banks in Addis Ababa."

You are kindly requested to participate in this survey by completing the questionnaire. Your responses are very important for the success of this study. Please be assured that all information you provide will be used strictly for academic purposes only and will be treated with full confidentiality and anonymity. There are no right or wrong answers; therefore, you are encouraged to answer the questions honestly based on your personal experience with digital banking services.

Thank you very much for your time and valuable cooperation.

General Directions

- ✓ You are not required to write your name or any identifying information on this questionnaire.
- ✓ Your honest responses are vital for the success and accuracy of this study.
- ✓ Please indicate your response by placing a "√" mark in the appropriate box where applicable.
- ✓ Participation in this study is voluntary, and you may withdraw at any time without any consequences.

- ✓ As an alternative to the printed questionnaire, respondents may complete the survey electronically through a Google Form**,** which contains the same questions and is provided for convenience and accessibility.

Kind Regards

Robsan Berhanu

+251917171610

Part I- Demographic information

1. Gender

Male ☐ Female ☐

2. Age group

Less than 20 years ☐ 31 to 40 years ☐

20 to 30 years ☐ 41 years & above ☐

3. Education Level

Below 12 grade ☐ First Degree ☐ PhD and Above ☐

Complete 12 Grade ☐ Master's Degree ☐

Part II- Customer Perceptions of Digital Banking Services

4. Primary Bank Used

Commercial Bank of Ethiopia ☐

Awash Bank ☐

Bank of Abyssinia ☐

4. For how long have you been a using digital banking?

Less than 1 years ☐ 3 to 4 years ☐

1 to 3 years ☐ 5 years & above ☐

Part III- Main Research questions

The following statements assess your perceptions of the bank's digital banking services. Please indicate your level of agreement based on your experience with the service.

Please describe to what extent you agree the listed activities by writing "√" inside the box

Note: - 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Variables	Question Items	1	2	3	4	5
SQ1	I feel satisfied by my banks digital banking technical performance.					
SQ2	My banks Digital banking is reliable and available whenever I need it.					
SQ3	My digital banking system responds instantly to my commands without delay.					
SQ4	I trust my digital banking system security features to keep my money safe.					
SQ5	The digital banking system operates reliably without frequent failures.					
IQ1	The information provided by my banks digital banking services is accurate					
IQ2	The information displayed on my banks digital banking platforms is clear and understandable					
IQ3	The information provided through my banks digital banking is up-to-date.					
IQ4	Digital banking provides relevant information for making banking decisions					
PEU1	My bank Digital banking is easy to use and understand the features.					
PEU2	It was easy to communicate and resolve issues with service provider about my digital banking					

PEU3	The instruction and error messages on my digital banking are easy to understand and follow.					
PEU4	It is easy for me to become skillful at using my digital banking service					
PU1	Using my bank's digital banking services enables me to complete banking transactions more quickly					
PU2	My bank's Digital banking services improve the efficiency of my banking activities.					
PU3	My bank's Digital banking makes it easier for me to manage my banking transactions.					
PU4	My bank's Digital banking services are useful for my day to day banking needs.					
PU5	My bank's digital banking enhances the quality of my banking experience.					
CE1	My interactions with the digital banking system are always smooth and hassle free.					
CE2	I enjoy using this bank's digital services more than visiting the branch.					
CE3	The digital banking service makes me feel valued as a customer.					
CE4	Overall, my experience with the digital platform exceeds my expectations.					