

E-BANKING SERVICE ON CUSTOMER SATISFACTION IN COMMERCIAL BANKS OF SOMALIA

Fadumo Abdullahi Ahmed*

*Faculty of Computing, SIMAD University, E-mail: ftmasahra@simad.edu.so

Abstract

In recent years, the notion of banking has quickly expanded its use of online banking as an effective and acceptable setup to value the customer. By focusing on issues like customer care and consumer trust, this study intends to investigate how the quality of the e-banking service affects customer happiness. Additionally, the article's goal is to investigate the degree of customer satisfaction in a few Somalian banks and make inferences about factors that significantly affect it. One of the quantitative research approaches, survey design, was utilized to determine the effect of e-banking on customer satisfaction in Somalia's banks. 348 people completed the questionnaire, which resulted in the collection of data. The research showed that the Internet service for e-banking does not satisfy customers. The study also shows that while customer satisfaction is significantly impacted by all five of the E-banking service quality measurements—efficiency and ease of use, reliability, security and privacy, and responsiveness and communication—the most effective dimensions are efficiency and ease of use, reliability, security, and privacy. In Somalia, additional research ought to be carried out using other samples.

Keywords: E-banking, service quality dimensions model and customer satisfaction.

INTRODUCTION

Service quality has become a common metric for evaluating the success of numerous service organizations, including banks. The extensive use of the Internet in the service sector presented some difficulties for service quality researchers. Many scholars have occasionally proposed different models for the effectiveness of online services. Internet banking is an emerging service that needs better online service quality to retain and attract more customers. Internet banking is defined by [1] as a kind of bank transaction where people make deposits, make account balance inquiries, pay bills, and monitor assets such as online stocks. Online banking is useful for bank customers and it has some drawbacks, too.

Today, Information and Communication Technology (ICT) is at the forefront of this global transition in electronic banking structures in Africa [2]. Asserting that they have been using electronic and telecommunication networks over time to offer a wide variety of value-added goods and services, knowledge technologies should not be overlooked by managers in the banking sector in Rwanda. Since they play a vital role in the modern banking structure, they find out that most affluent banks' whole cash flow is connected to the information system. The application of the principles, methods, policies and delivery strategies of information and communication technology to banking services has become a matter of profound significance and interest for all banks and, indeed, a necessity for local and global competitiveness.

Consumer satisfaction is a growing field of consumer research. For centuries, even though it isn't explicitly stated, the concept of satisfaction has been a part of most studies aimed at understanding human behavior. According to certain theories, fulfillment is essential to human existence, such as wants, desires, and so on, and it has also been labeled as a goal from now to an eventual future condition of human needs, such as happiness, pleasure, fulfillment, and so on. In the evolution of modern marketing philosophy, customer satisfaction is also critical. It was utilized as a marketing objective for satisfying customer requirements and desires. Consumer satisfaction has always been defined as a tool for marketers to attain their corporate goals in all fundamental marketing literature. However, ten years later, in 1976, there was a resurgence of interest in contentment. The satisfaction construct has caught the interest of many researchers who want to learn more about it [4].

The primary challenge for all organizations, but particularly for the banking sector, is assuming a high level of service. The level of satisfaction among consumers could indicate a company's success or failure. Banks must be customer-focused in order to compete in the market. The greatest level of service would guarantee a significant share of the market and a crucial return. The increasing numbers of commercial banks in Somalia especially Mogadishu city have led to the creation of a challenging and competitive environment where each bank is ready to have enough shares in the market. In order to improve service quality, banks must comprehend the criteria that customers utilize to assess service quality. This study aims to examine how customers in Somalia perceive the quality of the online services provided by commercial banks.

LITERATURE REVIEW

Around the same time, the digital era has introduced new opportunities in terms of access to and dissemination of information, raising new obstacles in protecting confidential information from intruders while making it available to others. As a result of technical improvement, increased knowledge, and expectations for banks to support their customers online, today's business climate is highly competitive and is experiencing rapid change. In order to improve their products and services, banks have always been at the forefront of technological innovation [1]. The banking industry of the twenty-first century operates in a challenging and complicated environment marked by changing circumstances and a highly uncertain economic environment.

E-banking

Electronic banking is a modern way to conduct business without being outsourced. It is described as the automated transfer of products and services from conventional banks to customers sent directly to the employee's device. When electronic banking is first implemented, mediation is used as a supplier of products and services as banks, but markets, with the advancement of digital age banks, use media and informative online banking transactions. Internet banking is one of the many distribution banks which have been used for over 20 years by banks. Some of the most used channel banks are mobile banking, creditcard, and electronic retail stores to pay with the use of the Automatic Teller Machine Tool shop

(ATM).

Financial services have changed as a result of the growth of online banking technologies like e-banking in Somalia, and users there can now access banking services [9, 10]. That's why banks have made it easier to use online banking tools including ATMs, computers, and other devices for money transfers.. However, the collapse of Somali government in 1991 Several financial system reforms were implemented under the direction of the former president Mohamed Siyad Barre, particularly in the Central Banks and the broader Somali banking system [11]. The central bank was able to reopen its offices in Mogadishu and other significant cities by the end of 2006. Following that, the "Hawaleh System," also known as the Money Transfer Companies, was created to offer some fundamental banking services, like e-banking. The Hawaleh System has offices all over the world, which helped it become a well-known budgetary player in Somalia, combined with the quicker and lower service charges they provided, and thus expanded open trust and dependability [12] Furthermore, the Hawaleh system's primary function is to transfer money between foreign countries and within the country. However, now some Mogadishu commercial banks are providing master cards and visa cards that can help Somalians around the world to conduct their e-bank transactions at any time if mobile or laptops are available.

Customer Satisfaction

Customer satisfaction is defined as the reaction of the customer to an obvious discrepancy between prior expectations or experiences and the performance of the purchased goods or services [13]. The term customer service (CS) is increasingly commonly used across all industries to gauge service, customer loyalty, and client engagement. Customers' opinions of their services, how those services are provided, and whether or not their expectations are met are the main topics of discussion when it comes to CS. It goes without saying that the report will be good if consumers' requirements are met, but it will be negative if they are not.. The continuous provision of high-quality service to meet their customers' needs is the key predictor of long-term success in the intensely competitive banking sector [14]. According to [5], a stable interest rate is an important problem in consumer loyalty in the banking industry, and competition and relaxation are two crucial aspects of customer satisfaction.

“Satisfaction, according to [6] is largely focused on feelings rather than logic. He describes happiness as "the fulfillment reaction of the customer." Its expression is determined by whether the customer has met the sale provider's after-service assessment and whether the customer has reached their delivery stage. [7], on the other hand, use the following seven components to assess service and satisfaction: attraction, enjoyment, surprise, indignation, wise decision-making, and doing the right thing. Since CS is primarily focused on emotions, as [15] previously said, it is common for each person to perceive emotions differently and thus evaluate CS in different ways. The person delivering or receiving the service, the product being sold, and the appraisal of how the bank's goods and services reach or exceed their requirements all play a part in the degree of satisfaction or disappointment. Satisfaction is associated with a variety of psychological and physical symptoms. Similarly, researchers like [16] discovered a

close and important connection between CS and the standard of banking services. Bu-Mu'amar has agreed that regardless of the brand that depends heavily on their service quality choices, the customer can continue to work with and stay faithful to the bank.

Electronic Service Quality

Information and communication technology-based services, or e-services, are sometimes known as electronic services. The service supplier, service recipient, and the network used to deliver services (i.e., technology) are the three main components of e-services. E-service (or service) is a wide phrase that generally refers to "the distribution of services over the Internet" (the prefix "e" stands for "electronic" in many other situations). It may also be relevant to online non-commercial services, which are typically provided by the government and include e-Commerce [17].

Businesses that have been effective in providing e-services are beginning to recognize that, in addition to having a website and charging a low price, the quality of the electronic service is an important success or failure factor [18, 19]. One of the reasons for the growing value of e-services efficiency is that consumers can compare different service providers even more easily over the Internet than they can across conventional networks [20]. As a result, users of internet platforms demand the same or higher degree of service efficiency as customers of conventional providers [20].

E-banking Services

E-banking services are those that are provided by banks over the Internet. Previously limited to account checking, banks' Internet services have gradually grown to offer a variety of banking services. Nowadays, it is just commonplace for practically all services offered in-person or over the phone to also be accessible online. Banks can offer new added-value services that are only available online, such as electronic commerce, real-time brokerage, financial details menus, e-mail updates, and third-party services (tax collection, portals, or bill management), in addition to traditional "branch-based" services over the Internet [23].

The number of people who use online banking services continues to rise. In the United Kingdom, online banking use grew during the study period, with 30% of respondents saying they had accessed their bank account online during the previous three months. As of 2020, 76 percent of people used online banking daily, indicating steady growth in this operation sector. The most popular device for internet banking was a mobile one. Additional digital banking innovations have recently been included into online banking solutions, including those in the areas of mobile banking, mobile banking applications, digital wallets, and Fintech solutions targeted at specific consumers. [24].

ATM Banking Services (Automated Teller Machine)

One of the most common and fundamental e-banking services is the ATM. You can use it to check your account status, transfer money, deposit money, change your cell number, and change the PIN on your debit card in addition to withdrawing cash as needed. By inserting a

plastic card with a magnetic stripe or a plastic smart card with a chip that has a unique card number as well as security details like an expiration date or CVV, among other things, customers are recognized at most modern ATMs. The customer provides a personal identification number (PIN) to prove his identity. Customers can use an ATM to access their bank accounts and make cash withdrawals, credit card cash advances, check account balances, and buy prepaid cell phone credit [25].

Mobile Banking Services

The majority of banks have created mobile applications that let your complete transactions with a single click. All of the following are required: a smartphone, an active bank account, an internet connection, a mobile application, and mobile banking. The mobile banking application interacts with the bank's servers to deliver financial services to a user's mobile device [29]. As a result, the application must have the ACID characteristics of a system.

As a result, the application's transactions must all be atomic. According to this, a transaction is either fully completed or doesn't happen at all. Maintaining the integrity of the entire system depends on atomicity. The program frequently has a link to the bank's databases. Users should feel confident using Atomicity knowing their transactions will be fully completed. The second essential trait that the application must possess is consistency. Consistency in this context means that each interaction should change the system's legal state [31].

Telephone Banking

In essence, telephone banking (also known as telebanking) is the delivery of branch financial services over telecommunications equipment. It is an example of remote or virtual banking. By dialing a touch-tone phone number or a mobile phone device connected to the bank's computerized system using Automated Voice Response (AVR) technology, bank customers can execute retail banking operations [41]. Examples of this kind of mobile money services include M-Pesa, Tigo Pesa, EzyPesa, Halo Pesa, Sahal, EVC Plus, Zaat, and Airtel Money. The results of this study suggest that telephone banking can be thought of as an electronic banking transaction that can be carried out by anyone, day or night, utilizing a mobile phone.

Theoretical framework

On the basis of the constrained scope of the literature review previously provided, the relationship between service quality characteristics and customer satisfaction is depicted in figure 2.2 below. Service Quality Model was employed in this investigation. A multi-dimensional research process called the ERVQUAL Model aims to quantify the discrepancy between consumer expectations and perceptions of service quality across four dimensions. Three marketing academics from the United States—A Parsu Parasuraman, Valarie A. Zeithaml, and Leonard L Berry—developed and used this idea.

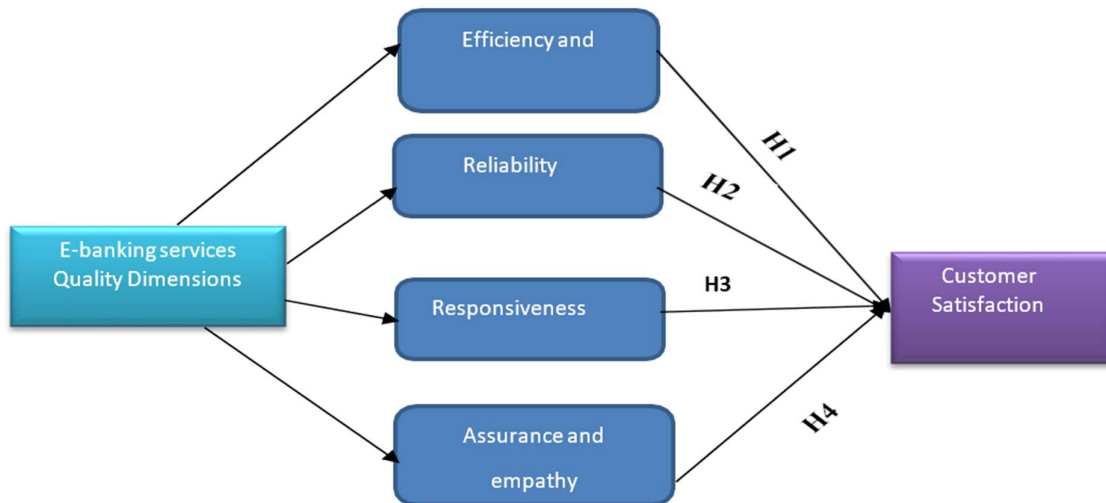


Figure 2.1. The theoretical framework

RESEARCH METHODOLOGY

Design, sample, and data collection

To determine the impact of the quality of the E-bank service on customer satisfaction in Mogadishu, Somalia, the study used a survey research design study method. According to Creswell (2012), surveys are used to describe or ascertain individual opinions about topics, attitudes, and beliefs. For this reason, a cross-sectional survey approach was used in the research to identify the quality aspects of e-banking services that affect customer satisfaction. However, staff (academic and non-academic) and students who utilize the E-banking service at SIMAD UNIVERSITY in Somalia are the study's target demographic. The researchers will take precautions to prevent biases or inaccuracies in the findings that can be brought on by respondents' misinterpretations of the questionnaire. Students and professionals in Mogadishu, Somalia, were used as the source of data samples for this study. The 3657 users of e-banking services that make up the study's target market mean that 348 people should be included in the study's sample, per the 95% confidence interval and 5% margin of error. As part of Creative Research Systems' survey software's commitment to the general public, the Sample Size Calculator is provided. This software was used to calculate the sample size for this formula:

$$Z^2 * (p) * (1-p) / c^2 = Z = Z \text{ value (e.g. 1.96 for 95\% confidence level)}$$

p = percentage picking a choice expressed as a decimal (.5 used for sample size needed)

c = confidence interval expressed as a decimal

FINDINGS AND DISCUSSION

Table 4.1. Demographic profile

Variable	No	%
Age		
26-35 years	150	43.10
16-25 years	182	52.30
36-45 years	15	4.31
Over 46	1	0.29

Missing	0	0.00
Gender		
Female	85	24.43
Male	263	75.57
Missing	0	0.00
Education Level		
Graduate	145	41.67
Undergraduate	178	51.15
Non-Academic	13	3.74
Academic	12	3.45
Missing	0	0.00
Length of E-Banking usage:		
More than 3 years	132	37.93
Less than 6 months	79	22.70
More than 2 less than 3 years	35	10.06
More than 1 less than 2 years	92	26.44
More than 6 months less 1 year	10	2.87
Missing	0	0.00
Frequency of E-banking service		
Daily	114	32.76
Once per month	42	12.07
Twice per week	68	19.54
Never	23	6.61
Once per week	75	21.55
Twice per month	26	7.47
Missing	0	0.00

Note. Due to rounding errors, percentages may not equal 100%.

Age, Gender, Education, Length of e-banking and Frequency of e-banking service

Age was the first demographic variable in which 348 participants. The most frequency observed age groups was 16-25 years ($n = 182, 52\%$); 150 or 43.10% of them were 26-35 years, 15 of them were the age 36-45 years (4.31%), 0.29% or 1 of the participants were older than 46. On the otherhand, the largest age range had those aged 16-25. Furthermore, the highest ages were found to be between the ages of 16 and 35, which corresponds to the ages of most university students. While the second variable was Gender in which 348 participants were classified as either Male or Female. The most frequently observed category of Gender was Male ($n = 263, 76\%$). Female were ($n = 85, 24.43\%$). Male consumers are more likely than female customers to utilize e-banking services, according to the data.

The research also identified the educational background of 348 participants. The most frequently observed category of Education Level was Undergraduate ($n = 178, 51\%$); 145 or (41.67%) participants are a graduate or master degree holders. Thirteen or (3.74%) of the participants were Non-Academic while 12 or 3.45% of the participants were Academic teachers. The participants were also asked about the length of their using the E-banking service.

The most frequently observed category of Length of E-banking usage was more than 3 years (n = 132, 38%); 92 or (26.44%) of participants uses between 1 to 2 years; 79 or (22.7%) of them were using e-banking service less than 6 months; 35 or (10.06%) between 2 to 3 years users while 10 or (2.87%) of the participants were using between 6 months to 1 year. So that the level of knowledge of E-bank service among respondents is high because of more than 3 years and between 1 to 2 years are the most responses in the study result.

The last demographic variable the respondents had to provide an answer to was their frequency of using the E-banking service. The most frequently observed category of Frequency of E-banking Service was Daily (n = 114, 33%); Once per week (n=75, 21.55%); Twice per week (n=68, 19.54%); Once per month (n=42, 12.07%); Twice per month (n=26, 7.47%); Never (n=23, 6.61%).

Table 4.2. Efficiency and ease use frequency table

	1 Strongly disagree		2 Disagree		3 Neutral		4 Agree		5 Strongly agree	
	F	%	f	%	F	%	F	%	F	%
The use of E- Banking services is time-saving.	31	8.9	17	4.9	31	9.2	123	35.5	143	41.2
The service delivered through the E- Banking services are quick	25	7.2	18	5.2	60	17.3	132	38	132	32.3
I can complete quickly any transaction through the E- Banking service channels.	25	7.2	36	10.4	58	16.7	143	41.2	85	24.5
I found that E- Banking services are easy to use.	31	8.9	30	8.6	57	16.4	135	38.9	94	27.1
E-Banking services are provided in various languages.	24	6.9	63	18.2	90	25.9	122	35.2	48	13.8
My interaction with the E- Banking system is clear and understandable.	25	7.2	36	10.6	56	16.1	151	43.5	79	22.8
I find the E- Banking system to be flexible to interact with	21	6.1	41	11.8	70	20.2	144	41.5	71	20.5
Learning to operate the E- Banking system is easy for me.	23	6.6	30	8.6	68	19.6	135	38.9	91	26.2

9% of respondents strongly disagree that the e-banking service is time-saving, 4.9% were disagreed, and just 9.2% were undecided, while 35.5% agreed and 41.2% strongly agree with the banks' e-banking services. Regarding the belief that using e-banking services was quick, the response was as follows, 7.2% strongly disagreed, 5.2% disagreed and just 17.3% were undecided, while 38% agree and 32.2% strongly agree that e-banking service is quick. Using the e-banking service channels, you may complete any transaction quickly responses were 17.6% disagreed and 16.7% were undecided that the services offered by the banks were quick while 65.7% agreed. Regarding the e-banking services were discovered to be simple to use were as follows; 8.9% and 8.6% disagreed and just 16.4% were undecided that the e-banking

services are easy to use while 38.9% of responses were agreed and 27.1% strongly agreed.

Furthermore, the e-banking services are provided in different languages 25.1% of the responses have disagreed, 25.9% undecided and 49% agreed while the clearance of e-banking system and user-friendly 17.8% disagreed, 16.1% undecided, and 66.8% were agreed that the e-banking systems are clear and understandable. And finally, interacting with an e-banking system should be flexible 17.9% of participants have disagreed and 20.2% of responses were undecided while 62% of responses were agreed that the e-banking systems are flexible to interact with. While the participants asked it's simple to learn how to use the e-banking system their responses as follows, 6.6% were strongly disagreed, 8.6% disagree and just 19.6% were undecided while 65.1% were agreed it is easy to learn to use e-banking systems.

Table 4.3. Descriptive statistics of efficiency and ease use

Descriptive Statistics	Interpretation	Mean	Std. Deviations
The use of E-Banking services is time-saving.	Agree	3.95	1.229
The service delivered through the E-Banking services are quick	Agree	3.83	1.152
I can complete quickly any transaction through the E-Banking service channels.	Agree	3.65	1.166
I found that E-Banking services are easy to use.	Agree	3.67	1.216
E-Banking services are provided in various languages.	Neutral	3.31	1.128
My interaction with the E-Banking system is clear and understandable.	Agree	3.64	1.153
I find the E-Banking system to be flexible to interact with	Agree	3.59	1.120
Learning to operate the E-Banking system is easy for me.	Agree	3.69	1.14
Overall Mean	Agree	3.66	.84588

Table 4.3 shows the descriptive statistic of efficiency and ease the use of e-banking service for the following results, 3.95 mean and 1.229 standard deviations which interpret that most participants agreed using of e-banking services are time-saving. The average of service delivered through e-banking services are fast, 3.83 and 1.152 standard deviation which means the responders have agreed the service delivery of e-banking services are quick. While the e-banking service channels are quickly complete any transactions, 3.65 mean and 1.166 standard deviations, which means e-banking services transactions are quick. The participants agreed that the e-banking services are easy to use with results of 3.67 mean and 1.216 standard deviations. While some of the participants were undecided that the e-banking services are provided in different languages, they mean 3.31 and 1.128 standard deviations. Therefore, the clearance and understandable of e-banking services interpret mean

3.64 and standard deviation 1.153, while the e-banking systems are flexible to interact present mean 3.59 and 1.120 standard deviations and finally, it is easy to learn how to use e-banking service interpret the mean 3.69 and 1.14 which mean the most participants were agreed that

the flexibility, clearance and easy to learn how it uses e-banking services.

Table 4.4. Reliability frequency table

	1 Stronglydisagree		Disagree		Neutral		Agree		5 Stronglyagree	
	F	%	F	%	F	%	F	%	F	%
I have high confidence in the reliability of E-Banking services	27	7.8	43	12.4	87	25.1	148	42.7	42	12.1
E-Banking service is reliable and dependable	20	5.8	54	15.6	95	27.4	136	39.2	42	12.1
E-Banking services perform for me the service right on the first time.	22	6.3	45	13.0	86	24.8	149	42.9	45	13
I have always found E-Banking service channels in working order	23	6.6	54	15.6	95	27.4	130	37.5	45	13.0

Table 4.4 shows that 7.8% of respondents strongly disagree that they have high confidence in the reliability of e-banking services, 12.4% were disagreed, and 25.1% were undecided, while 42.7% agreed and 12.1% strongly agree with the reliability confidence of e-banking services. Regarding the belief that e-banking service is reliable, the response was as follows, 5.8% strongly disagreed, 15.6% disagreed and 27.4% were undecided, while 45% agreed and 13% strongly agreed. e-banking services provide excellent service the first-time responses were 19.3 % disagreed and 24.8% were undecided while 58% agreed. Regarding e-banking service channels that have always been operational were as follows; 6.6% and 15.6% disagreed and 27.4% were undecided while 37.5% of responses were agreed and 13% strongly agreed.

Table 4.5. Descriptive statistics of reliability

Descriptive Statistics	Interpretation	Mean	Std. Deviation
I have high confidence in the reliability of E-Banking services	Neutral	3.39	1.094
E-Banking service is reliable	Neutral	3.36	1.065
E-Banking services perform for me the service right on the first time.	Agree	3.43	1.071
I have always found E-Banking service channels in working order	Neutral	3.35	1.095
Overall Mean	Neutral	3.3826	.82986

Table 4.5 shows the descriptive statistic reliability of e-banking service for the following results, 3.39 mean and 1.094 standard deviations which interpret that most participants are undecided about the reliability of e-banking. The average of e-banking services is reliable 3.36 and 1.065 standard deviation which means the responders were neither agreed nor disagreed. While e-banking services provide excellent service the first time, 3.43 mean and 1.071 standard deviations, which means e-banking services provide good service for the first time. The participants were undecided that the e-banking service channels have always been operational with results of 3.35 mean and 1.095 standard deviations.

Table 4.6. Responsiveness frequency table

	1 Strongly disagree		2 Disagree		3 Neutral		4 Agree		5 Strongly agree	
	F	%	F	%	F	%	F	%	F	%
E-Banking services are available 24/7	25	7.2	33	9.5	72	20.7	111	32.0	106	30.5
E-Banking services respond immediately to clients	23	6.6	34	9.8	90	25.9	123	35.4	77	22.2
Help is immediately available if there is any problem	28	8.1	59	17.0	107	30.8	107	30.8	46	13.3
E-Banking services provide prompt answers to your questions	18	5.2	55	15.9	119	34.3	108	31.1	47	13.5
Bank deals respectfully with customer complaints about electronic service	28	8.1	47	13.5	90	25.9	113	32.6	69	19.9

Table 4.6 shows that 7.2% of respondents strongly disagree that the e-banking services are available every time, 9.5% were disagreed, and 20.7% were undecided, while 32% agreed and 30.5% strongly agreed 24/7 availability of e-banking services. Regarding the belief that e-banking services respond immediately to clients, the response was as follows, 6.6% strongly disagreed, 9.8% disagreed and 25.9% were undecided, while 35.4% agree and 22.2% strongly agreed. Help is immediately available if there is any problem, responses were 8.1% strongly disagreed, 17.0% disagree and 30.8% were undecided while 59.3% agreed. Regarding e-banking service provide prompt answers to your questions were as follows; 5.2% and 15.9% disagreed and 34.3% were undecided while 47% of responses were agreed and 13.5% strongly agreed. While customer complaints about electronic services are handled professionally by the bank 8.1% of responses were strongly disagreed, 13.5% disagreed and 25.9% were undecided while 69% were agreed and 19.9% were strongly agreed that customer complaints about electronic services are handled professionally by the bank.

Table 4.7. Descriptive statistics of responsiveness

Descriptive Statistics			
	Interpretations	Mean	Std. Deviation
E-Banking services are available 24/7	Agree	3.69	1.205
E-Banking services respond immediately to clients	Agree	3.57	1.134
Help is immediately available if there is any problem	Neutral	3.24	1.130
E-Banking services provide prompt answers to your questions	Neutral	3.32	1.058
Bank deals respectfully with customer complaints about electronic service	Agree	3.43	1.184
Overall Mean	Agree	3.4496	.86797

Table 4.7 shows the descriptive statistic responsiveness of e-banking service for the following results, 3.69 mean and 1.205 standard deviations which interpret that most participants agreed every time availability of e-banking. The average of e-banking services responds immediately to clients 3.57 and 1.134 standard deviations which means the responders were agreed. While help is immediately available if there is any problem, 3.24 mean and 1.130 standard deviations, which means help solution of the problems does not available at right time. The participants were undecided that the e-banking service provides prompt answers to your questions with results of 3.32 mean and 1.058 standard deviations which mean e-banking services do not answer a question immediately. Finally, customer complaints about electronic services are handled professionally by the bank, the result of 3.43 mean and 1.184 standard deviation shows that the most of participants agreed that bank handled customer complaints about e-banking services.

Table 4.8. Assurance and empathy frequency table

	1 Strongly disagree		Disagree		Neutral		Agree		5 Strongly agree	
	F	%	F	%	F	%	F	%	F	%
E-Banking services do not allow others to access my accounts	28	8.1	42	12.1	65	18.7	120	34.6	92	26.5
E-Banking service provides high protection for my banking transactions	16	4.6	33	9.5	79	22.8	140	40.3	79	22.8
E-Banking service is secure and safe from any fraud or hacking	31	8.9	71	20.5	81	23.3	110	31.7	54	15.6
The security devices of the E-Banking services protect the data that are sent by me	13	3.7	41	12.1	100	28.8	135	38.9	57	16.4
E-Banking services offers secure personal privacy	16	4.6	39	11.2	96	27.7	130	37.5	66	19.0

Table 4.8 shows that 8.1% of respondents strongly disagree that the e-banking services do not allow another account to access, 12.1% were disagreed, and 18.7% were undecided, while

34.6% agreed and 26.5% strongly agreed. Regarding e-banking offers a high level of security for banking transactions, the response was as follows, 4.6% strongly disagreed, 9.5% disagreed and 22.8% were undecided, while 40.3% agree and 22.8% strongly agreed. E-banking service is safe and secure from any type of fraud or hacking, responses were 8.9% strongly disagreed, 20.5% disagree and 23.3% were undecided while 47.3% agreed. Regarding the data that is sent is protected by the security devices used by e-banking services responses as follows; 3.7% and 12.1% disagreed and 28.8% were undecided while 57% of responses were agreed and 16.4% strongly agreed. While Secure personal privacy is provided by e-banking services 4.6% of responses were strongly disagreed, 11.2% disagreed and 27.7% were undecided while 37.5% were agreed and 19.0% were strongly agreed that Secure personal privacy is provided by e-banking services.

Table 4.9. Descriptive statistics of assurance and empathy

Descriptive Statistics	Interpretations	Mean	Std. Deviation
E-Banking services do not allow others to access my accounts	Agree	3.59	1.226
E-Banking service provides high protection for my banking transactions	Agree	3.67	1.071
E-Banking service is secure and safe from any fraud or hacking	Neutral	3.24	1.202
The security devices of the E-Banking services protect the data that are sent by me	Agree	3.52	1.024
E-Banking services offer secure personal privacy	Agree	3.55	1.064
Overall Mean	Agree	3.5164	.86355

Table 4.9 shows the descriptive statistic Assurance and empathy of e-banking service for the following results, 3.59 mean and 1.226 standard deviations which interpret that most participants agreed the e-banking account does not allow others to access. The average of e-banking services provides high protection for banking transactions 3.67 and 1.071 standard deviation which means the responders were agreed. While e-banking service is safe and secure from any type of fraud or hacking, 3.24 mean and 1.202 standard deviations, which means some of the participants neither agree nor disagree safe and secure of e-banking services. The data that is sent is protected by the security devices used by e-banking services with results of 3.52 mean and 1.024 standard deviations which mean e-banking services provide secure personal privacy. Finally, e-banking services provide secure personal privacy the result of 3.55 mean and 1.064 standard deviation shows that the most of participants agreed that Secure personal privacy is provided by e-banking services.

Table 4.10. Service quality dimensions of e-banking service

E-banking service Quality Dimension	Mean	Interpretations
Efficiency and ease use	3.6644	Agree

Reliability	3.3826	Neutral
Responsiveness	3.4496	Agree
Assurance and empathy	3.5164	Agree
Overall mean	3.50325	Agree

Table 4.10 provides descriptive statistics on how factors including effectiveness and simplicity of use, dependability, responsiveness, assurance, and empathy affect customer satisfaction. In order to accomplish these goals, respondents were asked a number of questions in order to respond to the first research question. A series of questions were posed to the respondents with the goal of eliciting their responses to the stated study purpose. First, respondents gave themselves a mean rating of efficiency and usability of 3.6644 with a standard deviation of 0.84588. This shows that customer happiness is influenced by the efficiency's global mean and standard deviation. Second, respondents gave the claims of reliability the lowest mean and standard deviation, respectively (3.3826) and 0.82986. In light of this, respondents usually believed that there was neutral agreement on this dimension and that it has no bearing on customer satisfaction. Third, the statements' responsiveness was scored by respondents with a mean of (3.4496) and a standard deviation of (0.86797). In light of this, respondents in general thought that responsiveness had some bearing on customer satisfaction. Finally, respondents gave the assurance and empathy statements ratings of (3.5164) and (0.86355) at the mean index of 3.51, which is generally regarded as good. In light of this, respondents in general thought that certainty and empathy have an impact on customer satisfaction. The overall mean of the e-banking service quality dimension is, which indicates that it has an effect on customer satisfaction.

Table 4.11. Variance inflation factors for efficiency and ease use, reliability, responsiveness, and assurance and empathy

Variable	Variance Inflation Factors
Efficiency and ease use	1.80
Reliability	1.91
Responsiveness	2.20
Assurance and empathy	2.05

Additionally, the model residual quantiles were compared to the quantiles of a Chi-square distribution, sometimes referred to as a Q-Q scatterplot, to determine normality (DeCarlo, 1997). The normality assumption must be satisfied by the residual quantiles, which cannot differ greatly from the theoretical quantiles. Large variances could be a sign that the parameter estimates are not reliable.

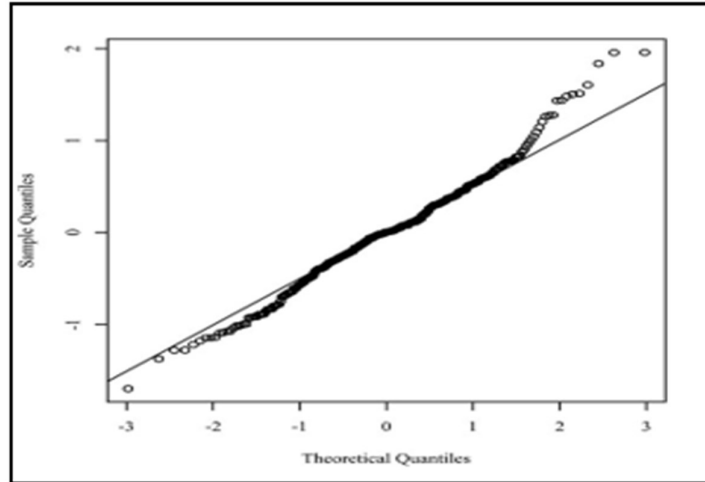


Figure 4.1. Q-Q scatterplot for normality of the residuals for the regression model.

According to the below model summary, the results of the linear regression model were significant, $F(4,343) = 109.31$, $p = .001$, $R^2 = 0.56$, and this shows that the four independent variables could account for about 56% of the variance in customer satisfaction with e-banking services. These are sufficient to show that there is a significant relationship between the variables. The linear regression model summary is shown in Table 4.13 below.

Table 4.12. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.749 ^a	.560	.555	.59056

a. Predictors: (Constant), Assurance and empathy, Efficiency, Reliability, Responsiveness

The ANOVA table sheds light on the variance analysis. The regression has explained about 56% of the change. The model is fit for purpose since the significance value is less than 0.05, representing a reliable result. Below the table, 4.13 is summarizing the ANOVA result.

Table 4.13. ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	152.493	4	38.123	109.311	.000 ^b
1 Residual	119.625	343	.349		
Total	272.118	347			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Assurance and empathy, Efficiency, Reliability, Responsiveness

Efficiency and simplicity of use substantially predicted happiness, $B = 0.22$, $t(343) = 4.40$, $p = .001$. This suggests that a one-unit gain in Efficiency will typically result in a 0.22-unit increase in Satisfaction. $B = 0.20$, $t(343) = 3.83$, $p = .001$, significant relationship between reliability and satisfaction. This shows that an average increase in reliability of one unit will result in an increase in satisfaction of 0.20 units. $B = 0.31$, $t(343) = 5.65$, $p = .001$: Significant relationship between responsiveness and satisfaction. This shows that a one-unit increase in responsiveness

will typically result in a 0.31-unit rise in satisfaction. Assurance and empathy both had a substantial impact on the prediction of satisfaction ($B = 0.20$, $t(343) = 3.73$, $p = .001$). This indicates that on average, a one-unit increase of Assurance and empathy will increase the value of Satisfaction by 0.20 units. Table 4.14 summarizes the results of the regression model.

Table 4.14. Results for linear regression with efficiency, reliability, responsiveness, and assurance and empathy predicting satisfaction

Variable	<i>B</i>	<i>SE</i>	95% CI	β	<i>t</i>	<i>p</i>
(Intercept)	0.07	0.12	[-0.16, 0.30]	0.00	0.58	.561
Efficiency and ease of use	0.22	0.05	[0.12, 0.32]	0.21	4.40	< .001
Reliability	0.20	0.05	[0.10, 0.31]	0.19	3.83	< .001
Responsiveness	0.31	0.05	[0.20, 0.41]	0.30	5.65	< .001
Assurance and empathy	0.20	0.05	[0.09, 0.30]	0.19	3.73	< .001

Note. Results: $F(4,343) = 109.31$, $p < .001$, $R^2 = 0.56$

Regression Equation: $Satis = 0.07 + 0.22*Eff + 0.20*Rel + 0.31*Res + 0.20*Assu$

Similar findings were made by other Indian researchers [46, 47], who discovered the advantages listed below from their respondents: The only way to stay connected to customers at any time and in any location is through internet apps. There are no barrier limitations, it is convenient, and it has changed traditional banking operations. By enabling clients and service providers to obtain information more quickly, it boosts banking performance. It also promotes queue management, which is one of the most crucial components of the quality of an e-banking service.

Table 4.15. Customer satisfaction level in using E-Banking services

Variable	Strongly disagree		Disagree		Neutral		Agree		Strongly agree	
	F	%	F	%	F	%	F	%	F	%
I am satisfied with the transaction processing via E-Banking services	19	5.5	33	9.5	75	21.6	148	42.7	72	20.7
I think I made the correct decision to use the E-Banking services.	21	6.1	34	9.8	73	21	149	42.9	70	20.2
My satisfaction with the E-Banking services is high	17	4.9	32	9.2	86	24.8	136	39.2	76	21.9
I am satisfied with the bank's e-services quality.	13	3.7	39	11.2	87	25.1	133	38.3	75	21.6
Overall E-Banking services is better than my expectations	24	6.9	41	11.8	99	28.5	119	34.3	64	18.4
I prefer using E-Banking services instead of visiting the branch for doing my transactions	15	4.3	36	10.4	60	17.3	107	30.8	101	29.1

Table 4.15 shows that 42.82% of respondents agreed that they were satisfied with the e-banking transaction processes, 21.40% were strongly satisfied, and just 21.55% were undecided, while 9.7% disagreed and 5.46% strongly disagree with the banks' e-banking services. Regarding the belief that using e-banking services was the right decision, the response was as follows, 62.93% agreed to choose e-banking services while 37.03% disagreed.

The response on e-banking services has a high level of satisfaction as 61.49% agreed and 24.14% were undecided that the services offered by the banks were satisfactory while 14.37% disagreed. Regarding the quality of the bank's e-services, the customer responses were as follows; 38.51% and 22.70% agreed that the quality of services was satisfying while 24.43% of responses are undecided and 14.37% disagreed.

Furthermore, the e-banking services are often better than customers' expectations were the responses 51.71% of the agreed while 29.02% undecided and 19.25% disagreed respectively that their expectations. And finally, when customers were asked if they prefer using e-banking services instead of visiting the branch for doing my transactions, these were their responses 65.21% preferred using e-banking services while 19.54% of responses were undecided and 15.23% prefer traditional banking services. Therefore, the descriptive statistic of customer satisfaction level shows 3.6206 mean and 0.88641, standard deviation, which means most of the respondents agreed and, satisfied with the e-banking service quality and were willing to continue using the service.

Table 4.16. Descriptive statistics of customer satisfaction level in using e-banking services

Descriptive Statistics			
	Interpretations	Mean	Std. Deviation
I am satisfied with the transaction processing via E-Banking services	Agree	3.64	1.081
I think I made the correct decision to use the E-Banking services.	Agree	3.61	1.097
My satisfaction with the E-Banking services is high	Agree	3.64	1.072
I am satisfied with the bank's e-services quality.	Agree	3.63	1.058
Overall E-Banking services are better than my expectations	Agree	3.46	1.128
I prefer using E-Banking services instead of visiting the branch for doing my transactions	Agree	3.76	1.152
Mean Index	Agree	3.6206	.88641

Table 4.16 shows the descriptive statistic customer satisfaction level in using e-banking services for the following results, 3.64 mean and 1.081 standard deviations which interpret that most participants agreed the e-banking transaction processes were satisfied. The average of using e-banking services is the right decision for the customer 3.61 and 1.097 standard deviation which means the responders were agreed. While the satisfaction level; of customers in e-

banking service is high 3.64 mean and 1.072 standard deviations, which means some of the participants agreed that the e-banking services were satisfied with. the quality of the bank's e-services with results of 3.63 mean and 1.058 standard deviations which mean e-banking services provide high-quality service. the e-banking services are often better than customers' expectations with a result of 3.46 mean 1.128 standard deviation, which means that most participants agreed. Finally, prefer using e-bankingservices instead of visiting the branch for doing bank transactions, the result of 3.76 mean and 1.152 standard deviation shows that most of the participants prefer using e-banking services.

CONCLUSION

This study looked at how well-designed e-banking services affected consumers' happiness among Mogadishu, Somalia, residents, particularly students and professionals. The results show that e-banking services significantly and positively affect consumer satisfaction. Customers are happy with the usage of e-banking services because of its high levels of effectiveness, usability, dependability, responsiveness, assurance, and empathy. They gain a lot from adopting these services, notably in terms of time savings, accessibility, and effectiveness. However, the effectiveness and use of e-banking services boost client happiness. Therefore, the responsiveness and communication of e-banking services have a strong positive significant effect on customer satisfaction. Responding to and resolving customer complaints contributes to customer satisfaction. Additionally, e-banking services are more secure, resulting in fewer transaction risks. The study reveals how it's easy to expand the business beyond existing means of doing business in Somalia and making people do business with ease since long queues at banks won't be necessary anymore since e-banking is a saver and faster when it comes to doing business. The expect or change behaviors of the commercial companies delivering E-banking service on customers in Somalia.

RECOMMENDATION

The results show that different banking industry stakeholders must enhance the technological foundation of the banking industries by concentrating more on the quality of e-banking services, which will enable them to reach a larger customer base and provide more flexibility, interactivity, and accessibility than traditional banking. Commercial banks must make significant technology investments since doing so will strongly promote the usage of electronic banking technologies, which will affect their ability to succeed financially. Additionally, it advises commercial bank management to prioritize and enhance service quality measuring methods in order to satisfy their clients. It is recommended for banks to invest in secure and reliable technology to safeguard the privacy of the customers while strengthening the faith people have in services that are available in transacting businesses easily. Somali commercial banks must also expand their size, as this has a favorable impact on their financial success.

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