ISTANBUL TİCARET UNIVERSITY

GRADUATE SCHOOL OF FINANCE

MASTER OF INTERNATIONAL FINANCE

THE IMPACT OF ELECTRONIC BANKING ON CUSTOMER SATISFACTION: THE CASE OF SOMALIA

Master Thesis

Ilyas Muhyadin ABDULLAHI

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Istanbul, 2023

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ABSTRACT

Investigating how electronic banking affects customer satisfaction is the study's principal objective. As a particular objective of the study, the study examined six parameters to assess the relationship between customer satisfaction and online banking: content, accuracy, and format, ease of use, timeliness, and safety. Close-ended questions were utilized in the study to elicit information from the respondents, and the researcher also used a random sample to ensure that each study participant had an equal chance of success. Regression and correlation analysis are used to study the data. The study's findings indicate that customer satisfaction has a favorable impact on online banking in terms of content, accuracy, format, timeliness, and safety. The findings further show that ease of use of consumer satisfaction did not affect online banking, this result is determined statistically insignificant. These results may have several potential causes, some of which include the technical aspects of online banking and an increase in the amount of internet expertise that clients have. The improvement of product content of their offerings because will assist them support and bringing value to potential new customers and becoming devoted consumers, also the accuracy with which consumers can complete their financial transactions through the bank's website. The timeline of customer satisfaction will assist the customers by monitoring the banking transaction and loan operations, enabling quick file access and retrieval, which simplifies the process and decreases the amount of time. The research also discovered that the safety of customer satisfaction positively influences on online banking customers. It is an obvious sign that customers want reassurance that they can trust the bank with their personal information while they are making financial operations.

Keywords: Customer satisfaction, Online banking, Banking Industry

ÖZET

Bu çalışmanın temel amacı, elektronik bankacılığın müşteri memnuniyeti üzerindeki etkisini araştırmaktır. Araştırmanın spesifik amacı olarak, müşteri memnuniyeti ve internet bankacılığının etkisini analiz etmek için internet bankacılığının içerik, doğruluk, biçim, kullanım kolaylığı, zamanlama ve müşteri memnuniyeti güvenliğinden oluşan altı faktör kullanılmıştır. Çalışma, katılımcılardan veri toplamak için kapalı-uçlu bir anket kullanıldı ve ayrıca araştırmacı, çalışmanın tüm katılımcılarına eşit şans vermek için rastgele bir örneklem kullanmıştır. Araştırmanın veri analizinde, araştırmanın amacına uygun olarak betimsel, korelasyon ve regresyon analizi gibi farklı analizler kullanılmıştır. Araştırmanın sonuçları, müşteri memnuniyetinin içerik, doğruluk, biçim, zamanlama ve güvenlik açısından çevrimiçi bankacılık üzerinde olumlu bir etkiye sahip olduğunu göstermektedir. Sonuçlar ayrıca tüketici memnuniyetinin kullanım kolaylığının internet bankacılığını etkilemediğini, bu sonucun istatistiksel olarak önemsiz olduğunu göstermiştir. Bu sonuçların, bazıları çevrimiçi bankacılığın teknik yönlerini ve müşterilerin sahip olduğu internet uzmanlığı miktarındaki artışı içeren çeşitli potansiyel nedenleri olabilir. Potansiyel yeni müşteriler getireceği, onlara değer katacağı ve onları sadık müşteriler yapacağı için, ve ayrıca tüketicilerin finansal işlemleri doğru bir şekilde bankanın websitesi üzerinden tamamlaması için sundukları ürün içeriğinin geliştirilmesi önemlidir. Müşteri memnuniyetinin zaman çizelgesi, bankacılık işlemlerini ve kredi işlemlerini izleyerek, hızlı dosya erişimini ve süreci basitleştiren ve süreyi azaltan geri alımı sağlayarak müşterilere yardımcı olacaktır. Araştırma ayrıca, müşteri memnuniyetinin güvenliğinin çevrimiçi bankacılık müşterileri üzerinde olumlu bir etkiye sahip olduğunu ortaya koydu. Müşterilerin finansal işlemler yaparken bankaya kişisel bilgilerinin güvenilebileceği konusunda güven duymak istediklerinin açık bir göstergesidir.

Anahtar Kelimeler: Müşteri memnuniyeti, İnternet bankacılığı, Bankacılık Sektörü

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Ilyas Muhyadin Abdullahi

DEDICATION

I dedicate my thesis paper to my family and many friends. A special feeling of gratitude to my lovely mother Hawa Ahmed. My dear mother, who has been my supporter until my research was fully finished, has encouraged me attentively with her fullest and trust attention to accomplish my work with truthful self-confidence for months past.

I also dedicate this dissertation to my many teachers, especially my advisor, Assoc. Prof. Dr. Sitki Sönmezer who have supported me throughout the process. I will always appreciate all they have done.

I certify that this thesis is written solely to meet the requirements for a master's degree. It had never been submitted to another university before. In this paper, all supplementary materials and resources are acknowledged and referenced properly.

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1. INTRODUCTION

The research focuses on the influence of electronic banking on customer satisfaction and the study's commercial banks in Mogadishu, Somalia. Commercial banks are a vital aspect of the economy. In addition to providing a vital service to customers, they also contribute to the creation of capital and liquidity in the marketplace. They do this by taking the money their clients put in their accounts and lending it out to other people. As credit is created, more goods are produced, more people are employed, and more money is spent by consumers, all of which help the economy grow.

Commercial banks in Somalia are extensively regulated by the central bank of Somalia. Central banks, require commercial banks to maintain a certain amount of cash in reserves. Banks are required to hold a specific percentage of customer deposits in the central bank as a safety net in the event of a financial crisis. Customers are the lifeblood of a company; thus, their happiness should be the primary goal. Data on customer satisfaction can help any firm understand what aspects of its goods, services, and internal procedures are operating effectively and what aspects require improvement or a total rewrite. Keeping current clients satisfied should always be a top concern. Customer satisfaction increases the likelihood to return and conduct business with the company in the future.

The study will be the first one conducted in Mogadishu-Somalia that focuses on how electronic banking affects customer satisfaction. Second, decision-makers at banks will be able to concentrate on the aspects that will raise customer satisfaction with electronic banking services based on the results of this investigation thus snowballing the espousal of Internet banking and gaining the benefits thereof. From our findings, we can better understand the impact that internet banking has on clients' feelings of satisfaction. The factors affecting customer satisfaction and the criteria that customers use to choose a financial institution should be explained. An inquiry is needed into the factors that prevent people from using electronic banking. The study's results will also help us better understand the challenges that financial institutions commonly face when introducing new technology platforms, and they will largely give us useful advice on how to increase uptake to achieve a competitive edge in a highly competitive

environment. Furthermore, we anticipate that our findings will clarify the difficulties banks experience while deploying new technology platforms.

There are three chapters in this study that are summarized in the following paragraphs: A description of online banking is given in the first section as well as its impact on customer satisfaction. The background of the study and the sorts of banks in the area are also covered. Additionally, the importance of the thesis and the research design is also addressed in this section. It also provides literature review, and it starts with a discussion of several ideas that are associated with internet banking. After that, it discusses prior research relevant to the theme of the thesis, explanation of the variables and their respective dimensions, and then concludes with explains the banking industry in Somalia.

Section two covers data and the methodology of the study, and each researcher needs to explain and describe how they used a methodology in their study. The kind of data, the sample size, the population to be surveyed, data collection and analysis are all important aspects to mention. The hypothesis and its variables should also be described. As well as a description of the hypothesis, this chapter also offers information about the study's model and how the Independent variable influences the Dependent variables

The data analysis and an explanation of every demographic question that was asked in section three. Additionally, for parts two and three, it performs statistical tests including the KMO test, Pearson correlation, and regression analysis. The final test is a normality test, and in the final part it examines the results of the hypothesis.

This thesis concludes with both a conclusion and a discussion of the study, in addition to numerous suggestions to the management of the bank and several recommendations to researchers in the future. It also provides answers to the research questions.

2. THEORETICAL FRAME WORK AND LITERATURE REVIEW

This chapter presents theories, models, and conceptual approaches to electronic banking's effects on client satisfaction. This chapter aims at offering empirical literature, available to support and get a well understanding of the influences of internet banking on customer satisfaction of the Mogadishu Commercial banks and the Somali banking system as a whole.

Modern information and communication technology (ICT) advances have transformed several entities and even established whole new ones. Technology's increasing complexity and variety, as well as the applications that use them, have led to transformations in every industry (Agree, 2014). In the digital world, new possibilities appeared to sell items and provide services. Customers often make purchases from online retailers, and the two decades prior, the relevance of electronic banking as a method of obtaining financial services has increased. Over the past ten years, the banking industry has expanded and developed its use of internet services. Internet-based banking services currently outperform other previously available options.

Electronic commerce has evolved considerably on account of the fast development of electronic technology. As electronic media such as the internet and mobile devices are more interwoven into everyday activities, e-commerce applications such as e-banking and e-tailing have grown in popularity. It is simple to use and convenient to execute bank transactions using electronic banking, like other e-commerce apps (Awiagah, et al, 2016). According to Rahayu and Day (2017), e-banking accounts for more than half of all banking transactions. Using an ATM, a phone or the internet are all examples of electronic transactions.

According to Kabanda and Brown (2017), e-commerce has been transformed by the internet in particular. Web-based banking has been more popular over the last several years since it offers a more convenient means of conducting financial transactions, at a lower cost (Claessens et al., 2002). When using e-banking, one may access account information, such as transaction history and balance, transfer funds between the accounts of the same user or to the accounts of other users, pay bills, and so on (Dhir and Dhir, 2018). These are only a few of the many functions available.

However, several reservations have prevented the internet's broad use as a financial instrument.

The sector, like many other e-commerce businesses, is dealing with a lack of customer satisfaction due to trust issues from its consumers (Hammoud, et al, 2018). Customer satisfaction, according to Herrmann and Herrmann (2004), is essential for encouraging the creation of online apps. Uncertainty and anonymity characterize online transactions, which allow users to exploit the system for their gain (Wang and Denton, 2017). A lack of faith in the underlying network would be a significant factor in this situation. Internet users have a greater risk perception than those who use other electronic platforms, such as those using their smartphones (Anouze et al., 2019).

Developing customer satisfaction requires an understanding of its nature and the elements that influence it. In addition to the design, navigation, content, security, usability, and other characteristics of the website are used to generate confidence in the customer base. One among the most popular factors in influencing customer satisfaction is the website's deployment of security methods (Nazaritehrani and Mashali, 2020). It has been shown that the consumer's confidence in physical banking is heavily reliant on the customer's security and privacy. Building confidence in online banking is made all the more difficult by the lack of physical access to customer financial information.

Applications created on top of the internet are vulnerable to the same security vulnerabilities as the underlying network (Oni et al., 2016). According to Nazaritehrani and Mashali (2020), internet commerce has resulted in the creation of an open, flexible network that allows for a greater range of activities while also increasing the vulnerabilities that may lead to weaker security in such systems. Because Internet banking depends on open networks, security breaches are more likely. Customers are more trust in contemporary networks, especially mobile networks, despite the fact that they are less secure than older networks.

Somalia does not stand out from the trend that electronic banking is more prevalent in industrialized nations than it is in underdeveloped and developing nations. (Kabanda and Brown, 2017). In Somalia, e-banking is still in its early stages, although it is becoming more popular in developing nations (Hammoud, et al. 2018). Due to the swift development of information technology (IT), the banking sector has changed

significantly lately, including e-banking. As the major IT service providers, financial service providers like the banking sector are considered as the most significant IT-intensive service business (Alkailani, 2016). Nowadays, consumers of a bank are considerably more worried about the effectiveness of their e-services. By the industry and available empirical evidence, e-banking security and trust challenges have been addressed. There is, however, still a need for study and development in these areas because of the wide range of challenges in online banking and other e-commerce applications.

As of 2022, there are still a lot of reforms and policies being implemented, even though the central bank appears to be less engaged, delaying the central bank's capacity to recover command of the economy and monetary policies in the nation. That's why there are Money Transfer Companies or "Hawaleh Systems," which aim to bridge the gap and provide some of the most basic forms of banking services (Arora and Kaur, 2018). Consequently, Hawaleh Systems has become among the top in the country's financial institutions because of its rapid and inexpensive service fees, expanding public confidence and the trustworthiness of its service, and the availability of its agents across the globe. Remittances from these institutions presently total up to $1.6 billion each year. Due to the lack of formal commercial or investment banks in Somalia, the Hawaleh system is essential to trade and local investment financing. It is not just used to move money between other nations and Somalia. By taking deposits from the public in its current savings accounts, the Hawaleh system operates as a savings bank (Bradley & Stewart, 2013).

On the other side, Somalia's telecommunications industry is among the country's highest-performing industries. In every major Somali city, these private enterprises provide low-cost, high-quality fixed and mobile phone and internet services, all with inexpensive international calling rates. First developed in 2009, Zaad or Sahal Financial Services is a mobile banking service that allows clients to use mobile devices for bill payment, money transfers, and the purchase of commodities (Case et al., 2016). This product quickly gained attraction among Somalis. After rejecting financial services from Zad or Sahal because they argued that this would lead to the economy being dominated by multinational firms and bankers, Al-Shabab refused these services. Since Hormuud Telecom operates in the region where Zaad and Sahal financial services were

previously prohibited, they were shut down in South Somalia. However, Zaad and Sahal's financial services are still available in Puntland and Somaliland states, which are not controlled by Al-Shabab (Davis, 2014).

However, Zaad or Sahal financial services in Somalia's telecom and hawaleh sectors are exciting new developments. These two businesses may benefit from more competition, particularly in a nation like Somalia, where ATMs (Automatic Teller Machines) may not be widely available owing to security concerns. Thus, this study will evaluate the impact of these electronic banking services in Somalia on customer satisfaction and attitude toward major mobile banking services in Somalia (Fonchamnyo, 2013).

Among the most crucial issues in modern marketing research is customer happiness (Jamal, 2004). Generally, it makes connections between the purchasing process and post-purchase phenomena such as changes in behavior, follow-up purchases, and brand attachment (Churchill & Surprenant, 1982). Oliver (1980) asserts that consumers become satisfied when their assessments of the performance of the product or service are put up against their hopes.

The term "customer satisfaction" has been described in many different ways to aid understanding but the idea of evaluating post-product or post-service performance against previously held expectations appears to be present in most of the definitions. According to Oliver (1980), satisfaction is an emotional rating of a commodity following consumption. Customer satisfaction was similarly described by Tse and Wilton (1988) as "the consumer's reaction to the perceived difference between expectations and the outcome after consumption" (p. 204). (Kotler & Keller, 2011) defined it as the outcome of post-purchase evaluation of a service or quality product in comparison to the pre-purchasing stage's expectations.

On the other hand, some research has found that the effect produced throughout the service/purchase and consuming phases may also significantly affect the customer's assessments of enjoyment (Homburg, Koschate, & Hoyer, 2006). Customer satisfaction so refers to a customer's feelings of enjoyment or discontentment after comparing a product or performance service to that customer's expectations (Keller and Lehmann, 2006). For the purposes of this study, customer satisfaction is defined as the customer's

perception of any form of E-Banking service in line with these criteria. Client satisfaction with E-Banking features may therefore increase, decline, or stay the same.

One of the key objectives of this study is to determine how much the efficiency of electronic services offered by banks positively influences customer satisfaction in the Somalian banking industry. Customer satisfaction and the quality of e-services have a consistent, positive link, according to Grönroos (1998). In fact, studies by Parasuraman, Zeithaml, and Berry (1988) show a persistent relationship between customer satisfaction and service quality (Parasuraman et al., 1988). This research examined this link and concluded that delivering better and higher-quality services is essential to obtaining high customer satisfaction (Jain and Gupta, 2004).

Additional research has revealed a link between electronic banking services and client happiness. Asiyanbi and Ishola (2018) showed in their study that using e-banking services results in higher customer satisfaction levels. Similar to this, Ranaweera and Neely (2003) found that the first step toward customer happiness is the quality of the E-service (Ranaweera and Neely, 2003). Bei and Chiao (2006) discovered a substantial link between customer satisfaction and service quality in the banking industry. Last but not least, Zhou (2004) said that the dependability of E-Banking services has a substantial influence on the level of client satisfaction.

2.1 Theoretical Framework

The technological acceptance model, theory of reasoned action, and theory of planned behavior are the foundations of the study's literature review. Six customer satisfaction subscales were identified in the study as independent variables that had a significant impact on online banking. The first subscale of the independent variable is the content of the customer, the second subscale is the accuracy of the customer satisfaction, the third subscale is a format of the customer satisfaction, the fourth subscale is the ease of use, the fifth subscale is the timeline of the customer satisfaction, and the last subscale is the safety of the customer satisfaction in online banking. The study draws its information from a variety of banking periodicals. The conceptual framework of the study will be displayed in the chapter's last section to illustrate how the variables are related to one another. Additionally, we summarize the pertinent literature for this proposed investigation in this section.

2.2 Relationship between Technology Acceptance Model, Theory of Reasoned Action, and Theory of Planned Behavior

Davis, (1989) developed specifically the Technology Acceptance Model to assess user acceptability of an information system to discover plans to use the system in a particular way. TAM is associated with both the Theory of Reasoned Action (TRA) and TPB (Fishbein & Ajzen, 1975; Ajzen, 1991). TAM evaluated the following internal characteristics connected with actual technology usage: an approach to use, PU, perceived simplicity, and willingness to use.

The ideas of TRA are conviction, attitude, intent, and behavior. These concepts are deeply ingrained in social psychology. According to TRA, the behavioral purpose is defined by a person's perspective and the influence held on this individual by others who hold this person in high esteem. While academics emphasize the TRA's efficacy in estimating a person's motive in a variety of technical topics (Ajzen and Fishbein, 1980; Grandón et al., 2011), When participants being studied lack conscious control over their behavioral performance or when there is inadequate information available, the theory is seen to be a poor predictor of real behavior (Ajzen, 1991; Ajzen and Fishbein, 1980). A disadvantage of TRA is that it is predicated on the assumption that a one’s behavior is within their conscious control. Thus, the idea is relevant to deliberate behavior.

According to Ajzen (1991), the TPB is an annex to the TRA in which a notion is introduced to account for the effort or simplicity involved in carrying out a behavior. The idea of perceived behavioral control has been created as a powerful assessor of desire that performs better than approaches and subjective standards. Ajzen (1991) broadened the TRA's use since it is previously limited to behaviors over which people lack complete conscious control. It is implausible that massive belief systems (as defined in the TPB) embodying several dimensions would be inextricably linked to the predecessors of intention (Teo and Pok, 2003). Additionally, The TPB has to be operationalized differently depending on the situation it is utilized in (Mathieson, 1991). The TPB paradigm, according to Taylor and Todd (1995), calls for people who are committed to indulging in particular activities.

The TAM, which is based on the TRA, is viewed as a model that focuses on people's attitudes and behaviors toward technology (Davis, 1989). Even though various scholars have investigated this model, reformed its components, and simulated it in a variety of different locations and conditions, only minor modifications to the actual TAM have been made. Genuine TAM is composed of three major components: PU perceived user-friendliness and computer usage. Davis identified "usage" as a proxy for technology adoption and researched to develop an authenticated instrument for PU and user-friendliness.

2.3 Cognitive Model (COG model)

The COG model was created by Oliver (1980) to describe and measure the user's behavior with regard to IS adoption and persistence. The Expectation confirmation model (ECM) is expanded using this model, which is now widely used to examine Consumer satisfaction and subsequent behavior. Contentment, according to COG, is a result of expectation and confirmation, with expectancy serving as a forerunner to attitude. The COG explicitly illustrates the logical process by which these factors affect a product/service offering's viability across the different stages of adoption. According to this paradigm, happiness serves as a forerunner to the post-exposure method. Three critical constructs are included in the model: confirmation, satisfaction, and attitude. To create an enhanced model of IS continuity, the TCT is combined with two additional models, the ECM and the TAM (Liao et al., 2009).

2.4 Expectation Confirmation Model (ECM)

Bhattacherjee's (2001) developed the ECM based on Oliver's expectation-confirmation theory (ECT). It used a consumer behavior model to ascertain and evaluate client happiness and repurchase intentions. In accordance with this concept, the post-divorce expectations for the IS and the performance gaps between pre- and post-divorce expectations have a significant impact on user happiness. The extent to which consumers expect to continue using IS it is determined mostly by their satisfaction with past usage. The ECT hypothesizes that user satisfaction is influenced by user expectations of the IS and subsequent confirmation of those expectations during actual use. Users then decided their degree of satisfaction based on their amount of

confirmation and the expectations that informed their confirmation. Finally, pleased consumers expressed a desire to buy, while dissatisfied customers discontinued use. The expectation served as the reference point against which users assessed validation to establish their reaction (Bhattacherjee, 2001). ECM replaced pre- and post-consumption expectations with post-consumption expectations.

2.5 Concept of Internet Banking

Since the advent of e-banking, numerous research have been carried out to investigate various e-banking concepts in developing nations. Ismail et al. (2019) conducted research to identify the factors affecting Somalia's adoption of electronic banking. This study identified four key characteristics that affect the uptake of e-banking: internet speed, trust, perceived usability, and perceived utility. The findings of this study suggest that e-banking adoption and customer satisfaction were strongly influenced by internet speed, trust, perceived ease of use, and perceived utility. Using an online survey form, primary data were gathered for this study. Due to the study's quantitative nature, additional geographic locations, such as other cities in Somalia, should be included in future research to guarantee the results are generalizable. This study also proposes that future research should conduct a longitudinal study wherein respondents are evaluated regularly so as to better understand how consumers adopt e-banking over time.

Yousuf and Shanyu (2021) demonstrated that, during the past several years, one of the most popular banking systems is now e-banking. The majority of banks have benefited from the use of this new technology, which enables access to a variety of financial services at any time and from any location. This study aims to increase knowledge or understanding by investigating the variables that influence people's desire to use e-banking in the setting of Mogadishu, Somalia. The study employed survey questionnaires and online interviews to address the quantitative and qualitative research topics, using primary sample data from 452 e-banking customers residing in Mogadishu. A research model is suggested by integrating the conceptual framework (TAM) for the construction of perceived credibility and risk with Structural Equation Modeling (SEM) for the analysis of the obtained data. The findings indicate that perceived ease of use, perceived utility, perceived danger, and perceived trustworthiness

all contribute to a favorable desire to use e-banking. The research demonstrates that customer satisfaction and acceptance of e-banking in Somalia are increasing.

An investigation into Kenya's acceptance of and effectiveness with regard to electronic banking was done by Gikandi and Bloor in 2010. Research and applications in electronic commerce. According to their report, electronic commerce has seen worldwide growth recently, with the monetary worth of items and services transferred electronically exceeding US$ 7 trillion in 2004. A similar trend has been seen in research on the variables impacting the adoption and success of e-commerce in retail firms. However, nothing has been done in underdeveloped nations to establish these variables in electronic banking (e-banking). This study's goal is to identify the factors that influence the acceptance and effectiveness of electronic banking in retail banking. The first and follow-up polls were conducted in 2005 and 2009 when banks controlled around Kenya's 90% of formal retail banking. The follow-up survey is designed to assess trends between the two surveys' timeframes. The results vary over time.

Anyanwu et al. (2018) looked into how well electronic banking technology may improve service delivery in the banking industry of Nigeria. The study's objectives led to the development of three research questions and hypotheses. A survey study design was employed. 89 bank employees were chosen at random from a population of 116 to receive the questionnaire. The data was analyzed using means and standard deviations. To ascertain whether electronic banking technologies enhance service delivery in the Nigerian banking industry, the Z-test was created. According to the study, internet banking eases customer management of their finances which raises consumer contentment. Another finding of the study is that over reliance on physical currency in Nigeria's economy has negative effects that are mitigated by electronic banking. The study comes to the conclusion that the role of the banking sector will be to notify customers of any suspicious or unusual activity on their accounts. Because the customer is the core of any business, the study also recommends that the development of electronic banking customers' needs should be a watchword throughout the ideation, development, and use of e-services. Therefore, it is suggested that in order to implement the electronic banking system, the aforementioned parties as well as law enforcement agencies work together.

2.5.1 Impact Electronic Banking on Content of Customer Satisfaction.

According to Geebren and Jabbar (2021) Banks have made major investments in mobile banking during the previous decade. After-adoption behaviors like customer satisfaction have received less attention in mobile banking research whereas adoption and behavioral intention have become more important. The success of a mobile banking system may be traced back to factors such as user pleasure and Customer Satisfaction (Abaenewe, et al 2013). The problem activation and systematic literature review approaches were used in this study to organize and include previously published data on customer satisfaction in mobile banking at the post-adoption stage. According to recent study, elements that influence customer satisfaction in mobile banking include system quality, information quality, services quality, structural insurance, and task characteristics. Between the independent variables and satisfaction, confidence acts as a mediator.

The perceived accuracy of the information in data transfers was examined by Nicolaou and McKnight in 2016. The effectiveness of early inter organizational data exchanges was examined with regard to the impact of information quality. It is hypothesized that perceived information quality predicts perceived risk and trustworthiness, both of which have a direct bearing on the intention to use the exchange. The researchers also proposed that two crucial system design elements—control transparency and outcome feedback—would have a cumulative impact on PIQ. The empirical validation of a model showed that PIQ predicts trusting views and perceived risk, which serve as moderators of PIQ's impact on the intention to use the exchange. PIQ is a crucial indirect factor influencing the adoption of exchanges as a result. Furthermore, PIQ was significantly impacted by control transparency, although result feedback had little further effect on PIQ. The study contributed to the body of knowledge by highlighting the crucial part that PIQ plays in the adoption of I-O systems and by demonstrating how information cues made available to a user during a first exchange session may help foster trusting attitudes and reduce perceived exchange risk. According to the research, managers of I-O exchanges may increase the likelihood that an exchange will be successful by implementing appropriate control transparency mechanisms in the system.

Mun (2013) utilized the elaboration likelihood model (ELM) and Toulmin's model of argumentation to perform a study on differentiating the antecedents of initial trust in Web-based health information. The suggested model states that perceived risk and information quality, both of which are impacted by the competence of the message source and the structural quality (quality of the argument) of the message, determine consumer happiness (source expertise). A field experiment involving 300 internet users who had searched for health information online was conducted to assess the research paradigm. Overall, the findings offered wide validity for the proposed model, demonstrating the significant but diverse roles that argument quality, source knowledge, and user perceptions of information quality and risk play in a person's choice to accept health information acquired online.

A meta-analysis of 42 publications was conducted by Ghasemaghaei and Hassanein (2015) to look for any contextual modifiers that may affect the link between information quality (IQ) and customer satisfaction in the online environment. It was discovered that the website type (retail vs. e-services) and sample characteristics (respondent type and respondent origin) moderated the relationship between perceived online intelligence and customer satisfaction, in addition to the IQ categories used (representative and non-representative) in the articles. Sample characteristics did not affect the association in a moderating way.

2.5.2 Impact of E-banking System Services Quality on Customer Satisfaction.

The following aspects were looked into in an e-banking environment, according to Chu and Chao (2012): service quality, customer satisfaction, customer trust, and customer loyalty. In the context of the financial services sector, the study research model is designed to explore the relationships among service quality, customer satisfaction, trust, and loyalty to Taiwanese e-banks. 442 respondents with prior e-banking experience were asked questions, and their answers were evaluated using partial least squares structural equation modeling to identify the most important findings. It is found that in order to increase client satisfaction, trust, and loyalty, e-banks must prioritize providing high-quality services. This has ramifications for managing e-banks, which are looked at.

Yap et al (2010).'S study examined how situation normality cues (online features of the e-banking website) and structural assurance cues (The branch's conventional service standards, bank's size and standing, and reputation) affect a consumer's valuation of the legitimacy of e-banking and succeeding adoption behavior. The information is gathered using a survey, and a valid sample of 202 people is acquired. The model is tested using hierarchical moderated regression analysis, which is performed on the data. Customer confidence in the e-banking service is built on the foundation of traditional service excellence. It is discovered that the size and reputation of the bank provided structural confidence to the consumer, but that this did not hold in the absence of conventional service excellence. Significant scenario normalcy indicators are provided by website elements that instill Customer Satisfaction in clients.

Sleimi et al. (2018) looked at the connection between customer satisfaction, which is driven by consumer trust, and the caliber of e-banking services. By analyzing the median effect of customer confidence on customer satisfaction, this study attempts to assess the general effectiveness of online banking services and how they both directly and indirectly affect consumers' satisfaction. The goal of the study was achieved by using a number of earlier studies to establish the nature of the factors that affect customer happiness. The study's variables were evaluated using a special form that was created and distributed as part of the quantitative research approach. 500 forms in all were sent out at random to bank customers; 300 of those forms were returned for analysis, yielding a 60% recovery rate. The research's findings show that the standard of electronic services has a considerable beneficial influence on customer satisfaction.

2.5.3 The impact of electronic Banking's Safety on Customer Satisfaction.

In an e-banking context, Kesharwani and Bisht look at service quality, customer happiness, customer trust, and customer loyalty (2012). The major goal of the study is to increase the use of the technology acceptance model (TAM) in the context of India's adoption of online banking, which is threatened by security and privacy concerns. An expanded TAM for the adoption of online banking that takes into consideration aspects like security and privacy was developed using Davis's TAM as a theoretical foundation. The study takes into consideration perceived risk as well as a variety of obstacles to mainstream adoption of internet banking. The importance of the bank's website was

considered by the study as a key element in affecting perceived risk and usability of internet banking services. It has been proven that customer satisfaction suffers when perceived risk is high, and that perceived risk has a detrimental impact on behavioral intentions to use internet banking. Additionally, it has been demonstrated that a well-designed website helps to ease users' anxieties about perceived danger while utilizing the internet to conduct financial transactions and makes online banking more user-friendly.

The effects of reported delight and perceived risk on the growth of customer satisfaction and intention to use online payment systems were examined, according to Rouibah et al. (2016). The research's constructed online trust model showed how three endogenous variables were able to mediate the effects of four extrinsic factors on the desire to use an online payment, including personal innovativeness, predisposition to trust, familiarity, and the presence of third-party seals (enjoyment, risk, and Customer Satisfaction). A focus group, 150 internet surveys, 200 paper surveys, and other data collection survey methods are used to collect the information from Kuwait, an Arab country. The importance of the data is then assessed using a partial least squares (PLS) regression model. Customer satisfaction and pleasure were shown to be two crucial elements in the adoption of online payment methods, which helped to lower risk perceptions.

Mou et al (2017). Investigated how risk and customer satisfaction affect whether or not customers adopt e-services. Consumers risk perception and Customer Satisfaction are regarded to be two of the most influential psychological states influencing online activity, according to the research. The subject has remained fragmented, with conflicting study paradigms, despite the enormous number of empirical studies looking at how customer satisfaction and risk perceptions affect customers' acceptance of e-services. To address this issue, the researchers conducted a meta-analysis of 67 papers, followed by testing competing for causal hypotheses. The findings confirmed that both Customer Satisfaction and risk play a role in e-services adoption, although Customer Satisfaction had a larger impact size. Certain impact sizes were shown to be affected by characteristics such as the customer demographic studied, the kind of e-service examined, and the object of Customer Satisfaction examined. The meta-analysis findings most strongly supported the causal reasoning that Customer Satisfaction is a

prerequisite for risk perceptions. Risk moderated the effects of Customer Satisfaction on acceptance in part.

2.5.4 The Impact of the Electronic Bank Characteristics on Accuracy of Customer Satisfaction.

Kantsperger and Kunz (2010) conducted research. Using multiple mediation analyses, we can determine Customer Satisfaction in service providers. The goal of this research is to establish a conceptual model of Customer Satisfaction in a service organization that differentiated between two critical characteristics. Using these dimensions, it is feasible to identify the many mediating impacts of Customer Satisfaction in the customer-service business interaction.

The antecedents and implications of Customer Satisfaction were examined in the banking industry's business-to-consumer services scenario. To test theories, empirical data were obtained from a convenience sample of 232 retail bank checking account holders. Two competing Customer Satisfaction measuring models were examined using a LISREL technique and revealed a variety of mediating effects. The empirical evidence supported a two-dimensional view of Customer Satisfaction. Additionally, the two measures of Customer Satisfaction mediated the impact of customer satisfaction (CS) in very different ways. It is shown, in particular, that "benevolence" has a substantially bigger impact on consumer loyalty than "credibility." Finally, in addition to CS, the customer's proclivity for Customer Satisfaction affects trust.

Chiou and Shen (2012) looked at the factors that lead to the adoption of online financial services, specifically how accepting physical banking is of online banking. The goal of this study is to create a framework for the factors that influence whether or not people choose to use Internet banking by applying ideas from the literature on relationship marketing, the technological adoption model, and transaction cost analysis (TCA). The model took into account the impact of a customer's prior experiences with the physical bank whose Web services the customer is thinking about using. According to the results, customers' attitudes about and intends to use a bank's Internet banking services are significantly influenced by the main antecedent variables in TAM as well as the assets the clients had previously invested in the focal physical bank. The results showed that firms needed to exploit customer connections created in the offline

environment because they might influence consumers' usage intentions for Internet services. These relationships go beyond the usability and simplicity of information systems.

2.6 Customer Satisfaction

The degree to which a company's or bank's service or product satisfies a client's expectations, as described by Turunen, (2011) may be used to gauge customer satisfaction. When it comes to evaluating how well a product or service performed in comparison to what customers expect, we call this the "customer gap," and it refers to the discrepancy between what consumers anticipated and what they actually received, which ultimately contributed to their dissatisfaction.

Firms must concentrate on customer satisfaction since it builds their connection with their consumers. Customer satisfaction is described by Ozatac et al. (2016) as a measure of quality service, and this is what is meant by delivering a product and a service that meets the customer's expectations. Purchase patterns, expectations, information sources, as well as positive word-of-mouth about a business or bank are just a few aspects that have an impact on consumer satisfaction and loyalty. Client loyalty eventually results in profitability for banks and other businesses connected to them, as customer happiness ultimately leads to it. "Customer service quality" refers to how customers perceive and anticipate a bank's service, according to Caruana (2002).

A multitude of services is offered to keep consumers satisfied and loyal, including online banking. When online banking services fail to fulfill the demands of clients, banks should devote more time and resources to enhance the standard of online banking services. A customer's satisfaction level depends on the number of consumers that buy and use a product or service for a certain period, as described by Anderson et al. (1994). According to Uddin and Akhter, (2012) a customer's pleasure is closely linked to the service quality. Customer happiness is significantly connected to service quality, according to Elmayar (2011). According to Santhiyavalli, (2011) competitors use service quality to get an edge over their rivals. Ticharwa, (2017), if a customer pays for something, they will be happy since their interests exceed the cost.

Shrimali did research in 2015 to find out how internet banking affects customer satisfaction in the banking industry. There is a favorable link between the aspects of

customer happiness and the usage of online banking, according to the authors, who surveyed 52 customers. Customer expectations for products and services offered by banks regarding security, accuracy, conducting transactions quickly, utilizing the system simply, users' involvement, and happiness are the most critical notion of quality o quality o, according to Shrimali (2015).

Marakarkandy (2017) observed in a study that the addition of five more elements increases the influence of confidentiality and protection on the TAM model, such as information regarding online banking and customer satisfaction with the service. Online banking has numerous benefits, but it also has certain negatives, according to Jo and Mo (2018), such as the potential for security (privacy) breaches and cyber theft (cybercrime).

Research by Gomachab and Maseke (2018) indicated that consumer satisfaction with mobile banking is affected by factors such as simplicity of use and the cost of the transaction. Hoehle et al, (2012) Customers are more likely to utilize the bank's online banking system if they perceive that it is secure and safe. Customer satisfaction rises with system trust, which in turn boosts sales. While online banking has been a major convenience for clients, employing mobile banking inside the service has increased their worries about their data protection, according to Zhou (2012). A bank's capacity to provide goods and services on schedule and in perfect condition is one way that Turunen (2011) argues banks assure the reliability of their offerings.

Making certain that customers get their services free of errors or fraud is another critical component of this. Quality and timeliness are closely related to customer satisfaction with banks' goods and services, as observed by Ibrahim et al (2016). The quality and timeliness of ATM service are strongly related to the quality and timeliness of the goods and services supplied by banks.

Consistency and reliability are important considerations while using online banking services. Consistency and dependability are terms used interchangeably, but they both relate to the guarantee that a service will be provided in the manner anticipated and that both the service and the goods will be of equal quality. Another technological instrument, according to George and Kumar (2014), is a website and service dependability that operates properly and successfully.

As Salihu and Metin (2017) point out, a well-designed and trustworthy system is necessary for online banking services to provide confidence and trust. Many academics have looked at the importance of reliability as a facet of service quality Asad et al. (2016), reliable online banking services were determined to be an important component of service quality, which they also believed to be the cornerstone of service quality.

As described by Turunen (2011), an assurance relationship is one in which bank personnel has a connection with their clients. This, after being offered to the public, allows the personnel to convert the certainty into trust and confidence. When bank staff treats their clients with civility and competence, they have established an assurance relationship. The general mood and efficiency of those who offer customer care are only two components of assurance. Another is the respect a client has for the company's employees. A bank's ability to increase demand for its products at the same price is directly related to its ability to deliver a high-quality product and service, according to customer perceptions.

Customers today expect incredible levels of ease and flexibility from their retail banking providers, which traditional retail banking is unable to give, in addition to highly effective and user-friendly tools, products, and services for financial management. Many conventional banks and financial organizations may now provide these services to their consumers through the Internet because of the substantial infrastructure for public networks (Yiu et al., 2007). Researchers and bank executives are now concentrating their efforts on improving the quality of electronic financial services (e-banking). This is because e-banking quality has a substantial influence on corporate performance, cost reductions, customer happiness, client retention and profitability (Seth et al., 2004).

2.7 Banking Sector of Somali

The international world concentrates on political and security concerns in Somalia throughout the civil war since most financial institutions were unfamiliar with hawala, or money transfer services. The financial sector, on the other hand, has seen significant growth in the last several years. In 2014, Premier Bank announced that the

government has allowed Internet banking use by commercial banks. This service will be provided by Salaam Somali Bank as well, according to the bank's official website. As a result of this merger will enjoy the greatest online banking experience available. The safety of doing banking online is widely recognized. To protect the customer against identity theft and fraud, banks have created a variety of security solutions (M. Warsame, 2016).

Government-approved financial institutions in Somalia now provide Internet banking. Salaam Somali Bank, International Bank (IBS), Premier Bank of Somalia and Dahabshiil International Bank have introduced online banking services. Banks are increasingly relying on internet banking as a sophisticated service delivery platform. As a result, financial institutions are increasingly providing services over the internet (M. Warsame, 2016). Internet banking is more popular with customers than traditional banking. Customer acceptability and trust are still critical, though. This study therefore tries to pinpoint the elements that have an impact on Mogadishu residents' inclination to use e-banking. Due to the civil conflict that broke out in Mogadishu-Somalia in 1991, there were no private banks in the city before 2009. Lending and real estate investment by market banks grew in complexity because of this. Increasingly, Somalis may conduct their business online appreciation to the availability of the internet and electronic banking services provided by banks.

2.8 Islamic Banking Drives Somalia's Financial Sector Growth

Somalia's central government and economy were among the institutions to fall apart. A strong Islamic identity in Somalia established a case for Islamic economics and banking. However, there is no foundation for it. It took several years for the population's ambition to build an entirely riba-free financial intermediation system to be stymied by the instability of domestic politics and the paucity of resources. Deposits and remittances have been offered by money transfer companies for many years. Remittance companies in many countries, however, have established themselves as commercial banks and have long been acknowledged as suppliers of authorized banking services in the nation. (I, and H, 2015).

This is where things are now: The Financial Companies Law of 2012 has formalized the Central Bank of Somalia's (CBS) oversight and regulation of banks and

non-bank financial enterprises. Some international financial institution rules have been applied by the CBS in conjunction with the legislation. Somalia's Central bank has issued licenses to twelve commercial banks, nine of which are now functioning and the other six of which are inactive (three). Even though Somalia's commercial banking sector is expanding, it is still dwarfed by neighboring countries like Kenya and Uganda in terms of banks and assets managed (CBS, 2020).

Information on these banks' asset volume and market share is scarce, making it impossible to determine these banks' positions. The Islamic banking sector in Somalia is ripe for expansion, as seen by the country's rapid growth (M. Warsame, 2016). As a consequence, the Islamic identity of Somalis is the most prevalent. Muslims make up a large majority in Somalia, according to some, and almost everyone practices Islam. Somali people are naturally drawn to Islamic financial goods because of their strong religious beliefs. Islamist finance has emerged as an attractive alternative to conventional Somali banking after the fall of the President Siyad Barre-led national government.

One of the most promising aspects of Somalia's post-conflict recovery process is the country's expanding Islamic banking sector, according to many studies. The public sector will have to spend more money on this rehabilitation. Somalia's business sector has been more interested in ethical investments as the country's economy expands fast. Consequently, development funding has led to considerable growth of Somalia's already-thriving Islamic banking sector Islam's banking system, which emphasizes social justice and access to financial services, is more suited to Somalia's demands. There are important principles of social justice and human well-being in Islamic finance (M. I. Nor, 2012).

According to a previously released analysis of Somalia's informal financial institutions, profits from these organizations have increased in Somalia, (M. Warsame 2016). The report says that for Somalia's formal banking industry to grow, there must be mutual trust, lower administrative costs, more remittances, good ethical behavior among operators, and the use of Islamic business principles in transactions.

This is a condensed version of the potential benefits that standardized commercial Islamic banks may provide if their construction followed a methodical plan.

To put it another way, the Islamic banking business is only starting to emerge, yet it already offers a massive number of potential opportunities. Numerous studies have shown that families with low and moderate incomes need access to high-quality financial services to thrive. Whoever provides the services, regardless of how formally or informally, is of little concern to them (M. Warsame, 2016). For the vast majority of Somalis, obtaining the money they need can only be done so via the use of informal financial institutions. They will make the transition to formal banking if services such as agent banking and other easily available financial channels can make it simpler for them to get their hands on banking products.

2.9 Islamic Banking and Customer Service

The growth of Islamic economics is helped forward by the institution of Islamic banking. Individuals can accomplish their financial goals via the use of Islamic banking, but the process of doing so is defined in terms of what is and is not permissible under Islamic law. In Islam, doing business in a way that is immoral or harmful to society is strictly forbidden. Although Islam recognizes a person's constitutional right to riches, it mandates that a person put such wealth to good use rather than hoard it. The Islamic financial system incorporates the concept of business engagement into its framework. However, this does not always imply that investing in financial institutions is always a high risk; a prudent investment plan, risk diversification, and Islamic management of financial institutions may all be helpful. Iqbal and Mirakhor's (2011) solution is progressive because it distinguishes between great performance and poor and mediocre performance while meeting the diverse needs of participants within the constraints of financial transactions in the modern world.

It is possible to make predictions about a customer's propensity to make online purchases based on how they use and interact with the internet. The value of searching for product information to anticipate whether or not one would buy anything online. According to Iqbal and Mirakhor's (2011) findings, the study as a whole led them to the conclusion that information search is both a strong predictor of purchase intent and a mediator between buy intent and other antecedents.

Banks are well aware that providing exceptional customer service is essential to their continued profitability and viability in the face of increasing competition from

other financial institutions as well as increased expectations held by customers. It has been one of the industries with the highest rate of expansion over the last five to ten years. Both Muslims and non-Muslims throughout the world have shown a great amount of support for it (Iqbal, and Mirakhor, 2011). Regular banks perform the same tasks as Islamic banks however, Islamic banks are obligated to follow Islamic laws and values.

According to research conducted by Parasuraman et al (1985), providing satisfactory customer service is necessary for any company's success and ongoing operation. Therefore, Islamic banks are not immune from emphasizing the significance of providing customers with services of high quality. Islamic banks function in the same way as other banks and financial organizations, even though Islamic Law (Sharia's) governs the primary operations that they engage in. In this setting, Islamic banks are required to compete against both established and up-and-coming businesses in the market. One way in which Islamic banks may be able to compete is through enhancing the methods by which they provide their consumers with goods and services. Therefore, Islamic financial institutions have to implement a service quality program. They continued by arguing that Islamic banks may increase their market share and profit margins by improving the quality of their customer care.

More notably, Islamic banking is not anymore thought of as a company dedicated solely to the religious obligations of Muslims. This shift in perception is crucial. Instead, it is seen as a business that must acquire new consumers while simultaneously retaining the ones it already has (Parasuraman et al 1985). For Islamic banks to be successful in retaining clients, they must fully comprehend how their clients assess the value of the services they receive as well as the other factors that affect how they make purchasing decisions.

The quality of the service is what sets it apart from other service products and helps businesses acquire a competitive edge. Numerous studies on the subject of service quality in the service sector have been done; however, very few of these studies have focused on Islamic banks. The expansion of Islamic banking and finance in Somalia has been beneficial to the overall structure of the world's financial system. Positioning of Islamic banking companies strategically is required to maintain a competitive advantage

and provide services and solutions that are in line with the expectations of their target customers if they are to achieve significant market share in a complex and ever-changing financial environment. For example, research on the quality of services provided in Malaysia (Izah et al,2005). The carter model is used in both of these studies, which focused on Islamic financial institutions.

3. DATA AND METHODOLOGY

In the research, quantitative methodology is applied, and the descriptive design is based on the study's purpose. Data for this study were gathered using a questionnaire and a random sample. The study used a random sample to draw generalizations about the population because of its simplicity and absence of bias, and its basic decision model is used to estimate the study's target population (Krejcie & Morgan, 1970). The target population of this study will be 280 people of bank users in Mogadishu, Somalia. Thus, based on a margin of error of ±5% and a 95% confidence level. The number of participants in this study is the sample size.

$$n = \frac{N}{1 + Ne^{2}}$$

Where:

n = sample size,

N = population size and

e = margin of error

$$n = \frac{280}{1 + 280(0.05)^{2}} = 165$$ So, the sample size is 165 respondents.

3.1 Data

Primary data was the study's data source and the researcher gathered primary data from the banking industry in Mogadishu, Somalia, as well as a close-ended questionnaire as a means of data collecting. The goal of this study is to determine how Mogadishu, Somalia electronic banking services affect consumer satisfaction. Only

banks and banking customers in Mogadishu will provide the data for collection. The International Bank of Somalia (IBS), Amal Bank, Premier Bank and Salaam Bank, and other local commercial banks are the main subjects of the article.

3.2 Conceptual Framework

Electronic banking is the study's dependent variable and the scale of this variable is developed by (Kenova, and Jonasson, 2006), where the independent variable of the study is Ccustomer satisfaction with Iinternet banking with six dimensions (Chen, et al. 2012), and it has drawn the below Figure 3.1.

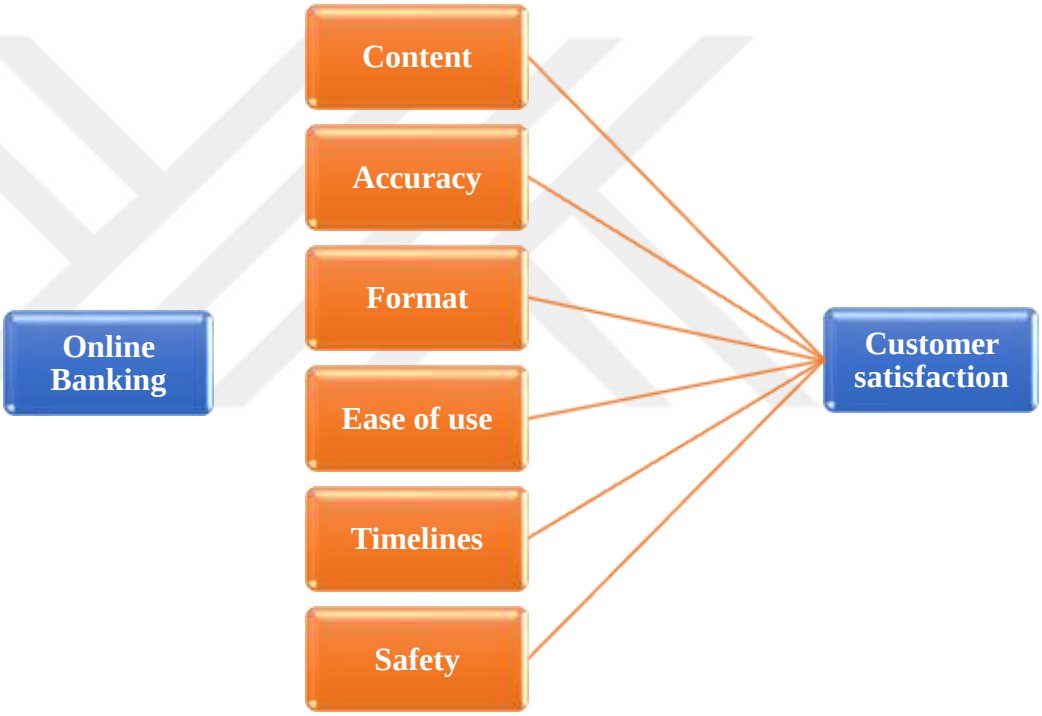


Figure 1. Conceptual framework of the study

3.3 Statement of the Problem

While Internet banking is widespread in many industrialized nations, it is still in its infancy in many developing ones (Maduku, 2014). This is especially true for east African nations such as Somalia, where the development of their information technology infrastructure is still ongoing. As banking accounts for a significant portion of the service business, banks must be creative in their use of Internet banking. Even though Internet banking is still in its infancy and unfamiliar to many Somalian consumers, the rapidly growing Internet population predicts a plethora of business

opportunities for banks to pursue. However, for any talent to be presented and utilized properly, people must accept and adopt the technology (Markus, 2012).

Customers in affluent countries and the majority of emerging nations rarely visit banks to conduct financial transactions, rather they conduct them online from their homes, offices, or wherever they are using the internet as a mechanism. However, customers in Somalia visit banks to conduct transactions, which results in long queues, energy consumption, and time consumption and is generally costly. Since this illustrates the difficulties many consumers encounter when seeking to use financial services at the end of each month when the majority of earnings are paid via the banks, it contradicts the aim of customer service (Masoud et al., 2017). This may affect future transactions since many individuals choose to retain their money out of the banking system to avoid the suffering that banks put them to. (Mohamed et al., 2020).

When it comes to removing time, place, and distance restrictions, customizing goods and services, making payments easier, and cross-selling, the internet is the most popular digital business platform. In addition, advancements in compression technologies are transforming the primary platform of the internet, known as the web, into a multimedia platform that is entirely interactive (Chaudhury et al., 2017; Natarajan, et al., 2018).

Internet banking is among the specialized Internet apps with a large consumer base. However, the smaller number of Internet banking clients than anticipated, particularly in Somalia and other developing nations in the East Africa area and around the globe, is due to consumers' lack of customer satisfaction with Internet banking services (Ochuko et al., 2009). Because online banking is a young sector in Somalia, customer acceptance and utilization are still in their infancy. There is a scarcity of knowledge on the variables that influence Somali bank clients' use of internet banking. As such, this research aims to determine how electronic banking influences bank customer satisfaction (Okari et al., 2017). Customers' satisfaction affects the embracing of online banking in Somalia, particularly in the commercial banks of Mogadishu.

3.4 Research Objectives

i. To determine the impact of electronic banking on the content of customer satisfaction.
ii. To establish the impact of E-banking on the accuracy of customer satisfaction.
iii. To examine the impact of electronic Banking on the format of customer satisfaction.
iv. To determine the impact of electronic Banking on ease of use and customer satisfaction.
v. To understand the effect of E-banking on the timeliness of customer satisfaction.
vi. To identify the relationship between E-Banking and the safety of customer satisfaction.

3.5 Research Hypotheses

The study hypotheses have constructed the variables of the study which are online banking with 20 questions in the scale developed by (Kenova, and Jonasson, 2006), and Customer satisfaction is a measurement scale by Chen, et al. (2012), and 18-item with six subscales (content, accuracy, format, ease of use, timeliness, and safety). There are other scholars who have conducted similar with this study such (Doll and Torkzadeh 1988) The table below showed the study hypothesis and research that have conducted but related this study.

Table 1. Measurements and operational definition of constructs.

Construct	Number of items	Operational definition	Source
Online Bank	20	Using a computer, tablet, or smartphone to access a bank account and conduct financial transactions online is known as online banking.	Kenova, and Jonasson, (2006)
Content	4	The term "content" relates to the question of whether or not a website for online banking can supply customers with enough accurate information content.	Doll et al. (1994), McHaney et al. (2002) and Somers et al. (2003)
Accuracy	2	Accuracy refers to the correctness of the data as well as the contentment of the client with it.	Doll et al. (1994), McHaney et al. (2002) and Somers et al. (2003)
Format	2	The format of a report refers to the way the data is presented.	Doll et al. (1994), McHaney et al. (2002) and Somers et al. (2003)
Ease of use	2	The Internet banking system must have a user-friendly interface and be easy to use in order to be considered easy to use.	Doll et al. (1994), McHaney et al. (2002) and Somers et al. (2003)
Timeliness	2	The Internet banking system's responsiveness and up-to-date information can be attributed to its timely reaction.	Doll et al. (1994), McHaney et al. (2002) and Somers et al. (2003)
Safety	6	Transactional security and trust are intertwined in the concept of safety.	Keen (1997) and Ratnasingham (1998

H_1: Electronic banking has a positive effect on the content of customer satisfaction

This hypothesis is based on the influence that electronic banking and the content of customer satisfaction. A content bank is a repository of material that has been completed in its whole and is ready to be scheduled at any point. The term "content" relates to the question of whether or not a website for online banking can supply customers with enough accurate information content (Doll et al., 1994; McHaney et al., 2002; Somers et al., 2003). Access to customers' private financial information through internet banking is contingent on the provision of content about the consumer.

H_2: E-banking has a relationship with the accuracy of customer satisfaction.

This hypothesis for the study is predicated on the idea that the effect of accuracy on customer satisfaction and electronic banking is significant. Because without dependable data, banks run the danger of negatively impacting the experience of their customers, which they are working to improve through the usage of self-service options. Accuracy refers to the correctness of the data as well as the contentment of the client with it (Doll et al., 1994; McHaney et al., 2002; Somers et al., 2003). This is a concept that is used in the service industry to explain the attitude that a customer service provider represents in terms of being trustworthy and safe for their clients.

H_3: Electronic Banking has a relationship with the format of customer satisfaction.

This hypothesis intends to investigate the connection between the format of satisfied customers and electronic banking. How the information in the report is presented is what the format refers to, Doll et al. (1994), McHaney et al. (2002) and Somers et al (2003). E-service providers frequently create their websites in a way that makes it simpler for consumers to access the information they need, minimizes the amount of time spent searching, and maximizes customer interaction (Kim et al., 2009). This kind of report information style will, in turn, inspire customers to become loyal to online service providers and increase their reliability on e-commerce platforms (Lee et al., 2006).

H_4: Electronic banks have a positive relationship with ease of use of customer satisfaction.

This hypothesis of the study is related to ease of use of customer satisfaction and the convenience of using electronic banking. Usability is the capability of a system to create a state in which its users can carry out their duties fairly, accurately, and quickly while enjoying the process. Usability may be defined as the ability of a system to deliver this condition. It is nothing more than the distribution of a variety of financial goods and services via the use of an electronic and telecommunications network. The concept of "ease of use" refers to the fact that the Internet banking platform has a subscriber interface and that such interface is simple to use (Doll et al., 1994; McHaney et al., 2002; Somers et al., 2003).

H_5: Electronic banks have a positive effect on the timeliness of customer satisfaction.

The study hypothesis is based on the connection between electronic banking and consumer satisfaction in terms of timeline. People who utilize online banking services

would look for support from experts if there are any issues. When a bank's technology or website is updated, customers frequently ask for help from their e-banking providers (Thaichon et al., 2014). Online customer care support personnel that react promptly and effectively to inquiries or concerns voiced by customers tends to earn the confidence of consumers more than those who don't (Blut et al., 2015; Quach et al., 2016). Their loyal customers will continue to refer them to their friends and family as a result of this strategy. Because the Internet banking system responds quickly and provides correct information, it proves its timely nature (Doll et al., 1994; McHaney et al., 2002; Somers et al., 2003).

H_6: Electronic banks have a positive effect on the safety of customer satisfaction.
This hypothesis is based on the effect between the safety of customers and their pleasure with electronic banking. Security, trust, and safety concerns are linked to the transactions that take place. Both Keen (1997) and Ratnasingham (1998). The trust of clients in online banking service providers is increased if service providers ensure the safety and confidentiality of their customer's personal information (Thaichon et al., 2014; Shankar & Kumari, 2016).

3.6 Research Instruments

This research employed a questionnaire to gather data and the questions in the survey were based on the study's scale variable, and their original items will be included. The variable are electronic banking and customer satisfaction. So, Internet banking is also referred to as online banking or E-banking. The study used Online banking is measured 20 items (Kenova, Jonasson, 2006). Using a 7-likert scale (1=strongly disagree, 2=Disagree, 3=somewhat disagree, 4=Neutral, 5=somewhat agree, 6=Agree, 7=strongly agree). Customer satisfaction is a measurement scale by Chen, et al. (2006), and 18-items with six subscales (Content, Accuracy, Format, Ease of use, Timeliness and Safety) and using a 7-Likert scale.

3.7 Data Analysis

The Study uses SPSS 25.0 statistical analysis tool. Certain results have been reached by the use of appropriate statistical procedures. The replies were gathered through an online questionnaire form, with each responder being asked to rank their

thoughts on a variety of different parameters. In the appropriate situations, scale variables were found via the application of factor analysis. It is decided if the scales and variables obtained were acceptable for use in future research attempts on the basis of reliability assessment results. Because of the enormous number of variables, there is a high degree of flexibility that is achievable. Following that, the data is submitted to correlation and regression analysis, as well as impact value computation. Before verifying the hypothesis at this stage, it is required in order to establish how and to what degree the variables interacted with one another. The results of the theory are thoroughly examined.

3.8 Methods of the Study

A sample of data that may be typical of a population or a particular subset of the population is described using descriptive coefficients. Measurements of the mean and standard deviation are part of descriptive statistics. Also, the study is used explanatory factor analysis because a technique that makes use of the possibility to focus on a few sub-dimensions rather than a huge number. For each scale Bartlett, Kaiser-Meyer-Olkin (KMO) is used to give sample adequacy and variable consistency. The sphericity test is likewise shown to be statistically significant.

Reliability is the ability of a scale to show the thing being measured accurately over time. Reliability analysis is used to figure out how consistent a variable is on its own. The reliability study uses Cronbach's metric extensively. Correlation analysis was also employed to look at association among a set of variables.

The research performed multicollinearity analysis to verify the accuracy of the regression findings. It is critical to examine the data to see whether multicollinearity is present. Outlier and influencer analyses were also utilized to assess the data in the research. An outlier in statistics is a data point that has a residual impact that is much bigger than predicted. A significant time interval has a significant impact on the outcome of a regression.

Regression analysis is a complicated statistical procedure that examines the relationship that exists between a numbers of different variables. There are many different kinds of regression analysis, but they all concentrate on determining how the influence of independent factors is exerted on a dependent variable. The research

employed linear regression analysis, which examines data, particularly data with two or more variables, to establish predictions.

4. RESEARCH FINDINGS

This section of the study included information on data analysis, which included many distinct approaches. In the study, the answers that people gave to the demographic questions were analyzed, and the results were shown in Excel tables and graphs. In this part of the study, the researcher also examines at how the variables relate to each other and uses regression analysis to figure out how they affect each other.

4.1 Demographic Frequency Analysis

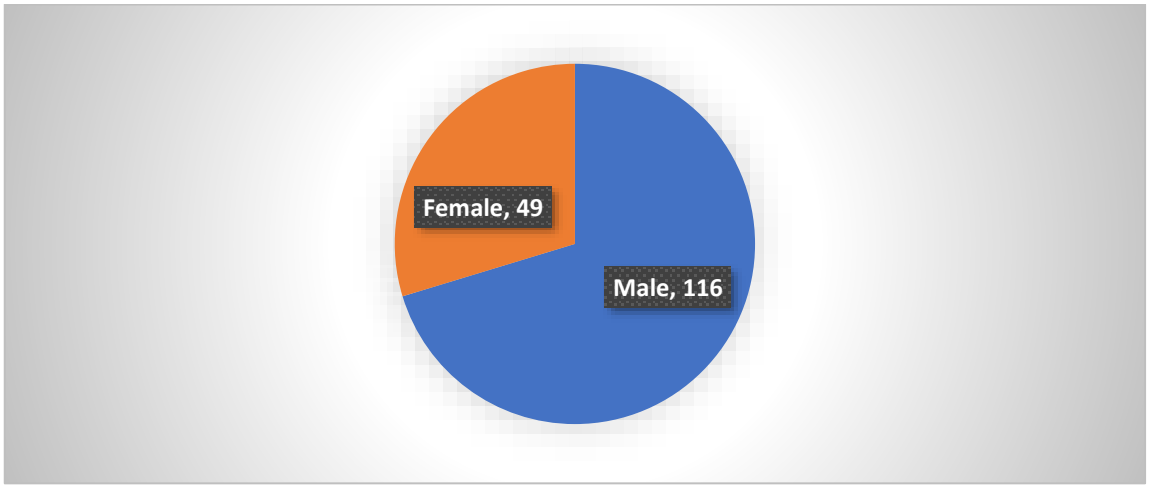
The demographic questions that were asked of the respondents were analyzed in the research, and the results were presented in Tables and Figures derived from Excel.

Table 2. Gender of the Respondents

		Frequency	Percent	Cumulative Percent
Valid	Male	116	70.3	70.3
	Female	49	29.7	100.0
	Total	165	100.0	

Primary data

Figure 2. Gender of the Respondents



The responders of the study are shown in the Table 2 and Figure 2 that are located above. The Table and Figure reveal that 116 people which is (70.3) percent of

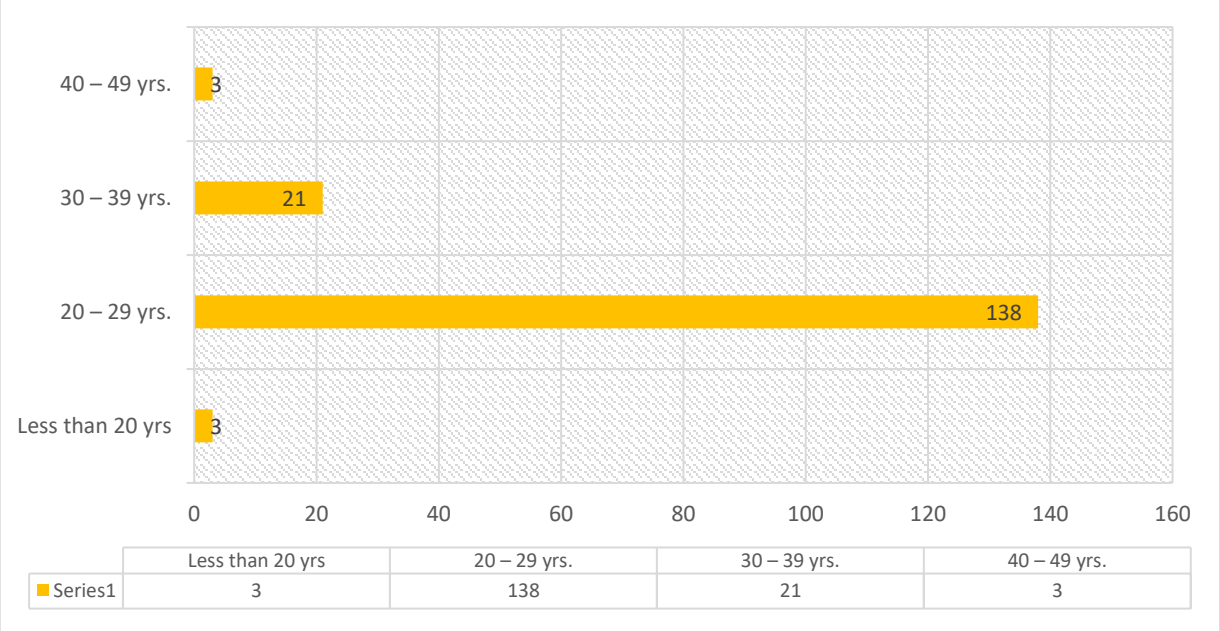
the participants are male, and 40 of the participants are female, which is equivalent to (29.7) percent of the entire population of the study.

Table 3. Age of the Respondents of the Study

		Frequency	Percent	Cumulative Percent
Valid	Less than 20 yrs	3	1.8	1.8
	20 – 29 yrs.	138	83.6	85.5
	30 – 39 yrs.	21	12.7	98.2
	40 – 49 yrs.	3	1.8	100.0
	Total	165	100.0	

Primary data

Figure 3. Age of the Respondents of the Study



As shown in the Table 3 and Figure 3 above, the age of the respondents has been analyzed and the result indicates that the age group between (18-25) are 7 participants in the study which is (8.2) % of the total study population, where the majority participants are aged between (26-30) which is equal to (57.6)% of the population of the study, the second-highest age group is between (31-35) which is 23 person that equal to (27)% of the whole population of the study, while the minority participants are aged

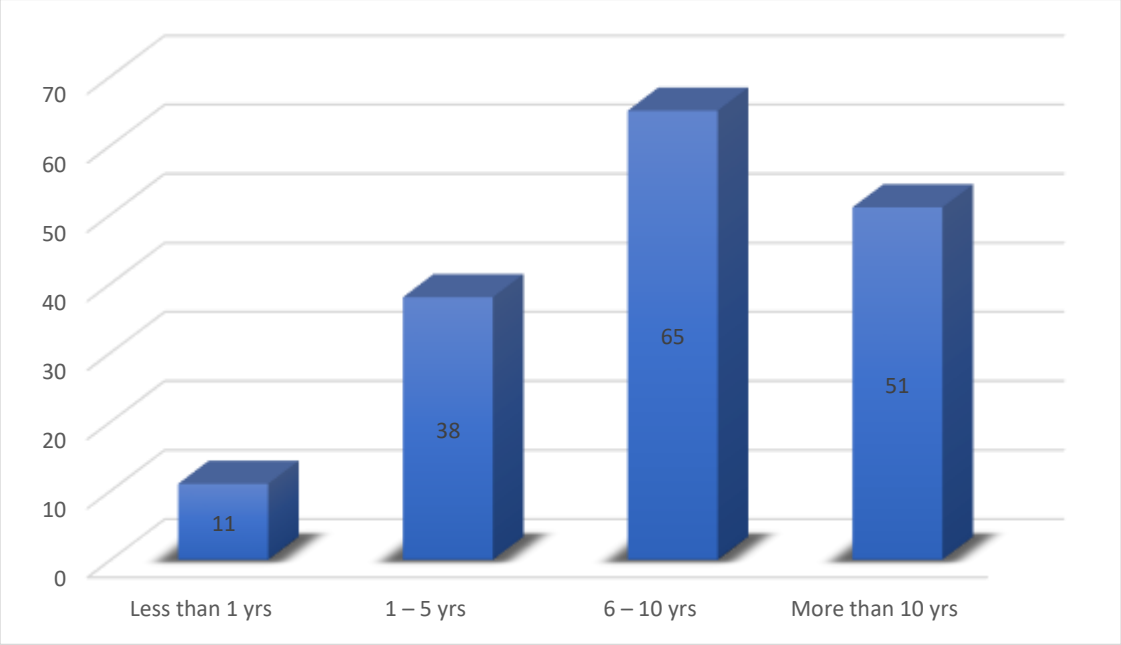
between (36-40) which is 5 participants that are equal to (5.9) % and the group age that above 40 which is only one participant that is equal to (1.2)% of a total study's population.

Table 4. Internet Experience of the Respondents

		Frequency	Percent	Cumulative Percent
Valid	Less than 1 yrs	11	6.7	6.7
	1 – 5 yrs	38	23.0	29.7
	6 – 10 yrs	65	39.4	69.1
	More than 10 yrs	51	30.9	100.0
	Total	165	100.0	

Primary data

Figure 4. Internet Experience of the Respondents



The Table 4 and Figure 4 show the experience respondents of using the internet, and the results reveal 65 people had experience ranging between 6 to 10 years in using the internet, this is the majority group of the study respondents which is equal to (39.4) % of the total population, while 51 (30.9) % of the respondent had experience in internet experience for above 10 years, which is the second-highest group of the study

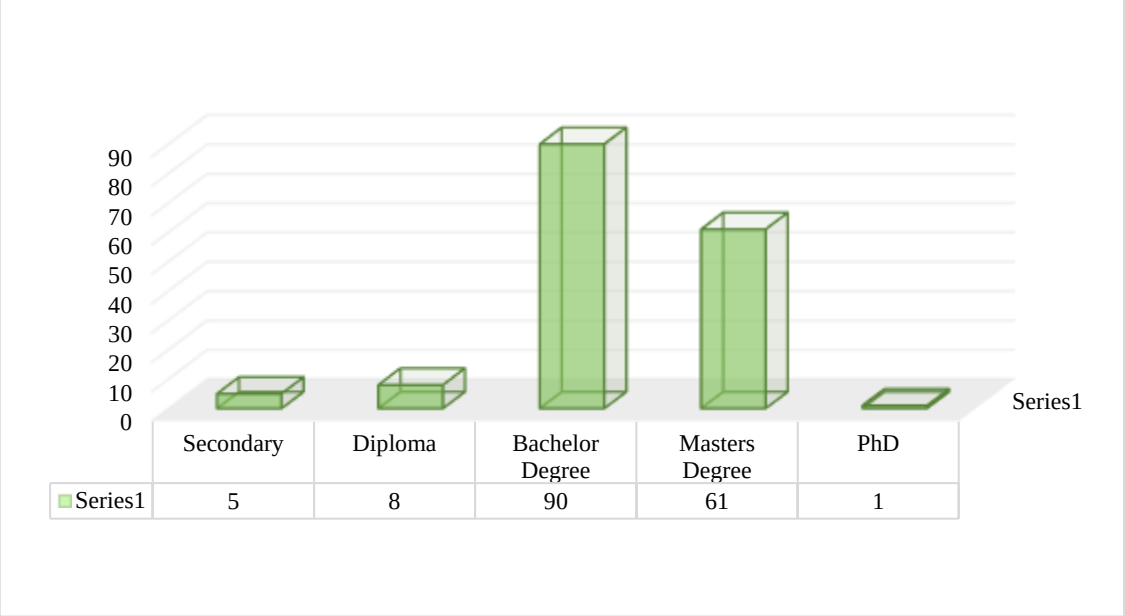
population. The results also reveal that 38 (23) % of the participants had 1 to 5 years of internet experience, and the result indicates that 11 (6.7)% of total respondents had less than 1 year of experience with internet use. Access to the internet in Somalia has improved over the past decade as a result of the country's ongoing process of reconstruction following a civil war and the people's desire to maintain contact with the rest of the world.

Table 5. Level Education of the Respondents

		Frequency	Percent	Cumulative Percent
Valid	Secondary	5	3.0	3.0
	Diploma	8	4.8	7.9
	Bachelor Degree	90	54.5	62.4
	Masters Degree	61	37.0	99.4
	PhD	1	0.6	100.0
	Total	165	100.0	

Primary data

Figure 5. Level Education of the Respondents



The Table 5 and Figure 5 above show the calculation of the education level of respondents. The result indicates that most respondents had obtained a bachelor's degree, which stands for 90 (54.5%) of the total participants in the survey. While the second highest participants of the study had a master's degree, which is 61 (37) percent of the total respondents of the study, where 5 participants had secondary school

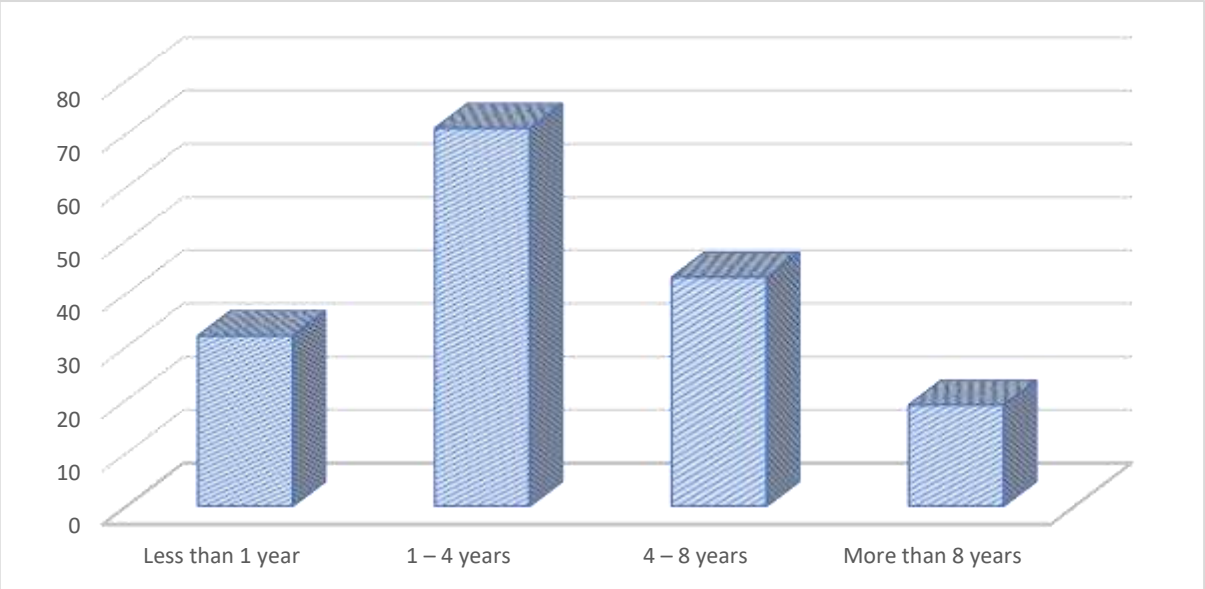
education which is (3) percent, and 1 person of the respondents had a Ph.D. which is (0.6) percent, and 8 people of participants of the study had University Diploma which approximately (4.8) of total study respondents.

Table 6. Experience of Respondents of Banking Customer

		Frequency	Percent	Cumulative Percent
Valid	Less than 1 year	32	19.4	19.4
	1 – 4 years	71	43.0	62.4
	4 – 8 years	43	26.1	88.5
	More than 8 years	19	11.5	100.0
	Total	165	100.0	

Primary data

Figure 6. Experience of Respondents of Banking Customer



The Table 6 and Figure 6 above show the calculation of customer experience of the bank and the result designates the majority of participants of the study had 1 to 4 years of being a customer of the bank, which is 71 people which means (43) % of the

total population of the study. while the second-highest 43 people who had 4 to 8 years of using a bank which is equal to (26.1) % of the whole respondents, whereas 32 (19.4) % of participants had bank experience in less than 1 year, and 19 participants had more than 8 years of bank experience, which is (11.5) of total participants of the study.

4.2 Descriptive Statistics

Descriptive are used to describe a data sample that may be representative of the entire population. Included in descriptive statistics are the mean and the standard deviation. Median, Mode and Mean provide information about central tendency, while standard deviation, minimum, range and maximum, skewness and kurtosis provide information about the dataset's variance.

Table 7. Descriptive Analysis

	Online Banking	Content	Accuracy	Format	Ease to use	Timeline	Safety
Mean	96.4242	16.1788	7.6455	7.5030	7.6364	7.930	25.78
Median	99.3000	16.5000	8.0000	8.0000	8.0000	8.500	27.16
Mode	92.30	19.50	9.00	9.00	9.00	9.00	31.00
Std. Deviation	17.78742	4.18164	2.01596	2.0934	2.27752	1.918	6.242
Variance	316.392	17.486	4.064	4.383	5.187	3.680	38.96
Skewness	-1.159	-.882	-.933	-.931	-.748	-1.048	-.857
Std. Error of Skewness	.189	.189	.189	.189	.189	.189	.189
Kurtosis	2.202	.591	.518	.479	-.270	1.168	.650
Std. Error of Kurtosis	.376	.376	.376	.376	.376	.376	.376
Minimum	19.05	3.25	1.50	1.50	1.50	1.50	5.17
Maximum	130.35	22.75	10.50	10.50	10.50	10.50	36.17
Sum	15910.00	2669.50	1261.50	1238.0	1260.00	1308.	4255.
N Valid	165	165	165	165	165	165	165

The results of the descriptive test shown in the Table 7 above show that online banking has the highest mean (SD=17.78742) and the data of this variable between 19.05 and 130.35, while the lowest mean average (SD=2.0934) and the data range between 1.50 and 10.50 is format variable, one of the subscales of customer satisfaction scale, and safety variable is the second highest mean value of the study which is 25.78

with (SD= 6.242), and the data scale between 5.17 to 36.17, this variable also is a subscale of customer satisfaction scale. The content variable has a mean value of 16.1788 (SD=4.18164) and a range of 3.25 to 22.75, whereas the accuracy variable has an average mean of 7.6455. The Table also provides the average means of ease of use and timeline, which are both 7.6364 and 7.930, respectively. Data skewness and kurtosis are shown in the Table above; the results indicate that all study variables are negative with less than 1, which means that the distribution of data is normal and the tail of the data is located to its left. However, the kurtosis shows that all variables are positive except for the ease of use variable which indicates that there are fat tails in the data distribution.

Table 8. Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Online Banking Scale	.081	165	.000	.933	165	.000
Content	.097	165	.000	.942	165	.000
Accuracy	.186	165	.000	.917	165	.000
Format	.151	165	.000	.920	165	.000
Ease to use	.168	165	.000	.919	165	.000
Timeline	.160	165	.000	.913	165	.000
Safety	.120	165	.000	.945	165	.000

The results of the Kolmogorov-Smirnov as well as Shapiro-Wilk tests are presented in Table 8. The Shapiro-Wilk test reveals the largest potential difference between two similar cumulative distributions. They have the same p-value since they were chosen from the same population. The t-statistics of Shapiro-Wilk's sample shows are greater than the t-statistics of KS. In certain instances, the Kolmogorov-Smirnov test may be used in place of the Chi-square test. Kolmogorov-increased Smirnov's sturdiness is to fault for this. Additionally, limiting the number of samples obtained is a potential alternative. When a test for normality is performed on the data, it is discovered that the distribution is normal. A normality investigation is conducted using Shapiro-Wilk to perform a normality study. The data is demonstrated to follow a normal distribution since their values did not exceed a sig level of 0.01.

4.3 Explanatory Factor Analysis

This is a technique that makes use of the possibility to focus on a few sub-dimensions rather than a huge number. This is the technique for reducing the overall size that is based on recognition. Additionally, the term may be used to describe the process of determining how a measurement is put together. For each scale Bartlett, sample adequacy and variable consistency are assessed via the Kaiser-Meyer-Olkin (KMO) method. The sphericity test is likewise shown to be statistically significant. Factor analyses were found to be extremely acceptable, and the results of the tests and samples employed in the factor analysis. The factor structure is validated by a series of tests using data that is compliant with the factor retention standards. They were able to determine the factor structure as a result of this. The "varimax rotation methodology" and "principal component analysis approach" have been used to accomplish this. The scales were re-created using the same measurements as previously in light of the results of the explanatory factor analysis. demonstrated factorization.

Table 9. KMO and Bartlett's Test of Online Banking

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.863
Bartlett's Test of Sphericity	Approx. Chi-Square	1064.910
	Df	190
	Sig.	.000

Table 9 above shows the KMO value for the online banking scale is 0.863, which means that there is quality for the measurement, and the results indicate Chi-Square of the scale which is 1064.910 and statistically because of the Sig. value 0.000 is less p-value of the study.

Table 10. Total Variance Explained of Online Banking Scale

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.483	32.416	32.416	6.483	32.416	32.416
2	1.559	7.797	40.213	1.559	7.797	40.213
3	1.230	6.152	46.365	1.230	6.152	46.365

4	1.076	5.382	51.746	1.076	5.382	51.746
5	1.025	5.126	56.872	1.025	5.126	56.872
6	.916	4.578	61.450	.916	4.578	61.450
7	.889	4.446	65.896	.889	4.446	65.896
8	.813	4.063	69.959	.813	4.063	69.959
9	.780	3.899	73.858	.780	3.899	73.858
10	.707	3.534	77.392	.707	3.534	77.392
11	.636	3.178	80.570	.636	3.178	80.570
12	.616	3.079	83.649	.616	3.079	83.649
13	.558	2.790	86.439	.558	2.790	86.439
14	.535	2.675	89.113	.535	2.675	89.113
15	.475	2.375	91.488	.475	2.375	91.488
16	.446	2.228	93.716	.446	2.228	93.716
17	.405	2.025	95.742	.405	2.025	95.742
18	.320	1.598	97.340	.320	1.598	97.340
19	.305	1.527	98.867	.305	1.527	98.867
20	.227	1.133	100.000	.227	1.133	100.000

By analyzing the factors for the first dimension, it’s discovered that none of the variables are reduced and that they explain 23.41 % of the variance the response variable.

Table 11. Factor Analysis of Customer Satisfaction

Subscale		Component
		1
Content		0.804
Accuracy		0.795
Format		0.832
Ease to use		0.802
Timeline		0.732
Safety		0.816
Total variance % **63.586**		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.903
Bartlett's Test of Sphericity	Approx. Chi-Square	464.019
	Df	15
	Sig.	0.000

The value of the KMO for the scale is 0.903, and this indicates that the measurement is of sufficient quality. We found out that none of the variables can be decreased by studying the factors for the first dimension, and that these factors explain 56.954 percent of the variation in the outcome of the analysis

4.4 Reliability Analysis

The capacity of a scale to consistently display the item being measured precisely is referred to as its reliability. Analysis of a variable's reliability is used to determine how reliable it is on its own. Cronbach's metric is often used in reliability studies. Correlation coefficients for each split are determined after each division of the data to arrive at this result. Taking the average of these figures has a similar influence to Cronbach's alpha. Cronbach's alpha, which has an alpha range of zero to one, may be used to verify internal consistency. At the very least, a dependability level of 0.6 should be considered acceptable.

Table 12. Reliability Analysis

Scales	Cronbach's Alpha	N of Items
Online Banking	0.886	20
Customer Satisfction		18

Content		0.782	4
Accuracy		0.693	2
Format		0.635	2
Easy to use		0.626	2
Timeline		0.608	2
Safety		0.831	6
N valid	**165**		

As seen in the study's reliability analysis in the Table 12 above, the Cronbach alpha score of (0.886) suggests that internet banking is very trustworthy. The table also demonstrates that customer satisfaction includes subscales, and the result suggests that Cronbach alpha coefficients of content as the first dimension of customer satisfaction is (0.782). This indicates that there is a strong relationship between the first-dimension items. Another way to measure customer satisfaction is Cronbach alpha coefficients of accuracy, which are (0.693), implying that there is a strong association among the items in the inter-dimensional space. Cronbach alpha coefficients of format, the third dimension of customer satisfaction, are also shown to be significant (0.635). As a result, there is a strong connection between the items in the third dimension. The fourth dimension of customer satisfaction, the Cronbach alpha coefficients for ease of use (0.626). To put it another way, there's a strong connection between the fourth-dimensional objects. Customer satisfaction's fifth dimension is Cronbach alpha coefficients for timeliness (0.608). There is a strong correlation between the fifth dimension and the Cronbach alpha coefficients for safety as the sixth dimension of customer pleasure, according to the table above (0.831). Because of this, there is a high degree of trust between the sixth-dimensional items.

4.5 Correlation Analysis

When there is a link between two or more variables, correlation is evaluated. This lends credence to the idea that the correlation coefficient is statistically significant, despite the wide variety of values it encompasses. There are two different classifications: "very weak" refers to any score between 0.00 and 0.25, while "medium" refers to any number between 0.26 and 0.59. The range of numbers from 0.50 to 0.69 is considered to be "moderate," while the range of

numbers from 0.70 to 0.89 is considered to be "high." The Table below displays the correlation coefficients that have been calculated between each of the individual variables.

Table 13. Correlation Analysis

	Online Banking	Content	Accuracy	Format	Ease to use	Timeline	Safety
Online Banking	1	0.587**	0.559**	0.624**	0.493**	0.559**	0.595**
		0.000	0.000	0.000	0.000	0.000	0.000
Content	0.587**	1	0.567**	0.615**	0.594**	0.479**	0.582**
	0.000		0.000	0.000	0.000	0.000	0.000
Accuracy	0.559**	0.567**	1	0.634**	0.557**	0.495**	0.547**
	0.000	0.000		0.000	0.000	0.000	0.000
Format	0.624**	0.615**	0.634**	1	0.591**	0.522**	0.596**
	0.000	0.000	0.000		0.000	0.000	0.000
Ease to use	0.493**	0.594**	0.557**	0.591**	1	0.482**	0.603**
	0.000	0.000	0.000	0.000		0.000	0.000
Timeline	0.559**	0.479**	0.495**	0.522**	0.482**	1	0.567**
	0.000	0.000	0.000	0.000	0.000		0.000
Safety	0.595**	0.582**	0.547**	0.596**	0.603**	0.567**	1
	0.000	0.000	0.000	0.000	0.000	0.000	

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

The Table 13 above shows the calculation of correlation analysis between the variables, these results provide the connection between the variables. As seen from the table, there is evidence of a significant positive association of online banking and content of customer satisfaction which is the coefficient value of (0.587**), and also online banking and accuracy of customer satisfaction have a positive association with a coefficient value of (0.559**), there is substantial relation among online banking and format of customer satisfaction with the value of (0.624**), as well as the ease to use of customer satisfaction and online banking with coefficient value of (0.493**). Timeline and safety are subscales of customer satisfaction and the result also reveals their coefficient value of online banking which is (0.559**) and (0.595**) respectively. The result of the table also indicates that online banking has a significant positive association with all subscales of customer satisfaction, however, the degree value of correlation is medium and statistically significant because the p-value of coefficient correlation of 0.000 is less than the level of significance of correlation which is 0.01.

Moreover, the results show the subscales of customer satisfaction are correlated with each other and are statistically significant.

4.6 Multicollinearity Analysis

To ensure that the results of the regression are accurate, it is necessary to examine the data to determine whether there is a problem with multicollinearity. To find out whether the data has this issue, it has to analyze VIF (Variance Inflation Factor) this is performed. When many variables in a model are connected, it's a "multicollinearity" problem. Multi-collinearity can be tested by applying the VIF to each predictor variable. A measure of the amount of multicollinearity in the variables used in multiple regression. When the value of VIF is equal to 1 or less than 5 is not correlated with other predictors and multicollinearity problem is absent in the relational model. In a multiple regression equation, multicollinearity occurs when one or more independent variables have a significant connection with another one or more independent variables. The table below explains multicollinearity by checking VIF and tolerance.

Table 14. Multicollinearity Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	34.028	4.891		6.957	.000		
	Content	.815	.330	.192	2.466	.015	.493	2.030
	Accuracy	1.061	.677	.120	1.567	.119	.505	1.981
	Format	2.010	.696	.237	2.887	.004	.443	2.259
	Ease to use	-.261	.603	-.033	-.433	.666	.498	2.009
	Timeline	1.803	.652	.194	2.764	.006	.601	1.665
	Safety	.532	.226	.187	2.355	.020	.472	2.117
a. Dependent Variable: Online Banking Scale								

As a result, the proposed tolerance value is more than 1 in the absence of multicollinearity since we can see in the Table that the tolerance is within the limit, and the VIF is also within the limit, we can conclude that multicollinearity is absent. If the tolerance value is less than 1, this suggests that a multicollinearity issue exists. The problem is referred to be multicollinearity when the value of V is more than 10, however in this situation, if the value of V is less than 10, meaning there is no multicollinearity.

Table 15. Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	Content	Accuracy	Format	Ease to use	Timeline	Safety
1	1	6.821	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.045	12.253	.37	.01	.01	.05	.28	.10	.00
	3	.034	14.228	.02	.00	.28	.23	.47	.01	.03
	4	.029	15.402	.30	.26	.00	.04	.00	.54	.03
	5	.027	15.991	.06	.40	.48	.09	.15	.01	.04
	6	.023	17.131	.22	.30	.19	.55	.02	.14	.00

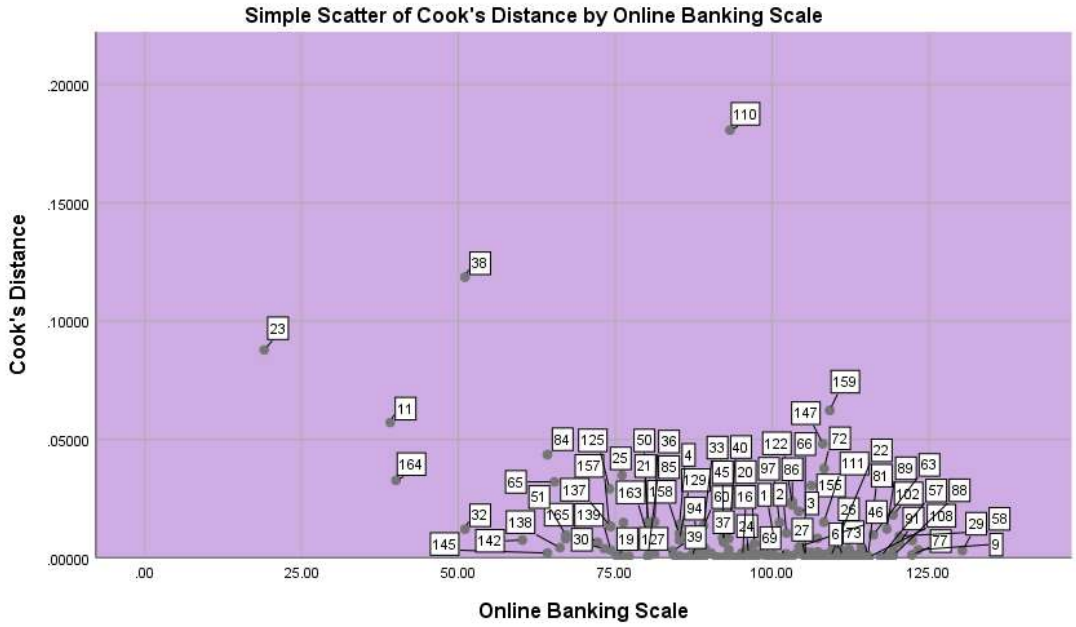
	7	.021	17.836	.03	.03	.03	.05	.08	.20	.90
a. Dependent Variable: Online Banking Scale										

The Table 15 above shows the collinearity diagnostic analysis, and there is a decision rule that implies if the condition index of the variables exceeds 15 then the collinearity is suspected and if the condition index of the variables exceeds 30 then there is a collinearity issue in the model. According to the table above the results of the condition index indicates that format, ease to use, Timeline, and safety these variables in the study are greater than 15, so collinearity is suspected but there are no collinearity issues in our particular instance.

4.7 Outlier and Influencer

In statistics, an outlier is a data point with an unusually large residual effect. In regression, a key point is a point in time that has a significant impact on the result. However, these names are not interchangeably used. An outlier may exist without being significant, and the other way around. As long as the data is consistent, a single point may have a significant influence. If a point can be both and neither at the same time, then so can it be. Outliers are data points that depart from the overall trend of a sample. As a result, there's a substantial amount of residue left behind outdoors. Since outliers don't match the model's prediction, they detract from the statistical model's relevance. To be considered significant, data points that have a considerable impact on how a regression line performs should be included in the line's data matching. The figures might be very high or extremely low. The first phase of the influenced point approach is to remove the indicated influence point from the dataset. if the offset has a significant influence on line length, the point is referred to be an important point.

Figure 7. Outlier and Influencer of the Data



According to the data shown in the graph that is located above, the bulk of the cook's distance values is clustered towards the bottom of the chart, with just a few numbers located slightly higher. As a direct consequence of this, a graph is considered to be an influential outlier if it deviates from the y-axis by a significant amount. The highest number on the chart is 0.20, and although the responder in row 110 is not a notable outlier on that chart, we do not have an explanation or a reason to delete them. In statistical analysis, it explains how to identify and evaluate multivariate outliers.

4.8 Regression Analysis

Regression analysis examines data, especially those with two or more variables, to make predictions. It is possible to see into the future using regression analysis, which is one of its benefits. Predicting the future is easier when you use the regression method.

Table 16. Linear Regression Analysis between Customer Satisfaction and Online Banking

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.728[a]	0.530	0.513	12.41847
a. Predictors: (Constant), Safety, Accuracy, Timeline, Content, Ease to use, Format				

The regression analysis through R square shows a result that 0.530 which is quite a

normal effect size, so it means that a full of 50% of the fluctuations in the response variable is completely by predictor variables. To ascertain the significance of the association and to identify the nature of this relation p-value and coefficients are analyzed in the following table.

Table 17. P-value and Coefficient Analysis

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
			Std. Error	Beta		
	(Constant)	34.028	4.891		6.957	.000
	Customer Satisfaction					
	Content	.815	.330	0.192	2.466	.000
	Accurac	1.061	.677	0.120	1.567	.000
	Format	2.010	.696	0.237	2.887	.000
	Ease to üşe	-.261	.603	-0.033	-.433	0.15
	Timeline	1.803	.652	0.194	2.764	.000
	Safe	.532	.226	0.187	2.355	.000
a. Dependent Variable: Online Banking Scale						

The Table 17 above indicates the calculation of linear regression between the response and predictor variables of the study. The coefficient of the independent variable of the content of the customer satisfaction variable is (0.192) and its corresponding sign. Since the value is 0.000<0.01, the effect of this coefficient on the dependent variable results by statistically significant. In this case, the H1 hypothesis is accepted. The table also shows that customer satisfaction variable (0.120) and was significant (Sig. 0.00<0.01) which means the effect of accuracy customer satisfaction on online banking is statistically significant. So, the hypothesis of H2 is accepted. The results show the value of the coefficient of format customer satisfaction variable is (0.237) and Sig. 0.00<0.01 which means the effect of format customer satisfaction variables on online banking is statistically significant. So, the hypothesis of H3 is accepted. The value of the coefficient of ease to use of customer satisfaction variable is (-0.033) and Sig. 0.015>0.01 which means the effect of ease to use of customer satisfaction on online banking is not statistically significant. So, the hypothesis of H4 is rejected. The value of

the coefficient of the timeline of customer satisfaction which is (0.194) that statistically significant because of Sig. 0.00<0.01, so that means the H5 is accepted. While the coefficient value of the safety customer satisfaction variable is found (0.187) and Sig. 0.00<0.01, which means this variable has a positive with online banking. So the H6 is accepted.

Table 18. ANOVA Analysis of the Data

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27521.852	6	4586.975	29.743	.000[b]
	Residual	24366.491	158	154.218		
	Total	51888.343	164			
a. Dependent Variable: Online Banking Scale						
b. Predictors: (Constant), Safety, Accuracy, Timeline, Content, Ease to use, Format						

To check for overarching trends rather than variations in mean differences, Table 18, displays the ANOVA computation. In the Table, the model's F value is 29.743, and its corresponding sig. value is 0.000<0.01, indicating that the model's parameters are statistically significant.

Table 19. Hypothesis Testing Resulting

H_1: Electronic banking has a positive effect on the content of customer satisfaction	Accepted
H_2: E-banking has a relationship with accuracy of customer satisfaction	Accepted
H_3: Electronic Banking has a relationship with the format of customer satisfaction.	Accepted
H_4: Electronic banks have a positive relationship with ease of use of customer satisfaction.	Rejected
H_5: Electronic banks have a positive effect on the timeliness of customer satisfaction.	Accepted
H_6: Electronic banks have a positive effect on the safety of customer satisfaction	Accepted

5. CONCLUSION AND DISCUSSION

The study is based on the bank industry in Mogadishu Somalia, the data of the study were gathered from 165 bank users who are residing in Mogadishu. The bank system of Somalia is based on Islamic sharia law, and the commercial banks in Somalia are provides Islamic financial products such as Murahaba, Mudaraba, and so on. According to the result of the data analysis of this study, the most of participants were youth, and most of them their education is bachelor's degrees and master's degrees. This indicates that most banking sector customers were youth, and this gives glory opportunity to the new business entrance of the banking sector. The study found that the variables of the study are correlated with each other and there is no multicollinearity in the data.

The results of the research show that customer satisfaction has a favorable impact on online banking in terms of content, format, accuracy, safety and timeliness. This conclusion is reached by utilizing linear regression and correlation analysis. If one-factor increases content customer satisfaction, then online banking users will increase. Likewise, if the content customer satisfaction decreases, then online banking users will decline. This is because without content customers, their content marketing operation is not going to work, and the reason for this is quite straightforward: marketers frequently do not have direct contact with customers. According to the results of the investigation, hypothesis 1 can be accepted. There have been other empirical studies that have discovered results that are comparable to this research, such as (Yoon, 2010: Pikkarainen, et al 2006).

According to the findings of the research, the accuracy of customer satisfaction has a positive impact on online banking, and the results were deemed statistically significant. The accuracy with which consumers can complete their financial transactions through the bank's website. Findings from prior research show that consumers anticipate online banking to be "fast" and "exact" as promised. This finding is under the findings of prior research (Ombati et al., 2010, Akinyele and Olorunleke, 2010). Other researchers (Sadeghi & Hanzaee, 2010), have come to similar conclusions about customer satisfaction factors associated with online banking services in an Islamic nation. The results of their study showed that the accuracy of customer satisfaction affects both males and females who use online banking.

The findings of the research indicated that there is a strong positive association between the format of customer satisfaction and online banking. The result is shown to be statistically significant by the regression analysis that is used, therefore hypothesis H3 is validated and approved. The results also show that ease of use of consumer satisfaction did not affect online banking, this result is determined statistically insignificant by analysis of linear regression, hence H4 is rejected and earlier research contradicts it, (Devaraj, et al. 2002; Liao and Cheung. 2008). These results may have several potential causes, some of which include the technical aspects of online banking and an increase in the amount of internet expertise that clients have. Although online banking may be considered new information technology (IT), it is built on web technologies that have a characteristic that makes them simple to use, and they are technologies that are used often by a large number of people in today's society. Therefore, although they may be new users of internet banking, they may not have a great deal of difficulty using the service. According to the findings of a few studies that were connected to technology acceptance models (TAMs), the impacts of ease of use were significantly reduced the more experienced the users were concerning information technology (Castaneda et al., 2007).

According to the findings of the research, the timeline of customer satisfaction has a substantial and positive impact on online banking. This finding is shown to be statistically significant. Therefore, the study's h5 hypothesis can be accepted. Today's banks have a variety of issues when it comes to monitoring the credit risk of borrowers and implementing fast remedial steps when they are necessary. It will aid the financial monitoring of the banking organizations, and loan operations, enabling quick file access, and retrieval where it simplifies the process, and decrease the amount of paper labor. The research also discovered that the safety of customer satisfaction has a favorable influence on online banking customers. The conclusion is determined to be statistically supported by utilized regression analysis, which indicates that the h6 hypothesis of the study is accepted. This statistic sheds light on the fact that clients of online banking are primarily worried about the security of utilizing internet banking for the conduct of transactions (Siek, and Sutanto, 2019). It is a clear indicator that the clients want to be reassured that the bank can be trusted with their personal information while they are making financial operations. There is earlier empirical research such as the (Laukkanen, 2007)'s study regarding Internet vs mobile banking that disagrees with

this finding. When comparing customer value views between online banking and mobile banking, he discovered that the most important factor in influencing the variations in customer value perceptions is the importance customers place on safety.

The financial services business is undergoing rapid change. It's becoming more difficult for financial service providers to operate in an industry that is rapidly changing and becoming more competitive. It's because of the rise in consumer knowledge, government regulation and deregulation, and technology. To get a larger part of the market, enhance customer discernments of the quality of their services, and cultivate a loyal client base, banks must develop and implement new service channels. Better customer service may help attain these objectives. To ensure customer satisfaction and loyalty, e-services must be evaluated on some different aspects, including the lack of human-to-human interaction and the substitution of human-to-machine contact for human engagement. The importance of understanding the dimensions and importance of the service traits that make up an online banking service's quality cannot be overstated.

Since of the importance of this element, the commercial banks in Mogadishu need to enhance the product content of their offerings because it will assist them in support and bring value to potential new customers. The likelihood of their becoming devoted consumers is improved as a result of this factor. It is also necessary for commercial banks in Mogadishu to put their support staff in the position of an expert to satisfy customer satisfaction in terms of format, accuracy, safety, and timeline. This is due to the fact that these are the primary factors that influence customer satisfaction. Their knowledge is increased, and they become more competent in excellently doing their work, as a result of constant engagement with instructional information. When it comes to assisting customers, exceptional simplicity of use may significantly cut down on the number of resources that are required. This aspect relates to how simple it is to get access to and make use of the website of banks for doing searches, circumnavigating and making financial transactions. The things that were loaded into this factor were linked to the convenience of using the website, the arrangement and structure of online material that makes the website simple to follow with less effort, and the overall quality of the website's design. All of these things were taken into consideration when determining the score for this factor.

Research on internet banking services is limited to a single area of Somalia, despite sampling procedures and sample sizes that are similar to previous studies. The findings of this study will have an impact on future studies in this area. Customers' perceptions of the quality of online banking may be included in the study of consumer behavior by researchers in the future. To conduct this examination, a quantitative research technique is adopted. A mixed-method approach, in which qualitative as well as quantitative methods of research are used in tandem, may be considered for future investigation. No one firm or bank is the target of the investigation. A subsequent endeavor might focus on specialized probes against a certain company or bank. This might be useful for more urgent reasons. Further probe is vital before any firm decisions can be reached on the validity and dimensionality of the quality of the services provided by online banks, and this cannot be emphasized enough.

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APPENDICES

Appendix I: Consent

My name is Ilyas Muhyadin, and I'd like to introduce myself. I am a student pursuing a Master's degree in Finance at Istanbul Ticaret University, where I am currently working on my graduation thesis. **The Impact of Electronic Banking on Customer Satisfaction: The Case of Somalia.** Participation in this survey, as well as the sharing of your expertise and experience, are warmly invited. The purpose of this survey is to collect information. The responses to the survey will be kept completely confidential and will only be used for academic research purposes, as mentioned above in this section. Your attitude toward the subject matter is critical to the success of this study.

Appendix II: Questionnaire

Section A: Demographic Characteristics

1. Gender Male [ ] Female [ ]
2. Age Less than 20 yrs [ ] 20 – 29 yrs [ ] 30 – 39 yrs [ ]
   40 – 49 yrs [ ] More than 50 yrs [ ]
3. Number of years of Internet Experience

   Less than 1 yr [ ] 1 – 5 yrs [ ] 6 – 10 yrs [ ] More than 10 yrs [ ]
4. Education Level

   Primary [ ] Secondary [ ] Diploma [ ] Bachelor Degree [ ]
   Master's Degree [ ] PhD [ ]
5. How long have you been a customer of the bank?
   a. Less than 1 year [ ]
   b. 1 – 4 years [ ]
   c. 4 – 8 years [ ]
   d. More than 8 years [ ]

Section B: Online Banking

Please pick one (1=strongly disagree, 2=disagree, 3=Somewhat disagree 4=Neutral, 5=Somewhat agree, 6=agree, 7=strongly agree).

No.	Statement	1	2	3	4	5	6	7
Online Banking								
1	I am able to get on the site quickly	☐	☐	☐	☐	☐	☐	☐
2	When the bank promises to do something by a certain time, it does so	☐	☐	☐	☐	☐	☐	☐
3	The site is always available for business	☐	☐	☐	☐	☐	☐	☐
4	The bank does not misuse my personal information	☐	☐	☐	☐	☐	☐	☐
5	I have confidence in the bank's service	☐	☐	☐	☐	☐	☐	☐
6	The website design is aesthetically attractive	☐	☐	☐	☐	☐	☐	☐
7	The bank gives prompt responses to my requests by e-mail or other means	☐	☐	☐	☐	☐	☐	☐
8	The bank is easily accessible by telephone	☐	☐	☐	☐	☐	☐	☐
9	It is easy to find what I need on the website	☐	☐	☐	☐	☐	☐	☐
10	My online transactions with the bank are always accurate	☐	☐	☐	☐	☐	☐	☐
11	This site launches and runs right away	☐	☐	☐	☐	☐	☐	☐
12	I feel safe in my transactions with the bank	☐	☐	☐	☐	☐	☐	☐
13	The bank's name is well-known and has good reputation	☐	☐	☐	☐	☐	☐	☐
14	The bank quickly resolves problems I encounter with my online transactions	☐	☐	☐	☐	☐	☐	☐
15	The site has customer service representatives available online	☐	☐	☐	☐	☐	☐	☐
16	It is quick to complete a transaction through the bank's website	☐	☐	☐	☐	☐	☐	☐
17	The service delivered through the bank's website is quick	☐	☐	☐	☐	☐	☐	☐
18	Using the bank's website does not require a lot of effort	☐	☐	☐	☐	☐	☐	☐
19	The organization and structure of online content are easy to follow	☐	☐	☐	☐	☐	☐	☐
20	The bank's site makes accurate promises about the services being delivered	☐	☐	☐	☐	☐	☐	☐

Section C: Customer Satisfaction

No.	Statement	1	2	3	4	5	6	7
Customer Satisfaction								
C1	Do you think that Internet banking provides the precise information you need?	☐	☐	☐	☐	☐	☐	☐
C2	Do you think that the information content of Internet banking meets your needs?	☐	☐	☐	☐	☐	☐	☐
C3	Do you think that Internet banking provides transaction reports that seem to be just about exactly what you need?	☐	☐	☐	☐	☐	☐	☐
C4	Do you think that Internet banking provides sufficient information?	☐	☐	☐	☐	☐	☐	☐
A1	Do you think that data in Internet banking is accurate?	☐	☐	☐	☐	☐	☐	☐
A2	Do you think that you are satisfied with the accuracy of data in Internet banking?	☐	☐	☐	☐	☐	☐	☐
F1	Do you think the output of Internet banking is presented in a useful format?	☐	☐	☐	☐	☐	☐	☐
F2	Do you think that the report information extracted from Internet banking is clear?	☐	☐	☐	☐	☐	☐	☐

E1	Do you think that Internet banking is user friendly?	☐	☐	☐	☐	☐	☐	☐
E2	Do you think that Internet banking is easy to use?	☐	☐	☐	☐	☐	☐	☐
T1	Do you think that you get the information you need in time from Internet banking?	☐	☐	☐	☐	☐	☐	☐
T2	Do you think that Internet banking provides up-to-date information?	☐	☐	☐	☐	☐	☐	☐
S1	Do you think Internet banking systems provide sufficient security?	☐	☐	☐	☐	☐	☐	☐
S2	Do you think that you are satisfied with the security of Internet banking systems?	☐	☐	☐	☐	☐	☐	☐
S3	Do you think that the adoption of security mechanism of Internet banking will increase the data security on transactions?	☐	☐	☐	☐	☐	☐	☐
S4	Do you think that you are satisfied with the security mechanisms of Internet banking?	☐	☐	☐	☐	☐	☐	☐
S5	Do you think that you are satisfied with the assurance of online transaction on Internet banking?	☐	☐	☐	☐	☐	☐	☐
S6	Do you think that you are satisfied with Internet banking while the involvement of trusted third-party (TTP) in dealing with online transactions?	☐	☐	☐	☐	☐	☐	☐