

REPUBLIC OF TÜRKİYE  
GRADUATE SCHOOL OF  
İSTANBUL AREL UNIVERSITY  
EXECUTIVE MASTER OF BUSINESS ADMINISTRATION



DETERMINING FACTORS AFFECTING CUSTOMER  
SATISFACTION TOWARDS MOBILE BANKING SERVICE IN  
MOGADISHU

MASTER'S THESIS

UBAH DAHIR SAID

İSTANBUL, 2023

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SUPERVISOR: ASSOC. PROF. DR. AYLIN ERDOĞDU

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## ACCEPTANCE AND APPROVAL

The Jury finds that “**DETERMINING FACTORS AFFECTING CUSTOMER SATISFACTION TOWARDS MOBILE BANKING CUSTOMERS IN MOGADISHU**” submitted by **UBAH DAHIR SAID** on 22.09.2023, successfully passed the defense examination in partial fulfillment of the requirements of the Graduate School of Istanbul Arel University for the degree of Master's Thesis in Executive Master of Business Administration.

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## **OATH STATEMENT**

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

22.09.2023

**UBAH DAHIR SAID**



## ABSTRACT

### DETERMINING FACTORS AFFECTING CUSTOMER SATISFACTION TOWARDS MOBILE BANKING SERVICE IN MOGADISHU

MASTER'S THESIS  
UBAH DAHIR SAID

GRADUATE SCHOOL, ISTANBUL AREL UNIVERSITY  
EXECUTIVE MASTER OF BUSINESS ADMINISTRATION

(SUPERVISOR: DOÇ. DR. AYLIN ERDOĞDU)

İSTANBUL, 2023

Financial institutions are currently engaged in a fierce competition with one another in order to grow their market share of profits. Banks are one of these institutions that have made a significant transition away from the branch banking model and toward the branchless banking model. The goal of this study was to determine the factors that have an impact on the degree to which a customer in Mogadishu is satisfied with the mobile banking services they have received. A total of 323 mobile banking customers from Salaam Somali and Premier banks took part in the research project, which consisted of administering a questionnaire that had five different measuring scales in order to gauge the customers' opinions on mobile banking. The research showed that consumers saw mobile banking as effective, helpful, and simple to use; yet, their degrees of confidence in the safety of mobile banking varied widely. Trust was highlighted in light of the fact that it plays a significant role in overall level of happiness that customers have with mobile banking services.

According to what was discovered in the research, mobile banking service providers should prioritize the following: making their apps easier to use and more useful; strengthening their security measures; building trust through transparent communication; prioritizing responsive customer support; and continuously monitoring and improving their services.

Mobile banking service providers have the opportunity to increase customer happiness, cultivate trust, and position themselves as platforms that are dependable and safe for conducting financial transactions by putting these ideas into effect.

**Key Words:** Mobile banking, customer satisfaction, security, trust, ease of use, usefulness.

## ÖZET

### **MOGADİŞU'DA MOBİL BANKACILIK HİZMETİNDE MÜŞTERİ MEMNUNİYETİNİ ETKİLEYEN FAKTÖRLERİN BELİRLENMESİ YÜKSEK LİSANS TEZİ UBAH DAHIR SAID**

**İSTANBUL AREL ÜNİVERSİTESİ LİSANSÜSTÜ EĞİTİM ENSTİTÜSÜ  
YÖNETİCİLER İÇİN İNGİLİZCE İŞLETME**

**(DANIŞMAN: DOÇ. DR. AYLIN ERDOĞDU)**

**İSTANBUL, 2023**

Finansal kuruluşlar, kâr pazar paylarını artırmak için şu anda birbirleriyle kıyasıya bir rekabet içindedirler. Şube bankacılığı modelinden şubesiz bankacılık modeline önemli bir geçiş yapan bu kurumlardan biri de bankalardır. Bu araştırmanın amacı, Mogadişu'da bir müşterinin mobil bankacılık hizmetlerinden memnuniyet düzeyini etkileyen unsurları belirlemekti. Müşterilerin mobil bankacılık hakkındaki görüşlerini ölçmek için beş farklı ölçüm skalasına sahip bir anketin uygulanmasından oluşan araştırma projesine Salaam Somali ve Premier bankalarından toplam 323 mobil bankacılık müşterisi katılmıştır. Araştırma, tüketicilerin mobil bankacılığı etkili, yararlı ve kullanımını basit olarak gördüklerini gösterdi; yine de, mobil bankacılığın güvenliğine olan güven dereceleri büyük farklılıklar gösteriyordu. Güven, müşterilerin mobil bankacılık hizmetlerinden genel memnuniyet düzeylerinin belirlenmesinde kilit bir bileşen olarak vurgulanmıştır. Araştırmanın bulgularına göre, mobil bankacılık hizmet sağlayıcılarının uygulamalarını daha kolay kullanılabılır ve kullanışlı hale getirmeleri; güvenlik önlemlerini güçlendirmek; şeffaf iletişim yoluyla güven oluşturmak; duyarlı müşteri destegine öncelik vermek; ve hizmetlerini sürekli olarak izlemek ve geliştirm Mobil bankacılık hizmet sağlayıcıları, bu fikirleri hayatı geçirerek müşteri mutluluğunu artırma, güven oluşturma ve finansal işlemler için güvenilir ve güvenli platformlar olarak kendilerini konumlandırma fırsatına sahiptirek gerekmektedir.

**Anahtar Kelimeler:** Mobil bankacılık, müşteri memnuniyeti, güven, güvenlik, kullanım kolaylığı, kullanışlılık.

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## ABBREVIATIONS AND SYMBOLS

<b>ATM</b>	: Automated Teller Machine
<b>FDIC</b>	: Federal Deposit Insurance Corporation
<b>MMT</b>	: Mobile Money Transfer
<b>IT</b>	: Information Technology
<b>TRA</b>	: Theory of Reasoned Action
<b>ICT</b>	: Information and Communication Technology
<b>IDT</b>	: Integrated Device Technology
<b>IMF</b>	: International Monetary Fund
<b>PDA</b>	: Personal Digital Assistant
<b>TAM</b>	: Technology Accepted Model
<b>PEOU</b>	: Perceived Ease of Use
<b>PU</b>	: Perceived Usefulness
<b>SEC</b>	: Security
<b>PT</b>	: Perceived Trust

## PREFACE

All glory and praise be to Allah who made me possible to finish my thesis into a peaceful manner. I have been working so hard since day one to accomplish this study and it has been a nice experience with lots of ups and down. I have seen a lot of positive things throughout the study and some negative things as well. Time limitation was the biggest obstacle that I have faced during the study, it has reduced the number of respondents those the study has to attain. I really appreciate all different parts who helped me the period I was writing this thesis. My family, friends, and the most important mobile banking users who responded this survey.

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**UBAH DAHIR SAID**

# **1 INTRODUCTION**

According to this point of view, this component of the research activity consists of the history of the study, a statement of the problem, the goal and objectives of the research, research questions, a hypothesis, the scope and importance of the inquiry, as well as any other information that is pertinent.

## **1.1 Background of the study**

The current activity that financial institutions are participating in a fierce competition with one another in order to grow their market share of profits. Banks are one of these institutions that have made a significant transition away from the branch banking model and toward the branchless banking model. The implementation of more recent technological advances has made it possible for financial institutions to grow their customer bases, with the advent of electronic banking being the most significant step forward.

Electronic banking was initially made available to customers in the United States and the United Kingdom around the beginning of the year 2013 respectively. It was not until the advent of the World Wide Web that it started to truly take off. This was when traditional banks started giving their customers internet access to their bank accounts and when new banks started offering online banking services that worked solely on the World Wide Web (Booth, 2014). For many decades, the banking industry has historically functioned in an atmosphere that might be described as being quite stable. However, since the introduction of online banking, the business has become marked by a far more cutthroat level of competition. Because of the change from traditional banking branches to banking over the internet, developing innovative ways to win new clients and keep the ones you already have has become increasingly important (Wong, 2005). Customers who use electronic banking have access to the banking services they require around the clock, seven days a week. Electronic banking, much like Automated teller machines (ATM), gives clients the freedom to select when and where they perform their financial activities (Wong, 2005).

Banking services were performed entirely by hand up to the dawn of the industrial revolution. To then, there was no automated banking system. This approach was characterized by the presence of ledger keepers in the back office, cashiers who also provided front desk service, ledger cards, and cash registers, amongst a great number of other characteristics (Ballard, 2007). Not only is this a laborious task, but it is also physically demanding, time-consuming, and unreliable in its information delivery on a constant basis due to the human error that is involved. The constraints of manual banking that were discussed before almost always lead to client complaints, a delay in the supply of services, lengthy lines, and expensive operating expenses, among other problems. Because of these constraints, the dependability of financial services is reduced, particularly in terms of their correctness and completeness. When managers rely on this kind of information, they end up making decisions that result in increased expenses and administration issues. One clear indication of this is the recent failure of several financial institutions, among them are the Trans-African bank, the Green Land Bank, the Cooperative Bank, and the International Credit Bank. This is as a result of some employees of the back staff engaging in fraudulent activity by altering the manual records. (Arvidsson, 2014).

According to Carreno and Winbladh (2013), The turn of the millennium brought forth unprecedented opportunities, both in terms of the quantity of information and one's ability to access it simultaneously. These new choices brought about an entirely new set of issues in the protection of sensitive information from certain individuals while all at the same making it accessible to others. The modern world of business is very volatile and experiences fast change as a consequence of advances in technology, raised levels of awareness, and rising customer expectations that banks provide electronic services to their clients. Historically, financial institutions have been at the forefront of utilizing new technologies to enhance the quality of their products and services. The 21st-century banking business operates in a challenging and cutthroat market that is defined by rapidly shifting dynamics and a highly uncertain economic climate (Anderson, 1993).

The proliferation of the internet ushered in the age of online shopping and business transactions, which made it possible for companies to conduct transactions and communicate more efficiently with their clients and with one another. According

to Brown and Cameron (2015), in this day and age of global information distribution, the banking business has been taking advantage of this new communication channel to reach its many different types of consumers. This has been happening for quite some time. There is no question that online banking, often known as e-banking, has undergone a sea change and witnessed phenomenal development. There has been a significant movement in the delivery channels that banks use ever since the middle of the 1990s toward the utilization of self-service channels such as electronic banking, with the primary focus being on the utilization of Automated Teller Machines (ATM), as well as internet banking. More than 75% of all banks in Austria, Korea, Singapore, Spain, and Switzerland provide electronic banking services, making these nations some of the world's leaders in the use of this banking method (Charland and Leroux, 2011).

As a result of advancements in technology, electronic banking has reportedly become a necessity rather than a desirable choice for financial institutions, as stated by Global Finance. According to a survey that was carried out and released by Global Finance in the year 2012, Citi Bank and HSBC Banks were found to be the most prominent examples of large financial institutions operating on a global scale that make use of electronic banking in the nations in which they have branches. The report was published in 2012. The use of electronic banking has seen significant expansion around the globe, particularly in the United States, Europe, and parts of Asia. This trend is having an effect on the level of consumer satisfaction in the global banking industry (Daniel, 2012).

As reported by the Federation Deposit Insurance Corporation (FDIC), by the year 2012, more than 73.5% of customers in the United States were paying their household bills using online banking. In France, however, the percentage of internet users who conducted banking transactions online was 76%. This type of technological innovation paints a clear picture for the rise of electronic banking everywhere in the world, which has also had a good influence on the degree of pleasure that customers have experienced (FDIC, 2012).

The use of electronic banking is not yet at the level that it should be in various parts of Africa and the Middle East due to the presence of a wide variety of impediments. The use of mobile wireless communications rather than connected

Internet in these places has had a limited impact on the growth of electronic banking in the region since these locations do not have a Network infrastructure that uses wires. The results of a survey that was carried out by the African Bank indicate that the continent's financial institutions are a long way from achieving a fully functional electronic banking system. This is due to the fact that issues that are encountered on the continent, such as the lack of dependable banking regulations and inadequate supervision in some nations. Electronic Banking provides a variety of online services, including account opening, balance inquiry, application for cheque books, recording stop payment instructions, balance transfer instructions, and other transitional banking services (Foley, 2014).

The most recent development in electronic banking is referred to as mobile banking. As a result of this innovation, clients now have greater access to their bank accounts through various wireless channels. In addition, mobile banking is a type of financial service that allows bank customers to carry out transactions such as checking their balance, transferring credit, and other financial transactions in response to instructions received via their mobile phones. The use of mobile banking services provides benefits to clients in the form of convenience, including the ability to complete financial transactions whenever and wherever they want, along with a simplicity of use. Because financial transactions are encoded and secured with passwords, customers do not need to worry about their safety. (Saleem & Rashid, 2011). The present research studied the user perceptions of mobile banking, concentrating on aspects such as security, usefulness, perceived ease of use, trust, and overall customer happiness. The investigation of the descriptive data yielded insightful information regarding the perspectives of users with regard to mobile banking.

Mobile banking, often known as m-banking, is one of the most recent technical marvels to be developed for mobile devices. Despite the fact that automated teller machines (ATMs), telephone banking, and online banking are all effective delivery channels for traditional banking products, m-banking is the most recent delivery channel that has been established by retail and microfinance banks in many developed and developing countries. This indicates that m-banking is likely to have a significant impact on the market (Safeena et al., 2012). Specifically, The demand for mobile banking services has increased in response to the widespread adoption of mobile

devices such as smartphones. This has motivated a large number of additional banks, microfinance institutions, software houses, and service providers to offer this innovative service along with new sets of products and applications designed to extend their client reach (including to populations without access to banking services), improve customer retention, enhance operational efficiency, increase market share, and provide new employment opportunities (Shaikh, 2013).

The mobile banking service is one of the technologies that banks utilize. Because this service makes it simpler for clients to perform out all banking transactions, traditional banking operations have almost entirely been abandoned by banks in favor of the mobile banking service. Customers connect with the company through various forms of technology, and the mobile banking services that banks offer each have their own distinct qualities. Because of this, mobile banking plays a significant part in the reduction of operating expenses and helps banks create stronger relationships with their consumers (Amin, 2016). The use of mobile banking, often known as M-Banking, can make banking services more accessible in developing nations. The benefits that come with using M Banking's services are not exclusive to those who utilize the service; rather, they are of great utility to consumers (Mullan, Bradley, Loane, 2015).

After the fall of the Somali government led by the former president Siyad Barre in 1991, various reforms involving the Central Bank and the whole banking industry in Somalia were implemented into the country's financial system. These changes included the implementation of new regulations. These reforms are still in effect today. However, In December of 2006, the Central Bank of Somalia was finally able to fully restart its operations in Mogadishu and the primary major towns throughout the country. At the present time, it would appear that the central bank is taking a more passive role, and there are still a great deal of changes and policies that are in the process of being put into effect. Both of these factors delay the ability of the central bank to regain its power and control over the economy and monetary policies in the country. As a result, the Money Transfer Companies (Hawaleh System) have been established in the goal of bridging this gap and providing customers with some of the fundamental banking services they require.

The Hawaleh system's function is not limited to the transmission of money between Somalia and other countries; rather, it also plays an essential part in the financing of local commercial transactions and investments. This is because the Hawaleh system is based on Islamic banking principles. This is necessary because Somalia does not have any commercial or investment banks that have been established. In addition to this, According to Abdusalam (2002), the Hawaleh system is able to fulfill the role of a savings bank since it allows members of the general public to make deposits into both its current and savings accounts.

The concept of using a mobile device, such as a smartphone or tablet, to carry out financial dealings has gained widespread support all around the world, particularly in developed countries in comparison to poor ones, and Somalia is not an exception to this pattern (Mohamad 2011). E-banking is a fairly novel idea in Somalia, and the industry is still in its nascent stages, despite the fact that the adoption process is rapidly gaining momentum in other emerging nations (Sayid, & Echchabi, 2012). In recent years, there have been many changes brought about as a result of the fast growth of IT (information technology), most notably in the manner in which banks deliver services to their clients. Because they are the largest IT service providers and spend a significant amount of money on IT systems, financial service providers like the banking sector are regarded as the most significant IT-intensive service industry. This perception is due to the fact that the banking sector is one of the industries that most heavily relies on information technology (Alkafagi, 2015). Mobile banking was introduced for the first time in 2009 by Hormuud Telecom in Mogadishu, Golis Telecom in Bossaso, and Telesom in Hargeisa. This service is known as Zaad or Sahal financial Services, and it enables customers to use their mobile phones to transfer money, pay bills, and make purchases of goods and services. The availability of technology and the rapid growth of telecommunication systems were the driving forces behind this development. (Dalmar, 2015).

## **1.2 Problem Statement**

People were using bank notes, which is connected to a variety of challenges. For example, There may be issues with loading some paper currencies, there may be issues with the security of some paper currencies, and some paper money may be refused due to rip and long-term use. Additionally, the use of paper money results in a

very minimal and inefficient savings of time. The development and implementation of electronic banking have been met with a variety of reactions and perspectives. One of the points of view is that it is possible that it did not truly promote customer happiness for banking customers. People want new financial services as a medium of trade that are time saving, acceptable, secure, and efficient. Mobile banking has facilitated the answer to the issues that have been discussed above. Using their mobile phones, people are able to make purchases, pay bills, send money to one another, make deposits, and withdrawals, and transfer money between accounts at any time and in any location. Mobile banking has the potential to become a platform for automated banking as well as other financial services, in contrast to traditional phone banking services, which only provide a small number of tasks (Sayid & Echchabi, 2013).

Despite the use of automated teller machines, electronic funds transfers, and mobile banking, a number of consumers at certain financial institutions still do complain about the quality of the services provided to them and are therefore dissatisfied with the level of service provided. Additionally, for the past three decades, the Somali shilling has been difficult to utilize owing to depreciation. As a result, the Somali shilling became more difficult to use, and the US dollar emerged as the predominant medium of exchange in many of Somalia's commercial hubs.

As a result, the purpose of this research is to determine the factors affect customers satisfaction toward mobile banking service in Mogadishu to perceived ease of use, perceived usefulness, security, and trust. of mobile banking and consumer satisfaction in order for mobile financial institutions (MFI) to improve their facilities and make people aware for the development of the banking sector in Mogadishu.

### **1.3 Purpose of the study**

The purpose of this study is determining the factors that affect customer satisfaction towards mobile banking service in Mogadishu.

### **1.4 Research Objectives**

1. To determine the factors that affect customer satisfaction towards mobile banking service in Mogadishu.

2. To determine the impact that providing mobile banking services has had on the level of satisfaction experienced by customers in Mogadishu, Somalia.

3. To analyze relationship between customer satisfaction and selected factors that affect customer satisfaction.

### **1.5 Research Questions**

1. What are the factors that influence customer satisfaction with mobile banking services in Mogadishu?

1. In Mogadishu, Somalia, how does the utilization of mobile banking services influence the level of consumer satisfaction?

1. What is the correlation between customer satisfaction and specific factors that affect it in the context of mobile banking services in Mogadishu?

### **1.6 Research Hypothesis**

**H0:** Hypothesis: The factors that influence customer satisfaction with mobile banking services in Mogadishu do not include ease of use, security, trustworthiness and the usefulness of customer service.

**H1:** Hypothesis: In Mogadishu, Somalia, the provision of mobile banking services will not result in an increase in the level of satisfaction experienced by customers.

**H2:** Hypothesis: There is no positive correlation between customer satisfaction and specific factors such as ease of use, security, usefulness, and the trust of customer service in the context of mobile banking services in Mogadishu.

### **1.7 The Scope of the Study**

This study's scope is limited to determining the factors that affect customer satisfaction towards mobile banking service in Mogadishu; as a result, a questionnaire will be used as the method for collecting data. In addition, the study will investigate how the new method of banking will contribute to the development of commerce and

how its economic effects will play out practically on the monetary side. Additionally, it assesses the degree of adaption to this new method in the society of Somalia, particularly among those living in Mogadishu.

### **1.8     Significance of the Study**

This study will determine the factors influencing customer satisfaction towards Mobile Banking service in Mogadishu. Numerous members of the public can benefit from this study in various ways. In the first place, the owners of telecommunication companies can use the study to indicate and to know for themselves that they supplied very important services. Besides that, the owners of businesses can also use this study to educate themselves on the role that mobile banking plays in determining the level of satisfaction experienced by customers. Moreover, additional customers who utilize mobile banking can benefit from the findings of this research. Finally, mobile phone companies may utilize the findings of this study to enhance or extend their services in a way that contributes to the overall economic growth of the nation. This is one of the ways that the study can be put to use.

## **2 LITERATURE REVIEW IN THE OUTLINE**

This unit will include a presentation of the relevant accessible works about the elements that affect customer satisfaction with mobile banking services, and it will also provide an appraisal of that material. Additionally, the following sections we will talk about some of the elements that influence the extent of satisfaction a customer has regarding mobile banking services. Throughout the following chapter, we will talk about a variety of subjects, such as previous research, terminology, and the elements that effect customer satisfaction with mobile banking services in Mogadishu.

### **2.1 Theoretical Review**

#### **2.1.1 Theory of Reasoned Action**

The purpose of developing the Theory of Reasoned Action, often known as TRA, was to gain a more comprehensive comprehension of the connections that exist between attitudes, intentions, and actions. (Fishbein, 1967). This has to be probably the most crucial significant arguments that has ever been proposed to explain what motivates people to act in the ways that they do (Poon 2008). Individual's views about a certain action and their subjective standards might help explain why people want to engage in certain behaviors, such as using technology. As a result of increased competition and deregulatory policies, many service and retail companies are searching for lucrative methods to differentiate themselves from their competitors; one approach that has been associated with a higher rate of success in organizations of this sort is the provision of high-quality services (Cheah, 2011). As a result of improved revenues, greater cross sell margins, improved customer retention, and purchasing habits (Kaynak & Harcar, 2015), over the course of the last ten years, one of the most pressing concerns in the monarchy of research has been the examination of service quality. The banking industry was forced to recognize the need of providing excellent customer service in order to remain competitive in a market-driven environment. What determines diversity in a particular service may not be appropriate to diversity in another service industry, given that the service industry as a whole is highly diversified. Because of this difference, the services offered in this sector were unable to be standardized; furthermore, the intangible nature of these services meant that they could not be compared to one another or viewed. There is a direct connection between

the two concepts of customer satisfaction and the service quality that is offered to them. The situation of technical environment is being changed together with the degree of customer satisfaction as electronic banking becomes more widespread. This is due to the fact that the degree of customer service delivery is also increasing alongside the prevalence of electronic banking (Hamisah, 2013).

One application of information technology, in this case taking the form of online banking, is acknowledged as Electronic-banking, it plays a vital part in the provision of improved services at reduced costs. An increase in customer contentment leads to a deeper consensus reached by both parties, increased customer loyalty, and a strengthened trust link among the consumer and the bank. The clients have a higher opinion of the reputation of the financial institutions that offer these services to a greater extent to their clientele. E-banking plays an essential part in giving customers satisfaction as it connects the gap among the degree of service quality that is expected and the amount of service quality that is perceived. Since customer's satisfaction is an outcome of the level of client expectation and the degree of service quality supplied by the corporation.

### **2.1.2 Innovation Diffusion Theory**

This idea, which was proposed by Roger (1983), explains why individuals have the desire adopting a new technology as a means of doing a task in place of the method that has always been used to carry out the activity. The following qualities—relative advantage, reliability, difficulty, trials, and observability—play a crucial influence in determining whether or not an innovation will be widely utilized at the general stage: compatibility with existing systems, ease of use, and potential for experimentation. Utilization of information and communications technology (ICT) into bank operations has been demonstrated to be advantageous for a wide variety of financial institutions, which has helped these institutions become more productive. This is accomplished through the development of websites as well as applications for mobile devices that are tailored to meet the requirements of the consumer. Because of this, consumers may access their accounts from any location so long as they have an active internet connection on their device. This theory analyzes the process by which a fresh technical notion, artwork, or procedure, or an innovative use of an old one, moves beyond the stage of invention to the phase of implementation. According to the Information

Dissemination Theory (IDT), technical innovation is spread throughout the individuals who are a part of a community over a period of time and by a range of distinct channels.

The following are the phases that a technological innovation passes through: knowledge, which refers to the comprehension to its presence and the understanding of its roles; persuasion, which refers to the development of a favorable mindset towards it; choices, which refers to dedication to its adoption; implementation, which refers to placing it to use; and approval, which refers to encouragement based on the positive effects that it creates (Arnaboldi & Claeys, 2008). In a parallel fashion, the safety of internet banking has been increased in response to the prevalence of online fraud and other threats that may be found on the internet. Early adopters often have a higher level of education, a higher social position, a higher willingness to communicate through both traditional forms of media and informal channels, and a greater number of contacts with people who may affect change. When it comes to the knowledge stage, the role of mass media channels is comparatively more essential, but the role of interpersonal channels is relatively more important when it comes to the process of arriving. Barnes and Corbitt (2013) advise that managers should have a solid understanding of the capacities of any given technology as well as the benefits that result from the utilization of that technology before making a decision regarding what technology to use throughout their business. Additionally, it is important for managers to be aware of the expenses and limitations associated with operating that kind of technology.

It seems that he is implying that the widespread worries that should be considered include the degree of the technology's maturity, the range of outputs, both in terms of quantity and variety, that the technology is able to do, and how well it fits in with the technology that is already being utilized by the organization. Because it takes place on the internet, online banking is highly dependent on information and communication technology (ICT). Customers have the ability to view their accounts remotely, eliminating the need for them to travel to the bank in person.

### **2.1.3 Contrast Theory**

It is generally accepted that Hovland, Harvey, and Sherif were the first people to develop the contrast theory (1987). In the words of Dawes and his colleagues in

1972, contrast theory has been described due to the propensity to accentuate the disparity across one's own viewpoints and the opinions that are reflected through declarations of view. These definitions were published in the journal *Personality and Individual Differences*. Post-use evaluations can produce results that are inconsistent with the assumptions made regarding the influence of anticipations on levels of contentment, which is one of the main tenets of contrast theory, which offers an alternate view of the customer post-usage evaluation process to the one that was offered by assimilation theory. In contrast to the previous method, which required customers to physically take money from a teller in order to access the monies in their accounts, consumers now can get control to their money whenever they want and in a far more convenient manner thanks to the advent of automated teller machines. If a bank wants to raise the level of client pleasure they provide, they are required to make large expenditures in the ATM system or to engage already existing regional or global networks such as MasterCard, visa cards among others.

The assimilation hypothesis postulates that customers would want to narrow the gap between what was expected and what was really accomplished. The alternative, which is known as contrast theory, postulates that an effect of surprise is going to take place, which will result in the disparity becoming significantly larger or more obvious. According to this theory, any discrepancy between an individual's expectations and their reality is amplified in the path of the difference., in accordance with the contrast theory. If a company were to advertise in such a way as to inflate customers' expectations, and then deliver a product or service that is even marginally inferior to what was promised, consumers would consider the product or service to be wholly unsatisfactory. In advertising, under-promising will cause positive disconfirmation to be overstated, while over-delivering will have the opposite effect (Prathima 2003). According to this idea, commercial banks must continue to introduce new goods into the market that raise the level of pleasure experienced by customers while also maintaining parity with the requirements of the market.

#### **2.1.4 Assimilation-Contrast Theory**

In the context of post-exposure performance of commodities, the assimilation-contrast concept was initially presented for the first time by Anderson (1973). The idea was developed on the basis of Sherif and Hovland's (1961) study of the incorporation

and variation effect. According to the assimilation-contrast theory, the imbalance will be fully ignored; assimilation will be taken advantage of, and the quality of the performance will be deemed satisfactory if it falls within a customer's willingness to accept a variety of conditions, despite the fact that it may fall short of expectation. This is due to the fact that the idea contends that even if performance is within a customer's margin of acceptance, it is still possible for it to fall short of what was expected. This is despite the fact that the performance may miss the mark of the customer's anticipation. If the product's performance is within the margin of error for refusal, difference will conquer out, and because the variance was blown out of proportion, the product or service will be considered undesirable. It has been suggested that the assimilation-contrast theory can be used to provide an additional explanation for the links that exist between the variables in the gap model. The assimilation theory and the contrast theory have been brought together to form one single theory. According to the premises of this paradigm, the degree to which one is content is proportional to the gap that exists between their expectations and their actual level of achievement. As is the case with the assimilation theory, Consumers have a propensity to integrate or alter disparities in their views regarding product performance in an effort to put it in line with their expectations, which might lead to unsatisfactory results (Frame & White, 2009). However, this tendency is only present when the gap in perceptions is relatively small.

It is the responsibility of commercial banks to guarantee that the movement of funds from one account to another is carried out in the most effective manner. This may be accomplished through the use of electronic transfers, which may be started through the bank or by the customer themselves via the customer's secure online banking. In an effort to prove that either the assimilation theory paradigm and the contrast theory paradigm are applicable to the study of the phenomena known as customer satisfaction, the assimilation-contrast theory compares and contrasts the two. When the performance of the product is impossible to assess, desires may prevail, and the adaptation effect was observed; the opposite effect is likely to occur in circumstances where there is a high level of engagement on the part of the individual. Other factors besides the magnitude of the gap have the potential to influence whether the assimilation effect or the contrary effect would be discovered. According to Frame

and White (2009), the intensity of the expectations may also play a part in determining whether assimilation or contrast effects are noticed.

If commercial banks wish to achieve the desired degree of customer satisfaction, they have established for themselves, they will need to meet the criteria that their customers have set for them as well. Customers will be unsatisfied and may have a bad view about the company if they do not do this, which may result in a reduction in the amount of customer loyalty. Assimilation is going to occur, and the outcome will be seen to be acceptable if it lies within a customer's scope of acceptance, in accordance with the assimilation-contrast hypothesis. This indicates that even if the service provided is not up to the standards set by the customer, the client will disregard the discrepancy and consider the performance to be satisfactory. If the performance is inside the margin of error for rejection, no matter how closely it resembles the expectations, contrast will win out, and the gap between the two will be perceived as being disproportionately large, leading to the conclusion that the product is undesirable (Bauer 2006).

### **2.1.5 Disconfirmation Theory**

According to the disconfirmation theory, "satisfaction is associated with the amount and nature of the experience of disconfirmation that happens as a consequence of assessing the provision of services compared to anticipation." This assertion is made in support of the disconfirmation hypothesis. According to the findings of Szymanski and Henard's meta-analysis, the disconfirmation model is the most accurate indicator of how satisfied customers will be (Gardachew, 2010). According to Oliver's revised description of the disconfirmation theory, which is cited in Fang, Tian, and Tice's (2010) article, "satisfaction" is the fulfillment reaction of the visitor. A decision that a feature of a product or service, or the goods or service in itself, gave (or is delivering) a gratifying amount of satisfaction associated to consumption, including levels of under- or over-fulfillment. This is a remark that can be made in either an absolute or relative sense.

As stated by Karjaluoto, Mattila, and Pento (2012), the disconfirmation theory is one of the most frequently accepted explanations for the phenomenon of customer satisfaction. This theory contends that a person's level of happiness is proportional to

the magnitude and nature of the dissatisfaction they feel as a result of evaluating actual service outcomes against their preconceived notions of what they should be able to expect from the provider. To put it another way, direct interactions with the company's goods or services are the primary driver of customer satisfaction, and it arises as a result of comparing one's views to a benchmark such as one's expectations. Research additionally indicates that the way in which the service was delivered is more important than the outcome of the service process itself, and that customer dissatisfaction with the service can often be the consequence of their views of the service lacking to meet up to the anticipation they had for the service. If commercial banks ever want to get constructive criticism from their clients, they have no choice but to make certain that their needs have been adequately met at all times. Referrals from existing customers have the potential to be a significant driver of business growth. Therefore, financial institutions should make investments in the most recent technology and adapt to innovative approaches to the management of financial transactions and corporate operations, such as mobile and online banking services, and electronic currency transfers.

## **2.2 Empirical Literature Review of the Study**

In the sections that are to follow, a review of the earlier research that was carried out with the objectives of the study keeping in mind will be presented.

### **2.2.1 Mobile Banking and Customer Satisfaction**

An application of mobile commerce known as M-Banking is made available by financial institutions or banks to their customers. Customers have the chance to conduct monetary operations electronically by utilizing a mobile device such as a personal digital assistant (PDA), mobile phone, or smartphone. This service is provided by the company (Al-Jabri and Sohail, 2012). This service was developed to facilitate financial transactions, including the monitoring of banking accounts, the completion of transactions, and the transfer of funds (Alkhaldi, 2016; Arcand et al., 2017; Slade et al., 2015a, 2015b). M-Banking is one of a kind because, in comparison to earlier forms of electronic banking like computers, kiosks, and laptops, it possesses distinct and more sophisticated the quality of the system, the quality of the information, and the quality of the service. This makes it stand out from other forms of electronic

banking (Tam and Oliveira, 2017). For example, if a consumer were to own a mobile device, they would be able to conduct financial transactions without the requirement of physically fixed devices.

Because of this, mobile banking allows users to interact with the online world at any time and transact business at the same time, which, in turn, has altered the manner in which financial services are utilized (Aboelmaged and Gebba, 2013).

The process of receiving financial products and conducting banking activities via the utilization of intelligent electronic devices such as smartphones and tablet computers, is referred to as "mobile banking.". The amount of material that has been released that is pertinent to mobile banking has experienced a substantial growth over the course of the past few years, with various studies examining its advantages, disadvantages, and adoption patterns. Customers benefit from a higher level of flexibility when using mobile banking, which is one of the most significant pros of using this method. Based on the conclusions of an investigation that was conducted out by Almutairi and Al-Saggaf (2016), clients who utilize mobile banking facilities have a higher level of control over their personal money and have an increased level of accessibility to services of banking institutions. It has also been demonstrated that mobile banking may lower the costs of delivering financial services while simultaneously increasing the effectiveness of institutions (Goyal and Roy, 2017).

The convenience of mobile banking also comes with the benefit that it contributes to greater financial inclusion. Mobile banking makes it attainable for individuals who previously were unable to have access to regular banking methods to use the service to make use of financial services (Bagchi and Basu, 2017). Mobile banking also has the potential to contribute to the reduction of financial crime since it enables financial institutions to monitor transactions in real time and identify potentially fraudulent behavior (Zhou, Liu, and Yin, 2019). Nevertheless, in spite of these advantages, utilizing mobile banking is not without its share of severe difficulties. Mobile devices are particularly susceptible to hacking and other types of cybercrime, which presents one of the most significant difficulties (Goyal and Roy, 2017). Another obstacle is customers' lack of trust in mobile banking, which may be attributed to a variety of causes, including worries about personal data protection and a misunderstanding of how the technology works (Bagchi and Basu, 2017).

Based on the outcome of a study that was done by Tian (2017), the capacity to admission a diverse selection of financial services, such as management of accounts, banking transactions, besides bill payments, via mobile banking makes a substantial contribution to the overall satisfaction of banking customers. This underscores how important it is to provide consumers with a broad suite of mobile banking services so that they can satisfy a wide variety of their banking demands. Based on the conclusions of another survey, one of the most important aspects that contributes to customer satisfaction is the degree of ease of use that is offered by mobile banking services. This includes the client's capacity to use the banking services whenever and wherever they want (Shahzad, 2017). This demonstrates how important it is to design mobile banking services that are not only simple to use but also provide a high degree of utility to customers.

Customer satisfaction with mobile banking services is determined in large part not only by the ease of use and variety of available services, but also by the level of protection and discretion afforded to customers' financial information (Ahmad, 2015). If customers believe that both their personal and financial information is protected, they are more likely to utilize mobile banking services provided by financial institutions. According to a number of studies, customers are further willing to utilize mobile banking services if they have the perception that their personal and financial information is safeguarded from the risk of fraud and theft (Goyal, 2015). It indicates how essential it is to make investments in mobile banking systems that are trustworthy and secure in order to protect the personal information of customers and cultivate their faith in mobile banking services.

It has been demonstrated that the implementation of mobile banking services has a beneficial impact on client satisfaction and results in a boost in customer satisfaction (Ndubisi, 2016). Customers receive a high degree of ease and versatility from mobile banking services, which can result in enhanced customer feedback and higher levels of customer satisfaction. Additionally, mobile banking services may assist to enhance consumer experience by making it more convenient for to use banking services and by providing them with real-time information on their accounts. This helps customers feel more connected to their financial institutions (Tian, 2017).

This higher degree of involvement can potentially lead to an increase in customer satisfaction as well as a better level of client retention.

Other studies have indicated that a customer's level of satisfaction with mobile banking services is positively associated to a number of aspects. These factors include the customer's perception of the services' ease of use, security, and trustworthiness. For instance, a study that was conducted by Alqahtani (2017) discovered that the perceived ease of use of mobile banking services is a crucial feature in determining the level of client pleasure. In addition, the provision of personalized services and the supply of a broad range of services have also been cited as elements that contribute to the satisfaction of customers with mobile banking (K pmg, 2016). According to the findings of another study performed by Adebajo and Oyediran (2015), the level of customer satisfaction can be directly correlated to the levels of security and trust provided by mobile banking platforms.

### **2.2.2 Customer Satisfaction**

Customer satisfaction may be measured by looking at the mark in which a company or bank's product and services lives up to the client's expectations, as explained by Turunen (2011). This metric can be used to both for-profit and nonprofit organizations. The difference between what customers expected and what they actually received, which ultimately contributed to their dissatisfaction, is referred to as the "customer gap" regarding the subject of evaluating how well a service or a product performed in correlation to what customer wants. We call this the "customer gap" when assessing how well a product or service performed in relation to what customers expect.

According to Ozatac et al. (2016), customer satisfaction is a measure of excellent service, and this is precisely what is meant by offering a product and a service that satisfies the expectations of the customer. The level of contentment of a customer and his loyalty can be influenced by a variety of different elements, including their buying habits, expectations, information sources, and whether or not they have heard good things about a certain company or financial institution. Customer satisfaction is the ultimate driver of client loyalty, which in turn leads to increased profitability for financial institutions and other businesses tied to those institutions. According to

Caruana, the term "customer service quality" describes how clients evaluate and expect the services provided by a financial institution (2002).

Keeping customers happy and retaining their loyalty requires providing a wide range of services, one of which is internet banking. If a bank's online banking services are unable to fulfill the demands of its clients, it should devote more time and resources to the problem to improving the quality of its online banking services. In accordance with Anderson et al., the level of fulfillment experienced by a customer is dependent on the number of customers who purchase and use a product or service for a predetermined amount of time (1994).

Uddin and Akhter (2012) conducted a study, they found that the satisfaction of a client is directly proportional to the quality of the service provided. Customer pleasure is substantially connected to service excellence, according to Elmayar (2011).

Consumer satisfaction is an indication of how efficiently a product or service satisfies the anticipation of customers. According to Dahlberg and Mallat (2002), a supplier of mobile payment solutions is responsible for ensuring that "ease of use, security, costs for transactions that are reasonable, and numerous applications of the solutions enhance perceived value to customers and ought to be handled by payments made via mobile device service provider." Customers are regarded as pleased when these factors are present. The implementation of mobile banking by financial institutions is a strategy for reaching customers that cannot currently be reached, in particular people who have limited the ability to access financial services, and also for making financial products and services accessible at all hours and in any place, without the requirement that a person go to a bank branch. Mobile banking services help clients to make more efficient use of their time in comparison to traditional banking methods.

The contentment of a bank's clients contributes favorably to the institution's overall prosperity. When customers of a bank are pleased with the products and services that the bank offers, the bank has a higher likelihood of becoming profitable. Because satisfied customers have a greater tendency to make further purchases and to continue to be loyal to the brand, and spread satisfied customers marketing. According to Niveen et al. (2015), businesses are employing a high focus on the pleasure of their customers because they recognize that this factor is essential to increased

organizational performance in a global market setting. Companies are able to decide the necessary steps to satisfy their customers' requirements when they have a better grasp of how their consumers perceive the company. They are able to evaluate themselves in terms of their own strengths and limitations, as well as where they stand in contrast to their rivals, and they are able to devise strategies for future growth and improvement (Santhiyavalli, 2011).

## **2.3 Factors Affect Customer Satisfaction**

In this section, we will discuss the aspects that influence the level of satisfaction that customers have with mobile banking services.

### **2.3.1 Perceived Ease of Use (PEOU)**

The grade to which a customer trusts that employing a specific form of help would be uncomplicated is referred to as the customer's perception of ease of use (PEOU), which is an abbreviation for "perceived ease of use", straightforward, and uncomplicated (Davis, 1989, referred to by Ramdhony and Munien 2013, Al-khalaf & Choe 2020). It is connected to the amount of difficulty that the customer sees in the usage of technology and mobile assistance in routine everyday living (Chitungo and Munongo 2013, Hiteshi Ajmera and Viral Bhatt 2020). According to Aboelmaged and Gebba (2013), PEOU has an effect on an individual's attitude toward the application of innovation. The results of previous studies have led researchers to the conclusion that PEOU is an essential characteristic of internet-based and wireless business applications, including Internet exchange, web-based banking, and smartphone business (Lin and Wang 2006). According to Aboelmaged and Gebba (2013), a positive and convincing unique experience should be prompted by PEOU in the ID of data and the concluded exchanges.

### **2.3.2 Perceived Usefulness (PU)**

PUS can be understood as the abstract possibility that another innovation will enhance the way that a customer receives an even-handed (Silva Bidarra 2013) or as how much people accept that the use of a particular platform will develop their productivity at work (Kazi and Mannan 2013, K. Raja (2019)). This is according to Davis (1989), who stated that PUS can be interpreted in either of these two ways.

According to Venkatesh and Davis's (2000) research, the saw PUS is the primary antecedent that determines the behavior objective for the usage of a personal computer system (Kazi and Mannan 2013). PUS is widely acknowledged to have a reliable and advantageous effect on the application of an innovation (Chitungo and Munongo 2013, Hodjat Hamidi 2019, Mehrdad Safreeyad 2019). When customers realize the benefits that mobile banking may bring to their efficiency at work, they cannot wait to start using the service. When customers witness their coworkers, friends, or family using mobile banking and giving favorable feedback about it, they are more likely to view it as useful themselves. On the reverse side, it is exceedingly doubtful that people will have a positive reaction to the structure if they discover that the system does not assist them in the process of carrying out their individual responsibilities (Hiral Vora, Viral Bhatt, and Dhawal Jadav 2020, Anjar Gumelar, Muhammad Irfan Nasution, Ida Farida Oesman, Frida Ramadini, Mohamad Irfan, and Nurliana 2019).

### **2.3.3 Security**

The provision of electronic banking services is mostly accomplished through the utilization of data technology and web-based institutions. The entirety of the information and data held by banks is eventually uploaded to the internet, making it feasible for programmers to compromise said information and data (Sadia Khatoon, Xu Zhengliang, Hamid Hussain, 2020). The security factor evaluates the level of security of a business's customers' identity, data, and cash. Primes are used in the evaluation of the PSE factor. Research conducted by Aluoch (2012) on the reception of mobile banking in Kenya revealed that customers are swiftly accepting the mobile banking revolution despite the reality that there are security risks involved. This was discovered as a result of the research that was carried out in Kenya. Kenya was the primary focus of the investigation.

### **2.3.4 Perceived Trust**

Perceived Trust is a prosecution that traders are ready and willing to hold on dependent on a person's expectation (Grazioli and Jarvenpaa 2000, Luhmann 1979, Sc Vettrivel, J. Rajini,) and to avoid an artful conduct (Grazioli and Jarvenpaa 2000, Luhmann 1979, Sc Vettrivel, J. Rajini,). This is described as a belief in the context of online business (Gefen 2003, Hosmer 1995, Williamson 1985). Perceived

Trust lessens blackmail and the possible risk caused by dishonest behavior (Pavlou, 2003, Aiswarya Sivarajan, Juby Rachel Philip, and Abymon A2018) and provides consumers with clear benefits, such as receiving more trustworthy financial services from legitimate institutions (Gefen 2003, Uwalaka, Samuel C. & Dr. Peace Eze 2020). When customers have faith in financial institutions, they will see the benefits of mobile banking and be excited to begin utilizing it.

## **2.4 Mobile Banking in Somalia**

The great majority of individuals across Africa like using their mobile phones as their primary means of both transmitting and receiving monetary transactions when it comes to dealing with financial matters (Mangudhla 2012). The partnerships between the telecommunication and banking sectors are a resource for mobile banking (Ayo et al. 2012; Ali & Dhaha 2014, 181). Mobile money services emerged as a result of the coordination across the telecommunication and banking industry.

M-PESA was the first mobile money transfer service in Africa, and it was launched in 2007 by Safaricom of Kenya, which is a collaborator with Vodafone. The mobile money transfer network known as MPESA (where "M" stands for mobile and "PESA" is the Swahili word for "money") can be accessed at a number of different sites, such as the company's headquarters, its primary branches, and allowed commercial venues. Within the first month that M-PESA was offered, Safaricom enrolled more than 20,000 customers for the service (Hughes & Lonie, 2007). After five years of the service's implementation, the total number of users in Kenya exceeded more than 15 million (Michaels, 2011). His argument is that the widespread adoption and approval of this service by users can be attributed to a variety of aspects, the most important of which are the credibility of the service provider, the substantial number of people in the population who do not have bank accounts, the quick migration to cities for work, and eventually, the users' dedication to their families back in their home towns. According to Hughes and Lonie (2007), the M-PESA was conceived largely with Kenya's population who lacked access to traditional banking services in mind. The MMT was also subsequently implemented in a number of African nations in the succeeding years, including Nigeria, South Africa, Tanzania, and Ghana, amongst others. When compared to the success of Kenya's M-PESA, the success of these services in South Africa and Ghana was significantly lower (Tobbin, 2010).

Hormuud, a Somalia's biggest telecommunications operator, was the pioneer in the country's Mobile Money Transfer service introduction. The first service to be provided was the ZAAD service; nevertheless, the AL-Shabab Group later banned the usage of this service. In subsequent years, the firm launched a new, more sophisticated service known as EVC Plus. Later on, other service providers of telecommunications supplied comparable goods under a variety of brand names.

The ineffectiveness of the state authority in Somalia has a negative impact on the fundamentals of daily living. However, the telecommunications industry stepped in to fill the void left by the government by bringing game-changing technology (Osman, 2017). This sector is responsible for the provision of a variety of services, including landlines, mobile phones, the internet, and mobile banking. When it comes to paying using a smart telephone, mobile banking, also known as mobile money transfer, is quite common among the most cultured and dynamic individuals in Africa (Osman, 2017).

The development and acceptance of these Mobile banking services in Somalia is the result of a complex interplay of many different circumstances. One of the primary reasons for this is because there are not many banking options available in the country. With addition to this, there is a significant amount of danger involved in carrying cash due to the fact that the country is still politically unstable and is in the process of recovering from nearly two decades of anarchy and civil war (Mohamed, 2013). The members of the Somali diaspora send enormous amounts of money back to their homes in Somalia to support their family, friends, relatives, and business partners. As a direct result of the continuous economic crisis, extreme hunger and famine a significant number of people are making the move to the major cities in the hopes of finding employment there. All of these elements, which were behind the development of mobile banking in other countries, notably in Africa, might potentially contribute to the acceptability and utilization of mobile banking services by the Somali people.

There is a paucity of empirical and quantitative research available on the present state of the industry with regard to the implementation of mobile banking across the country. When Sayid, Echchabi, and Abd. Aziz (2012) conducted their research on the spread of mobile money in Somalia, they made use of the TAM model.

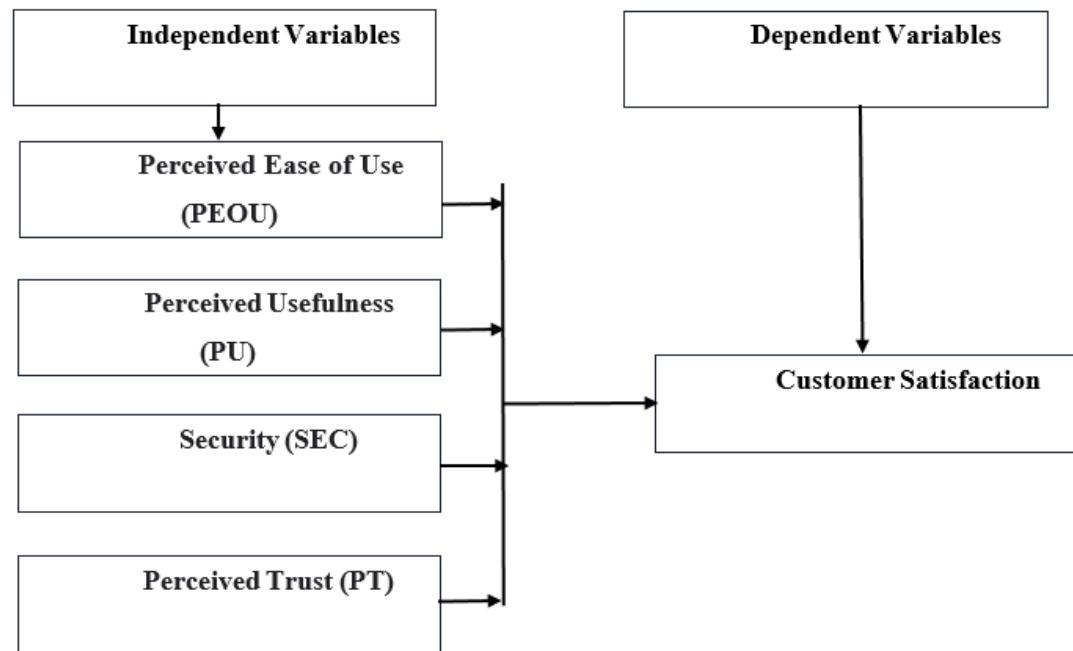
According to the findings of Sayid et al (2012)'s study, perceived usefulness and security both have a optimistic effect on one's attitude toward mobile banking. On the other hand, social impact and perceived usefulness both have a significant and beneficial influence on one's aim to embrace mobile money.

The provision of banking services to customers in Somalia via their mobile phones is a fast-expanding industry that is seeing significant growth. Many people in the country are now able to access financial services that were previously out of their reach since mobile phones are becoming more widely available in the country. In the next section of this literature study, we are going to investigate the present situation of mobile banking in Somalia as well as its effect on the financial sector of the nation. The broad usage of mobile technology is one of the primary elements that is contributing to the expansion of mobile banking in Somalia. Over 70% of Somalia's population reportedly possesses a mobile phone, giving the country one of the highest mobile phone penetration rates in all of Africa, according to research published by the World Bank (World Bank, 2020). This high degree of mobile technology adoption has generated a big market for mobile financial services, leading to the proliferation of mobile banking services offered by a variety of financial institutions and mobile network operators to their respective customer bases. Mobile banking has made a big contribution to expanding people's access to financial services in Somalia. According to the data from the World Bank that was just cited, mobile banking has boosted access to financial services for those living in rural regions, which traditionally have restricted access to traditional banking services (World Bank, 2020). This has made it possible for many people who did not previously have access to financial services to make payments, save money, and manage their finances in a more straightforward manner.

The use of mobile banking in Somalia has also shown to be advantageous for the economy of the country. According to the findings of a research conducted by the International Monetary Fund (IMF), the use of mobile banking has contributed to the expansion of people's access to financial services and the enhancement of the effectiveness of financial transactions in the country (IMF, 2021). The introduction of mobile banking services has resulted in a reduction in the fees associated with sending and receiving monetary transfers, making it simpler for people and companies to carry out financial dealings. Because of this, economic expansion and development in the

nation have both benefited as a direct and indirect result. The current study investigated user perceptions of mobile banking, focusing on factors such as security, usefulness, perceived ease of use, trust, and customer satisfaction. The findings suggested that participants found mobile banking apps simple to comprehend and learn, that they improved their efficiency in executing transactions, and that they valued the low effort necessary for payments. This was the overall conclusion drawn from the research and what differentiates it from the prior studies in the literature review.

## 2.5 Conceptual Frame work of the Study



**Figure 2.1 Conceptual Framework of the study**

## **3 RESEARCH METHODOLOGY**

### **3.1 Introduction and Objective**

This chapter provides an overview of the research methodology that was utilized in the identification of the characteristics that influence the level of satisfaction that customers in Mogadishu have regarding mobile banking services. The study design and the demographic that is the focus of the study are discussed at length to start the chapter. The method of data analysis, the data gathering procedure, and the sample technique are the next topics to be covered.

### **3.2 Research Design**

According to John W. Creswell, it is "a plan or blueprint for doing the study, with a set of intended processes or stages to be followed in acquiring and interpreting data." Creswell describes it as "a plan or blueprint for performing the study" (Creswell, 2014). This description places an emphasis on the methodical and organized aspect of research design, as well as the necessity of adhering to a predetermined strategy as a way to ensure the authenticity and dependability of the results. For the sake of the current study, a descriptive research design was used to guide the procedures of data gathering and analysis. According to Kumar (2019), descriptive research design is one that is utilized for the purpose of describing the characteristics of a population or event. The features of a group of people or an event can be characterized using this form of research design, which can be utilized to that end. The purpose of this study strategy is to paint an accurate picture of the phenomenon that is being investigated. Because this study's objective is to investigate the characteristics that have an impact on the amount of satisfaction a customer has with mobile banking service. The descriptive approach for conducting studies was chosen as the methodology for this study's research design.

### **3.3 Research Population**

According to the definition provided by Copper and Schindler (2014), a set of variables or elements that serve as the basis for the generation of a statistical sample is referred to as population of a study. In a similar vein, Saunders, et al., (2014)

indicates a study population as a whole collection of variables that obtain an identical visible characteristic and that a researcher takes pleasure in carrying out a study on; a population represents the total number of objects and components from which a researcher desires to derive findings from the research. In the city of Mogadishu, clients of mobile banking services make up the population of this research. Those who have made use of the mobile banking services offered by Salaam Somali and Premier banks are considered to be customers of such institutions. Due to the fact that these banks maintain strict confidentiality regarding customer information, it is extremely challenging to determine the actual number of people in Mogadishu who use mobile banking. As a result, it is impossible to control the overall population for the purpose of this research.

### **3.4 Sample Size**

The proportion of the investigation's sample, which refers to the total number of participants in the investigation or the observations that will be made, is an essential component in the process of creating the research project. Many aspects, such as the research topic, the study design, the statistical methods that will be employed, and the amount of precision or power that is required for the analysis, are taken into consideration when determining the sample size. According to Rosner 2015, The intended level of precision, the variability of the outcome measure, the amount of statistical significance and power desired, and the study design all have a role in determining the sample size, which refers to the total number of individual items that make up a sample. In general, more precise estimates and increased statistical power are the outcomes of conducting research with a bigger sample size. Sulaiman et al., (2020) in their survey on the impact of trust and perceived risk on customer satisfaction with mobile banking services in Malaysia suggested a sample size of 384 mobile banking clients as the appropriate number for this study's sample population. This number has used to determine the sample size for this study.

### **3.5 Sampling Technique**

According to Cox and Hassard (2010), a sampling technique is a mechanism that an academic use to decide how to choose or recognize the real population units, which will be utilized as the participants of the study. In other words, a researcher uses

a sampling technique to figure out how to decide or recognize the true sample units. Because the target population is indefinite, this study uses the convenience sampling technique because it is suitable to the situation, as well as because it is easy, saves time, and is cost-effective for primary data collecting. In addition, a large number of researchers, including but not limited to, have traditionally used convenience sampling (Shaw, 2014; Chawla and Joshi, 2020).

### **3.6 Research Instrument**

Within the scope of a research investigation, a tool that is utilized for the purpose of data collection is referred to as a "research instrument" by Bryman and Bell (2019). A questionnaire, an interview guide, or an observation checklist are all potential forms that this could take. A written instrument known as a questionnaire is comprised of a series of sequential presented inquiries or items aimed at gathering information from a sample of respondents. The gathering of information is the objective of the questionnaire (Kim, 2021). The researcher will utilize an adapted and modified version of a questionnaire that was developed by Khan and Qureshi (2020). According to Khan and Qureshi (2020), the questionnaire for measuring customer satisfaction towards mobile banking service should cover aspects like perceived ease of use, transaction security, superiority of service, perceived usefulness, and trust.

#### **3.6.1 Validity and Reliability Instrument**

The extent of how a tool examines what it aims to measure is described to as the instrument's validity, while reliability defines the uniformity and safety of the results obtained from using the instrument across a variety of contexts and points in time (Krejcie & Morgan, 2018). The data collection instrument was developed to gather data that particularly tackles the issue of the examination, and in order to achieve the goals set in this investigation, the investigators will apply the index for material validity in order to give accurate data on the correctness of the questionnaire. The Cronbach's alpha coefficient will be applied for the aim of identifying whether or not the questionnaire possesses internal uniformity. According to DeVellis (2017), the widespread consensus is that an acceptable level of dependability can be demonstrated by a Cronbach's alpha coefficient of 0.7 or above.

### **3.7 Data Collection Method**

The questionnaire for the online survey that has used to collect the data for this study so that respondents can administer it to themselves. The Google document form questionnaire was delivered to mobile banking customers in Mogadishu via social media platforms including WhatsApp, Facebook, E-mails of participants, and other media to complete out the questionnaire. Mobile banking clients in Mogadishu have been able to access the survey through their mobile phones. This study targeted 384 mobile banking users in Mogadishu to collect the data and relative information, however this number was unreachable because of time limitations which has made quite difficult to attain the study's target respondents. There for the study has 328 real respondents which the study has deployed. According to Wong (2021), a questionnaire is an organized instrument that is employed for the purpose of gathering information from a cross-section of individuals. In most cases, it takes the form of a sequence of questions that are posed with the intention of eliciting responses on a certain matter of interest (Wong, 2021). In this study the questionnaire will be two sections, section one demographic characteristics of the respondents will be displayed on and the section two will determine factors the factors affect customer satisfaction towards mobile banking service in Mogadishu. The questionnaire used five measurement scales to know the satisfaction of the respondents these scales include strongly disagree, disagree, natural, agree, and strongly agree, because it restricts the range of possible responses that respondents can give to inquiries.

### **3.8 Data Analysis**

According to Wang and Wang (2021) data analysis is defined as "the procedure of systematically reviewing and interpreting figures using statistical and computational approaches in order to extract relevant insights and inform decision-making, as stated by. Doorn & Van der Meer (2019), defined data analysis as the process of methodically and continuously analyzing, purifying, transforming, and analyzing data in order to identify meaningful information, make conclusions, and support decision-making. Both descriptive and inferential statistical approaches will be utilized in order to make sense of the information that was obtained through the survey questionnaire. For the purpose of offering a comprehensible presentation of the data and to summarize it, descriptive statistics will be utilized. The hypotheses that were developed for the study

will be evaluated with the use of inferential statistics. For the purpose of data analysis, the statistical program SPSS will be utilized.

### **3.9 Ethical Consideration**

Throughout the duration of this investigation, ethical issues have been taken into consideration in order to safeguard the subjects' liberties and guarantee their wellbeing. It will be made clear to the participants that they are permitted cancel their participation in the investigation at any point in time during its course.



## 4 FINDINGS

The explanation of the research approach was covered in great depth in the chapter before this one. Therefore, in this chapter, an analysis of the data was carried out by making use of several statistical methods. This chapter's goal is to offer an in-depth breakdown of the analysis's findings in light of the objectives of the study. The Demographic data and an analysis of each specific goal utilizing descriptive analysis, correlation analysis, and regression analysis are the chapter's unique components, and they are covered in detail in the following sections.

### 4.1 Demographic Data

The following sections discussed the gender, age, marital status, qualifications, and mode of business type. The data came from some selected industry types in Mogadishu city in relation to the research objectives. However, the respondents of the questionnaire had various qualifications, genders and age.

#### 4.1.1 Gender

**Table 4.1 Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	118	36.5	36.5	36.5
	Male	205	63.5	63.5	100.0
	Total	323	100.0	100.0	

#### Primary Data 2023

The table represents data on gender distribution among a certain group of individuals. The group consists of a total of 323 respondents. The table provides three columns: "Frequency," "Percent," and "Valid Percent," along with the cumulative percent. In terms of gender, the table indicates that there were 118 respondents who identified themselves as female. This accounts for approximately 36.5% of the total respondents. In other words, out of the 323 individuals in the group, around 36.5% identified as female.

In conclusion, the table presents a breakdown of gender distribution among 323 respondents. It shows that approximately 36.5% identified as female, while around 63.5% identified as male. These figures provide an understanding of the gender composition within the given group.

#### 4.1.2 Age

**Table 4.2 Age**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 25 years old	117	36.2	36.2	36.2
	25 - 35 years old	163	50.5	50.5	86.7
	35 and above	43	13.3	13.3	100.0
	Total	323	100.0	100.0	

#### Primary Data 2023

The table presents data on the age distribution of a specific group consisting of 323 individuals. It reveals that the majority of the respondents fall within the age range of 25 to 35 year's old, accounting for approximately 50.5% of the sample. The next largest group is composed of individuals between 18 and 25 years old, making up around 36.2% of the total respondents. Lastly, the category of 35 years old and above comprises approximately 13.3% of the sample.

In summary, the data highlights a prominent presence of individuals aged 25 to 35 within the group, constituting the largest age group. This information sheds light on the age composition of the surveyed population, providing valuable insights into the demographics of the sample and aiding in understanding the distribution of age groups within the given group of respondents.

#### 4.1.3 Educational Level

#### Primary Data 2023

According to the data, the largest group within the sample is comprised of individuals with a graduate-level education, with a frequency of 175 respondents, representing approximately 54.2% of the total. The next smallest group is those with a high school education, consisting of only 9 respondents, making up approximately

2.8% of the sample. The category labeled "Other" includes 42 respondents, accounting for around 13.0% of the total. Lastly, individuals with an undergraduate education make up the remaining group, with 97 respondents, representing approximately 30.0% of the sample.

**Table 4.3 Education Level**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Graduate	175	54.2	54.2	54.2
	High School	9	2.8	2.8	57.0
	Other	42	13.0	13.0	70.0
	Undergraduate	97	30.0	30.0	100.0
	Total	323	100.0	100.0	

In summary, the data illustrates that the majority of the individuals in the surveyed group have a graduate-level education, constituting the largest education category. The smaller categories consist of those with a high school education and individuals falling under the "Other" category. The table provides valuable insights into the education levels of the respondents, aiding in understanding the educational composition within the given group.

#### 4.1.4 Occupation

**Table 4.4 Occupation**

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Businessman	37	11.5	11.5	11.5
	Employee	170	52.6	52.6	64.1
	Other	28	8.7	8.7	72.8
	Student	88	27.2	27.2	100.0
	Total	323	100.0	100.0	

#### Primary Data 2023

The data reveals that the largest occupational category within the sample is employees, with a frequency of 170 respondents, representing approximately 52.6% of the total. Following that, students make up the second-largest group, with 88 respondents, accounting for around 27.2% of the sample. Businessmen constitute the

next category, with 37 respondents, making up approximately 11.5% of the total. Lastly, the "Other" category includes 28 respondents, representing approximately 8.7% of the sample.

In summary, the data demonstrates that employees make up the majority of the occupational composition within the surveyed group, followed by students. Businessmen and individuals falling under the "Other" category represent smaller proportions of the sample. This information provides valuable insights into the occupational diversity within the given group, allowing for a better understanding of the distribution of occupations among the respondents.

#### 4.1.5 Monthly Income

**Table 4.5 Monthly Income**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	\$1000-\$2000	64	19.8	19.8
	\$2000-\$3000	33	10.2	30.0
	Above \$3000	43	13.3	43.3
	Less than \$1000	183	56.7	100.0
	Total	323	100.0	

#### Primary Data 2023

According to the above data, the majority of the respondents have a monthly income of less than \$1000, with a frequency of 183 individuals, accounting for approximately 56.7% of the total. The next largest category is individuals with a monthly income ranging from \$1000 to \$2000, consisting of 64 respondents, representing around 19.8% of the sample. The category of monthly income between \$2000 and \$3000 includes 33 respondents, making up approximately 10.2% of the sample. Lastly, there are 43 individuals with a monthly income above \$3000, constituting around 13.3% of the total.

In summary, the data reveals that a significant portion of the respondents in the surveyed group have a monthly income of less than \$1000. This is followed by individuals falling within the income range of \$1000 to \$2000. The categories of monthly income between \$2000 and \$3000 and above \$3000 represent smaller proportions of the sample. The table provides valuable insights into the income

distribution within the given group, shedding light on the varying levels of monthly income among the respondents.

#### **4.1.6 Do You Use Mobile Banking Service?**

This is the page where the English text on the abstract page is written in a Turkish language. The translation is expected to give the same content as on the Abstract page. An example *Özet* page is given in Figure 4.6. The Abstract page given in Figure 4.4 was used for translation.

**Table 4.6 Do you use mobile Bank service?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	23	7.1	7.1	7.1
	Yes	300	92.9	92.9	100.0
	Total	323	100.0	100.0	

#### **Primary Data 2023**

According to the data, the majority of the respondents, 92.9% or 300 individuals, indicated that they use mobile banking services. On the other hand, only 7.1% or 23 respondents reported not using mobile banking services. In summary, the data highlights a high adoption rate of mobile banking services within the surveyed group, with 92.9% of the respondents utilizing these services. This suggests that mobile banking has become a popular and widely used method for financial transactions and management. The table provides valuable insights into the prevalence of mobile banking within the given group, indicating a significant shift towards digital banking and the convenience it offers.

## 4.2 Descriptive Data

**Table 4.7 Descriptive Statistics**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
I believe step by step navigation of mobile Banking apps is easy to understand.	323	4.09	.841
I believe learning to use mobile Banking is easy	323	4.08	.862
I like the fact that payments done through mobile Banking require minimum effort.	323	3.95	.836
I believe it is easy to transfer money through mobile Banking as minimum steps are required.	323	4.13	.764
<b>GRAND TOTAL</b>		<b>4.06</b>	<b>.826</b>
I think using mobile Banking would enable me to accomplish transactions more quickly.	323	4.10	.844
I believe mobile Banking would be useful for conducting online transactions.	323	4.06	.824
I believe using mobile Banking would improve my efficiency of online transactions.	323	4.10	.801
I think using mobile Banking would make it easier for me to make online payments.	323	4.15	.743
I believe mobile Banking improves the quality of online transaction.	323	4.08	.823
<b>GRAND TOTAL</b>		<b>4.10</b>	<b>.807</b>
I will be confident making payments through mobile Banking.	323	3.95	.970
I believe technology used in mobile Banking is very secure.	323	3.81	.948
I believe the service has a potential to be safer than traditional payment options such as credit cards and cash.	323	4.11	.998

I believe that transactions conducted through mobile Banking are secure.	323	3.85	.897
<b>GRAND TOTAL</b>		<b>3.93</b>	<b>.953</b>
I trust transactions happening through mobile Banking.	323	3.99	.830
I trust the business providers of mobile Banking will not divulge any of my information to third party.	323	4.07	1.028
I believe mobile Banking keeps customers' interests best in mind.	323	4.15	.834
I believe mobile Banking keeps its promises and commitments.	323	3.92	.868
I believe that in case of any issue the service provider will provide me assistance.	323	3.93	.822
<b>GRAND TOTAL</b>		<b>4.01</b>	<b>.877</b>
Overall, I think mobile Banking is very easy to use.	323	4.16	.831
Overall, I think using a mobile Banking would improve my performance	323	4.04	.910
I believe the chances of losing money stored in Banking wallet are low.	323	4.02	1.072
I believe that the mobile Banking service providers follow consumer laws.	323	4.16	1.033
<b>GRAND TOTAL</b>	<b>323</b>	<b>4.010</b>	<b>0.961</b>

### Primary Data 2023

### Interpretations

In the first set of statements, which pertain to the ease of understanding and learning to use mobile banking apps, the respondents generally expressed positive views. The mean scores for both statements were above 4, indicating that the majority of participants found step-by-step navigation and learning to use mobile banking to be easy. The standard deviations were relatively low, suggesting that the responses were

clustered around the mean and there was less variability in opinions among the participants.

The next set of statements focuses on the convenience and efficiency of mobile banking for making payments and conducting online transactions. The mean scores for these statements were also above 4, indicating a favorable perception of mobile banking in terms of minimizing effort, enabling quick transactions, and improving efficiency. The standard deviations were relatively low, indicating a degree of agreement among the respondents. Moving on to the security-related statements, the mean scores were slightly lower, ranging from 3.81 to 4.11. This suggests that while participants generally believed in the security of mobile banking, there might be some variation in their level of trust.

The standard deviations were higher compared to the previous sets of statements, indicating more diverse opinions and greater variability among the respondents regarding the security aspects of mobile banking. The statements related to trust and customer service showed overall positive perceptions. The mean scores for these statements ranged from 3.92 to 4.15, indicating a generally high level of trust in mobile banking service providers and confidence in their commitment to customer interests.

The final set of statements focused on overall perceptions of mobile banking. The mean scores for these statements were above 4, indicating that respondents had a positive overall impression of mobile banking's ease of use and its potential to improve their performance. In summary, the descriptive statistics presented in the table indicate that the respondents generally held positive views about mobile banking.

They found it easy to understand and use, believed in its convenience and efficiency for conducting transactions, expressed varying levels of trust in its security, and had positive perceptions regarding trustworthiness and customer service. Overall, the findings suggest a favorable attitude towards mobile banking among the respondents in this sample.

### 4.3 Correlation

**Table 4.8 Correlations**

		Perceived Ease of Use	Perceived Usefulness	Perceived Security	Perceived Trust	Customer Satisfaction
Perceived Ease of Use	Pearson Correlation	1	.689**	.463**	.496**	.534**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	323	323	323	323	323
Perceived Usefulness	Pearson Correlation	.689**	1	.630**	.670**	.676**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	323	323	323	323	323
Perceived Security	Pearson Correlation	.463**	.630**	1	.718**	.745**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	323	323	323	323	323
Perceived Trust	Pearson Correlation	.496**	.670**	.718**	1	.800**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	323	323	323	323	323
Customer Satisfaction	Pearson Correlation	.534**	.676**	.745**	.800**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	323	323	323	323	323

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

### PRIMARY DATA 2023

#### Interpretations

the table displays the correlations between different variables related to mobile banking: Perceived Ease of Use, Perceived Usefulness, Perceived Security, Perceived Trust, and Customer Satisfaction. The correlations are measured using Pearson's

correlation coefficient, which indicates the strength and direction of the relationship between two variables.

Starting with Perceived Ease of Use, it shows significant positive correlations with all other variables: Perceived Usefulness ( $r = 0.689^{**}$ ), Perceived Security ( $r = 0.463^{**}$ ), Perceived Trust ( $r = 0.496^{**}$ ), and Customer Satisfaction ( $r = 0.534^{**}$ ). This suggests that individuals who perceive mobile banking as easy to use are more likely to perceive it as useful, secure, trustworthy, and experience higher satisfaction with the service.

Similarly, Perceived Usefulness demonstrates strong positive correlations with all other variables: Perceived Ease of Use ( $r = 0.689^{**}$ ), Perceived Security ( $r = 0.630^{**}$ ), Perceived Trust ( $r = 0.670^{**}$ ), and Customer Satisfaction ( $r = 0.676^{**}$ ). This indicates that individuals who consider mobile banking to be useful are more likely to find it easy to use, perceive it as secure and trustworthy, and have higher satisfaction levels.

Moving on to Perceived Security, it shows positive correlations with Perceived Ease of Use ( $r = 0.463^{**}$ ), Perceived Usefulness ( $r = 0.630^{**}$ ), Perceived Trust ( $r = 0.718^{**}$ ), and Customer Satisfaction ( $r = 0.745^{**}$ ). This suggests that individuals who perceive mobile banking as secure are more likely to find it easy to use, consider it useful, trust the service provider, and experience higher satisfaction levels.

Perceived Trust demonstrates positive correlations with Perceived Ease of Use ( $r = 0.496^{**}$ ), Perceived Usefulness ( $r = 0.670^{**}$ ), Perceived Security ( $r = 0.718^{**}$ ), and Customer Satisfaction ( $r = 0.800^{**}$ ). This indicates that individuals who trust mobile banking are more likely to perceive it as easy to use, useful, secure, and experience higher satisfaction levels.

Finally, Customer Satisfaction exhibits positive correlations with Perceived Ease of Use ( $r = 0.534^{**}$ ), Perceived Usefulness ( $r = 0.676^{**}$ ), Perceived Security ( $r = 0.745^{**}$ ), and Perceived Trust ( $r = 0.800^{**}$ ).

This suggests that individuals who are satisfied with mobile banking are more likely to find it easy to use, consider it useful, perceive it as secure, and trust the service provider.

Overall, the table demonstrates significant positive correlations among all variables, indicating that perceptions of ease of use, usefulness, security, trust, and customer satisfaction in mobile banking are interrelated. When individuals perceive mobile banking as easy to use, they are also more likely to find it useful, secure, and trustworthy, leading to higher satisfaction levels. These findings emphasize the importance of these factors in shaping users' attitudes and experiences with mobile banking services.

#### 4.4 REGRESSION

**Table 4.9 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	.848 <sup>a</sup>	.719	.715	1.46513	.719	203.137	4	318	.000

a. Predictors: (Constant), Perceived Trust, Perceived Ease of Use, Perceived Security, and Perceived Usefulness

**Table 4.10 ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1744.226	4	436.057	203.137	.000 <sup>b</sup>
	Residual	682.622	318	2.147		
	Total	2426.848	322			
a. Dependent Variable: Customer Satisfaction						
b. Predictors: (Constant), Perceived Trust, Perceived Ease of Use, Perceived Security, Perceived Usefulness						

**Table 4.11 Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.308	.584		2.239	.026
	Perceived Ease of Use	.085	.042	.083	2.018	.044
	Perceived Usefulness	.103	.043	.119	2.410	.017
	Perceived Security	.268	.040	.297	6.650	.000
	Perceived Trust	.367	.037	.466	9.978	.000

a. Dependent Variable: Customer Satisfaction

## PRIMARY DATA 2023

### Interpretations

The model summary table provides an overview of the regression analysis conducted to predict customer satisfaction in mobile banking based on four predictors: Perceived Ease of Use, Perceived Usefulness, Perceived Security, and Perceived Trust. The model's goodness of fit is evaluated using several statistics.

The R value (multiple correlation coefficients) indicates the strength and direction of the linear relationship between the predictors and the dependent variable. In this case, the R value is 0.848, suggesting a strong positive relationship between the predictors and customer satisfaction.

The R-squared value (coefficient of determination) represents the proportion of variance in the dependent variable (customer satisfaction) that can be explained by the predictors. In this model, the R-squared value is 0.719, indicating that approximately 71.9% of the variance in customer satisfaction can be explained by the four predictors.

The adjusted R-squared value takes into account the number of predictors and sample size to provide a more conservative estimate of the model's explanatory power. Here, the adjusted R-squared value is 0.715, which is slightly lower than the R-squared value, suggesting that the predictors collectively account for a substantial amount of the variance in customer satisfaction.

The standard error of the estimate reflects the average distance between the observed and predicted values of customer satisfaction. In this model, the standard error of the estimate is 1.46513, indicating the typical amount of error to be expected in the predictions.

The change statistics section provides information about the significance of adding the predictors to the model. The R-squared change of 0.719 indicates that the predictors significantly contribute to explaining customer satisfaction ( $F = 203.137$ ,  $p < .001$ ).

The ANOVA table presents the results of the analysis of variance, assessing the overall significance of the regression model. The regression sum of squares (1744.226) is significantly larger than the residual sum of squares (682.622), indicating that the predictors collectively have a significant effect on customer satisfaction ( $F = 203.137$ ,  $p < .001$ ).

Lastly, the coefficients table presents the unstandardized coefficients (B) and standardized coefficients (Beta) for each predictor. These coefficients represent the magnitude and direction of the relationship between each predictor and customer satisfaction. All four predictors (Perceived Ease of Use, Perceived Usefulness, Perceived Security, and Perceived Trust) have positive coefficients, indicating that higher levels of each predictor are associated with increased customer satisfaction. Furthermore, all coefficients are statistically significant ( $p < .05$ ), suggesting that each predictor makes a unique contribution to predicting customer satisfaction in the mobile banking context.

In conclusion, the regression analysis reveals that Perceived Ease of Use, Perceived Usefulness, Perceived Security, and Perceived Trust significantly influence customer satisfaction in mobile banking. The model explains a substantial portion of the variance in customer satisfaction, highlighting the importance of these predictors in shaping users' overall satisfaction with mobile banking services.

#### **4.5 Major Findings**

Mobile banking has become increasingly popular in recent years, offering users the convenience of managing their finances on-the-go. In this analysis, we explored

user perceptions of mobile banking, focusing on variables such as perceived ease of use, usefulness, security, trust, and customer satisfaction. By examining descriptive statistics, correlations, and regression analysis, we gained valuable insights into users' attitudes and experiences with mobile banking.

The descriptive statistics revealed that a majority of respondents found mobile banking apps to be easy to understand and learn (mean scores above 4). Participants believed that mobile banking was efficient and useful for conducting online transactions, and they appreciated the minimal effort required for payments. This indicates that users value the convenience and time-saving aspects of mobile banking.

Moreover, users expressed varying levels of trust in the security of mobile banking. While the mean scores indicated a positive perception of security, the higher standard deviations suggested some divergence in opinions. This finding highlights the importance of instilling a sense of trust and ensuring robust security measures to alleviate any concerns users may have about the safety of their transactions.

The correlations among the different variables revealed significant positive relationships. Perceived ease of use was strongly correlated with perceived usefulness, security, trust, and customer satisfaction. Users who found mobile banking easy to navigate were more likely to perceive it as useful, secure, trustworthy, and were generally more satisfied with the service. Similarly, perceived usefulness was strongly correlated with all other variables, indicating that users who saw value in mobile banking were more likely to have positive perceptions across the board.

Trust emerged as a critical factor in users' perception of mobile banking. Perceived trust was positively correlated with ease of use, usefulness, security, and customer satisfaction. This suggests that trust plays a pivotal role in shaping users' overall satisfaction with mobile banking services. To promote trust, mobile banking providers should prioritize implementing robust security measures, transparent communication, and responsive customer support to address any concerns or issues that may arise.

The regression analysis provided further insights into the predictors of customer satisfaction in mobile banking. The model demonstrated a strong overall fit,

with the predictors (perceived ease of use, usefulness, security, and trust) collectively explaining a significant proportion (71.9%) of the variance in customer satisfaction. Perceived trust emerged as the most influential predictor, followed by perceived security. This underscores the critical role of trust in shaping users' satisfaction levels and highlights the need for mobile banking providers to prioritize building trust with their customers.

The findings from this analysis have several implications for mobile banking providers. First and foremost, efforts should be focused on enhancing the ease of use and usefulness of mobile banking apps. This can be achieved by providing intuitive interfaces, clear instructions, and seamless user experiences. By prioritizing security and taking proactive measures to protect users' sensitive information, providers can further strengthen user trust and confidence.

Effective communication about security measures, privacy policies, and assistance channels can help alleviate user concerns and enhance perceptions of security. Additionally, responsive and supportive customer service is crucial for addressing any issues or queries users may have, ultimately fostering trust and satisfaction.

In conclusion, this analysis sheds light on user perceptions of mobile banking and highlights the significant role of perceived ease of use, usefulness, security, trust, and customer satisfaction. The findings emphasize the importance of creating user-friendly interfaces, maintaining high security standards, and building trust with customers. By addressing these key factors, mobile banking providers can enhance user experiences, promote widespread adoption, and foster long-term customer loyalty in the dynamic and evolving landscape of digital banking.

## 5 CONCLUSION AND RECOMMENDATIONS

### 5.1 Conclusions

The current study investigated user perceptions of mobile banking, focusing on factors such as security, usefulness, perceived ease of use, trust, and customer satisfaction. The analysis of the expressive statistics provided valuable insights into users' attitudes towards mobile banking. Overall, the findings indicated that participants found mobile banking apps easy to understand and learn, believed that it improved their efficiency in conducting transactions, and appreciated the minimal effort required for payments. However, there was some variability in users' perceptions of security, suggesting a need for mobile banking providers to prioritize robust security measures to build trust and alleviate any concerns.

The factors were found to have significant positive associations based on the correlations between them. There was a high correlation between perceived ease of use and perceived usefulness, which indicates that users who considered mobile banking to be easy to navigate were more likely to regard it as a worthwhile tool. Moreover, perceived trust emerged as a critical factor, positively influencing users' perceptions of ease of use, usefulness, security, and overall customer satisfaction. This highlights the importance of establishing and maintaining trust with users through secure practices, transparent communication, and responsive customer support.

The regression analysis further supported the significance of perceived trust in predicting customer satisfaction. The model demonstrated a strong fit, with the predictors collectively explaining a significant share of the total variation in the level of customer satisfaction. Perceived trust emerged as the most influential predictor, underscoring the pivotal role it plays in shaping users' general contentment with the services offered by mobile banking. Mobile banking providers should prioritize efforts to instill trust through robust security measures, transparent policies, and reliable customer support channels.

The data allow for the inference of a number of possible consequences and suggestions with regard to mobile banking service providers. The first thing that should be a priority is improving the functionality and user-friendliness of banking

apps for mobile devices. Intuitive interfaces, clear instructions, and seamless user experiences can contribute to positive perceptions and user satisfaction. Second, ensuring robust security measures is crucial to address users' concerns about the safety of their transactions. Providers should invest in advanced security technologies and communicate effectively to build trust among users.

Third, responsive and supportive customer service is essential for addressing users' queries and issues promptly. A proactive approach to customer support can help alleviate concerns and strengthen trust in mobile banking services. Additionally, maintaining transparent communication about security measures, privacy policies, and assistance channels can further enhance users' perceptions of security and trust.

In summing up, the findings of this study offer some insightful takeaways on how customers feel about mobile banking. The results highlight the significance of perceived ease of use, usefulness, security, trust, and customer satisfaction in the process of forming consumer perceptions regarding mobile banking products and services. By addressing these factors, mobile banking providers can improve user experiences, foster trust, and cultivate long-term customer loyalty. As technology continues to advance and consumer expectations evolve, it is crucial for mobile banking providers to adapt their services to meet user needs and maintain a competitive edge in the digital banking landscape.

## **5.2 RECOMMENDATIONS OF THE STUDY**

These suggestions might be made to mobile banking providers taking into account the findings and interpretations of the study, which are as follows:

**Enhance User-Friendly Interfaces:** Mobile banking providers should prioritize the development of intuitive and user-friendly interfaces. Investing in user experience research and design can help streamline navigation, minimize complexity, and improve overall ease of use. Conducting usability testing and incorporating user feedback into app design can ensure that the mobile banking experience is optimized for user convenience.

**Strengthen Security Measures:** Given the importance of security in users' perceptions of mobile banking, providers should continuously update and enhance

their security measures. This involves the utilization of powerful encryption technologies, the implementation of multi-factor authentication, and the consistent tracking and revision of security policies. Transparently communicating security practices to users can help build trust and instill confidence in the safety of their transactions.

**Build Trust through Transparent Communication:** Mobile banking providers should establish open and transparent communication channels to address users' concerns and provide clear information about privacy policies, security practices, and data protection measures. Regularly sharing updates and educational content related to mobile banking security can help users stay informed and increase their trust in the service.

**Prioritize Responsive Customer Support:** A responsive and supportive customer support system is crucial for mobile banking providers. Implementing multiple channels for customer assistance, such as live chat, phone support, and email, can ensure that users' queries and issues are promptly addressed. Well-trained support staff should be equipped to provide personalized and effective solutions, enhancing user satisfaction and trust.

**Continuous Monitoring and Improvement:** Mobile banking providers should actively monitor user feedback and analytics to identify areas for improvement. Conducting regular surveys or feedback loops can help gather insights on user experiences, identify pain points, and prioritize enhancements. By staying responsive to user needs and evolving industry trends, providers can maintain a competitive edge and adapt their services to meet changing user expectations.

By implementing these recommendations, mobile banking providers can improve user satisfaction, foster trust, and position themselves as reliable and secure platforms for financial transactions. As mobile banking continues to evolve, it is essential for providers to adapt and innovate to see the ever-changing requirements and hopes of their users.

### **5.3 Limitation of The Study**

While the study provides valuable insights, it is important to acknowledge its limitations. These limitations highlight areas that could be addressed or explored in future research. The limitations of this study include:

**Generalization and Sample Size:** The research was carried out using a particular sample size, which may or may not be representative of the full population of people who use mobile banking. The findings might only be applicable to the people who took part in the study, and they might not be able to be extrapolated to a larger group. The findings of future study might be more applicable to a wider range of situations if they are derived from greater and more representative samples.

**A Cross-Sectional Design:** A cross-sectional design was used for the research project. This design gathers data at a specific moment in time. Because of this, our capacity to establish causal linkages or evaluate shifts in perception over a period of time is severely constrained. Investigations that follow users over an extended duration of time and analyze their views and actions may offer a more extensive knowledge of the changing patterns of mobile banking acceptance and satisfaction.

**Single Method of Data Collection:** The study relied solely on survey-based data collection, which may limit the breadth and depth of insights that can be obtained. Supplementing surveys with qualitative interviews or focus groups could provide richer insights into users' experiences, motivations, and challenges related to mobile banking.

**Limited Scope of Variables:** The study only looked at a limited number of characteristics, all of which were related in some way to people's opinions of mobile banking. There may be other factors, such as personal attitudes, social influences, or external market conditions that could influence user perceptions and behaviors but were not included in the analysis. Exploring a broader range of variables could provide a more comprehensive understanding of the factors driving user perceptions and behaviors.

Despite these limitations, this study contributes valuable insights into user perceptions of mobile banking and provides a foundation for further research in this

area. Addressing these limitations in future studies can help enhance the robustness and applicability of findings, leading to a more comprehensive understanding of user experiences and driving improvements in mobile banking services.



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## 7 APPENDIX

### Appendix A Supplement with thesis

#### QUESTIONNAIRE

##### Part I: Personal profile of the Respondents

Please tick (✓) where applicable

1. Gender\*

Male

Female

2. Age: \*

18 - 25 years

25 – 35 years

Above 35 years

3. Level of education: \*

Graduate

Undergraduate

High school

Other

4. Do you use mobile Bank service? \*

Yes

No

5. Occupation: \*

Business man

Private Employee

Government employee

6. Monthly Income (US\$): \*

Less than \$1,000

\$1,001- \$2,000

\$2,001- \$3,000

Above \$3,000

## **Part II: Survey Questions**

Survey of the determining the factors that affect a customer's satisfaction towards mobile banking service in Mogadishu-Somalia. Please put a tick (✓) in a box which mostly explains your attitudes described as 1= strongly agree, 2= agree, 3= moderate, 4 = disagree and 5 = strongly disagree.

### **Perceived Ease of Use (PEOU)**

1. I believe step by step navigation of mobile Banking apps are easy to understand. \*

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

2. I believe learning to use mobile Banking is easy. \*

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

3. I like the fact that payments done through mobile Banking require minimum effort. \*

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

4. I believe it is easy to transfer money through mobile Banking as minimum steps are required. \*

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

5. Overall I think mobile Banking is very easy to use. \*

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

### **Perceived Usefulness (PU)**

1. I think using mobile Banking would enable me to accomplish transactions more quickly. \*

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

2. I believe mobile Banking would be useful for conducting online transactions.

\*

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

3. I believe using mobile Banking would improve my efficiency of online transactions. \*

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

4. I think using mobile Banking would make it easier for me to make online payments. \*

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

5. I believe mobile Banking improves the quality of online transaction. \*

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

6. Overall, I think using a mobile Banking would improve my performance. \*

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

### **Perceived Security (SEC)**

1. I will be confident making payments through mobile Banking. \*

Strongly disagree

Disagree

Neutral

## **8 CURRICULUM VITAE**

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Place of Birth and Date : -

Email : -

Address : -

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### **Education**

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Determining Factors Affecting Customer Satisfaction Towards Mobile Banking Service In Mogadishu