



The Effect of Digital Transformation on Customer Experience: The Mediating Role of Customer Engagement: A Case Study of Bank of Abyssinia

A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION (MBA)

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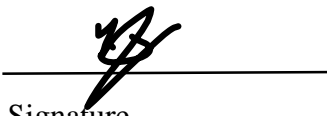
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DECLARATION

I, the undersigned, declare that this thesis entitled “The Effect of Digital Transformation on Customer Experience: The Mediating Role of Customer Engagement” is my original work and has not been presented for a degree in any other university or institution. All sources of materials used for the thesis have been duly acknowledged. It has been carried out under the guidance and supervision of my advisor Habtamu Endris (PhD).

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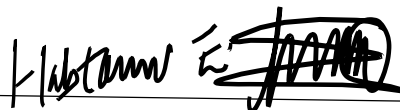
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CERTIFICATION

This is to certify that this project work "The effect of digital transformation on customer experience: the mediating role of customer engagement" " undertaken by Kalkidan Gebre under my guidance for the partial fulfillment of Masters of Business Administration [MBA] at Addis Ababa University. To my belief this research is an original work and which has not been submitted earlier for any degree at this or in any other university.

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ACRONYMS

DT	Digital transformation
DIGT-TRANS	Digital Transformation
PERS	Personalization
AUTO	Automation
SELF	Self-service Banking
OMNI	Omni channel Integration
CUS_EXP	Customer Experience
CUS_ENG	Customer Engagement
SPSS	Statistical Package for Social Science
ANOVA	Analysis of variance
AI	Artificial intelligence
BOA	Bank of Abyssinia

ABSTRACT

This study analyzes the impact of digital transformation on customer experience in the banking sector, based on the Bank of Abyssinia within the Central Addis District. Based on a sample of 372 respondents, information was collected through a structured questionnaire using a five-point Likert scale. Both explanatory and descriptive research designs were used, and SPSS version 30 was used to carry out the statistical analysis. Regression analysis was utilized to quantify the impact of four most significant dimensions of digital transformation, i.e., personalization, automation, self-service banking, and Omni channel integration on customer experience, whereas mediation analysis with PROCESS Macro version 4 examined the mediating impact of customer engagement. The findings revealed that personalization, self-service banking, and Omni channel integration possess statistically significant and positive impacts on customer experience. While automation have significant negative relation with customer experience. Besides, mediation analysis also showed customer engagement was established to mediate partially between digital transformation components (personalization, automation, self-service banking and Omni channel integration) and customer experience. These conclusions place emphasis on customer-focused digital transformation and indicate engagement as a critical bridge in building exceptional customer experiences. The study presents practical recommendations for banks seeking to enhance service delivery by digital transformation and suggests research avenues for future emerging digital bank trends.

Key words: *digital transformation, customer experience, customer engagement, personalization, self-service banking, Omni channel integration, automation, banking sector, mediation analysis bank of Abyssinia*

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter gives an introduction to the study, which starts with the research background, where the digital transformation role within the banking sector is addressed, including global trends and the Ethiopian situation. The company background states the position of the Bank of Abyssinia within the financial sector of Ethiopia and its digital transformation journey. Statement of the problem identifies key challenges to enhancing customer experience through digital transformation. It also clarifies the research gap and how this research is going to fill it. The entire basic research questions and general as well as specific objectives guide the study focus on these matters. Significance of the research, while delimitation/scope of the research defines the scope of the research, specifically to the Bank of Abyssinia.

1.2 Background of the study

Digital transformation has become very important for transform in today's world of technological change. Many organizations around the globe are now turning to digital transformation to stay competitive as the world's economy rapidly progresses (Guo & Xu, 2021). The use of digital transformation is thought to cause changes in the economy, society and in people's personal lives. If the transformation is to succeed, it should target companies that design and market innovative products or services to spearhead the change (Kim et al., 2021). This transformation is key to the growth of the digital economy, thanks to firms' digitalization of business activities such as planning, production and distribution (Kim et al., 2021).

Digital transformation is basically the process where organizations use digital technologies to change how they work and deliver value to customers. But it's not just about going paperless or adding apps it's a much bigger shift. It usually means rethinking business models, streamlining operations, and improving customer experience by using tools like automation, data analytics, mobile platforms, and even AI (Verhoef et al., 2021).

Given that the global banking environment is changing so fast, how banks meet customer needs is now a main factor in determining how well they compete. Digital methods are adopted by banks to improve business efficiency, lower costs and improve the happiness of their customers. Leveraging digital technology has improved how companies interact with customers, making things easier, more accessible and more personalized over digital channels (Bhardwaj & Khan, 2024).

Considering digital banking is gaining popularity, banks are shifting their marketing which will require them to notice how digital services influence the experience of their customers. Digital transformation is more important than anything else in the banking industry. As what customers expect shifts, banks and other financial institutions use recent technologies to do things better, save money and deliver better service. Solanki (2022), shows Customers who expect new and improved services are making banks rethink their old ways. In order to be competitive and remain important, banks must use digital technology instead of analogue systems (Shanti et al., 2022).

Due to online banking, mobile apps and digital choices, banks now engage with their customers in new and more comfortable ways. Using these technologies helps businesses to make operations more efficient, easy for users and cheaper (Mbama et al., 2018). For example, digital banking makes it easy for individuals to carry out services such as payment, deposit and funds transfer d online without ever going to a bank branch (Suluk, 2023). Technology is changing how people live and buy things which is having a major effect on how companies interact with their customers (Zouari & Abdelhedi, 2021).

One important result of digital transformation is how it changes the way customers experience the company. Today, customers hope for hassle-free, individualized and self-managed banking on different devices, thanks to digital banking (Trivedi, 2018). AI and machine learning are being adopted by banks for tailor-made tasks and self-service solutions mean you can use them around the clock (Lahiri, 2023; Magnus-Eweka, 2023). In addition, having Omni channel integration means customers experience similar service both online and offline which helps improve their loyalty and satisfaction (Chauhan & Sarabhai, 2019). Digital banking makes use of telecommunication services to make sure customers can access services on ATMs, mobile phones and desktop computers any time or place (Mirkovic, & Martin, 2019).

Re-designing old processes and routines in the banking sector is an ongoing part of digital transformation which also affects the sector's external and internal environments (Kitsios et al., 2021). With the progress of digital transformation, companies should react to what customers want and use advanced technologies to improve customer experience. The authors Rakesh and Kothapalli (2024) claim: Digital banking, thought by many to be the future, includes all of Banks that do well in digital services must ensure their information is correct and reliable and updates come on time (Kaur et al., 2021a). According to research, highlighting customer experience through digital services allows banks to expand their growth more than others that ignore digital change (Hannah Wren, 2024). Studies confirm that digital transformation makes customers happier, more loyal and trustful as it reduces mistakes, makes work clearer and enhances service delivery (Mavlutova et al., 2023).

Digital transformation results also depend on how stakeholders view it, how it is included in the bank's overall plan and how it matches the bank's approach to entrepreneurship and caring for customers (António Porfírio et al., 2024a). For governments, improved digitalization is expected to bring down processing costs and provide access to financial services at lower prices (Park et al., 2021). Thanks to ICT changes, banks can raise the quality of their services and still charge fair pricing. Nevertheless, the outcomes of these projects rely on adaptive laws that ensure both compliance and flexibility within financial organizations (Batchu, 2024).

Engagement includes different aspects such as mental, emotional and behavioral ones and its expression changes for each stakeholder or setting (Brodie et al., 2011). Both the technology and platforms from digital transformation play a role, but how involved the customer becomes decides the experience. Customers who are interested find pleasure and more satisfaction in using the bank's online service. Tuti & Sulistia (2022) found that customer engagement is strongly related to customer satisfaction, brand loyalty and brand trust. It lets us know that customer engagement is vital for making customers happy and by earning their trust, this will encourage them to be loyal customers (Tuti & Sulistia, 2022).

Ethiopia provides an uncommon situation for digital transformation in banking. Because of this digital shift, the country experiences new advantages and difficulties. The development of the country's financial sector is being pushed forward by strategies such as Digital Ethiopia 2025 and the National Financial Inclusion Strategy (Dosis, 2023). The projects are focused on helping

people reach and use bank services through digital channels. The National Bank of Ethiopia reports that 32 banks and 53 Micro finance institutions handle the banking business for the Ethiopian public. Even so, Ethiopia has to deal with high internet fees, limited internet in rural areas and low levels of tech knowledge among those living in rural regions (Geda, 2022). Being less digital than Kenya, Ethiopia could encounter problems if its financial firms must compete with overseas banks, FinTech companies and safari com (Geda, 2022). Even with these problems, the fast development of digital networks and wider use of mobile and online banking reflect a bright future for the sector. The National Bank of Ethiopia has prompted banks to grow their services using digital technology, aiming at unserved segments of the economy (National Bank of Ethiopia, 2024).

It is significant and necessary to look at digital transformation's influence on customer experience and how customer engagement mediates their relationship in Ethiopian banks. Banks must focus on customer experience as Ethiopia implements Digital Ethiopia 2025 and starts the National Financial Inclusion Strategy.

1.3 Background of the company

Bank of Abyssinia (BoA), re-established in 1996 by Ethiopian Commercial Code of 1960 and Proclamation number 84/1994, is one of the private financial institutions of Ethiopia (Bank of Abyssinia, 2020). In the last decade, BoA has placed itself as a frontrunner in digital banking by incorporating contemporary technologies to enhance service delivery and customer experience. As a reaction to evolving customer needs and technological advances, BoA has embraced digital transformation strategically not only to lead operational efficiency but also to improve customer experience. Through the integration of digital platforms offering personalized, convenient, and responsive services, the bank aims at more profound customer engagement. Mirroring its strategic direction, BOA's vision is now to 'empower futures through seamless digital banking experience', highlighting its commitment to deepening customer relationships through technology-driven innovation (Bank of Abyssinia, 2024).

To deepen customer engagement across all touchpoints, BoA launched a series of digital initiatives aimed at personalized, delivering seamless and reactive banking experiences. The launch of the first Ethiopian virtual banking system and Apollo mobile application enables customers to open and manage accounts independently, allowing greater behavioral engagement through repeat digital engagement. Additionally, BoA's integrated mobile and internet banking services,

interactive teller machines (ITMs), over 1250 POS terminals and over 1,200 ATMs allow customers to access self-services banking conveniently and efficiently, facilitating engagement by inducing additional reflective and habitual use of digital channels (Bank of Abyssinia, 2020). These digital efforts are all part of BoA's bigger vision to really transform banking and take customer relationships to a deeper, more meaningful level through smart, digital engagement. With over 9 million customers and a fast-growing network of above 800 branches, BoA is staying ahead of the curve in Ethiopia's banking scene. The bank keeps finding new ways to tap into digital tools to meet the changing needs of its customers and to make the overall experience smoother, more convenient, and just better.

1.4 Statement of the problem

Customer experience shaped by customers' engagement with a bank is important to build loyalty, reduce churn, and enhance customer lifetime value (Masoud & Basahel, 2023; Si, 2024). Managers of banks should be empowered by a solid business strategy for managing experiences across customer touchpoints to create a positive customer experience (Chahal & Dutta, 2015).

However, digital banking products and services, if not designed to appeal to customers' aspirations and requirements, bring risk through disturbing customers' norms and eroding trust (Kaur et al., 2021; Fedotova, 2024). Customer engagement has emerged as a primary mediating variable in the relationship between digital transformation and customer experience. Digital interactions have helped generate increased consumer expectations for quick, personalized, seamless service (Rakesh & Kothapalli, 2024). Immersive and interactive digital experiences fuel new and innovative consumer engagement (Rakesh & Kothapalli, 2024). Engagement is regarding utilizing digital transformation ability to understand customers and their requirements and communicate to them with most appropriate offerings according to their behavior (Sahu, 2018). This implies that customer engagement acts as a bridge which transform digital investment into true experiential value to the customer.

The issues that accompany digitalization are deep. For instance, in Ethiopia, digital finance indicators have been shown to exhibit a negative relationship with financial stability, as expressed by internet penetration and mobile subscriptions. This paradox is indicated by Hordofa (2024), which discloses that rapid digital transformation in the absence of robust regulatory frameworks and risk management practices can jeopardize financial stability. Digital transformation also

presents operational risks, particularly in the face of cybersecurity threats. With growing reliance on digital systems, banks are susceptible to potential cyberattacks resulting in financial loss and reputational damage (Balkan, 2021). Technological challenges, and resistance to change also highlight the complexity of digital transformation in banking (Bhardwaj & Khan, 2024).

Digitalization in Ethiopia is at its nascent stage. Financial organizations launch new technological products, these are intended to promote efficiency in operations and customer satisfaction. But, Limited applications, high cash economy, and non-uniform access to infrastructure continue to be the primary challenges. For example, 35–75% of bank infrastructure in Ethiopia is located in Addis Ababa, and most of the population is serviced poorly (Better Than Cash Alliance, 2024). Furthermore, access to the internet in most parts of the nation has been a significant setback for digitalization to grow. As Simuchimba and Mpundu, (2024) mentioned that restricted internet coverage is a challenge to underdeveloped communities adopting digital transformation technologies. While effort has been made like the government's Digital Ethiopia 2025 plan, its empirical effect on customer satisfaction due to digital banking innovations is yet to be determined (Policy Study Institute, 2024).

The Bank of Abyssinia is capable of spearheading digitalization. By establishing new digital products like the virtual banking centers Apollo application, and contactless cards. However, central concerns between the digital processes of the bank fulfilling customers' requirements, customer experience being anticipated to offer personalization, accessibility, and Convenience. However, usability, trust, and digital literacy have enormous disparities, rendering the successful implementation of these processes even more difficult (Kaur et al., 2021; Fedotova, 2024).

As customers' awareness of competing services increases and they no longer accept every type of service from the same bank, banks must adopt a proper strategy that can improve their banks' services and improve customers' best experiences which further can enhance brand equity, satisfaction, and word of mouth (Chahal & Dutta, 2015). For the Bank of Abyssinia, as for most banks working Ethiopia and other developing economies, the challenge is added to by a rapidly evolving financial landscape, heightened competition, and pressure from customers for digital convenience. The converging of digital transformation initiatives has now become central to not only addressing these challenges but to designing the finest customer experiences.

As banks accelerate their digital transformation initiatives, customer expectations too have shifted towards technology-driven, speedier, and more personalized financial services. Even as digital banking accelerates, the extent to which digital transformation drives customer experience remains an area of study. Digital strategies are embraced by most banks without sufficiently understanding how transformation driver's automation, personalization, self-service, and Omni channel integration impact customer satisfaction and engagement (Magnus-Eweka, 2023; Rysin et al., 2023).

Several studies have been conducted on the banking digitalization and its effect on customer experience. The majority of studies conducted, for example, (Mbama et al., 2018) and (Kaur et al., 2021), are country-specific or region-specific and do not capture the banking settings prevalent in developing countries such as Ethiopia. This suggests a geographical research gap, with information from developed countries or portions thereof perhaps not being directly applicable to the Ethiopian banking sector.

Several studies have pointed out that there are still big challenges in the digital transformation of the banking sector, especially when it comes to how customers use and respond to technology-based services. Imran et al. (2023) mentioned that even though self-service technologies are being used more and more, they don't always lead to positive customer reactions, they can affect how people behave and make decisions, sometimes in ways that aren't expected. Similarly, Reis (2018) found that many customers actually avoid interacting with multiple digital channels, mainly because of barriers like poor integration between systems, lack of personalized service, and inconsistent operations across platforms. Even though personalization can make digital services feel more human, as Rysin et al. (2023) pointed out, banks often fail to fully leverage customer data to provide relevant, tailored recommendations. Furthermore, while automation has shown promising results in improving service quality, reducing errors, and saving time (Kemboi, 2018), many banks still struggle to bring these benefits to life consistently. These findings show that despite efforts in digitalization, gaps remain in meeting customer expectations, especially in creating smooth, personalized, and integrated service experiences.

Despite the significant rise in electronic banking in Ethiopia, there is a clear absence of extensive research that explores customer experience in a broad range of banks, both private and state-owned banks. While studies like (Sisay, 2021) try to cover state-owned as well as private banks, the

investigation is carried out on a small number of banks in Addis Ababa. In addition, empirical studies in the Ethiopian context that specifically test the mediating role of customer engagement between digital transformation initiatives and customer experience are evidently limited. Most of the existing studies discussed above either test the direct relationship between digitalization and customer satisfaction or overall digital finance adoption without considering how customer engagement influences this relationship. As it is, there is a clear research gap on how customer engagement operates as a critical bridge towards the improvement of customer experience through digital channels in Ethiopian banks. Hence, this study seeks to fill these fundamental gap by exploring how digital transformation affects customer experience, with customer engagement as a mediator. Using the Bank of Abyssinia as a case study, the study will investigate the roles played by automation, personalization, self-service, and Omni channel integration in contributing to customer engagement and, subsequently, to customer experience. It is directed towards providing actionable insights to help financial institutions develop customer-centric digital strategies founded on Ethiopia's unique market conditions.

1.5 Research Questions

The research tries to answers the following research questions:

- ✓ How does personalization in digital banking affect customer experience?
- ✓ What role does automation play in improving the efficiency and quality of customer experience?
- ✓ How do self-service banking options (e.g., mobile banking, ATM, virtual banking, ITMs) influence customer experience in terms of convenience and satisfaction?
- ✓ How does Omni channel engagement contribute to a consistent and positive customer experience?
- ✓ What is the mediating role of customer engagement between digital transformation and customer experience?

1.6 Objective of the study

1.6.1 The General objective of the study

The primary aim of this study is to evaluate the effect of digital transformation on enhancing customer experience with mediating role of customer engagement at the Bank of Abyssinia.

1.6.2 The Specific objectives

The study tries to address the following specific objectives.

1. To examine how personalization in digital banking influences customer experience.
2. To investigate the role of automation in improving efficiency and quality of customer experience.
3. To analyze how self-service banking, options affect the customer experience, focusing on, convenience and satisfaction.
4. To explore the effect of Omni channel engagement on creating a seamless and consistent customer experience across digital and physical touchpoints.
5. To investigate whether customer engagement has a mediating effect between digital transformation and customer experience.

1.7 Significance of the study

This study tries to improve customer experience through obtaining an essential insight into the impact of digital transformation initiatives on customer interaction in the banking sector of Ethiopia. This insight enabled the banks to shape their services to better match the needs and expectations of the customers. The findings of the study will also guide strategic decision-making by offering the banking organizations evidence-based approaches for executing effective digital strategies that augment operational efficiency and customer satisfaction. This research will also contribute to financial inclusion through informing policy and practice on improving the access to banking services for the underserved groups. The research had contributed to academic thesis on digital transformation in emerging economies, where it serves as a foundation for subsequent study in the area.

1.8 Scope of the study

The geographical area of the study is in the banking sector, particularly Abyssinia Bank, and all the respondents was from central Addis district Ethiopia, branches. Different customer segments, including individual retail customers, and corporate customers, was also examined to determine how digital transformation affects various customer needs and experiences. The study is interested in the mediating effect of customer engagement between digital transformation and customer experience. This study also focused on four main areas of digital transformation in banking: personalization, automation, self-service banking, and Omni channel integration. These were

chosen because they're the features that customers actually interact with the most when using digital banking services. While emerging technologies like AI, blockchain, or big data are definitely important in the bigger picture of digital transformation, they mostly work behind the scenes things like fraud prevention, data analysis, or backend security. Plus, in a lot of cases, those technologies are still in early adoption stage in our country, so including them may change the goal of study from customer experience to technical infrastructure.

1.9 Definition of key terms

Digital transformation – It entails the incorporation of digital technologies into all dimensions of business, making it possible to effect profound shifts in operations, value creation, and culture alignment

Customer experience - Customer experience is a multifaceted concept involving a company's interaction with customers across multiple touchpoints.

Customer engagement - Customer engagement is the degree of interaction, bonding, and commitment between a customer and a firm (Lei, 2025).

1.10 Organization of the study

This study is presented in five chapters. Chapter One is the introduction to the study, which includes background, problem statement, objectives, and research question. Chapter Two is the review of related literature and the theoretical and conceptual frameworks. Chapter Three is the research methodology, including design, sampling, data collection, and analysis. Chapter Four is the presentation and discussion of findings. Chapter Five is the summary, conclusions, recommendations, and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Digital technologies changing the banking industry in many ways, basically by changing the way customer engage and how financial services deliver service (Nalini, 2024). Digital transformation become necessary for banks and other service provided by improving operational efficiency, fostering innovation and improving customer experience. In competitive banking environment, customer experience is a key differentiator since customers highly demanding personalized, seamless and convenient banking (Alam, 2025).

This literature aims to review a relationship between digital transformation, customer experience and customer engagement on service giving sectors more specifically banking sector. Based on technology acceptance model (TAM), diffusion of Innovation (DOI), service-dominant logic (SDL) and lastly, customer experience (CX) theory, this chapter seeks to review in detail about the main components of digital transformation namely; personalization, automation, self-service banking and Omni channel integration. It will contribute a clear understanding of the existing knowledge on how digital transformation influence customers experience by reviewing different studies focuses on Africa, Ethiopia and globally.

This literature review also identifies different challenges banks faced when applying digital transformation strategies in their business. Finally, the review reveals main gaps of the existing literatures and then a conceptual frame work and hypothesis provided at the end of the chapter.

2.2 Theoretical Review

The most relevant theories that support the adoption of digital transformation to enhance customer experience includes technology acceptance model (TAM), diffusion of Innovation (DOI), service-dominant logic (SDL) and lastly, customer experience (CX) theory. This theory explains customer adoption of different digital technologies and how this technology impact their overall experience and engagement.

2.2.1 Technology Acceptance Model (TAM)

TAM was initiated by Fred Davis (1989) to explain technology adoption through the two key determinants namely: perceived usefulness and perceived ease of use. For study's wants to know how digital initiatives has adopted by users, this theory gives a core explanation. According to Davis (1989), Perceived usefulness indicates degree to which a person believes that using a particular system would enhance the performance of his or her job. while, perceived ease of use, alternatively, is the degree to which a person believes that using a particular system would be free of effort.

In the context of digital transformation, TAM explains customers' assessment of the value and ease of use of digital banking services. For example, if customers perceive any of the digital services of the bank to be useful to maintain their finances efficiently and the system is easy to use, they will accept the technology. Further, digital transformation initiatives include elements like personalization and automation that enhance perceived usefulness by offering personalized and efficient services. Similarly, the ease of use and availability of digital channels enhance ease of use, reducing the adoption barriers. By addressing these dimensions, banks can gain greater acceptance of digital solutions that will ultimately result in customer loyalty and satisfaction (Agarwal, 2024).

In digital banking context, automation and self-service technologies play a significant role in shaping customer adoption behavior. Studies indicate that automation in banking optimize operational efficiency and reduces repetitive tasks and, improving both business performance and customer experience (Sujee. & Solanki, 2022). Similarly, AI-driven banking applications and chatboats provide 24/7 customer support, significantly enhancing service convenience and reducing wait times (Adewumi et al., 2024). Moreover, banks today require sophisticated analytics to offer personalized banking services, reflecting the perceived usefulness of digital transformation in financial decision-making (Trivedi, 2018). The ease of use of real-time mobile banking services and AI-driven personalization enhances customer engagement, validating TAM's contention that customers will use technology that is useful and easy to use (Vyas et al., 2024).

2.2.2 Diffusion of innovation (DOI) theory

Diffusion of Innovation (DOI) Theory by Rogers (1962) describes how banking sector innovations diffuse based on relative advantage, compatibility, complexity, trialability, and observability. It is

a relative advantage theory where ease of usefulness is the focus that asserts the level of perceived innovation more satisfactorily than from the idea replacing it (Alfayad, 2021). Since customers perceive digital banking as highly valuable and beneficial in their financial needs, their satisfaction and loyalty to the provider increase (Susanto et al., 2023). The theory suggests that customers adopt new technology (like personalized apps or AI-driven advice) based on perceived benefit, compatibility, and complexity. Personalization expresses clear relative advantage, accelerating adoption.

Studies point out that a strong Omni-channel strategy can really help banks stand out by offering smooth and connected experiences across both digital platforms and physical branches (Chauhan & Sarabhai, 2019). A big part of whether people actually use these digital services comes down to what they can see. If customers notice the real benefits like easier automation, smart AI-based help, or quick and hassle-free payments they're just more likely to go for it (Gon, 2023).

2.2.3 Service-Dominant Logic (SDL)

The Service-Dominant (S-D) Logic (Vargo & Lusch, 2004) asserts that value in banking is not generated merely by the customer's interaction with product offerings but by customer interactions and experiences. Customer value is also enhanced by the ability to personalize bank services through real-time data, reiterating that banks must transcend simplistic tech innovations to deeply integrated, customer-focused innovations (Rysin et al., 2023). Personalization is a form of value co-creation where services are tailored to the individual customer's specifications, stimulating emotional satisfaction and engagement. Furthermore, digitalization has also made it possible to set up an integrated branch network, which has enabled faster and more effective banking services (Tsedeke, n.d.). This networked digital platform supports value co-creation for customers through enabling customized financial interactions and improving service delivery. This perspective provides a conceptual foundation of customer engagement evolution that describes customers' interactive, co-creative interaction with other stakeholders in a given service relationship (Brodie et al., 2011).

2.2.4 Customer Experience Theory

The Theory of Customer Experience (CX) (Schmitt, 1999) provides an important framework for the analysis of how digital transformation rises customer engagement and satisfaction. Customized banking services allow banks to research customer preferences and behaviors, offering tailored financial advice that builds confidence and engagement (Magnus-Eweka, 2023). Moreover, automation reduces labor and operational costs, allowing banks to enhance the quality of service while maximizing customer satisfaction (Capușneanu et al., 2021). The growing tendency towards online self-service banking again supports CX Theory, as it is indicated in studies that ATM and mobile banking positively influence customer behavior, in line with a growing trend for digital interaction.

2.3 Introduction to Digital Transformation

In modern technological development era digital transformation enables companies to go with changing customer needs. It is more than the implementation of information technology (IT) solutions; it is a wider cultural and organizational shift. Verina and Titko (2019), highlight the move towards customer-focused approaches, necessitating cultural change and organizational realignment. Digital transformation uses digital technology such as Big Data, artificial intelligence, and block chain to bring new forms of service delivery and create new value (Khanchel, 2019; Verhoef et al., 2021). By using automation and latest communication and tools and data connection, digital transformation change business models (Capușneanu et al., 2021).

2.3.1 Digital Transformation in the Financial Services Sector

In evolving technological advancement, customer needs and competition among companies, the banking sector faced enormous pressure to adopt digital technologies. Shanti et al., (2022) explained in order to become relevant and competitive in the industry banks must switch from analog to digital technologies. The shift allows banks to, drive productivity, deliver innovative customer experiences and lower expenses, Furthermore, Digital Transformation enables banks to address open compliance standards on the global level, counter competitive challenges, and effectively control risk (Shanti et al., 2022).

Khanchel (2019), states that if banks do not adopt Digital Transformation initiatives they are likely to be unsafe by disruptive innovations like block chain and Big Data. The shift to digital transformation also solves traditional inefficiencies in customer services like time consuming

processing of loans or account opening through automated and 24/7 digital banking solutions (Tran et al., 2023). Furthermore, advancement in personalization technologies and digital channels of distribution allow banks to increase customer engagement and satisfaction (Tran et al., 2023).

The introduction of up-to-date technologies namely Internet banking and mobile banking increase processing speed, security and improves service quality (Boufounou et al., 2022; Jesus, 2021). Banks can integrate customer data to offer optimized and personalized services, like optimizing commercial customers' value chain or risk management using Big Data analytics (Tran et al., 2023). The creation of fully digitalized banks, electronic payment channels, the bank structure and governance platform reconsider by digital the developments of digital technologies (Tran et al., 2023).

Capușneănu et al. (2021) see how digital transformation enables Omni-channel strategies that integrate offline and online points of contact to maximize customer interaction. Automating and adding robotics further streamlines operations enhances operational scalability and saves cost (Verhoef et al., 2021). Such innovations also enable banks to get in step with the expectations of a more digital economy (Tosheva, 2020).

Digital transformation significantly elevates the efficiency of businesses by automating difficult tasks and linking data across functions. Through this, the employees can focus on premium-value work, which increase innovation and productivity (Capușneănu et al., 2021). It also supports rapid product development, quicker customer response and quicker speed-to-market (Accelerator, 2021).

Digital-transforming organizations mostly face radical culture and structure shifts. According to Verina and Titko (2019), digital transformation requires a cultural shift towards, customer focus, adaptability and collaboration. Furthermore, Digital transformation reexamine employee relation to learn new competencies to adjust with technological disruption (Shanti et al., 2022). Additionally, Digital transformation plays a crucial role in establishing the success of labor relations and competencies, requiring workers to Internal drivers such as employee comprehension and information (Porfírio et al., 2024).

2.3.2 Digital Transformation and the Digital Economy

The digital economy increase beyond online retailing into the very community, including farming healthcare, entertainment, and education (Tosheva, 2020). It relies on digital technologies to enable communication and exchange large volumes of information. Using digital technologies Businesses have adapted their infrastructure to the digital age since the beginning of 2000s to gain competitive advantage (Jadertrierveiler et al., 2019).

In the financial industry, to gain operational effectiveness, enhance customer experience and gain basic knowledge about the market, companies must invest in information and communication technology (Shanti et al., 2022). Digital transformation helps companies in integrating digital solutions into creating value add, making incremental returns and current capacities (Capuşneănu et al., 2021).

2.3.3 Key Aspects of digital transformation

As banks transform towards digital-first strategies, they must focus on four most significant characteristics automation, personalization, self-service, and Omni channel integration to increase efficiency, increase engagement, and improve customer satisfaction. All these characteristics combined result in an improved banking experience where customers get faster, more personalized, and more convenient services.

I. Automation

Automation is a key driver of digital transformation, minimizing expenses, improving service delivery efficiency, and automating banking processes. Banks are now embracing automation to automate manual and repetitive tasks, thus enhancing employee productivity as well as customer experience (Sujee. & Solanki, 2022). Automated solutions like AI-based chatbots and virtual assistants ensure 24/7 customer support, decrease processing time and overall service responsiveness (Adewumi et al., 2024). Also, processing transactions' speeds, loan approval and account opening enormously enhanced by automation (Adewumi et al., 2024; Capuşneănu et al., 2021).

In addition to back-office effectiveness, automation is linked with customer loyalty and satisfaction. Studies show that there is a relationship of quality automated services and customer loyalty in banks (Al-Hawari, 2006). Additionally, self-service banking and automated branches

are required to serve traditional and digital customers by giving efficient service without human intervention only using digital technologies (Magnus-Eweka, 2023).

Beside the advantages of automation, it also has drawbacks, such as increase unemployment and exposed to security threats (Adewumi et al., 2024). Even when banks attempt to contain operating costs with the aid of automation, caution must be exercised not to leave customers feeling disadvantaged of personalized service. Therefore, automation impact on business can be measured in terms of reduced operating costs, increased speed of service, its ability to reconcile efficiency with human contact and increased accuracy.

II. Personalization

Personalization allows financial institutions to give a customized service based on customer's preference and habit by doing this it become one of a differentiation tool for banks. By using available massive amount of data, banks can able to build customer profile and provide financial product, and AI- driven recommendation (Magnus-Eweka, 2023). Artificial intelligence (AI) and machine learning (ML) have also enhanced personalization by enabling predictive insights, which enable banks to predict customer requirements and offer appropriate financial products (Lahiri, 2023).

Personalization of banking products directly affects customer interaction and loyalty. A study by Rysin et al. (2023), indicates that banks that can adopt business intelligence and data analytics to allow real-time personalization have an edge in the marketplace. Customer communication ways such as AI-based advisors enable interaction, chatbots, covers personalized banking (Adewumi et al., 2024).

Beside the positive effect of personalization on customer experience, there is a data privacy and security issue. The increasing dependency on customer data for personalization necessitates ensuring robust data protection to prevent non-compliance and mistrust (Vyas et al., 2024). Customer retention rate, engagement score, and the ability to deliver highly customized financial services with data security measured the success of personalization in banking sector.

III. Self-Service banking

The application of self-service banking has changed customer interactions by enhanced control in the handling of financial transactions. Websites, mobile banking applications, and interactive

self-service kiosks enable customers to perform procedures such as, transferring funds, checking balances and requesting loans without direct human intervention (Brutti, 2022; Jesus, 2021; Boufounou et al., 2022). The shift to self-service accelerates the delivery of services, enhances convenience and reduces the dependency on physical branches.

However, customer point of view regarding self-service banking is uncertain. As per studies, ATM and mobile banking have had favorable effects on customer take-up, while internet banking has had questionable implications since some customers have been hesitant to embrace fully online transactions (Imran et al., 2023). In addition, studies indicate that customer confidence in self-service banking depends on security perceived by the sites and ease of usage whereas, Customers will avoid the use of self-service channels if they feel that personal banking provides greater security or financial guidance (Sannes, 2001).

By providing compatible digital experience with traditional customer channel hand in hand, financial institution can reach maximum adoption of self-service banking. Customer experience is quantifiable by the rate of adoption, simplification of transactions and the measure of customer satisfaction.

IV. Omni channel Integration

As part of digital transformation, Omni channel integration gives customer a unified and accompany banking experience across various touchpoints. The successful Omni channel strategy allows customers to engage seamlessly with banking services through mobile banking applications, ATMs, the web, and branches without encountering differences (Trivedi, 2018). Customer confidence and stimulates digital adoption enhanced by delivering consistence service across all channels (Magnus-Eweka, 2023).

In recent banking world interactions are multichannel using Chatbots, mobile app, branch-based, and social media. A study by Chauhan & Sarabhai (2019), points out that the customers expect seamless transitioning among platforms with unrestricted access to services and uniform messaging. However, the risk of broken experience is one of the common risk of Omni channel banking experience. Some banks attempt to implement Omni channel strategies by simply integrating phone applications and website designs across platforms, rather than truly integrating their services (Efma & Backbase Present, n.d.). This leads to disappointment and decreased

engagement, as consumers expect more than simple similarity they want seamless and personalized interactions in digital as well as physical spaces.

The merging of online banking services and mobile payments has also widened the scope of Omni channel banking, allowing for a more integrated financial system (Gon, 2023). Nevertheless, to ensure an Omni channel strategy succeeds, banks should factor in customer behavior and tastes. Research indicates that a customer's attitude towards technology plays a critical role in determining their readiness to use Omni channel banking services (Alfayad, 2021). Furthermore, banks can create a more intuitive and responsive Omni channel experience by integrating the strength of digitalization with human touch (Lóska & Uotila, 2024). An integrated Omni channel strategy that is well implemented increases both convenience and customer loyalty as it delivers a single and responsive banking experience.

2.3.4 Customer Experience in the Banking Sector

Customer experience is a multifaceted concept involving a company's interaction with customers across multiple touchpoints. It includes the customer journey, the physical or digital environments and the brand touchpoints, to be encountered in these interactions (Suvarchala & Rao, 2018). A comprehensive Customer Experience exceed service delivery, covering aspects such as brand recognition, sensory (logos, colors, smells, and even haptic and taste experiences), and customer support (Suvarchala & Rao, 2018). Similarly, Customer Experience is not restricted to plain service contacts but also encompasses marketing, word-of-mouth, packaging, product performance, advertising and endorsements, making it multidimensional and intangible in character (Parcell, 2007).

The study by Suvarchala & Rao, (2018) states in the banking sector, customer experience is shaped by multiple points of contact, including going to the branch, using mobile banking, ATMs, internet banking and banking over the phone. In order to create a significant effect on customer satisfaction, quality service matters most. They appreciate technological elements of service delivery nowadays, enjoying structured and organized processes as quality differentiators over substandard service (Sharma & Chaubey, 2014). To enhance customer experience, banks will have to monitor customer interactions continuously and adapt to new expectations (Suvarchala & Rao, 2018).

An effective Customer Experience strategy can foster relationships with customers, enhance loyalty, and lower churn rates, as evidenced by research that showed customer experience

management to be responsible for 67.9% of variations in customer loyalty (Makudza, 2021). Applying personalized financial data, budgeting tools, and easy payments enhances the perceived value of digital banking services, ultimately promoting customer loyalty (Susanto et al., 2023).

However, one of the biggest challenges for digital banking is to protect financial data as security matters have significant impacts on customers' trust and engagement in digital services (Susanto et al., 2023). Effective customer experience strategies ensure continued customer engagement, reducing the likelihood to switch to another business (Makudza, 2021). In order to deliver best Customer Experience, businesses must have a good understanding of customer behavior and expectations. This requires controlling the entire customer experience from initial contact to post-purchase contacts (Wereda and Grzybowska, 2016). Sharma & Chaubey (2014) indicates to deliver superior service to customer, companies must hire and train a right person for the position.

2.3.5 Digital Transformation Challenges in Banking

Banking digital transformation (DT) is not just technology adoption; it involves strategy, culture, and operations transformation. While Digital transformation is of great value in terms of efficiency gain, improvement in customer experience, and financial inclusion (Lahiri, 2023), it is also filled with multidimensional challenges that need to be addressed by banks.

❖ Cultural and Organizational Challenges

One of the biggest challenge in adoption of digital transformation is fixed branch based culture that characterized by traditional form. Without changing the customers and staff's perception about digital transformation, technological effort merely cannot be happening (Trivedi, 2018). Digital transformation requires banks to undergo simultaneous cultural, employee, and technological changes affecting the operating models and strategic agendas (Razlan & Masrom, 2023). Besides, the complexity of digital transformation it impacts all aspect of organization, from its strategy to its individuals, activities, and culture (Magnus-Eweka, 2023). Successful digital transformation is built on a clear future vision, bold decision-making and long-term investment (Pînzaru et al., 2019).

❖ Regulatory and Compliance Challenges

The banking sector faces some pretty big hurdles when it comes to adopting new financial regulations (Mundhe & Shikshan, 2024). The thing is, financial institutions are expected to strictly

follow regulatory frameworks, which can make introducing new technologies a lot more complicated than it sounds. There are also outside factors like tight rules and the high cost of tech that often hold back change or slow things down (Porfírio et al., 2024). On top of all that, banks have to be super cautious about data security. Since they handle tons of personal customer info, making sure that data doesn't fall into the wrong hands is a top priority (Lahiri, 2023).

❖ **Cybersecurity Threats and Fraud Risks**

As soon as banks apply online technologies for their day to day operation, they are ready for cyber-attacks, which expose vulnerabilities in web banking systems, mobile apps, and storage of customer databases (Mundhe & Shikshan, 2024). Financial crimes of, hacking, intellectual property theft, spoofing, phishing and malware are severe risks to online banking operations (Sujee. & Solanki, 2022). To overcome such risks, banks must be aggressive in their cybersecurity measures, maintain secure digital setups and incorporate advanced fraud detection technology (Magnus-Eweka, 2023).

❖ **Technological Infrastructure and Integration Challenges**

For traditional banks upgrading technological infrastructure is a difficult process, especially those operating on legacy systems designed with the traditional banking concept in mind (Mundhe & Shikshan, 2024). Integrating new digital technologies into existing infrastructures is expensive in terms of capital and technical expertise. Banks have to adopt a gradual modernization process by leveraging cloud computing, artificial intelligence, and automation while ensuring compatibility with legacy systems.

❖ **Workforce Upskilling and Talent Gaps**

The World Economic Forum (2020) emphasized the bank must invest in skillful workforce and recruit digital experts to fill the shortage of digital skill. A successful digital transformation requires a digitally enabled workforce. In order to manage the new banking shift, Employees must involve in constant learning (Razlan & Masrom, 2023). Digital transformation also revolutionizes the cost structure, with automation coming in to replace human labor, the danger of which is worker resistance (Verhoef et al., 2021).

❖ **Customer Experience and Engagement Challenges**

One of the underlying goals of digital transformation is to optimize the experience and engagement of customers. Digital transformation enables banks to collect and process a considerable quantity of data, thus improving customer identification and profitability (Fan et al., 2024). However, customer resistance to change is present because some consumers are opposed to adopting digital banking solutions due to safety concerns or unfamiliarity with digital platforms (Razlan & Masrom, 2023). To prove this, banks must employ a multi-touchpoint strategy, ensure seamless customer interaction, and trust through communication and secure digital solutions (Magnus-Eweka, 2023).

2.4 EMPIRICAL REVIEW

2.4.1. Global Empirical Evidence

The majority of the literature agrees that personalization is one of the key benefits of Digital Transformation, with banks leveraging data analytics to offer customized financial products and services. Vyas et al.'s (2024) study recognizes that 53.3% of the customers perceive banking services to be highly personalized, demonstrating the impact of data-led personalization. Similarly, Lahiri (2023) highlights how digitalization enables banks to tailor products to customer needs through targeted marketing, real-time recommendations, and AI-powered interactions. Kothapalli (2022) also supports this by illustrating that AI, augmented reality (AR), and Omni channel integration deliver seamless, personalized experiences that maximize customer engagement and satisfaction.

Very much linked to personalization is the convenience of digital banking. Skubis and Akahome's (2022) study confirms that digital banking offers unprecedented accessibility, with customers being in a position to perform transactions anywhere and at any time. This is supported by Lahiri (2023), who points out that mobile banking applications and real-time payment processing reduce the need for physical branches, making banking more convenient. This is supported by Srivastava (2024), pointing out that AI-powered chatbots, online account management, and automated customer service interactions have enabled 24/7 banking access.

A study by Zungu et al. (2025) examined the role of AI-driven self-service platforms to enhance customer experience within the financial services sector. The study revealed the fact that the convenience and personalization dimensions, made possible through AI technologies, optimize customers' perceived experience as well as trust in the bank significantly. Additionally, the study

argues that when banks' personalization strategy drives significant positive attribution and reduces negative attribution, banks can build customers' commitment toward the brand.

Similarly, Garcia et al. (2025) conducted research on Omni channel integration and its effect on customer involvement and bank service satisfaction in five countries. Drawing on Self-Determination Theory, the authors demonstrated that integrated Omni channel banking, characterized by shared data access, consistent user interfaces, and uninterrupted cross-channel experiences, was closely connected with enhanced customer experience. In the meanwhile, Hamouda (2019) empirically confirmed that customer perceived value from omnichannel integration has a direct influence on customer satisfaction and loyalty, hence validating the hypothesis that quality of integration is crucial to guaranteeing long-lasting customer relationships in banks with digitally transformed environments.

Another key area in which Digital Transformation has promoted change is operational efficiency. Bhardwaj and Khan's (2024) research finds that Digital Transformation dramatically enhances bank operations through automation of processes and workflow efficiency. Similarly, Batchu (2024) highlights that investments block chain, data analytics and AI make banking processes easier, reduce manual errors, and enhance the quality of services. Razlan and Masrom (2023) also confirm this, showing that digital programs remove redundancy, increase competitiveness, and yield a more responsive bank system. Trivedi (2018) emphasizes the imperative of a seamless connection of front-office and back-office banking processes to achieve optimum efficiency and customer experience. However, the study warns that poor channel management can lead to waste, dissatisfaction, and additional customer effort in interacting with digital channels.

A study by Gavrilă et al. (2023) concludes that the use of technology in the purchasing process can lead to faster response times, shorter processing times and better self-service management, so that process automation can be considered strategic for the company. And also argue that managing the challenges that come with the implementation of these technologies and ensure that they are used to complement rather than replace human interaction.

The study by Agbanu et al. (2024) examined the effect of AI-driven personalization on consumer purchasing decisions and customer satisfaction in the fashion industry in Nigeria. The findings highlight the importance of adopting a comprehensive AI-driven personalization strategy that leverages the strengths of each component to maximize both consumer engagement and

satisfaction. In addition, Magnus-Eweka (2023) finds that in African markets, Digital Transformation is more essential for financial inclusion because digital banking expands the base of financial services to till now excluded populations.

A Study by Zaid & Patwayati. (2021) examine the reciprocal relationship that occurs between customer experience and customer engagement and its impact on building customer satisfaction and customer loyalty in e-retailing and the results found that customer experience and customer engagement have a positive and significant effect on customer satisfaction and customer loyalty.

2.4.2 In Ethiopia context

In Ethiopia banking sector, digital transformation has begun reshaping customer experience, and the challenges along with its opportunities moderate the impact of digital transformation. The study of Eshete Sisay (2021) depicts that digital banking has a positive and significant impact on customer experience. From the regression and correlation analysis, the study concludes that digitalization enhances customer satisfaction and loyalty with the qualification that banks must cooperate with customers in a manner that the benefits of digitalization are optimized. This conclusion aligns with Fekadu's (2023) study that maintains that the utilization of emerging technologies, particularly in e-payment and e-money, has a direct and positive influence on customer satisfaction. System availability and transaction control have become important determinants in giving a trouble-free digital banking experience, thereby increasing satisfaction in general.

Despite these positive short-term effects, the work of Hordofa (2024) offers a less optimistic perspective, observing that while digital finance in the short run enhances financial inclusion and efficiency, in the long run it has destabilizing effects. The study attributes this to regulatory loopholes, cybersecurity risks, and challenges related to data integration, which if not addressed as such, can overshadow the benefits. This is further explained by Geda in 2022, explaining the major structural and policy challenges confronting the evolution of digital banking in Ethiopia. The study concludes that the banking sector in Ethiopia lags behind other neighboring countries, particularly Kenya, where digital financial services are more established. Banks in Ethiopia focus on branch network growth and corporate clients rather than embracing digital banking as a game-changer business model. Accordingly, the study argues that banks have not yet recognized digital transformation as a strategic priority.

Additional research accentuates the role of digital banking in customer experience by service quality and convenience. Geressu's (2023) research reflects that the utilization of contemporary banking gadgets, visually appealing digital platforms, and simplicity of use are determinants of customer satisfaction. Fekadu (2023) also determines that the customers who make extensive use of mobile banking services are satisfied with the control and flexibility digital platforms provide. These findings are in line with Eshete Sisay (2021), which established that banks can ensure long-term customer loyalty by improving digital banking experiences.

2.4.3 Mediating Role of Customer Engagement

Customer engagement is the degree of bonding, interaction, and commitment between a customer and a firm (Lei, 2025). Digital transformation can enhance customer engagement by providing more opportunities for interaction, customization, and feedback. Social media, online communities, and loyalty programs can create stronger relationships with customers and increase loyalty (Felix et al., 2023). The study by Sahu (2018) puts forward that digital transformation improves customer engagement through personalized marketing, proactive contact, and omni-channel unification of online and offline touchpoints. Similarly, Srivastava (2024) suggests that AI-driven customer interactions through the medium of chatbots, mobile apps, and social media messaging have improved responsiveness and reachability. Kaur et al. (2021) agree, noting that banks must leverage digital marketing channels, such as SEO and social media, to facilitate customer communication and education.

Customer engagement is emotional, behavioral and cognitive, depicting the overall relationship of the customer with the institution (Teori, 2024). Customer engagement acts as a mediator by influencing the relationship between digital transformation initiatives and customer experience. Banks can achieve multiple layers of customer engagement, which enhances customer experience further, when they can execute digital tools and strategies well (Fida, 2023).

2.5 Summary and Research Gaps

The study highlights critical research gaps in digital transformation and its influence on customer experience in Ethiopia. While some past research shows a positive relationship between digital banking and customer satisfaction (Sisay, 2021; Fekadu, 2023; Geressu, 2023), there is not much in-depth research focusing on the broad and long-term influence of Digital transformation on customer experience among different customer groups and banking institutions. In Ethiopia

context there is Little work exists that focuses on the effect of customer experience and personalization, automation, self-service banking and omni channel integration. Academic work that examines how organizations could use customer data and customer opinion to develop more personalized digital services would improve customer experience across industries. These gaps highlight the need for further research to be explored in comprehending how each components of digital transformation can enhance customer experience in Ethiopia banking sector.

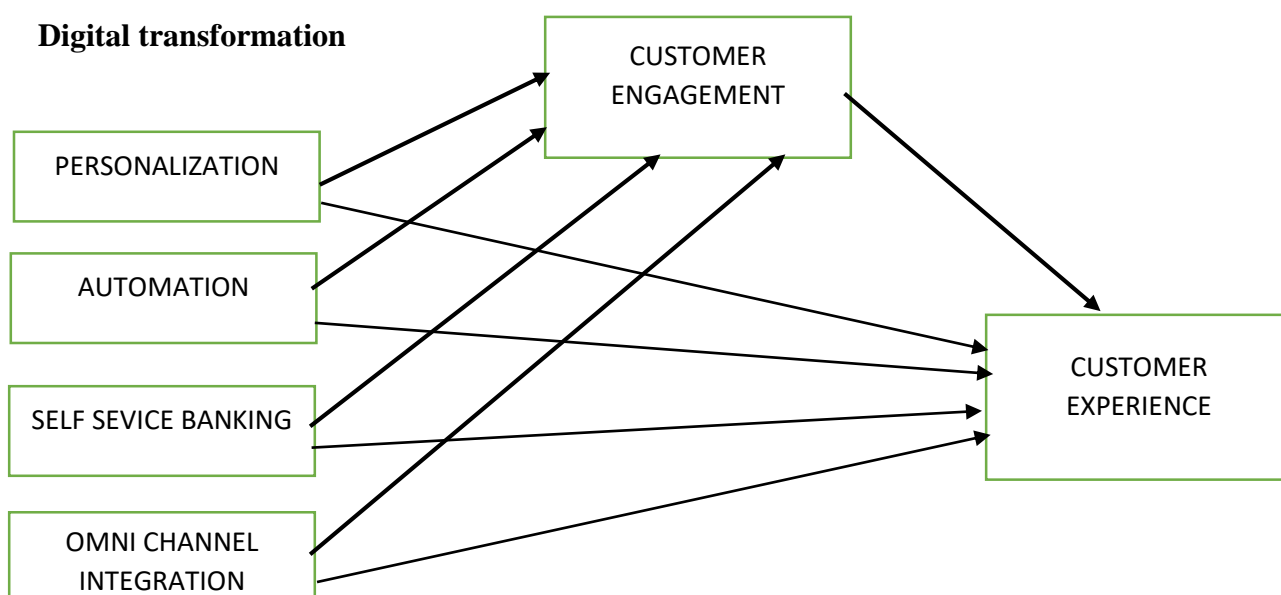
While there have been several earlier studies on the relationship between customer experience and digital transformation, these have approached it by analyzing singular effects of single factors such as personalization, automation, self-service, or Omni channel integration in isolation. Such strategies refuse a comprehensive understanding of how these factors interact with one another or collectively in terms of influencing customer experience. Moreover, customer engagement has rarely been employed as a mediator in studies, despite having grown to be recognized as a determiner of customer perceptions and behavior. The fact that most of previous literatures has not include mediation analysis on their study it is difficult to overlooks the indirect processes by which digital transformation could affect customer experience. This study intends to companion this by examining the aggregate effect of the core components of digital transformation and examining the mediating role of customer engagement.

2.6 Conceptual framework

The present study is based on a conceptual framework that integrates essential aspects of digital transformation i.e., automation, personalization, self-service banking, and Omni channel integration to examine their combined impact. Second, the model also incorporates customer engagement as a mediating variable between digital transformation and customer experience. The model use theories from current frameworks like the Technology Acceptance Model (TAM), Customer Experience (CX) Theory, Service-Dominant Logic (SDL), and Diffusion of Innovation (DOI) Theory. The combined theories provide a comprehensive explanation of technology adoption, value co-creation, innovation diffusion, and customer behavior in digital service situations.

TAM explains customers' assessment of the value and ease of use of digital banking services. This indicates if companies tailored personalized service and create a seamless integration of platforms, customers will be happy to adopt the technology based on what they get. Similarly, if the company offers automated and self-service banking option, they are likely accept technology since it gives them an easy way to access their financial needs. Based on diffusion of innovation theory, it suggests customers most likely adopt technology that have benefit, compablility and complexity. Service dominant theory also gives conceptual foundation about customer relation with the service provider, so this emphasized customer engagement is an essential part of digital transformation and customer experience. Imran et al (2023) indicate mobile banking and ATM positively affect customer behavior in line with interaction. Customer experience theory is important to develop digital transformation strategies that tailored to customer preference and tends to enhance their satisfaction and loyalty.

Grounded on a critical examination of literature and empirical research, this research synthesizes relevant theoretical contributions to formulate a conceptual framework tailored to the digital transformation environment. The framework is therefore an input of this research that offers context-specific methodology towards an understanding of the effects of customer experience mediated by customer engagement in digital transformation programs.



Source: Constructed by the researcher, based on a review of theoretical and empirical literature, 2024

Figure 2.1 Conceptual framework

2.7 Hypothesis of the study

Based on the insights, the study proposes the following hypotheses:

H1: Personalization positively influences customer experience

H2: Automation has a significant positive impact on customer experience in digital banking.

H3: Self-service banking has a significant positive impact on customer experience.

H4: Omni channel integration has a significant positive impact on customer experience

H5: customer engagement significantly mediates the relationship between personalization and customer experience.

H6: customer engagement significantly mediates the relationship between automation and customer experience.

H7: customer engagement significantly mediates the relationship between self-service banking and customer experience.

H8: customer engagement significantly mediates the relationship between Omni channel integration and customer experience.

CHAPTER THREE

RESEARCH METHODOLOGY

INTRODUCTION

In this Chapter, the main sections of a research which is the research design outlined, the research approach discussed, the sample size and determination, sampling technique, target population, scale of measurement, data analysis method, reliability and validity and finally the research ethics discussed.

3.1. Research design

According to Kothari (2004), the research design is the conceptual plan that organizes, measures and analyzes collected data. The research used an explanatory design and descriptive design to examine how digital transformation, customer engagement and customer experience are linked. The design works because it allows the researcher to analyze how digital transformation elements like automation, personalization, self-service and Omni channel integration affect customer experience. Descriptive analysis was carried out, focusing on the dimensions of digital transformation and explaining the customer experience factors at Bank of Abyssinia. This part helped the researcher inspect and understand the relationship between customer engagement, digital transformation and customer experience. The main goal was to explore the ways digital transformation affects customer engagement and what effects that has on customer experience.

3.2. Research Approach

In this study a quantitative approach was applied to understand how digital transformation associate with customer experience at the Bank of Abyssinia. It requires gathering and studying numbers from surveys distributed to the bank's customers. A quantitative approach was used so that findings could be objective and applied to various groups. This means data is collected in numbers and may be analyzed in strict, numerical ways using rigorous models (Kothari, 2004). With this approach, relationships can be studied statistically between digital transformation, customer experience and customer engagement.

3.3. Sampling Design

3.3.1. Target population

Customers who face direct impacts of technology changes in banking were considered in the target population. Meanwhile, the customers are users of Bank of Abyssinia's online and mobile banking services. The research participants differed in age, gender, job, skill level and digital knowledge, making the results more universal.

3.3.2. Sample size determination

Cochran's formula was used to find the sample size.

- $Z = 1.96$ (95% confidence level)
- $p = 0.5$ (estimated proportion of customers)
- $e = 0.05$ (margin of error)

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

$$n = \frac{(1.96)^2 * 0.5(1-0.5)}{(0.05)^2} = 384$$

- Approximate Sample Size: ~384 respondents.

3.3.3. Sampling technique

Convenience sampling, a type of non-probability sampling technique, was chosen to select participants for this research. Using this method allows researchers to easily access volunteers from the central Addis area who are ready and willing to be the part of the study. Besides, this method fastens data collection by reaching experience-rich digital customers of Abyssinia Bank, giving useful results related to digital transformation.

3.4. Source and method of data collection

The data for the study was collected by distributing a structured questionnaire to customers in various branches located in central Addis district. Validated measurement scales from prior studies was included in the questionnaire to help guarantee consistent results with similar studies. Items in the questionnaire focused on measuring important aspects like digital transformation (automation, personalization, self-service and Omni channel integration), customer engagement and customer experience.

Participants completed the survey using a 5-point scale running from “strongly disagree” to “strongly agree.” By using a Likert scale, a respondent is required to state their agreement or disagreement with the statements using five or other commonly used points of scale (Kothari,2004).

3.5. Measurement of scale

The main factor being studied is digital transformation which is broken into four dimensions: personalization, automation, self-service banking and Omni channel integration. This measurement for personalization is taken from the study by Rahman et al (2025), Tyrväinen et al. for 2020 and Balli for 2024. Another aspect, automation, is drawn from (Purity, 2018). Items for self-service banking are adapted from published work by Rahman et al. (2025), Sindwani and Goel (2015), as well as Zahari et al. (2023). Finally, the items under Omni channel integration are taken from (Rahman et al., 2025; Butkouskaya et al., 2023). The mediating variable chosen for this study is customer engagement, and the items come from studies by Agyei et al. (2020), Monferrer et al. (2019) and Williams & Mackay (2020). The dependent variable, which is customer experience considered, as emphasized by Klaus and Maklan in (2013), Chahal and Dutta (2015) and Masoud and Basahel in (2023).

3.6. Method of Data Analysis

In this study, all data was reviewed to check for accuracy, then entered correctly into the Statistical Package for Social Science (SPSS version 30). All data were analyzed by using inferential and descriptive statistical methods. Mean and standard deviation were used for key points in respondent’s quantitative information and correlation analysis and multiple regression analysis were applied to analyze the correlation between digital transformation components (independent

variables) and customer experience (dependent variable). The mediation effects of customer engagement were analyzed using macro process version 4.

3.7. Reliability and Validity

3.7.1. Reliability test

This study depends on checking the accuracy and consistency of its results. Reliability measures how well a measurement is performed with accuracy and precision (Kothari,2004). In order to check reliability of the data SPSS version 30 were used. One of the methods used to assess reliability was Cronbach’s alpha. All the items were found to be highly reliable, with Cronbach’s alpha clearly over 0.7 for all. The reliability and consistency within the items are supported by values above the generally recognized 0.70 threshold. Using 75 responses, the measurements could be considered reliable.

Table 3. 1 Reliability test result (Cronbach’s Alpha)

Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Personalization	0.776	0.777	7
Automation	0.794	0.795	6
Self-service banking	0.831	0.838	7
Omni channel integration	0.830	0.831	5
Customer Engagement	0.841	0.845	7
Customer Experience	0.849	0.852	8

Source: own survey, 2025

3.7.2. Validity test

The validity of an instrument is determined by how well it measures the things it is intended to measure (Kothari, 2004). Preserving content validity involved designing the questionnaire in accordance with key theories. The researcher constructed the instrument for this study by examining previous research, relevant literature, and common questions in this field.

3.8. Ethical considerations

The respondents in the research were aware of the study's risk, purpose and what it might offer, only after which they agreed to be involved. All the information collected in the study was confidential and anonymous to maintain privacy. All the data collected was safely stored and kept protected against people who should not access it. As well as, the research was done honestly, with integrity and in a transparent way. All findings were provided objectively and every possible conflict of interest, source of funding or potential bias was reported. Stakeholders, including customers, were treated with dignity, respect for their rights and honored with privacy during the process. At the conclusion, the study design was submitted to the appropriate review board for review and approval. Applying these techniques, the research gained useful information about the influence of digital transformation on customer experience with the mediating role of customer engagement.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents a detailed discussion of data collected for the research and examines the findings against the research aims and hypotheses. The overall purpose of the analysis is to examine the influence of digital transformation in terms of four underlying dimensions: personalization, automation, self-service, and Omni channel integration on customer experience with customer engagement as a mediating variable.

384 questionnaires were distributed among the target population. 372 valid replies were obtained, and 12 questionnaires were not returned or made useless due to inadequate information or non-contact with the participants. Response rate that is as high as 96.88% is acceptable in quantitative studies and enables a reliable dataset to be used during analysis. The chapter comprises descriptive analysis and inferential analysis via mediation and other statistical tests conducted in study.

4.1. Respondents Demographic Information

The demographic information of the respondents who took part in the study is presented here. It is essential to know the demographic profile of the customers since it helps understand their perception and behavior towards customer experience and digital transformation. The gender of the respondents, age, level of education, and the duration of customer relationship with the bank are presented in the study.

4.1.1. Distribution of Respondents by Gender

Table 4.1 Gender of Respondents

Gender		Frequency	Percent
Valid	Male	161	43.3
	Female	211	56.7
	Total	372	100.0

Source: own survey,2025

The gender distribution of the respondents was such that among 372 participants, 161 (43.3%) were men, and 211 (56.7%) were women. This suggests a preponderance of female customers in

the sample, which may represent the demographic composition of customers of the bank in the research area or higher interaction of female customers with the services provided by the bank. This gender division provides a broad perspective about customer experience and how it is influenced by digital transformation across different gender segments.

4.1.2 Distribution of Respondents by Age

Table 4.2 Age of Respondents

Age		Frequency	Percent
Valid	below 25	97	26.1
	25-35	207	55.6
	36-50	59	15.9
	Above50	9	2.4
	Total	372	100.0

Source: own survey,2025

The majority of the respondents were aged between 25 to 35 years, constituting 207 individuals (55.6%). This was followed by respondents below 25 years, with a total of 97 individuals (26.1%). Only 59 (15.9%) of them were between 36 and 50 years, and only 9 respondents (2.4%) were over 50 years old. The data show that Bank of Abyssinia's client base is largely a youth and economically active population, particularly between the ages of 25 and 35. This group is more commonly aware of and open to digital services, a factor worth considering when assessing digital transformation strategies.

4.1.3. Distribution of respondents by Educational Background

Table 4.3 Educational background of respondents

Educational background		Frequency	Percent
Valid	High school and below	14	3.8
	Diploma	48	12.9
	Degree	201	54.0
	Master's degree	104	28.0
	PhD and above	5	1.3
	Total	372	100.0

Source: own survey,2025

In terms of educational attainment, the lion's share of the respondents held a bachelor's degree, with 201 (54.0%) of the total. This was followed by 104 respondents (28.0%) who held a master's degree. 48 respondents (12.9%) held a diploma, with 14 respondents (3.8%) holding a high school certificate or below. 5 respondents (1.3%) had reached the level of having a PhD or above. The numbers show that the majority of the bank's customers are well-educated, and that could translate to higher levels of digital literacy and readiness to accept digital banking solutions. The demographic factor is critical in assessing the customers' engagement with new digital platforms offered by the bank.

4.1.4 Distribution of respondent's duration as a Customer of Bank of Abyssinia

Table 4.4 Duration of respondents as a customer of Abyssinia bank

Items		Frequency	Percent
Valid	Less than 1 year	38	10.2
	1-3 year	181	48.7
	3-5 year	80	21.5
	More than 5 years	73	19.6
	Total	372	100.0

Source: own survey,2025

Within customer loyalty and satisfaction, 181 respondents (48.7%) indicated they were customers of Bank of Abyssinia between one and three years. A further 80 (21.5%) had been customers between three and five years, and 73 (19.6%) respondents were customer of bank of Abyssinia for more than five years. Just 38 (10.2%) had only been a customer of the bank for one year or less. This spread shows that a significant portion of the respondents have been customer of Abyssinia for 1-3 year.

4.2. Descriptive Statistics Analysis

This section documents the descriptive statistics analysis that was performed for the purpose of describing and summarizing basic characteristics of data collected for the study. Descriptive statistics offer a first insight into the characteristics of the sample and the distribution of primary variables. The participants were asked to put their level of agreement or otherwise with regard to

statements about the variables on a five-point Likert scale where 5 represented "strongly agree", 4 represented "agree", 3 represented "Neither agree nor disagree", 2 represented "disagree" and 1 represented "strongly disagree."

4.2.1. Personalization

Table 4.5 Respondents opinion on personalization

Items	N	SA	A	N	A	SD	Mean	Std. Deviation
The banks personalization tools are user friendly	372	84 22.6 %	1213 2.5%	107 28.8 %	40 10.8 %	20 5.4	3.56	1.113
The bank can provide me with personalize services/offers that are tailored to my banking activity context	372	64 17.2 %	127 34.1 %	122 32.8 %	39 10.5 %	20 5.4%	3.47	1.062
The bank can provide me with more relevant promotional information that is tailored to my preferences/ personal financial interest	372	55 14.8 %	121 32.5 %	100 26.9 %	53 14.2 %	43 11.6 %	3.25	1.210
The bank can provide me with the kind of services/offers that I might like	372	106 28.5 %	154 41.4 %	69 18.5 %	38 10.2 %	5 1.3%	3.85	.991
I value banking services that are based on my user experience	372	127 34.1 %	154 41.4 %	53 14.2 %	15 4%	23 6.2%	3.93	1.096
I value banks that keep my personal preferences and personalize services according to these preferences	372	161 43.3 %	95 25.5 %	70 18.8 %	37 9.9%	9 2.4%	3.97	1.113

I value banking services that are personalized according to the device I use (phone, computer, internet and operating system)	372	143 38.4 %	133 35.8 %	54 14.5 %	32 8.6%	10 2.7%	3.99	1.058
Valid N (listwise)	372							

Source: own survey, 2025

Based on table 4.5, the statement that talks about customer value banking products and services designed based on their smartphone or computer have a mean value of 3.99 and SD of 1.058. It is the highest mean comparing to the other items, this indicates customers have a positive attitude about tailored service especially when it designed based on the device they use.

This is followed closely by a preference for banks that are respectful of individual preferences and customize services accordingly based on the same ($M = 3.97$, $SD = 1.113$), and valuing services based on user experience ($M = 3.93$, $SD = 1.096$). All these point towards very high customer need for contextual and device-specific personalization. According to the findings, it is essential to personalize services in order to meet customer's expectation and to maximize customer experience. On the other hand, the lowest mean score ($M = 3.25$, $SD = 1.210$) was found for accessing relevant promotional information tailored to specific financial interests of customers, indicating that banks have to focus on providing a well-integrated promotional information to customers. Overall, the findings emphasize the necessity of design for personalization features, specifically user experience design and preference-based delivery of services, in trying to meet customer expectations in digital banking. According to Sookhdeo. (2024), Organizations need to understand the personalization applications of the technology, to realize competitiveness through tailoring experience for Ecommerce customers. The study by (Cate, 2025) also argues that AI-driven personalization and automation enhance customer engagement by delivering tailored experiences, reducing wait times, and providing instant support.

4.2.2 Automation

Table 4.6 Respondents opinion on Automation

Items	N	SA	A	N	D	SD	Mean	Std. Deviation
The bank continuously automate its systems as a new technologies emerge	372	145 39.0 %	116 31.2 %	64 17 .2 %	37 9.9 %	10 2.7 %	3.94	1.096
The bank utilize ATM technology to serve its customers	372	249 66.9 %	65 17.5 %	33 8.9 %	20 5.4 %	5 1.3 %	4.43	.954
The bank has an automated internet banking accessible to me	372	133 35.8 %	138 37.1 %	64 17 .2 %	15 4%	22 5.9 %	3.93	1.105
The bank has an automated mobile banking platform accessible to me	372	149 40.1 %	116 31.2 %	69 18 .5 %	10 2.7 %	28 7.5 %	3.94	1.171
The bank has automated most utility bill payments	372	79 21.2 %	90 24.2 %	14 4 38 .7 %	44 11.8%	15 4%	3.47	1.075
I prefer using bank's automated system rather than manual process	372	187 50.3 %	117 31.5 %	29 7.8 %	30 8.1 %	9 2.4 %	4.19	1.043
Valid N (listwise)	372							

Source: own survey,2025

The tables present descriptive statistics related to customer attitudes toward automation. Within the dimension Automation, the highest mean score ($M = 4.43$, $SD = 0.954$) was for the item banks utilize ATM technology to deliver customer service, this result indicates customers of the bank have a higher satisfaction on ATM service. This is followed by customer preference using automated system rather than manual process ($M=4.19$, $SD =1.043$), this implies automation of banking service is positively influenced customer experience. Followed by customer`s positive attitudes towards the growing automation of bank systems with new emerging technologies ($M =$

3.94, SD = 1.096), and convenience of mobile banking services (M = 3.94, SD = 1,171). A comparatively lower mean score (M = 3.93, SD = 1.105), the accessibility of automated internet banking offered by the bank, and (M = 3.47, SD = 1.075) was, however, observed for the automation of utility bill payment, suggesting this area may need further development. Over all, The result supported by (Gavrila et al., 2023), who claims that the automation of business processes can have a significant impact on consumer satisfaction.

4.2.3. Self-service banking

Table 4.7 Respondents opinion on self-service banking

Items	N	SA	A	N	D	SD	Mean	Std. Deviation
I can complete tasks using the bank self-service cannels easily	372	104 28%	160 43 %	75 20. 2%	23 6.2 %	10 2.7%	3.87	.978
Self-service banking services are available 24*7(7 days, 24 hours)	372	164 44.1 %	107 28. 8%	68 18. 3%	15 4%	18 4.8%	4.03	1.106
The self-service channels system is user friendly	372	144 38.7 %	145 39 %	45 12. 1%	28 7.5 %	10 2.7%	4.03	1.026
Self-service channels enable error-free transaction	372	69 18.5 %	107 28. 8%	13 4 36 %	48 12. 9%	14 3.8%	3.45	1.052
The self-service banking is enjoyable to use	372	69 18.5 %	107 28. 8%	13 4 36 %	48 12. 9%	14 3.8%	3.83	1.028
The self-service banking channels are accessible in convenient locations	372	106 28.5 %	133 35. 8%	64 17. 2%	60 16. 1%	9 2.4%	3.72	1.115
The self-service banking appears to use up-to-date technologies	372	118 31.7 %	165 44. 4%	69 18. 5%	20 5.4 %		4.02	.848

Valid N (listwise)	372							
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Source: own survey, 2025

Under the Self-Service banking category, customers most strongly agreed that self-service banking can be accessed 24/7 with a mean of $M = 4.03$, and SD of 1.106 this result considers as satisfactory comparing the average mean of 3 and that the self-service channels system is user friendly ($M = 4.03$, $SD = 1.026$). This is followed by the platforms utilize current or up-to-date technologies ($M = 4.02$, $SD = 0.848$). Participants also found the self-service banking is easy to accomplish things with ($M = 3.87$, $SD = 0.978$). Lower ratings, however, were observed on perceptions of the convenience of locations where self-service channels are available ($M = 3.72$, $SD = 1.115$) and error-free nature of transactions ($M = 3.45$, $SD = 1.052$), revealing the bank must relocate the areas which self-service channels available to more convenience location. However, self-service banking channels accessibility has SD of 1.115 which is a highest among the others. This value indicates there is a consistent response among respondents. Overall, the results show that there is a positive relation between customer attitude to technological integration in banking, particularly where it leads to convenience, accessibility, and operational efficiency. A study by (Praisegod et al., 2025) also confirm that banks can gain customers' trust and promote brand love through AI-based self-service technologies extends knowledge in customer relationships.

4.2.4. Omni channel integration

Table 4.8 Respondents opinion on Omni channel integration

Items	N	SA	A	N	D	SD	Mean	Std. Deviation

My experience with the bank is consistent across platforms	372	83 22.3 %	138 37. 1%	111 29.8 %	30 8.1%	10 2.7 %	3.68	.994
The bank provides consistent and integrated information about its products across platforms (branch, mobile, App, website and call centers)	372	96 25.8 %	155 41. 7%	69 18.5 %	42 11.3 %	10 2.7%	3.77	1.042
When the bank launches a new product/ service the information is made available simultaneously across both online and offline channels	372	85 22.8 %	155 41. 7%	69 18.5 %	53 14.2 %	10 2.7%	3.68	1.061
The bank has programs/ platforms in place to easily handle my inquiries/ complaints across different service channels	372	79 21.2 %	128 34. 4%	117 31.5 %	43 11.6 %	5 1.3%	3.63	.987
I can access and manage my banking services across multiple platforms	372	107 28.8 %	143 38. 4%	87 23.4 %	30 8.1%	5 1.3%	3.85	.972
Valid N (listwise)	372							

Source: own survey,2025

The result on table 4.8 emphasize there are still opportunities to improve consistency of services across channels. From the given items customer feel they can manage and access their banking service across channels with the mean of 3.85 and SD of 0.972, since the SD is lower number it implies that the respondents were consistent. It also indicates that the customers prefer to find the services highly integrated. Product information consistency across channels (M = 3.77, SD = 1.042), simultaneous publication of service information online and offline (M = 3.68, SD = 1.061) and overall consistency of user experience which score (M = 3.68, SD = 0.994) reflect moderate satisfaction. The lowest score (M= 3.63) is on bank`s capacity to have platforms in place to easily

handle customer’s complaints across different service channels, this implies the need of further improvement on platforms that easily handle complaint of customers. Standard deviations, near 1.0 overall, indicate a moderate level of agreement between respondents, suggesting varying experiences with the integration efforts.

4.2.5. Customer Engagement

Table 4.9 Respondents opinion on Customer Engagement

Items	N	SA	A	N	D	SD	Mean	Std. Deviation
I feel very active in relation to using the bank services	372	117 31.5 %	175 47 %	70 18.8 %	5 1.3 %	5 1.3 %	4.06	.822
I feel valued in my interaction with the bank	372	144 38.7 %	120 32. 3%	68 18.3 %	35 9.4 %	5 1.3 %	3.98	1.034
I consider that people In my bank are concerned about me as a customer	372	128 34.4 %	142 38. 2%	63 16.9 %	34 9.1 %	5 1.3 %	3.95	1.000
I feel emotional link with the bank	372	79 21.2 %	70 18. 8%	111 29.8 %	69 18.5 %	43 11. 6%	3.20	1.285
I feel as though I have a personal relationship with the bank	372	99 26.6 %	70 18. 8%	121 32.5 %	35 9.4 %	47 12. 6%	3.37	1.310
I frequently make use of my Banks’s product/service	372	94 25.3 %	133 35. 8%	91 24.5 %	49 13.2 %	5 1.3 %	3.70	1.030
I am completely involved when interacting with the bank	372	54 14.5 %	177 47. 6%	69 18.5 %	53 14.2 %	19 5.1 %	3.52	1.065
Valid N (listwise)	372							

Source: own survey,2025

The customer engagement findings suggest that the customers are likely to feel active and valued in their interactions with the bank. The highest average mean (4.06) and SD (0.822) is for feeling active to use bank services, followed closely by feeling valued (M = 3.98, 1.034) and believing the bank cares about them (M = 3.95, SD = 1). This result indicates customers mostly have a good feeling about the bank when they get personalized and quality service from the employees. However, emotional and personal connection like feeling an emotional connection (M= 3.20, SD = 1.285) and a personal relationship (M= 3.37, SD = 1.310) have a lower mean and SD value indicating a gap in deeper relational engagement and high in variability of respondent's opinion. In other word moderate variability which is a sign of inconsistency experience among the customers. The relatively high mean scores for frequent use and involvement of products/services (M = 3.70, SD = 1.030) and (M = 3.52, SD = 1.065) consecutively, suggest that even if the emotional and personal relation are weak, there is a present of practical engagement.

4.2.6 Customer Experience

Table 4.10 Respondents opinion on customer Experience

Items	N	SA	A	N	D	SD	Mean	Std. Deviation
I feel satisfied with the overall digital banking experience	372	80 21.5 %	137 36. 8%	107 28.8 %	38 10.2 %	10 2.7%	3.64	1.014
The bank gives me what I need swiftly	372	70 18.8 %	180 48. 4%	64 17.2 %	53 14.2 %	5 1.3%	3.69	.979
The whole process with the bank was easy	372	98 26.3 %	162 43. 5%	72 19.4 %	40 10.8 %		3.85	.932
The bank meets my specific banking needs	372	121 32.5 %	138 37. 1%	70 18.8 %	33 8.9%	10 2.7%	3.88	1.048
The bank provides error free services	372	53 14.2 %	112 30. 1%	80 21.5 %	80 21.5 %	47 12.6%	3.12	1.258

Digital customer communication is personalized to individual user status at the bank	372	70 18.8 %	137 36. 8%	106 28.5 %	49 13.2 %	10 2.7%	3.56	1.025
Customer interaction occurs via both the traditional and digital channels of the bank	372	80 21.5 %	180 48. 4%	58 15.6 %	44 11.8 %	10 2.7%	3.74	1.011
Customers' needs and wants are included when designing a new service at the bank	372	94 25.3 %	155 41. 7%	84 22.6 %	29 7.8%	10 2.7%	3.79	.995
Valid N (listwise)	372							

Source: own survey,2025

Based on the results presented in table 4.10 customers have a positive experience with the bank. Most of the customers agree on the bank meets their specific banking need with the mean value of 3.88. they also have a positive opinion about the easiness of the bank services with the mean value of 3.85. This supported by TAM theory which emphasizes when customer get the technology easy to use they will have adopted it.

In addition, the overall satisfaction of digital banking experience score (Mean = 3.64) and customers' perception that customers are considered when new services are designed (Mean = 3.79) reveal that customers agree on the bank include their need and wants before designing a new service so this enhance their emotional experience. These results are consistent with Customer Experience Theory, the theory that addresses cognitive, affective, and behavioral responses obtained by interaction with a service organization (Lemon & Verhoef, 2016). Relatively high mean on more than one measure suggest customers are, overall, satisfied with their interactions, though some variation is suggested by the fact that the standard deviations range around 1.0. This heterogeneity may reflect weak match in the provision of services.

The lowest mean score was recorded for the item "the bank provides error-free service" (Mean = 3.12), reflecting serious concerns about the reliability and consistency of online transactions. This

is a significant issue since defective services undermine the trust and satisfaction of customers, decrease the perceived usefulness in TAM and weakening the relative advantage in DOI theory. Rogers (2003) argues that innovations such as electronic banking will only be accepted widely if they are reliable, compatible with the needs of users, and have visible beneficial outcomes. Also, results for interaction via traditional and digital channels (Mean = 3.74) and digitalized customized communication (Mean = 3.56) follow the assumptions of Service-Dominant Logic (SDL). SDL emphasizes co-production of value as interactive, personal, and relationship-like service experiences (Vargo & Lusch, 2004). The finding that customers acknowledge communication personalization and interaction through traditional as well as emerging channels signals progress toward a more customer-centric model. However, the low scores hint at further effort in optimizing personalization and service consistency.

Table 4.11 Respondents opinion on digital transformation, customer engagement and customer experience

Descriptive Statistics			
	N	Mean	Std. Deviation
PERS	372	26.0296	5.06153
AUTO	372	23.8925	4.57277
SELF	372	26.9677	5.13001
OMNI	372	18.6048	3.91999
CUS_ENG	372	25.7823	5.50994
CUS_EXP	372	29.2769	5.82135
Valid N (listwise)	372		

Source: own survey, 2025

Above provided table enlightens attitudes toward dimensions of digital transformation and their impact on customer experience and engagement. Out of four key digital transformation variables, self-service banking (SELF) possessed the highest mean value (M = 26.97, SD = 5.13) indicating customers have positive attitude towards and utilize extensively the self-service facilities of banks. In alignment with the TAM, perceived ease of use is contended to significantly influence users

'adoption of technology. Customer dependence on branch visitation is reduced through self-service tools, hence contributing to perceived usefulness of digital banking. Personalization (PERS) was immediately followed with an average of ($M = 26.0296$, $SD = 5.06$) representing the awareness and appreciation of customers for personalized services to a great extent. This is customer value for tailored experience that meet individual needs in accordance with SDL, which place emphasis on personalized, co-created value as the central factor of service provision (Vargo and Lusch, 2008). Automation (AUTO) recorded a lower average ($M = 23.89$, $SD = 4.57$), showing moderate sentiments towards the use of automated processes in banking services. In regard with DOI theory, automation needs to have more relative advantage and compatibility to enable higher adoption and trust. Interestingly, omnichannel integration (OMNI) had the lowest mean ($M = 18.60$, $SD = 3.91$), suggesting possible gaps or challenges in providing an end-to-end integrated and seamless bank experience across various channels. In TAM and DOI, inconsistent experiences reduce perceived ease of use and disrupt broader adoption of digital channels.

Among the outcome variables, Customer engagement (CUS_ENG) had a mean of ($M = 25.78$, $SD = 5.50$), reflecting a relatively strong involvement with digital banking services. For Customer Experience Theory, engaged customers will be more bias towards acceptable experiences, leading to higher loyalty and advocacy.

Customer experience (CUS_EXP) recorded the highest mean across all ($M = 29.27$, $SD = 5.82$), which suggests that, irrespective of some issues in Omni channel integration, customers are more likely to indicate a good and satisfactory experience with their digital banking processes. The relatively low standard deviations across all variables show consistency in response, which enhances the evidence of validity of the data. Overall, the findings point towards strengths in self-service and customer experience, as well as suggesting omnichannel integration as a focus area for improvement when considering digital transformation in banking.

4.3. Inferential Analysis

4.3.1. Correlational results

Pearson's Product, Moment Correlation Coefficient was applied in the study. Based on these statistics, inferences are drawn from the sample data and rational informed decisions are made

about the research questions. The below Pearson's Product Moment Correlation Coefficient was used to verify the correlation between the dependent, mediator, and independent variables.

Table 4.12 Correlational among the study variables

	1	2	3	4	5	6
Personalization	1					
Automation	.700**	1				
Self-service banking	.603**	.764**	1			
Omni channel integration	.651**	.515**	.649**	1		
Customer Engagement	.606**	.525**	.725**	.737**	1	
Customer Experience	.703**	.551**	.679**	.741**	.701**	1
**. Correlation is significant at the 0.01 level (2-tailed).						

Sources: Own SPSS regression Result, (2025)

The result of the Pearson correlation analysis, as shown in Table 4.12, shows there are strong positive correlations among all the study variables. Personalization was found to have statistically significant relations with automation ($r = .70, p < .01$), self-service banking ($r = .603, p < .01$), Omni channel integration ($r = .651, p < .01$), customer engagement ($r = .606, p < .01$), and customer experience ($r = .703, p < .01$). All these results establish that more personalization in digital banking services is always accompanied by improved technological and experiential factors. The result supported by Tyrvaïnen et al. (2020) that argue personalization is a key driver for improving customer experience. Likewise, automation was positively correlated with self-service banking (r

= .764, $p < .01$) and moderately correlated with customer experience ($r = .551$, $p < .01$), indicating automation can make transactions more convenient and efficient and hence also enhance user experience. Omnichannel integration was also significantly related to self-service banking ($r = .649$, $p < .01$), customer engagement ($r = .737$, $p < .01$), and customer experience ($r = .741$, $p < .01$), and this indicates a significant role it has to play in enabling frictionless service across channels. All digital transformation drivers are significantly associated with customer engagement, which strongly and positively correlates with customer experience. This supports the mediating role of engagement, theorized by Brodie et al. (2011), who emphasized that customer engagement leads to customers creating good experiences, enhance loyalty and satisfaction, emotional bonding and commitment.

Most importantly, customer experience was highly associated with all other determinants, including personalization, automation, self-service banking, omnichannel integration, and customer engagement, with different coefficients of .515 to .764, all at the 0.01 level of statistical significance. In Pearson correlation, the value of $r = 0.09 - 0.19$ indicate there is no correlation or a very weak relation between variables, $r = 0.20 - 0.39$ indicate weak relation, $r = 0.40 - 0.59$ implies moderate relation, $r = 0.60 - 0.79$ a strong relation and $r = 0.80 - 1.00$ means there is A very strong relationship between variables. Such findings substantiate the conceptual framework of the research with a focus on the association between digital transformation aspects and their combined effect on customer engagement and experience.

4.3.2. Assumption test

In statistical analysis assumption testing is a first step. The test includes normality, linearity, homoscedasticity, Multicollinearity and autocorrelation (Durbin-Watson statistic). In order to avoid the invalid regression output, the diagnosis of the assumptions must have held. Because missing of any of the above mentioned assumption could yield invalid regression output.

I. Normality test

Multiple regression requires independent variables to be normally distributed population. That is, errors must be normally distributed and that a plot of residual values will closely resemble a normal curve (Keith, 2006). For this study histogram of the standardized residuals was utilized to test for normality of data.

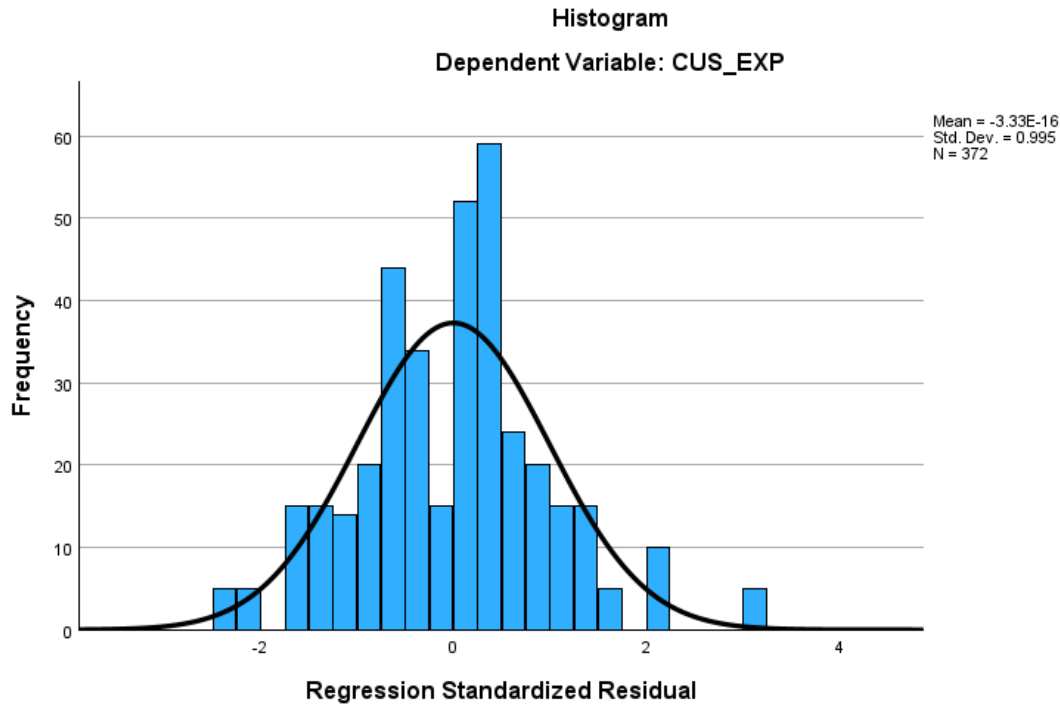


Figure 4.1 Normality Histogram

The above histogram displays the result of a normality test of the regression standardized residuals of the dependent variable CUS_EXP. The distribution of the residuals is almost bell-shaped and lies very near the superimposed normal curve, and hence the normality assumption seems to be quite met.

II. Linearity

Linearity is the state in which there is a linear relationship between the independent variables and the dependent variable. Testing the assumption is significant as violation may lead to the biasing of estimates, reduced statistical power, and erroneous inferences. This analysis aimed to determine linearity between the independent variables which is personalization, automation, self-service banking and omnichannel integration and the dependent variable customer experience.

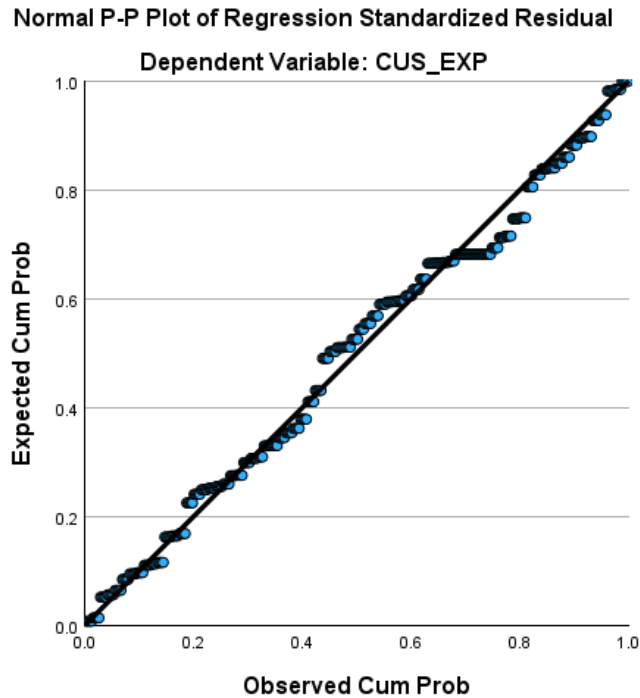


Figure 4.2 Test of Linearity.

In the graph above, the dependent variable is CUS_EXP. Most points on the graph remain near the diagonal line, and this suggests that the residuals are approximately normally distributed. It follows that the four independent variables and the customer experience (DV) have a linear relationship.

III. Homoscedasticity

Homoscedasticity assumption refers to the equal variation of error across all the levels of the independent variables (Osborne & Waters, 2003). Satisfying this assumption is crucial for it to ensure that the regression model yields unbiased, efficient, and consistent estimates.

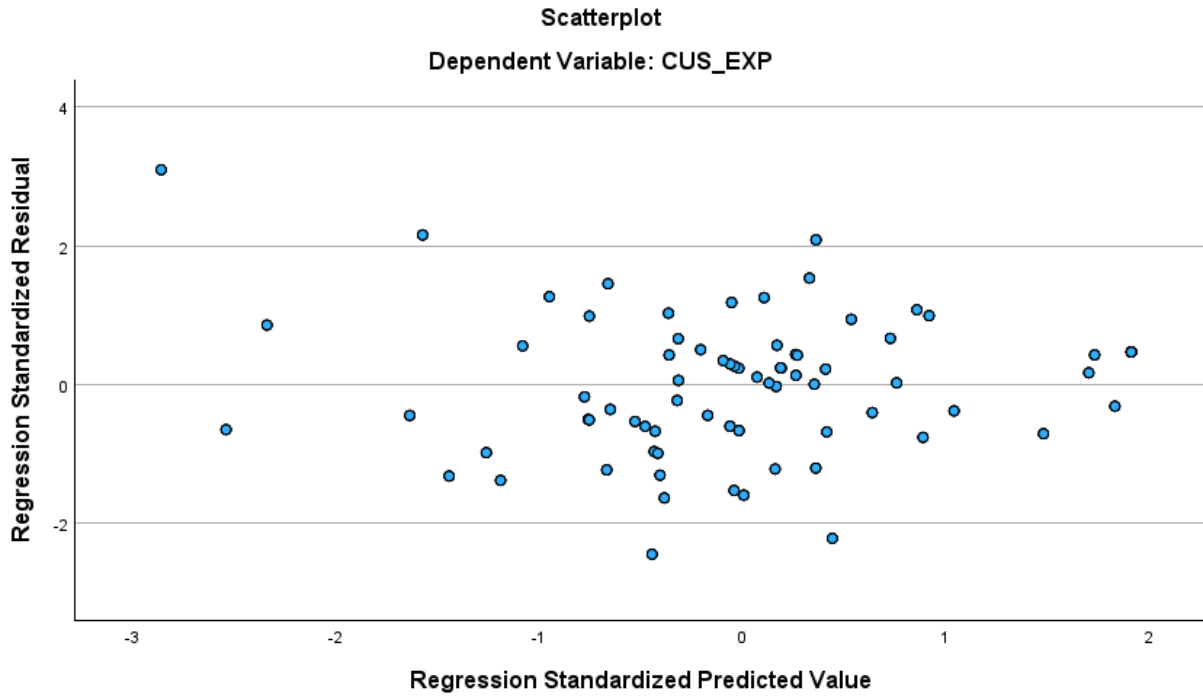


Figure 4.3 Scatterplot of standardized residuals

The scatterplot above illustrates the test for homoscedasticity of the regression model with CUS_EXP as the dependent variable. The plot shows the regression standardized residuals plotted against the standardized predicted values. Graphically, the residuals appear to be randomly scattered around the horizontal axis (zero line), without any suggestion of structure. This random scatter points towards the homoscedasticity requirement equal variance of residuals at all levels of the predicted values being reasonably satisfied. The dependent variable (CUS_EXP) has the same variance for all the values of independent variables namely personalization, automation, self-service banking and omnichannel integration.

IV. Multicollinearity Test

Table 4.13 Multicollinearity test result

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		

	PERS	.393	2.547
	AUTO	.313	3.192
	SELF	.324	3.085
	OMNI	.454	2.203
a. Dependent Variable: CUS_EXP			

Sources: Own SPSS regression Result, (2025)

Multicollinarity occurs when two and more independent variables are highly correlated each other. Multicollinearity is the event of great inter-correlations among the factors in a multiple regression model (Shrestha, 2020). According to table 4. 13, collinearity statistics have no evidence of multicollinearity issues as all Variance Inflation Factor (VIF) are far below the critical value of 10 (2.203 to 3.192) and tolerance values are all above 0.30. The value of VIF is $1 < VIF < 5$; it specifies that the variables are moderately correlated to each other (Shrestha, 2020). These findings confirm that each variable contributes unique explanations to customer experience without distortion from high predictor correlations.

V. Autocorrelation Test (Durbin-Watson)

Autocorrelation assumption assumes that there is no correlation among the errors, or that the correlation between the same variable at two consecutive time points. In this study Durbin–Watson is used to determine if independence or correlation assumption in residuals can be tested or not. This measure ranges from 0 to 4.

Table 4.14 Durbin Watson statistics

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin - Watson
1	.820 ^a	.673	.670		3.34630	1.981
a. Predictors: (Constant), OMNI, AUTO, PERS, SELF						
b. Dependent Variable: CUS_EXP						

Sources: Own SPSS regression Result, (2025)

As indicated in table 4.14 the result of Durbin-Watson test, which gauges the presence of autocorrelation of the residuals of regression model. In Durbin- Watson statics value of 2.0 indicates there is zero autocorrelation. values above 2 is negative autocorrelation and below 2 is positive autocorrelation. The test statistic value for this study equals 1.981, which is nearly the ideal value of 2.0. This points to the fact that there is not much autocorrelation of errors between observations. Lack of autocorrelation is a crucial assumption to satisfy in regression analysis.

4.3.3. Regression Analysis results

In order to determine the effect of the explanatory variables on dependent variable, multiple linear regression using ordinary least square (OLS) approach was analyzed was used. The model includes four key components of digital transformation i.e.; Personalization (PERS), Automation (AUTO), Self-service technology (SELF), and Omni channel integration (O) and customer experience (CUS_EXP) were dependent variable.

Table 4.27 model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.820 ^a	.673	.670	3.34630	.673	188.943	4	367	<.001	
a. Predictors: (Constant), OMNI, AUTO, PERS, SELF										
b. Dependent Variable: CUS_EXP										

Sources: Own SPSS regression Result, (2025)

Coefficient R, measures the extent and direction of linear association among variables calculated by the model. The model summary indicates that the R for the regression model is 0.820, and there is a strong positive correlation between predictors and customer experience. The R-squared of 0.673 indicates that 67.3% of customer experience variation is explained by the four independent variables. The adjusted R-squared of 0.670 makes a minor adjustment of this statistic to the number of predictors used, which confirms internal validity for the model. In other word, adjusted R square

shows the explanatory power of the model after the adjustment for the number of predictors. The standard error of the estimate was 3.34630, indicate on average the model's prediction are away from actual values by approximately 3.35 units. The lower standard error of the estimate, the more accurate the predictors.

Table 4.28 Analysis of variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8462.926	4	2115.731	188.943	<.001 ^b
	Residual	4109.556	367	11.198		
	Total	12572.481	371			
a. Dependent Variable: CUS_EXP						
b. Predictors: (Constant), OMNI, AUTO, PERS, SELF						

Sources: Own SPSS regression Result, (2025)

The ANOVA test determine whether a significant difference between the Means of two or more groups. output also confirms the overall model fit, with a significant F-ratio of 188.943 and p-value < 0.001, confirming that overall, the model is statistically significant because the p- value is <0.05. It shows that collectively, personalization, automation, self-service technology, and Omni channel integration together significantly predict customer experience.

Table 4.29 Coefficients of beta

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.521	1.047		2.408	.017
	PERS	.431	.055	.374	7.861	<.001
	AUTO	-.197	.068	-.154	-2.897	.004

	SELF	.385	.059	.339	6.474	<.001
	OMNI	.530	.066	.357	8.056	<.001
a. Dependent Variable: CUS_EXP						

Sources: Own SPSS regression Result, (2025)

Table 4.17 present the regression test of the impact of the predictors (personalization, automation, self-service banking and Omni channel integration) on customer experience. Of the individual predictors, personalization has the highest beta value of beta = 0.374, p value of (0.01) and t value of 7.861, this indicates personalization has a positive statistical significance and has a strongest positive influence on customer experience. Omni channel integration (OMNI) followed with a standardized Beta of 0.357, t = 8.056, and p < 0.001. Self-service technology (SELF) also had a significant influence (Beta = 0.339, t = 6.474, and p < 0.001). However, Automation (AUTO) with a negative effect (Beta = -0.154, and t = -2.897) but still it is statistically significant since p = 0.004 < 0.05, this implies the more the company automate its service the less customers satisfies

4.3.4. Mediation Analysis

Mediation analysis was conducted with Process Macro Model 4 based on a sample of 372 participants. The analysis provides complete information regarding whether Customer Engagement (CUS_ENG) serves as a mediator between Digital Transformation (DIGIT_TRANS) components namely (personalization, automation, self-service banking and omnichannel integration) and Customer Experience (CUS_EXP), both direct and indirect relationships.

I. Mediation analysis result of customer engagement on relationship between personalization and customer experience

Model: 4

Y: CUS_EXP, **X:** PERS and **M:** CUS_ENG

OUTCOME VARIABLE:

CUS_ENG

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6060	.3673	19.2613	214.7668	1.0000	370.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	8.6101	1.1937	7.2132	.0000	6.2629	10.9573
PERS	.6597	.0450	14.6549	.0000	.5712	.7482

Path a (PERS → CUS_ENG)

$$\text{CUS_ENG} = 8.6101 + 0.6597 \cdot \text{PERS} + e1$$

The coefficient for path a was $\beta = 0.6597$, with $SE = 0.0450$, $t = 14.6549$, $p < .001$, and 95% CI [0.5712, 0.7482]. This indicates that personalization significantly increases customer engagement in the banking context. And the error term (e1) in this equation represent variance in customer engagement not explained by personalization.

OUTCOME VARIABLE:

CUS_EXP

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7837	.6141	13.1473	293.6403	2.0000	369.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	4.2696	1.0532	4.0538	.0001	2.1985	6.3407
PERS	.5057	.0468	10.8148	.0000	.4137	.5976
CUS_ENG	.4594	.0430	10.6966	.0000	.3750	.5439

Paths b and c' (PERS & CUS_ENG → CUS_EXP)

$$\text{CUS_EXP} = 4.2696 + 0.5057 \cdot \text{PERS} + 0.4594 \cdot \text{CUS_ENG} + e2$$

The result shows both personalization and customer engagement were significant predictor of customer experience, with coefficient of beta value of β (PERS) = 0.5057, SE = 0.0468, t = 10.8148, $p < .001$, CI [0.4137, 0.5976] and for customer engagement β (CUS_ENG) = 0.4594, SE = 0.0430, t = 10.6966, $p < .001$, CI [0.3750, 0.5439]. and the error term in this equation represents variance in customer experience not captured by either customer engagement or personalization.

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE:

CUS_EXP

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7032	.4945	17.1773	361.9223	1.0000	370.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	8.2253	1.1272	7.2969	.0000	6.0087	10.4419
PERS	.8088	.0425	19.0243	.0000	.7252	.8924

Path c Total Effect (PERS → CUS_EXP)

$$\text{CUS_EXP} = 8.2253 + 0.8088 \cdot \text{PERS} + e_3$$

This represents the total effect (c) of personalization on customer experience. The result show that PERS has significant total effect on CUS_EXP with beta value of 0.8088, $p < .001$ and 95% CI [0.7252, 0.8924]. explaining approximately 49.45% of the variance (R square = .4945) in customer experience.

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
CUS_ENG	.3031	.0321	.2371	.3637

Based on the mediation analysis result, when customer engagement (CUS_ENG) is added into the mix as a mediator, both direct and indirect effects show up. The direct effect of PERS on customer experience ($\beta = 0.5057$, $p < .001$) stays significant, but it's lower than the total effect, which points to partial mediation. On top of that, the indirect effect through CUS_ENG is also significant ($\beta =$

0.3031, 95% BootCI [.2371, .3637]), this means customer engagement does, in fact, help explain how PERS impacts customer experience. And because the confidence interval for the indirect effect doesn't include zero, that mediation effect is statistically solid.

II. Mediation analysis result of customer engagement on relationship between automation and customer experience

Model: 4

Y: CUS_EXP, **X:** AUTO and **M:** CUS_ENG

**OUTCOME VARIABLE:
CUS_ENG**

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5249	.2755	22.0552	140.6898	1.0000	370.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	10.6717	1.2970	8.2279	.0000	8.1212	13.2221
AUTO	.6324	.0533	11.8613	.0000	.5276	.7373

Path a (AUTO → CUS_ENG)

$$CUS_ENG = 10.6717 + 0.6324 \cdot AUTO + e1$$

The coefficient for path a was $\beta = 0.6324$, with $p < .001$, This result shows that automation significantly increases customer engagement in the banking context. And the error term (e1) in this equation represent variance in customer engagement not explained by automation.

**OUTCOME VARIABLE:
CUS_EXP**

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7334	.5379	15.7456	214.7368	2.0000	369.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	6.1103	1.1919	5.1263	.0000	3.7664	8.4541
AUTO	.3209	.0529	6.0635	.0000	.2169	.4250
CUS_ENG	.6011	.0439	13.6851	.0000	.5148	.6875

Paths b and c' (AUTO & CUS_ENG → CUS_EXP)

$$CUS_EXP = 6.1103 + 0.3209 \cdot AUTO + 0.6011 \cdot CUS_ENG + e2$$

The result shows both automation and customer engagement were significant predictor of customer experience due to the positive beta value and statistically significance, with coefficient of beta value of β (AUTO) = 0.3209, $p < .001$, CI [0.4137, 0.5976] and for customer engagement β (CUS_ENG) = 0.6011, $p < .001$, CI [0.3750, 0.5439]. and the error term in this equation represents variance in customer experience not captured by either customer engagement or automation.

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE:

CUS_EXP

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5507	.3033	23.6731	161.0877	1.0000	370.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	12.5254	1.3437	9.3213	.0000	9.8831	15.1677
AUTO	.7011	.0552	12.6920	.0000	.5925	.8097

Path c Total Effect (AUTO → CUS_EXP)

$$CUS_EXP = 12.5254 + 0.7011 \cdot AUTO + e3$$

This represents the total effect (c) of automation on customer experience. The mediation analysis results indicate that AUTO has a significant total effect on CUS_EXP ($\beta = 0.7011$, $p < .001$), explaining 30.33% of the variance ($R^2 = .3033$) in customer experience.

Indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
--------	--------	----------	----------

CUS_ENG .3802 .0470 .2934 .4771

When CUS_ENG is introduced as a mediator, the analysis reveals both direct and indirect effects: Automation still has a positive, significant direct effect on customer experience ($\beta = 0.3209$, $p < .001$), but it's not as strong as the total effect. This drop shows us that customer engagement is partial mediation. While, the indirect effect, the part going through customer engagement, is also significant ($\beta = 0.3802$, 95% BootCI [.2934, .4771]). It confirms that customer engagement plays a mediation role in relationship between customer experience and automation.

III. Mediation analysis result of customer engagement on relationship between self-service banking and customer experience

Model: 4

Y: CUS_EXP, X: SELF and M: CUS_ENG

OUTCOME VARIABLE:

CUS_ENG

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7247	.5251	14.4553	409.1838	1.0000	370.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	4.7923	1.0562	4.5372	.0000	2.7153	6.8692
SELF	.7783	.0385	20.2283	.0000	.7027	.8540

Path a (SELF → CUS_ENG)

$$\text{CUS_ENG} = 4.7923 + 0.7783 \cdot \text{SELF} + e1$$

The analysis shows a strong and positive relationship between self-service banking (SELF) and customer engagement (CUS_ENG). The model explains about 52.5% of the variation in customer engagement, which highlights how important self-service options are in keeping customers actively involved with the bank. Also the result shows the coefficient for path a was $\beta = 0.7783$, with $p < .001$. This result shows that self-service banking significantly increases customer engagement. And the error term (e1) in this equation represent variance in customer engagement not explained by self-service banking.

**OUTCOME VARIABLE:
CUS_EXP**

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7437	.5531	15.2251	228.3874	2.0000	369.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	6.2703	1.1137	5.6300	.0000	4.0803	8.4603
SELF	.4078	.0573	7.1162	.0000	.2951	.5205
CUS_ENG	.4658	.0534	8.7303	.0000	.3609	.5707

Paths b and c' (SELF & CUS_ENG → CUS_EXP)

$$CUS_EXP = 6.2703 + 0.4078 \cdot SELF + 0.4658 \cdot CUS_ENG + e_2$$

When we see how self-service banking and customer engagement influence customer experience together, the model explains around 55.3% of the variation in customer experience, and this relationship is statistically significant. Both customer engagement and self-service banking plays a crucial role. Self-service banking has a beta value of 0.4078 shows a direct positive effect on customer experience. Whereas, customer engagement has a beta value of 0.4658 it indicated a strong positive impact, meaning that the more engaged customers are, the better their experience with the bank. Additionally, the significant interaction between SELF and CUS_ENG suggests that engagement strengthens the impact of self-service features on the customer's overall experience.

***** **TOTAL EFFECT MODEL** *****

**OUTCOME VARIABLE:
CUS_EXP**

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6789	.4608	18.3202	316.2618	1.0000	370.0000	.0000

Model

coeff	se	t	p	LLCI	ULCI
-------	----	---	---	------	------

constant	8.5025	1.1891	7.1506	.0000	6.1643	10.8407
SELF	.7703	.0433	17.7837	.0000	.6852	.8555

Path c Total Effect (SELF → CUS_EXP)

$$CUS_EXP = 8.5025 + 0.7703 \cdot SELF + e3$$

The mediation analysis results demonstrate that self-service banking has a significant total effect on customer experience ($\beta = 0.7703$, $p < .001$), accounting for 46.08% of the variance ($R^2 = .4608$) in customer experience.

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
CUS_ENG	.3625	.0420	.2836	.4490

When customer engagement is introduced as a mediator, the analysis shows the direct effect of Self-service banking on customer experience remains statistically significant but decreases in beta value of 0.4078 and p value $< .001$, indicating the existence of partial mediation. Whereas, the indirect effect of customer engagement is significant ($\beta = 0.3625$, 95% BootCI [.2836, .4490]), confirming that customer engagement serves as a meaningful mediator in the relationship between self-service banking and customer experience.

IV. Mediation analysis result of customer engagement on relationship between Omni channel integration and customer experience

Model: 4

Y: CUS_EXP, **X:** OMNI and **M:** CUS_ENG

**OUTCOME VARIABLE:
CUS_ENG**

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7370	.5432	13.9052	440.0126	1.0000	370.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	6.5081	.9390	6.9312	.0000	4.6618	8.3545

OMNI 1.0360 .0494 20.9765 .0000 .9389 1.1331
Path a (OMNI → CUS_ENG)

$$\text{CUS_ENG} = 6.5081 + 1.0360 \cdot \text{OMNI} + e1$$

The result shows Omni channel integration significantly and positively influence customer engagement with the beta value of 1.0360 and $p < 0.001$. The model explains about 54.3% of the variation in customer engagement, which highlights how important Omni channel integration are in keeping customers actively involved with the bank. The error term (e1) in this equation represent variance in customer engagement not explained by Omni channel integration.

**OUTCOME VARIABLE:
 CUS_EXP**

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7759	.6021	13.5587	279.1327	2.0000	369.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	6.4637	.9855	6.5584	.0000	4.5257	8.4017
OMNI	.7295	.0722	10.1102	.0000	.5876	.8714
CUS_ENG	.3584	.0513	6.9816	.0000	.2575	.4594

Paths b and c' (OMNI & CUS_ENG → CUS_EXP)

$$\text{CUS_EXP} = 6.4637 + 0.7295 \cdot \text{OMNI} + 0.3584 \cdot \text{CUS_ENG} + e2$$

The result shows that both customer engagement and Omni channel integration collectively have a significant impact on customer experience. Additionally, both Omni channel integration and customer engagement in combine explain 60.2% of variation in customer experience. This implies a strong explanatory power of the model. Omni channel integration has a beta value of 0.7295 shows a direct positive effect on customer experience and it is relatively strong effect. Whereas, customer engagement has a beta value of 0.3584 it indicated a positive impact, meaning that the more engaged customers are, the better their experience with the bank.

***** **TOTAL EFFECT MODEL** *****

OUTCOME VARIABLE:

CUS_EXP

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7413	.5495	15.3082	451.2903	1.0000	370.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	8.7962	.9852	8.9284	.0000	6.8589	10.7335
OMNI	1.1008	.0518	21.2436	.0000	.9989	1.2027

Path c Total Effect (SELF → CUS_EXP)

$$\text{CUS_EXP} = 8.7962 + 1.1008 \cdot \text{OMNI} + e_3$$

This mediation analysis result gives insights into how Omni channel integration (OMNI) help improve customer experience (CUS_EXP), mainly by driving customer engagement (CUS_ENG). The results show that Omni channel integration have a strong and significant total effect on customer experience ($\beta = 1.1008$, $p < .001$), Before adding customer engagement into the equation, the analysis shows that Omni channel integration alone accounts for about 54.95% of the variation in customer experience.

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
CUS_ENG	.3713	.0467	.2799	.4648

While Omni channel integration directly improve customer experience ($\beta = 0.7295$, $p < .001$), a big portion of their positive effect actually happens indirectly through customer engagement ($\beta = 0.3713$, 95% CI [.2799, .4648]). This implies about one third of the total effect of Omni channel integration happens when there is the ability to keep customers more engaged. So that partial mediation occurs between Omni channel integration and customer experience. Lastly, the mediation analysis verifies a significant, mediated the relationship between each digital transformation components and customer experience.

Summary of hypothetical result

Based on the outcomes of regression and mediation analysis, hypotheses can be evaluated as below:

H1. Personalization positively influences customer experience.

Based on the regression analysis Beta = 0.374, $t = 7.861$, and once more $p < 0.001$. with the highest beta value personalization is a strong influence on customer experience comparing the other components of digital transformation. This shows that personalization has a positive statistically significant influence on customer experience since p value is < 0.05 and thus H1 was supported.

H2. Automation has a significant positive impact on customer experience in digital banking.

The result of coefficient of beta for automation is -0.154 , $t = -2.897$ and $p = 0.04$. since negative beta value indicates the existence of negative relationship between dependent and independent value, automation has statistically significant negative relation with customer experience. The p value (0.04) is less than the 0.05 the relation is statistically significant not by random chance. Thus H2 was rejected.

H3. Self-service banking has a significant positive impact on customer experience.

Based on the regression analysis Beta= 0.339, $t = 6.474$, and once more $p < 0.001$. Since the beta value is positive indicates the existence of positive relationship between dependent and independent value. This shows that self-service banking has statistically significant positive influence on customer experience and thus H3 was supported.

H4. Omni channel integration has a significant positive impact on customer experience

Based on the regression analysis Beta = 0.357, $t = 8.056$, and $p < 0.001$. This shows that Omni-channel integration has statistically significant positive influence on customer experience and thus H3 was supported.

H5: customer engagement significantly mediates the relationship between personalization and customer experience.

The mediation result revealed that customer engagement has significant both direct and indirect effect with beta value of (0.5057 and 0.3031). So that, it partially mediates the relation between customer experience and personalization, and the H5 supported.

H6: customer engagement significantly mediates the relationship between automation and customer experience.

The result from mediation analysis shows customer engagement mediate the relation between automation and customer experience. The indirect effect through customer engagement was statically significant with the beta value of 0.3802. Therefore, customer engagement partially mediates the relationship. And thus H6 was supported.

H7: customer engagement significantly mediates the relationship between self-service banking and customer experience.

This hypothesis also supported since customer engagement partially mediate the relation between self-service and customer experience. The direct effect of self-service banking on customer experience is significant and positive with the beta value of 0.4078 and the indirect effect is also significant with the beta value of 0.3625.

H8: customer engagement significantly mediates the relationship between Omni channel integration and customer experience.

The result from mediation analysis implies customer engagement partially mediate the relation between omnichannel integration and customer experience. The direct effect through customer engagement is beta = 0.3713 it is statically significant. While, the indirect effect beta = 0.7295 this shows omnichannel integration has strong influence. So that H8 was supported.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

Introduction

In this chapter, the main points, conclusions made and recommendations suggested by the researcher are presented.

5.1. Summary

- This study aimed to discover if digital transformation positively affects customer experience, with customer engagement serving as a mediator at the Bank of Abyssinia. Bank of Abyssinia's Central Addis District was the geographical location for this study. Both explanatory and descriptive research designs were used to help understand the subject matter well. Data about customers was gathered by giving them a questionnaire with a five-point Likert scale and 372 people gave their answers. SPSS version 30 were used for data analysis and ran the mediation analysis with PROCESS Macro version 4.
- Analysis of the correlations revealed that personalization, automation, self-service banking and Omni channel integration improved customer engagement and customer experience. The regression analysis proved that personalization, self-service banking and Omni channel integration, has a positive impact on customer experience. While automation was found to affect customer experience negatively but it is still significant since the p value is less than 0.05 and it shows all the independent variable has a statistically significant impact on customer experience. Therefore, all hypothesis proposed was accepted except H2, which states automation has a positive impact on customer experience. Additionally, the findings from mediation analysis suggest that customer engagement partially mediate all the four components of digital transformation to customer experience, making it important for improving both customer satisfaction and loyalty in digital banking.

5.2. Conclusions

- The study results show that digital transformation has a major influence on how customers interact with digital banks. Of the four areas investigated, personalization had a strong positive impact on customer experience. Followed by Omni channel integration, self-service technology. This matches what Trivedi (2018) mentioned, that a proper Omni channel approach ensures that service stays the same online and offline, making customers happier. Furthermore, as found in this study, the effect of personalization is consistent with what Lahiri, (2023) and Rysin et al, (2023) presented: AI and data analytics allow banks to recognize customer needs and respond with custom solutions, allowing them to make progress over competitors. The findings of the study by Agbanu et al. (2024) highlight the importance of adopting a comprehensive AI-driven personalization strategy that leverages the strengths of each component to maximize both consumer engagement and satisfaction. Also, the results of this study agree with Imran et al. (2023), pointing out that different levels of internet banking adoption may reflect variations in how digital customers are ready to adopt.
- However, automation result shows it has negative impact on customer experience. In contrast, studies by Adewumi et al. (2024) and Capuşneănu et al. (2021) suggest that automation does help by speeding up the process and making services more efficient. Additionally a study by Gavrilă et al. (2023) concludes that the use of technology in the purchasing process can lead to faster response times, shorter processing times and better self-service management. But based on the result, automation impact customer experience negatively it is due to peoples may feel loss of interaction when every system is automated. Also it might have confused customer if the system is fully automated without human intervention. Still the process automation can be considered strategic for the company.
- Mediation analysis highlighted that all four digital transformation components namely personalization, automation, self-service banking and omnichannel integration positively affect customer experience, both directly and by boosting customer engagement. The mediation analysis finding shows that personalization has both direct effect and indirect effect through customer engagement indicating partial mediation. This implies tailored banking services do more than making customer satisfied; but also it is boosting emotional participation that makes users to feel valued and respected. Backing up earlier studies like

Manser Payne et al. (2021) that emphasize the role of tailored services in creating both satisfaction and connection. What's interesting is that automation didn't show a strong or positive link with customer experience in the basic regression analysis it actually came out negative. But when the mediation model was applied, things shifted. Automation had a meaningful and statistically significant indirect effect through customer engagement ($\beta = 0.3802$, $CI = [0.2934, 0.4771]$). Based on this we can say automation solely don't have that much influence on customer experience, but automation only works well when it's designed to be more than just efficient it needs to invite customers to interact and make them to feel like part of the service, not just a background process. The direct effect of automation is stastically significant and it propose the automated banking services can bring a good customer experience by improving service efficiency independently. Yet, the indirect effect through customer engagement is stronger, implies that when automation encourages involvement and interaction, its overall impact on customer experience grows considerably. This aligns with recent findings by Ahmad and Museera (2024) argue that cloud-based automation must be designed not just for backend processing but also to facilitate multi-channel engagement to be fully effective.

- Both self-service banking and Omni channel integration showed strong and consistent impacts on customer experience, supported by customer engagement as a key mediating factor. Self-service tools like mobile apps, ATMs, and online portals directly improved the customer experience ($\beta = 0.4078$) and also did so indirectly by increasing engagement ($\beta = 0.3625$). This shows that customers don't just appreciate having control over their banking, they actually feel more connected when the banking service they use are easy, efficient, and make sense. This is consistent with the findings of Ugwuanyi and Uduji (2021), who emphasized that well implemented self-service banking is beyond reducing workload for bank staff it can improve satisfaction and loyalty by actively build emotional and behavioral connections with customers.
- On a similar note, Omni channel integration came out as the strongest factor overall, with a big direct impact on customer experience ($\beta = 0.7295$) and a solid indirect effect through engagement ($\beta = 0.3713$). This highlights that consistency and continuity across multiple banking platforms—whether mobile, web, or in-branch build a sense of trust and

smoothness that enhances both satisfaction and emotional involvement. In short, these two digital components don't just make things easier; they actually play a big role in shaping how customers feel about their banking experience. This result support by Moreno-Menéndez et al. (2025), arguing that well-designed Omni channel integration enhance not only customer satisfaction but also loyalty and emotional connection by offering a consistent and unified experience across digital and physical touchpoints of the bank.

5.3.Recommendation

As result of the findings, the study suggests the following actions:

- The study results indicate that the bank might include personalize financial advice for its customer groups. As an example, individual loan offers, budget methods set up using financial activities. Furthermore, the bank should have a strong digital infrastructure so that customers get consistent online and at-the-branch experiences. The bank should also use AI driven personalization tailors to individual preferences, making interactions more engaging and meaningful.
- The bank should also maximize its customer experience by integrate its services across all channels so that no difference exists between online and in-person services. In addition, it is necessary to train staffs on how to handle digital transactions and offering the same brand experience across different platforms to improve continuous service and client trust and satisfaction.
- The bank should also enhance customer experience by improving online and mobile services, updating ATMs with new forms of functionality and including interactive kiosks for customers in branches. Also by adding strong safety and security on systems and by offering 24/7 online assistance the bank can further reassure the customers experience. Similarly, teaching customers how to use digital services more effectively can help reduce branch visits and adopt digital products easily. The Bank should also add new features and make the self-service tools simpler to use, while ensuring they are offered in everyone's language and have instructions or help on hand.

- Based on the results, automation by itself doesn't always improve how customers feel about their experience and in some cases, it might even make things worse. However, when automation is designed in a way that encourages interaction like smart notifications, responsive chatbots, or automated but personalized guidance it significantly boosts engagement, which in turn improves the overall customer experience. So, instead of using automation simply to cut down on staff workload or reduce response times, the bank should think of it as a tool for customer involvement. By doing this the bank can create an automation system that is human centered, supportive and easy to use.
- The Bank should keep developing their self-service features by focusing comfortable and easy to use service for its customers. It's not just about letting customers do things on their own it's about making that process feel smooth and maybe even a bit reassuring. If the app or ATM feels too complicated or cold, people get frustrated. So, the design should be simple and responsive, and it helps a lot if there's guidance along the way like prompts, FAQs, or even a little chat option.
- The Bank should offer customers a digital engagement tools such as social media involvement, loyalty schemes, individual financial guides, and notifications. Both social media services and messaging within apps should be helpful for marketing and also used to let customers provide feedback that leads to better service. Responsiveness and trust will increase if the bank pay attention to what customers say in surveys, write in reviews and look at analytics data.
- When it comes to Omni channel integration, what really matters are that everything feels connected. If a customer starts something on the app, they should be able to finish it in a branch or online without having to start over. That kind of disconnect is where people lose patience. So, the bank should develop a system that has the ability to make data flow across platforms in real time.

5.4.Limitation and Future direction

The research focused only on those customers found in Central Addis Ababa district at Bank of Abyssinia. Upcoming studies ought to look at customers from various regions of Ethiopia and at several banks to allow comparisons for the result and link the findings. Accordingly, this study's observations show that digital transformation elements, for example personalization, automation, self-service and Omni channel integration, are related to customer experience in that customer

engagement becomes involved as a mediator. In conclusion, there is much space for further research to add on this study. By including perceived value, digital literacy, user satisfaction, trust, as a mediating variable. Additionally, bringing in qualitative method such as focus group and interviews would add new insights to customer experience and attitude. Lastly, this study mainly focuses at four digital transformation components that customers interact with directly, but there's definitely room for future research to dig into newer technologies like AI, block chain, and big data. As these tools start showing up more on the customer side of banking not just behind the scenes it would be really useful to see how they affect things like customer experience and engagement.

REFERENCE

- Accelerator, T. (2021). *digital transformation*. 1–7.
- Adewumi, A., Ewim, S. E., Sam-bulya, N. J., & Ajani, O. B. (2024). *Advancing business performance through data-driven process automation : A case study of digital transformation in the banking sector Advancing business performance through data-driven process automation : A case study of digital transformation in the bank*. October. <https://doi.org/10.53430/ijmru.2024.8.2.0049>
- Agyei, J., Sun, S., Abrokwah, E., Penney, E. K., & Ofori-Boafo, R. (2020). Influence of Trust on Customer Engagement: Empirical Evidence From the Insurance Industry in Ghana. *SAGE Open*, 10(1). <https://doi.org/10.1177/2158244019899104>
- Agbanu, I. I., Mohammed, A. B., & Inikpi, O. R. (2024). *Effect of AI Driven Personalization on Purchasing Decisions and Customer Satisfaction in the Fashion Industry in Nigeria Effect of AI Driven Personalization on Purchasing Decisions and Customer Satisfaction in the Fashion Industry in Nigeria*. September. <https://doi.org/10.5281/zenodo.13847988>
- Al-Hawari, M. (2006). The effect of automated service quality on bank financial performance and the mediating role of customer retention. *Journal of Financial Services Marketing*, 10(3), 228–243. <https://doi.org/10.1057/palgrave.fsm.4770189>
- Alfayad, F. S. (2021). The impact of bank performance towards technology and marketing strategy on Omni-channel adoption in Saudi banking sector. *Cuadernos de Economia*, 44(124), 33–41. <https://doi.org/10.32826/cude.v1i124.502>
- António Porfírio, J., Augusto Felício, J., & Carrilho, T. (2024a). Factors affecting digital transformation in banking. *Journal of Business Research*, 171, 114393. <https://doi.org/10.1016/J.JBUSRES.2023.114393>
- António Porfírio, J., Augusto Felício, J., & Carrilho, T. (2024b). Factors affecting digital transformation in banking. *Journal of Business Research*, 171(October 2023). <https://doi.org/10.1016/j.jbusres.2023.114393>
- Balkan, B. (2021). *Impacts of Digitalization on Banks and Banking*. April, 33–50. https://doi.org/10.1007/978-981-33-6811-8_3

- Bank of Abyssinia*. (2020). <https://www.bankofabyssinia.com/about-bank-of-abyssinia-first-bank/>
- Barbu, C. M., Florea, D. L., Dabija, D. C., & Barbu, M. C. R. (2021). Customer experience in fintech. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(5), 1415–1433. <https://doi.org/10.3390/jtaer16050080>
- Batchu, R. K. (2024). Digital Transformation in Banking: Navigating the Technological Frontier. *International Machine Learning Journal and Computer Engineering*, 7(7), 1–13. <https://mljce.in/index.php/Imljce/article/view/21>
- Bhardwaj, D., & Khan, A. A. (2024). Analyzing the Impact of Digital Transformation on Customer Experience and Operational Efficiency in Commercial Banking. *International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)*, 7(7). <https://doi.org/10.15680/IJMRSET.2024.0707077>
- Boufounou, P., Mavroudi, M., Toudas, K., & Georgakopoulos, G. (2022). Digital Transformation of the Greek Banking Sector in the COVID Era. *Sustainability (Switzerland)*, 14(19). <https://doi.org/10.3390/su141911855>
- Brodie, R. J., Hollebeek, L. D., Jurić, B., & Ilić, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research*, 14(3), 252–271. <https://doi.org/10.1177/1094670511411703>
- Brutti, F. (2022). *What is digital transformation in marketing?* Thepower. <https://www.zebra.com/gb/en/resource-library/faq/what-is-digital-transformation-in-banking-industry.html>
- Butkouskaya, V., Oyner, O., & Kazakov, S. (2023). The impact of omnichannel integrated marketing communications (IMC) on product and retail service satisfaction. *Journal of Economics, Finance and Administrative Science*, 28(56), 319–334. <https://doi.org/10.1108/JEFAS-09-2022-0237>
- Capușneanu, S., Mates, D., Türkeş, M. C., Barbu, C. M., Staraş, A. I., Topor, D. I., Stoenică, L., & Fülöp, M. T. (2021). The impact of force factors on the benefits of digital transformation in Romania. *Applied Sciences (Switzerland)*, 11(5), 1–21. <https://doi.org/10.3390/app11052365>

- Cate, M. (2025). *Enhancing Customer Experience Through AI-Driven Personalization and Automation*. February.
- Chahal, H., & Dutta, K. (2015). Measurement and impact of customer experience in banking sector. *Decision*, 42(1), 57–70. <https://doi.org/10.1007/s40622-014-0069-6>
- Chauhan, P., & Sarabhai, S. (2019). Customer experience quality in omni-channel banking: identifying the factors affecting customer experience in the Indian context. *International Journal of Management Concepts and Philosophy*, 12(2), 222. <https://doi.org/10.1504/ijmcp.2019.099323>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems*, 13(3), 319–339. <https://doi.org/10.2307/249008>
- Dosis, D. (2023). *Fast-tracking the digital transformation of the payments sector in Ethiopia | Mastercard Newsroom*. https://newsroom.mastercard.com/news/eemea/en/perspectives/en/2023/fast-tracking-the-digital-transformation-of-the-payments-sector-in-ethiopia/?utm_source=chatgpt.com
- Efma & Backbase present*. (n.d.).
- El-Gohary, H., Thayaseelan, A., Babatunde, S., & El-Gohary, S. (2021). An Exploratory Study on the Effect of Artificial Intelligence-Enabled Technology on Customer Experiences in the Banking Sector. *Journal of Technological Advancements*, 1(1), 1–17. <https://doi.org/10.4018/jta.20210101.oa1>
- Fan, K., Zhang, H., & Zhang, M. (2024). Research on the impact of digital transformation on the systemic risk of banks. *Procedia Computer Science*, 242, 364–371. <https://doi.org/10.1016/j.procs.2024.08.173>
- Fedotova, K. (2024). *Digitalization and Operational Efficiency in the Banking Sector : A Study of Banks in Finland*. 60.
- Fekadu, E. (2023). *EFFECT OF DIGITAL BANKING ON CUSTOMER SATISFACTION: THE CASE OF COMMERCIAL BANK OF ETHIOPIA IN ADDIS ABABA* ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE DEPARTMENT OF MARKETING

MANAGEMENT.

Gavrila, S., Blanco González-Tejero, C., Gómez Gandía, J. A., & de Lucas Ancillo, A. (2023).

The impact of automation and optimization on customer experience: a consumer perspective. *Humanities and Social Sciences Communications*, 10(1).

<https://doi.org/10.1057/s41599-023-02389-0>

Geda, A. (2022). *Working Paper DT-00 1*.

Geressu, H. (2023). *The Effect of Digital Banking Service Quality on Customer Satisfaction in Selected Branches of Awash Bank in Addis Ababa City Administration*. July.

Gon, C. (2023). *Omni-channel Services in the Banking Industry: Qualitative Multi-method SERVIÇOS OMNI-CANAL NA INDÚSTRIA DE SERVIÇOS BANCÁRIOS: INVESTIGAÇÃO QUALITATIVA MULTI-MÉTODO OMNI-CHANNEL SERVICES IN THE BANKING INDUSTRY: QUALITATIVE MULTI-METHOD. June 2018.*

<https://doi.org/10.6084/m9.figshare.25066187>

Guo, L., & Xu, L. (2021). The effects of digital transformation on firm performance: evidence from China's manufacturing sector. *Sustainability (Switzerland)*, 13(22), 1–18.

<https://doi.org/10.3390/su132212844>

Hannah Wren, S. (2024). *5 banking customer experience trends to consider for 2024*.

<https://www.zendesk.com/blog/customer-experience-in-banking/>

Hordofa, D. F. (2024). Impact of digital transformation on financial stability in emerging markets: evidence from Ethiopia. *Discover Sustainability*, 5(1). [https://doi.org/10.1007/s43621-024-](https://doi.org/10.1007/s43621-024-00540-8)

[00540-8](https://doi.org/10.1007/s43621-024-00540-8)

Imran, A. F., Bado, B., & Solikhatun, I. (2023). Banking Digitalization through Self-Service Technology toward Customer Behavior at Bank Syariah Indonesia (BSI) Yogyakarta City.

Jurnal Ilmiah Ekonomi Islam, 9(3), 4466. <https://doi.org/10.29040/jiei.v9i3.10534>

Jadertriervailer, H., Sell, D., & Dos Santo, N. (2019). *The Benefits and Challenges of Digital Transformation in Industry 4.0 Denilson Sell Instituto Stela*. 19(12).

<https://www.researchgate.net/publication/346429448>

- Jesus, M. G. de. (2021). *The Digital Transformation of the Banking Industry: Case of Caixa Geral de Depósitos*. *July*, 1–10. https://search.proquest.com/openview/11ce65b78981d47e569f962119de968c/1?pq-origsite=gscholar&cbl=2026366&diss=y%0Ahttps://repositorio.iscte-iul.pt/bitstream/10071/24025/1/master_maria_garcia_jesus.pdf
- Kaur, B., Kiran, S., Grima, S., & Rupeika-Apoga, R. (2021a). Digital banking in northern india: The risks on customer satisfaction. *Risks*, 9(11), 1–18. <https://doi.org/10.3390/risks9110209>
- Kaur, B., Kiran, S., Grima, S., & Rupeika-Apoga, R. (2021b). Digital Banking in Northern India: The Risks on Customer Satisfaction. *Risks 2021, Vol. 9, Page 209*, 9(11), 209. <https://doi.org/10.3390/RISKS9110209>
- Kemboi, J. P. (2018). Effect of automation on performance of commercial banks in Kenya: A case of National Bank of Kenya (Master’s thesis, United States International University–Africa)
- Khanchel, H. (2019). *The Impact of Digital Transformation on Banking*. 8(2), 20–29. <https://doi.org/10.5430/jbar.v8n2p20>
- Kim, S., Choi, B., & Lew, Y. (2021). Where is the age of digitalization heading? The meaning, characteristics and implications of contemporary digital transformation. *Sustainability (Switzerland)*, 13(16). <https://doi.org/10.3390/su13168909>
- Kitsios, F., Giatsidis, I., & Kamariotou, M. (2021). Digital transformation and strategy in the banking sector: Evaluating the acceptance rate of e-services. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(3), 204.
- Kolodiziev, O., Krupka, M., Shulga, N., Kulchytsky, M., & Lozynska, O. (2021). The level of digital transformation affecting the competitiveness of banks. *Banks and Bank Systems*, 16(1), 81–91. [https://doi.org/10.21511/bbs.16\(1\).2021.08](https://doi.org/10.21511/bbs.16(1).2021.08)
- Kothapalli, K. R. V. (2022). Exploring the Impact of Digital Transformation on Business Operations and Customer Experience. *Global Disclosure of Economics and Business*, 11(2), 103–114. <https://doi.org/10.18034/gdeb.v11i2.760>
- Lahiri, M. (2023). Assessing the Impact of Digital Transformation on the Indian Economy: Opportunities and Challenges. *Trends in Finance and Economics*, 1(3), 73–84.

<https://doi.org/10.46632/tfe/1/3/9>

Lóska, G., & Uotila, J. (2024). Digital Transformation in Corporate Banking: Toward a Blended Service Model. *California Management Review*, 66(3), 93–115. <https://doi.org/10.1177/00081256231207429>

Magnus-Eweka, . Emmanuel. (2023). *Navigating the Challenges to Digital Transformation The Case of a Pan African Commercial Bank*.

Makudza, F. (2021). Augmenting customer loyalty through customer experience management in the banking industry. *Journal of Asian Business and Economic Studies*, 28(3), 191–203. <https://doi.org/10.1108/JABES-01-2020-0007>

Masoud, R., & Basahel, S. (2023). The Effects of Digital Transformation on Firm Performance: The Role of Customer Experience and IT Innovation. *Digital*, 3(2), 109–126. <https://doi.org/10.3390/digital3020008>

Mavlutova, I., Spilbergs, A., Verdenhofs, A., Natrins, A., Arefjevs, I., & Volkova, T. (2023). Digital Transformation as a Driver of the Financial Sector Sustainable Development: An Impact on Financial Inclusion and Operational Efficiency. *Sustainability (Switzerland)*, 15(1). <https://doi.org/10.3390/su15010207>

Mbama, C. I., Ezepue, P., Alboul, L., & Beer, M. (2018). Digital banking, customer experience and financial performance. *Journal of Research in Interactive Marketing*, 12(4), 432–451. <https://doi.org/10.1108/jrim-01-2018-0026>

Mirkovic, V., & Martin, V. (2019). *RESHAPING BANKING INDUSTRY THROUGH DIGITAL*. December. <https://doi.org/10.15308/finiz-2019-31-36>

Monferrer, D., Moliner, M. A., & Estrada, M. (2019). Increasing customer loyalty through customer engagement in the retail banking industry. *Spanish Journal of Marketing - ESIC*, 23(3), 461–484. <https://doi.org/10.1108/SJME-07-2019-0042>

Mundhe, E., & Shikshan, R. (2024). *KNOWLEDGE EVOLUTION ACROSS DISCIPLINES - CONTEMPORARY TRENDS KNOWLEDGE EVOLUTION ACROSS DISCIPLINES - CONTEMPORARY TRENDS AND FORWARD THINKING* (Issue August). <https://doi.org/10.5281/zenodo.13148203>

- National Bank of Ethiopia*. (n.d.). Retrieved January 2, 2025, from <https://nbe.gov.et/about-us/our-history/>
- National Bank Of Ethiopia*. (2024). https://nbe.gov.et/wp-content/uploads/2024/10/Birritu_138.pdf
- National Digital Payments Strategy 2021–2024*. (2024).
- Parcell, D. (2007). Understanding customer experience [14]. *Harvard Business Review*, 85(6), 137.
- Park, S., Kesuma, P. E., & Cho, M. (2021). Did financial consumers benefit from the digital transformation? An empirical investigation. *International Journal of Financial Studies*, 9(4). <https://doi.org/10.3390/ijfs9040057>
- Pînzaru, F., Zbucea, A., & Vițelar, A. (2019). Digital transformation trends reshaping companies. *Proceedings of the International Conference on Business Excellence*, 13(1), 635–646. <https://doi.org/10.2478/picbe-2019-0056>
- Policy Study Institute*. (2024). <https://www.psi.org.et/index.php/blog/266-ethiopia-s-digital-finance-sector-overcoming-challenges-and-driving-financial-inclusion>
- Praisegod, N., Amegbe, H., Hanu, C., & Selase, E. (2025). AI-driven self-service for enhanced customer experience outcomes in the banking sector. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2450295>
- Pristiyono, P., Juliana, J., & Prayoga, Y. (2022). Measuring Customer Trust Through Digital Transformation of Banking As a Competitive Advantage. *Jurnal Ekonomi Bisnis Dan Kewirausahaan*, 11(2), 214. <https://doi.org/10.26418/jebik.v11i2.51986>
- Rahman, S. M., Chowdhury, N. H., Bowden, J. L. H., & Carlson, J. (2025). Metaverse platform attributes and customer experience measurement. *Journal of Retailing and Consumer Services*, 83(September 2024), 104159. <https://doi.org/10.1016/j.jretconser.2024.104159>
- Rakesh, K., & Kothapalli, V. (2024). *Exploring the Impact of Digital Transformation on Business Operations and Customer Experience*. December 2022. <https://doi.org/10.18034/gdeb.v11i2.760>

- Razlan, A. N., & Masrom, M. (2023). The Challenges of Digital Transformation Faced by Bank Employees in Malaysia. *International Journal of Business and Technology Management*, 5, 170–184. <https://doi.org/10.55057/ijbtm.2023.5.s4.17>
- Reis, J. C. G. dos. (2018). Omni-channel services in the banking industry: Qualitative multi-method research [Master's thesis, Lusophone University of Humanities and Technologies]. ResearchGate. <https://doi.org/10.6084/m9.figshare.7286861>
- Rysin, V., Prokopenko, O., Muravskiy, O., Pechenko, R., Holiachuk, N., & Zinchenko, A. (2023). Personalization of Banking Products (Services) using Digitalization Technologies. *WSEAS Transactions on Business and Economics*, 20(November 2023), 2528–2539. <https://doi.org/10.37394/23207.2023.20.216>
- Sahu, N. (2018). *Investigating The Critical Success Factors Of Digital Transformation For Improving Customer Experience*.
- Sannes, R. (2001). Self-service banking: Value creation models and information exchange. *Informing Science*, 4(4), 139–148. <https://doi.org/10.28945/568>
- Shanti, R., Avianto, W., & Wibowo, W. A. (2022). A Systematic Review on Banking Digital Transformation. *Jurnal Ad'ministrare*, 9(2), 543. <https://doi.org/10.26858/ja.v9i2.40584>
- Sharma, M., & Chaubey, D. S. (2014). Experience and its Relationship with Services of Banking Sector. *Journal of Marketing and Communication*, 9(3), 18–27.
- Shrestha, N. (2020). Detecting Multicollinearity in Regression Analysis. *American Journal of Applied Mathematics and Statistics*, 8(2), 39–42. <https://doi.org/10.12691/ajams-8-2-1>
- Sisay, E. (2021). *School of Graduate Studies the Effect of Digital Banking on Customer Experience: the Case of Selected Commercial Banks in Addis Ababa City Addis Ababa, Ethiopia*.
- Skubis, I., & Akahome, J. E. (2022). *Exploring Transformational Customer Experience in Digital Banking : an Exploratory Study*. 3(59), 112. <https://doi.org/10.29119/1899-6116.2022.59.7>
- Sookhdeo, L. (2024). *Influence of AI Personalisation on E-commerce customer experience and purchase decisions in South Africa*.

- Srivastava, S. (2024). *RESEARCH IN ENGINEERING MANAGEMENT “ THE ROLE OF DIGITAL TRANSFORMATION IN ENHANCING CUSTOMER EXPERIENCE AND OPERATIONAL EFFICIENCY IN RETAIL BANKING .”* 317–322.
- Sujee., S. S., & Solanki, R. (2022). Key Challenges and Hazards of Digital Transformation of Financial Services Sector. *Global Business & Management Research*, 14(2), 39–50. <https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=160341841&site=ehost-live>
- Suluk, S. (2023). the Stages of Digital Banking and Digital Banking in the Light of Current Developments. *CUMHURIYET 10th INTERNATIONAL CONFERENCE ON APPLIED SCIENCES, December*, 1–18.
- Susanto, S. A., Manek, M. V., Setiawan, R. A., & Mustikasari, F. (2023). Customer Experience in Digital Banking: The Influence of Convenience, Security, and Usefulness on Customer Satisfaction and Customer Loyalty in Indonesia. *Devotion : Journal of Research and Community Service*, 4(8), 1671–1685. <https://doi.org/10.59188/devotion.v4i8.544>
- Suvarchala, & Rao, V. N. (2018). Customer Experience Management in Banking Sector - a Brief Review. *International Journal of Research -GRANTHAALAYAH*, 6(7), 164–178. <https://doi.org/10.29121/granthaalayah.v6.i7.2018.1295>
- Tosheva, E. (2020). Economic and Social Benefits of Digital Economy and Digital Transformation in The Republic of North Macedonia TT - Kuzey Makedonya Cumhuriyeti’nde Dijital Ekonomi ve Dijital Dönüşümün Ekonomik ve Sosyal Faydaları. *İzmir Sosyal Bilimler Dergisi*, 2(2), 42–51. <https://dergipark.org.tr/en/pub/izsbd/issue/53900/701261%0Ahttps://dergipark.org.tr/en/download/article-file/1086440>
- Tran, P. T. T., Le, T. T. H., & Phan, N. H. T. (2023). Digital Transformation of the Banking Industry in Developing Countries. *International Journal of Professional Business Review*, 8(5), e01503. <https://doi.org/10.26668/businessreview/2023.v8i5.1503>
- Trivedi, T. (2018). Digital Transformation of Banks in India: The Opportunities and Challenges faced by Retail Banking Sector. *Researchgate.Net*, 6(1), 387.

https://www.researchgate.net/profile/Twinkle-Trivedi/publication/354375040_Digital_Transformation_of_Banks_in_India_The_Opportunities_and_Challenges_faced_by_Retail_Banking_Sector/links/6134e5a52b40ec7d8be6df36/Digital-Transformation-of-Banks-in-India-The

Tsedeke, S. (n.d.). *Business Consultant In Ethiopia | Investmnet Consulting Firm*. Retrieved February 2, 2025, from <https://multilinkconsult.com/2023/01/31/the-banking-industry-in-ethiopia-a-journey-towards-automation/>

Tuti, M., & Sulistia, V. (2022). The Customer Engagement Effect on Customer Satisfaction and Brand Trust and Its Impact on Brand Loyalty. *Jurnal Manajemen Bisnis*, 13(1), 1–15. <https://doi.org/10.18196/mb.v13i1.12518>

Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Qi Dong, J., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122(January), 889–901. <https://doi.org/10.1016/j.jbusres.2019.09.022>

Verina, N., & Titko, J. (2019). *Digital transformation: conceptual framework*. May. <https://doi.org/10.3846/cibmee.2019.073>

Vyas, S., Pareek, A., & Ghosal, I. (2024). A Comprehensive Study: How Digital Transformation Is Reshaping Banking Services. *European Economic Letters*, 14(2), 877–883. <https://doi.org/10.52783/eel.v14i2.1415>

Wereda, Wioletta Grzybowska, M. (2016). Customer Experience – Does It Matter? *Modern Management Review*, December 2016. <https://doi.org/10.7862/rz.2016.mmr.35>

Williams, C. C., & Mackay, N. (2020). Customer engagement in retail banks: Scale development and validation. *Retail and Marketing Review*, 16(1), 40–52.

Zahari, A. R., Esa, E., Asshidin, N. H. N., Surbaini, K. N., Abdullah, A. E., & Majid, N. A. (2023). The Study of Customers' Expectations and Real Experiences Using the Self-Service Kiosk. *International Journal of Professional Business Review*, 8(8), e02295. <https://doi.org/10.26668/businessreview/2023.v8i8.2295>

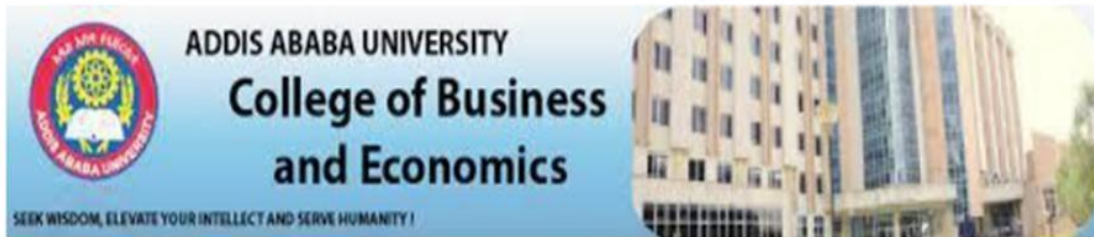
Zaid, S., & Patwayati, P. (2021). Impact of Customer Experience and Customer Engagement on

Satisfaction and Loyalty: A Case Study in Indonesia. *Journal of Asian Finance, Economics and Business*, 8(4), 983–992. <https://doi.org/10.13106/jafeb.2021.vol8.no4.0983>

Zouari, G., & Abdelhedi, M. (2021). Customer satisfaction in the digital era: evidence from Islamic banking. *Journal of Innovation and Entrepreneurship*, 10(1). <https://doi.org/10.1186/s13731-021-00151-x>

APPENDIX

Questionnaire



Dear Respondent,

I am conducting research in partial fulfillment of my MBA program at college of business and economics Department of Business Administration, Addis Ababa University. The purpose of the questionnaire is to collect data for research on “**the effect of digital transformation on customer experience; the mediating role of customer engagement: the case study of Abyssinia bank**”. The research is designed to identify **digital transformation, customer experience and customer engagement**. The research outcomes are important for **Addis Ababa university and the banking industry in Ethiopia**. Your genuine and honest response is very important for the success of the research and the researcher would like to thank you for your cooperation in advance.

Note: for any clarification or question please don't hesitate to contact the researcher through the following address. Name: Kalkidan Gebre, Mobile phone: 0929104515 email: gebrekalkidan2202@gmail.com

General Instruction:

1. No need to write your name
2. Your response confidentiality is maintained
3. Instruction for each part of the questionnaire is given at the beginning of the questions

Part I: General background information

1. Gender

Male

Female

2. Age

Below 25

25-35

36-50

Above 50

3. Educational Background

High school and below

Diploma

Degree

Master's degree

PhD and above

4. For how long you have been customer of Abyssinia bank?

Less than 1 year

1-3 year

3-5 year

>5 years

Part 2: Questions related to the topic

Listed below are a series of statements that represent Digital Transformation with respect to your own feeling towards ‘‘Bank of Abyssinia’’ please, indicate the degree of your agreement or disagreement with each statement by putting a tick mark (√) on one of the five alternatives.

Responses are measured on 5- point scales with the following verbal anchors: Strongly Disagree (1), Disagree (2), Neither Disagree or Agree (3), Agree (4) and Strongly Agree (5)

		<u>5</u> <u>Strongly</u> <u>agree</u>	<u>4</u> <u>Agree</u>	<u>3</u> <u>Neither</u> <u>Agree</u> <u>nor</u> <u>Disagree</u>	<u>2</u> <u>Disagree</u>	<u>1</u> <u>Strongly</u> <u>Disagree</u>
<u>1</u>	The banks personalization tools are user friendly					
<u>2</u>	The bank can provide me with personalize services/offers that are tailored to my banking activity context					

<u>3</u>	The bank can provide me with more relevant promotional information that is tailored to my preferences/ personal financial interest					
<u>4</u>	The bank can provide me with the kind of services/offers that I might like					
<u>5</u>	I value banking services that are based on my user experience					
<u>6</u>	I value banks that keep my personal preferences and personalize services according to these preferences					
<u>7</u>	I value banking services that are personalized according to the device I use (phone, computer, internet and operating system)					

Automation	<u>5</u> <u>Strongly agree</u>	<u>4</u> <u>Agree</u>	<u>3</u> <u>Neither Agree nor Disagree</u>	<u>2</u> <u>Disagree</u>	<u>1</u> <u>Strongly Disagree</u>
<u>1</u>					
<u>2</u>					
<u>3</u>					
<u>4</u>					

<u>5</u>	The bank has automated most utility bill payments					
<u>6</u>	I prefer using bank's automated system rather than manual process					

	<u>5</u> <u>Strongly</u> <u>agree</u>	<u>4</u> <u>Agree</u>	<u>3</u> <u>Neither</u> <u>Agree</u> <u>nor</u> <u>Disagree</u>	<u>2</u> <u>Disagree</u>	<u>1</u> <u>Strongly</u> <u>Disagree</u>
<u>1</u>	I can complete tasks using the bank self-service channels easily				
<u>2</u>	Self-service banking services are available 24*7(7 days, 24 hours)				
<u>3</u>	The self-service channels system is user friendly				
<u>4</u>	Self-service channels enable error-free transaction				
<u>5</u>	The self-service banking is enjoyable to use				
<u>6</u>	The self-service banking channels are accessible in convenient locations				
<u>7</u>	The self-service banking appears to use up-to-date technologies				

	<u>5</u> <u>Strongly</u> <u>agree</u>	<u>4</u> <u>Agree</u>	<u>3</u> <u>Neither</u> <u>Agree</u> <u>nor</u> <u>Disagree</u>	<u>2</u> <u>Disagree</u>	<u>1</u> <u>Strongly</u> <u>Disagree</u>
Omni channel integration					

<u>1</u>	My experience with the bank is consistent across platforms					
<u>2</u>	The bank provides consistent and integrated information about its products across platforms (branch, mobile, App, website and call centers)					
<u>3</u>	When the bank launches a new product/ service the information is made available simultaneously across both online and offline channels					
<u>4</u>	The bank has programs/ platforms in place to easily handle my inquiries/ complaints across different service channels					
<u>5</u>	I can access and manage my banking services across multiple platforms					

Listed below are a series of statements that represent Customer Engagement with respect to your own feeling towards “Bank of Abyssinia” please, indicate the degree of your agreement or disagreement with each statement by putting a tick mark (✓) on one of the five alternatives.

Responses are measured on 5- point scales with the following verbal anchors: Strongly Disagree (1), Disagree (2), Neither Disagree or Agree (3), Agree (4) and Strongly Agree (5)

Customer Engagement	<u>5</u> <u>Strongly</u> <u>agree</u>	<u>4</u> <u>Agree</u>	<u>3</u> <u>Neither</u> <u>Agree</u> <u>nor</u> <u>Disagree</u>	<u>2</u> <u>Disagree</u>	<u>1</u> <u>Strongly</u> <u>Disagree</u>
<u>1</u> I feel very active in relation to using the bank services					

<u>2</u>	I feel valued in my interaction with the bank					
<u>3</u>	I consider that people In my bank are concerned about me as a customer					
<u>4</u>	I feel emotional link with the bank					
<u>5</u>	I feel as though I have a personal relationship with the bank					
<u>6</u>	I frequently make use of my Banks's product/service					
<u>7</u>	I am completely involved when interacting with the bank					

Listed below are a series of statements that represent Customer Experience with respect to your own feeling towards 'Bank of Abyssinia' please, indicate the degree of your agreement or disagreement with each statement by putting a tick mark (✓) on one of the five alternatives.

Responses are measured on 5- point scales with the following verbal anchors: Strongly Disagree (1), Disagree (2), Neither Disagree or Agree (3), Agree (4) and Strongly Agree (5)

Customer experience	<u>5</u> <u>Strongly</u> <u>agree</u>	<u>4</u> <u>Agree</u>	<u>3</u> <u>Neither</u> <u>Agree</u> <u>nor</u> <u>Disagree</u>	<u>2</u> <u>Disagree</u>	<u>1</u> <u>Strongly</u> <u>Disagree</u>
<u>1</u> I feel satisfied with the overall digital banking experience					
<u>2</u> The bank gives me what I need swiftly					
<u>3</u> The whole process with the bank was easy					
<u>4</u> The bank meets my specific banking needs					

<u>5</u>	The bank provides error free services					
<u>6</u>	Digital customer communication is personalized to individual user status at the bank					
<u>7</u>	Customer interaction occurs via both the traditional and digital channels of the bank					
<u>8</u>	Customers' needs and wants are included when designing a new service at the bank					

Thank You for your cooperation!

Final Thesis

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