



Online Payment Choice, Customer Trust and Accessibility of E-Commerce in Somalia

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Abstract: Electronic payment refers to the use of electronic means of cash and related transactions, usually involving the use of computer networks such as the Internet and digital preserved value systems. Many countries in sub-Saharan Africa lack statistical information on the current state of the e-commerce market. Besides, a lack of trust in service providers also hinders the development of e-commerce. As such, this paper aims to examine e-commerce payment choice among e-commerce users and to determine the relationship between the factors to assess e-commerce payment and the accessibility of e-commerce in Somalia. The research method used is quantitative with a survey design. The questionnaire was distributed to 384 respondents, who are Hormuud Telecom subscribers residing in Somalia's capital, Mogadishu. The findings indicated that there is a positive relationship between online payment choice and accessibility of e-commerce, as well as a positive relationship between customer trust and accessibility of e-commerce. In conclusion, this study suggests that electronic payment can replace the paper payment method and customer trust plays an important role in e-commerce accessibility in Somalia.

Keywords: Online payment, e-commerce, mobile money in Somalia

1. Introduction

Electronic payment systems are related-transactions for goods and services that use electronic means, where these systems are in the e-commerce environment, suggesting that it is a payment exchange by electronic means (Kaur & Pathak, 2015). As e-commerce is defined as an activity that is performed only using the Internet and information technology, all e-commerce organisations do not have to physically own a showroom in a fixed location, do business online, and deliver goods, products, and services to their customers' front door (Ghandour, 2015). A number of e-payment services have been developed within the payment system around the globe, which include electronic cheques, e-cash, credit cards, and electronic fund transfers. It has been emphasised that each of these systems has advantages and disadvantages (Kabir et al., 2015b). Individuals have a variety of payment options due to the availability of an increasing number of different payments and new online payment opportunities (Trütsch, 2016). According to a survey by the Federal Reserve Bank of Atlanta, USA in 2019, consumers made 96% of payments per month on average. These consumers made payments with debt, card, or prepaid card for 42 payments. Debt cards were used the most, for 24 payments, followed by credit cards (17 payments), and cash (15 payments). In addition, over the course of their 12-year survey, the most popular ways to pay have consistently been debit, cash, and credit (Foster et al., 2020).

In many African countries, particularly in sub-Saharan Africa, people do not have access to the Internet or the equipment needed to connect online. Previous research shows that online citizens in developing countries prefer social media to e-commerce shopping, but many sub-Saharan African countries lack statistical information on the current state of the e-commerce market (UNCTAD, 2015). Electricity can power not only the machinery in factories but also the lighting in rooms. It is also essential for access to computers, mobile phones, and the Internet, and is often seen as

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an important part of economic growth. Countries with low electrification rates (less than 80% of the population) have low per capita GDP (Castellano, Kendall & Nikomarov, 2015). In contrast, Spain's electricity consumption exceeds the total electricity consumption of sub-Saharan Africa. This is presumed to further indicate a power shortage as supply is increasing. In 15 years and at the current speeds, 45 million people in sub-Saharan Africa will not have access to electricity. This means that sub-Saharan Africa will have a universal power supply by 2080 (Africa Progress Panel, 2015). Furthermore, it now seems important to adapt websites to the local language as e-commerce is booming. A recent survey found that 72% of consumers are more likely to buy a product if it comes with an explanation in their native language, which is even more compelling than the price (Turban et al., 2018).

In 2009, local telecommunications company provider Hormuud Telecom launched mobile banking services in Somalia, known as Zaad financial services. This allows customers to send money, pay bills, and purchase goods and services using their mobile phones (Mohamed et al., 2018). Somalia has a well-developed ICT sector and telecommunications infrastructure, see Fig. 1 (World Bank, 2017). There are five major mobile network operators (MNOs) across the country, some of which are located between different regions and the federal government, namely Hormuud (Southern and Central States), Golis (Eastern State), Telesom (Northern State), Somtel (All States), and Nationink (All States). A survey by the World Bank in 2017 found that 73% of people over the age of 16 use mobile money services. In comparison with neighbouring countries, Kenya stays ahead in terms of mobile money penetration, but not by much. The only gap that is greater is in terms of bank account penetration (World Bank, 2017). In addition to that, Somalia's first-ever automated teller machine (ATM) was installed in the capital, Mogadishu, in 2014. In Somalia's diaspora, foreigners, government officials, and only a few professionals and academicians use credit or debit cards; however, more than one-third of the population have mobile bank accounts. Therefore, any e-retailer planning to operate in Somalia should make mobile payments the dominant payment form and integrate them into their e-store (Hassan, 2018).

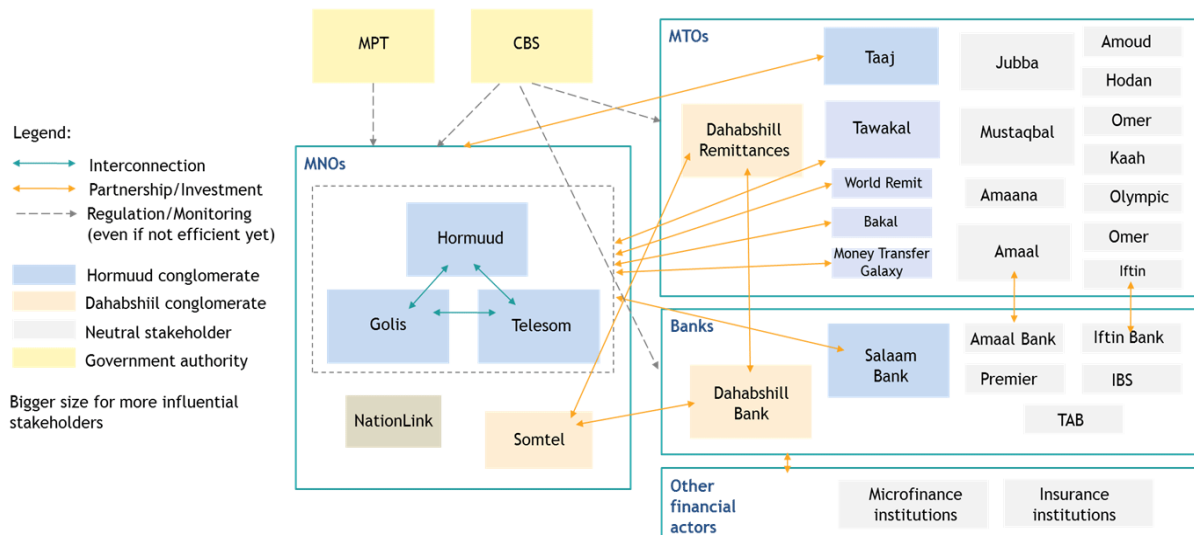


Fig. 1 - Somali payment method through ICT sector and telecommunications infrastructure.
Source: (The World Bank, 2017)

From the perspective of currency security, most mobile money services are considered to be unreliable and unsafe. With approximately USD \$1.2 billion in circulation each month in Somalia's mobile currency ecosystem, Hawala remittances are generally considered to be slower but safer than mobile remittances, and mobile money is thought to cause domestic currency depreciation and inflation. Almost 90% of Somalis are interested in mobile money that can be used for shillings, but 63% of mobile money users do not immediately withdraw or transfer all funds from their account after receiving a transfer; instead, they would rather transfer the money over time for different uses as and when necessary. This grows the mobile money ecosystem and encourages mobile money to support the economy in more diverse ways. Most SMEs and merchants also largely rely on mobile money to pay their utility bills, remunerate vendors and suppliers, store money, and repay borrowed funds. Although ICT appears to cover the majority of sector services, the system remains risky. Everyone uses mobile money, and services rely on private companies which can fail at any time without notice, affecting the lives of the community (World Bank, 2017).

In his study, Ahmed (2019) suggested several solutions to improve the performance and quality pertaining to the issues and challenges of e-payments in developing countries. In order to create a standardised payment and security

process, Master Card and Visa Card collaborated with IBM and other companies. As a result, they formed Secure Electronic Transfer—SET. One of the main objectives behind SET is that it prevents fraud because it is known as a very secure electronic payment handler (Ahmed et al., 2019). An important part of either online or offline trading is receiving international payments. You may not be able to list your products on the well-known online market if you do not have an international bank account with your credit card provider. Companies may be able to list their products, especially digital products, but these exclude products that do not have an account to receive payments. These limits are the result of government policy or corporate weaknesses but are determined by the individual owners of the e-commerce market and payment platforms that determine trading risk. Additionally, there is work needed to be done to better position Africa as a source of new opportunities and growth (ITC, 2015). According to Rouibah (2015), the intention to adopt the obstacles of electronic payment systems is caused by (1) security threats caused by potential hacker activity, (2) a security-related lack of confidentiality, (3) fear of not being able to provide the services and products advertised on websites, (4) concern about being charged more than the site's price for the goods, and (5) the EPS service provider's lack of reputation and familiarity, as well as the lack of information available about them (Rouibah, 2015).

Mohamed et al. (2018) found in Mogadishu that "lack of awareness and knowledge of the benefits of e-commerce, as well as lack of trust in service providers, also impedes the development of e-commerce". In addition, the study pointed out that low credit card usage may be due to a lack of trust rather than the inability to achieve the study's mentioned reach. Based on the findings, cognitive impairment is associated with general and computer illiteracy, as well as a lack of English proficiency in credit card systems. The study concluded by stating that the most significant barriers to e-commerce activities are found in the organisation's external environment, and governments are urged to strengthen and accelerate the implementation of master plans which have been carefully designed (Mohamed et al., 2018). Political interference is sanctioned. The diaspora of Somalis, having escaped from the civil war, was eager to find a way to send money to their desperate families. Millions of dollars were effectively sent to all parts of Somalia by the Al-Barakat Bank, and within two years it had distributors in all major densely populated areas of the central and western Somalia region. After being politically motivated in 2002, the White House and the US administration were forced to quickly and falsely conclude to investigators that Al-Barakat was Al Qaeda's financier and that the company's founder was Bin Laden's friend. All assets were frozen at that time. Several years later, in 2020, "the 9/11 commission vindicated Al-Barakat and stated that its proprietor had no links to Al-Qaida". However, Samatar (2019) opined that Al-Barakat's unjustified ruin became a model for the way the international community addressed Somali issues: "guilty until proven innocent" (Samatar, 2019).

In the Somali context, currencies are especially important. The country collapsed when the Somali conflict began in the early 1990s. This means that stable governments or credible monetary authorities had not supported the Somali shilling for decades. According to Luther (2015), a large number of counterfeit currencies were distributed during this period. In addition to Luther's claim, Somalia is a popular case study for those interested in the meaning of discounts and other types of currency (Luther, 2015).

Therefore, the objectives of this study are to identify online payment choices among e-commerce users in Somalia, and to determine the relationship between the factors to assess e-commerce payments and the accessibility of e-commerce in Somalia. According to Saleh (2015), the demographics associated with consumers' propensity for online shopping were investigated by several studies, which focused on gender, income, age, and education. The sample size employed by the author in his e-commerce studies was less than 300 (Saleh, 2015). The variables in this study consisted of one dependent variable, which is the accessibility of e-commerce through e-payment choice in Somalia, and two independent variables, which are online payment choice and customer trust. Moreover, the scope of this study was limited to the Banadir region of Mogadishu, Somalia. The area covered a town located in Mogadishu that had more than 1 million Hormuud Telecom subscribers, with ages from 15 to 80, and a sample size of 384 respondents. This was the geographical limit of the scope as far as Mogadishu, the capital city, is concerned

2. Literature Review

2.1 Overview of Online Payment Choice and E-commerce

The use of the inclusive term, online payment, describes different ranges of electronic multi-channel delivery, and its use for different purposes is a sign of increased inaccuracy in online payment. From the perspective of online payment functions, it includes electronic banking, mobile payment, e-cash, internet banking, online banking, e-broking, and e-finance (Khan et al., 2017). The use of electronic means of cash and related transactions, usually involving the use of computer networks such as the Internet and digital preserved value systems, is another definition of electronic payment. With this system, invoices can be paid directly from the bank account even if the account holder is not at the bank, and without having to write or mail a cheque (Antwi et al., 2015). According to UNCTAD's (2015) definition of e-commerce, it is the sale or purchase of goods and services over a computer network in a manner specially designed for the purpose of receiving or placing orders. This means that these orders will be placed in these ways, but the goods or services and final deliveries do not have to be made online (UNCTAD, 2015). In many countries, this represents the source of economic growth. For example, nearly 40% of the population in the United States participate in trade for

commerce, with the potential to change business management and affect industries such as telecommunications, finance, industry, trade, education, health, and government (Villa et al., 2018). From the viewpoint of Google and Bain & Company, the retail industry in the Middle East and North Africa (MENA) is on the verge of significant change. Against that rational background, e-commerce is becoming a reality. It reshapes the way consumers buy and creates a new customer experience. In addition, with an average annual growth rate of 25%, the Middle East and North Africa e-commerce market reached US \$8.3 billion in 2017. The region experienced a slightly higher growth in e-commerce than the global average. In fact, the Gulf Cooperation Council (GCC) and Egypt account for 80% of the e-commerce market, growing at a rate of 30% per year, which is more than double of other countries in the Middle East and North Africa (Google, 2019).

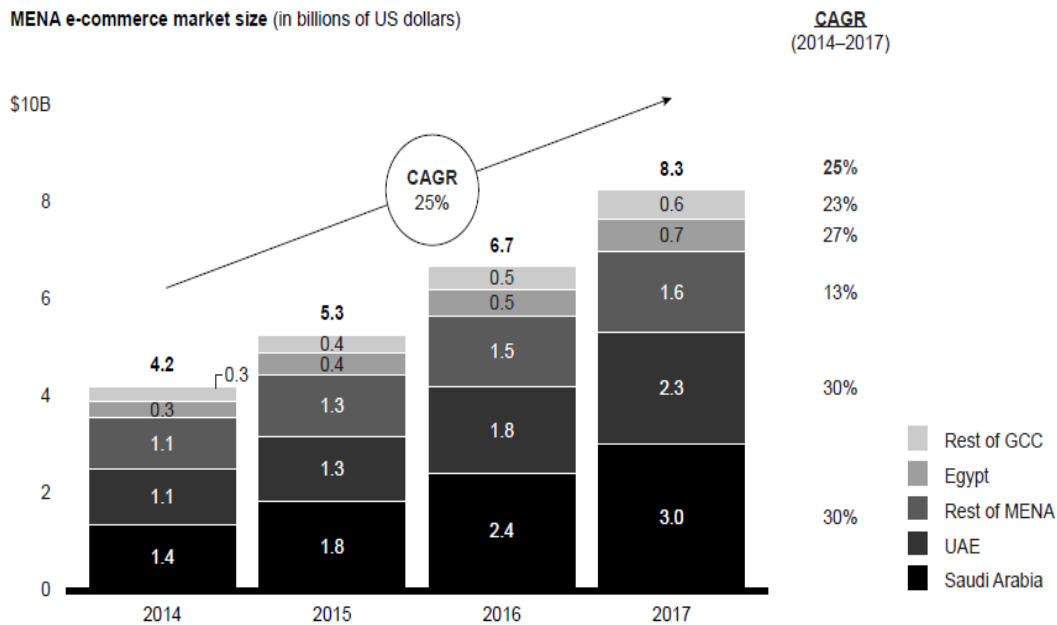


Fig. 2 - MENA e-commerce is \$8.3 billion and has grown by 25% annually since 2014. Source: (Google, 2019)

2.2 Factors of Assessing E-Commerce in Online Payment

Somalia's territory is located in the Horn of Africa, in the Eastern African continent, with neighbours Djibouti, Ethiopia, Kenya, and the Indian Ocean. Mogadishu is the capital city, and its estimated population is 1.9 million in 2020 (Demographia, 2020). According to the study by Kaur and Pathak (2015), the people are not aware and educated. For different reasons, the reliable and cashless payment system adopts e-payment solutions or systems and provides immunity against the theft of paper and e-money (Kaur & Pathak, 2015). Ghandour (2015) summarised that "There is still a lack of trust in e-business". People still do not believe that it is as safe as shopping with cash in hand, and many believe that e-business is risky because merchants are not always able to fulfil orders according to the customers' requirements. Therefore, (Castellano, Kendall, & Nikomarov, 2015) argued that people and businesses have had to find new ways to run their businesses and use expensive diesel generators as a result of the inadequate electrical system infrastructure. In addition, electricity costs are three to six times higher than those paid by grid users elsewhere in the world. On the other hand, the region's low literacy rate is a problem when using the Internet as a tool for information and e-commerce. Knowledge of other languages (usually English) is a big advantage, and commerce companies are assumed to know both writing and reading even though the literacy level is low. Internet accessibility and a lack of English proficiency in the region are issues at this level. Due to this, companies are looking to hire professionals rather than the local natives (Javadi-safa, 2018).

In northern Somalia, local banks issue their own currency in local shillings. Customers in the northern state can have accounts in US dollars and local currencies due to Telesom's Zaad service. In May 2015, a dual currency wallet was introduced. Perhaps mobile money is replacing local currencies in response to the state administration. Also mentioned, Telesom was initially interested in complying with international standards (for example, AML guidelines), with the expectation that the service was going to play a role in the international remittances market in the future (Iazzolino, 2015).

2.3 Research Framework

Therefore, these theoretical frameworks are based on literature reviews such as identifying e-commerce payment choices among users in Somalia, as derived from (World Bank, 2015) and (World Bank, 2017). In order to determine the relationship between the factors to assess e-commerce payment and accessibility of e-commerce in Somalia, this was derived from (Hassan, 2018); Mohamed et al., 2018; Iazzolino, 2015; Luther, 2015; Samatar, 2019).

The questions raised in this literature are widely discussed. See Fig. 3 for the hypothesis questions and to better understand the relationships between variables.

H1: Online payment choice has a strong positive effect on the accessibility of e-commerce in Somalia.

Ha1: Customer trust has a positive effect on the accessibility of e-commerce in Somalia.

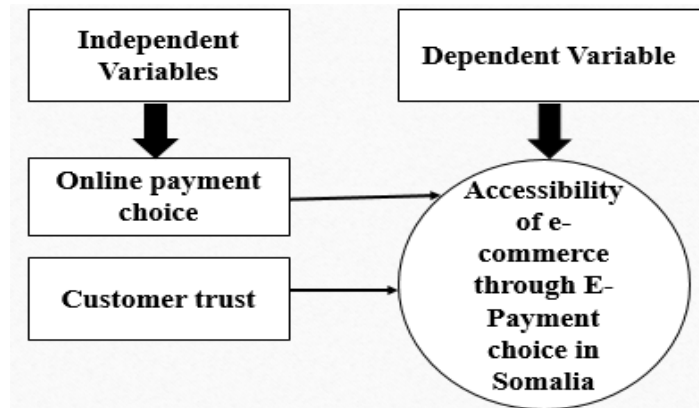


Fig. 3 - Research theoretical framework

3. Research Methodology

The methodology for achieving research goals was based on online payment choices and the accessibility of e-commerce in Somalia in order to comprehensively assess the purpose of this study. The method was quantitative data analysis. The survey was conducted online via a questionnaire that was created and posted using a Google Form. The questionnaire was developed to measure e-payment choice among users as well as customer trust in electronic payment systems that may affect the accessibility of e-commerce in Somalia. The unit of analysis was Hormuud Telecom subscribers residing in Mogadishu, Somalia. The population of subscribers ranged from 1,000,000 to 4,000,000, where 384 respondents were a sufficient sample size as claimed by (Krejcie, 1970). This study used a Google Form survey as the primary data, and the collected data was analysed for reliability, normality, descriptive, and correlation using the Statistics Software Package for Social Sciences (SPSS) Statistics Version 26.0. A pilot test consisting of the questionnaire was distributed to subscribers of Hormuud Telecom in Mogadishu via an online form. In order for the researchers to distinguish data from the preliminary and actual studies, the pilot test determined the effectiveness and reliability of the survey tool through the respondents’ understanding of the questionnaire and also to maintain the validity of the study. Similarly, a total of 384 subscribers of Hormuud Telecom received the real study questionnaire through an online survey.

4. Results and Discussion

This section contains the findings that were extracted from the questionnaires that were distributed. The questionnaire was constructed based on the research objectives. With a respondent rate of 69.27% as shown in table 1, the data collected from 266 respondents were analysed using the IBM Statistical Package for Social Science (SPSS) Statistics Version 26.0. Hence, the data analysis included a reliability analysis, demographic analysis, descriptive analysis, and correlation analysis.

Table 1 - Questionnaire response rate

Population	Sample Size	Questionnaire Returned	Questionnaire Not Returned	Response Rate
1000,000	384	266	118	69.27%

4.1 Reliability Analysis

To ensure the reliability of this study, reliability tests were conducted in both the pilot and actual studies. The Cronbach's alpha coefficient reliability test was employed on all elements of the questionnaire to assess the internal consistency of each scale item in each key structure, as shown in table 2 (Sekaran, 2013).

Table 2 - The scale of the Cronbach's Alpha (Sekaran, 2013)

No	Alpha Coefficient Ranges, α	Decision
1	0.0 – 0.20	Not Reliable
2	0.20 – 0.40	Slightly Reliable
3	0.40 – 0.60	Reliable enough
4	0.60 – 0.80	Reliable
5	0.80 – 1.00	Very Reliable

Table 3 - Result of reliability (pilot study and real study)

	Cronbach's Alpha	Sample Size	Number of respondents (Returned)
Pilot study	0.726	384	129
Real study	0.832	384	266

Table 3 shows that the Cronbach's alpha coefficient for the pilot test was 0.726, and the number of respondents in the pilot survey was 129. This value is so good that it was proven to be reliable. The reliability test for the real study was excellent with a Cronbach's alpha of 0.832.

4.2 Demographic Analysis

As shown in table 4, 266 people responded to the online questionnaire that was distributed to Hormuud Telecom subscribers residing in Mogadishu. The data was cleaned up as the first step in the data analysis, in order to prepare it for further analysis. Therefore, 266 responses were available for further analysis. The demographic data consists of ten factors that were used to collect the demographic information relevant to the study. In terms of gender, this study included 124 females (46.6%) and 142 males (53.4%) who are Hormuud Telecom subscribers. The ages of the respondents ranged from under 18 years (2.3%), between 19 – 25 years (59.4%), between 26 – 35 years (31.6%), between 36 - 45 years (5.3%), and over 60 years of age (1.5%).

Furthermore, the education level was dominated by those holding a bachelor's degree (68%), while 22.9% were master's degree holders, 4.1% of the respondents were PhD holders, and 4.9% had high school certificates. The level of Hormuud Telecom subscribers indicated that a large number of respondents were Hormuud user services subscribers (83.8%), whereas 9% were Hormuud employee subscribers and 7.1% were University of Hormuud's members.

When asked about their Internet usage status, 180 respondents (67.7%) said they used it all the time, while 43 respondents (16.2%) said they used it occasionally and frequently in both option questions. The respondents were also asked about their primary Internet access point. Out of the 266 respondents, 193 or 72.6% said they had access via mobile, and 37 or 13.9% had access via workplace computers. In addition, a small number of respondents, 1.1%, 4.1%, and 8.3%, accessed from cybercafés, universities, and home laptop, respectively.

A total of 230 respondents (86.5%) answered "yes", while 29 or 10.9% of the respondents answered "no". Also, there were 7 respondents (2.6%) who answered "I will use it later". The majority of the respondents (187 respondents or 70.3%), when asked about "Online Payment methods", had answered that they are using "Mobile Money (EVC-PLUS)". Those using "debt card (visa or master card)" totalled 29 respondents (10.9%). The other respondents used "EVC – PLUS", "E-wallet", and "Mobile Money" with 23 respondents (8.6%), 11 respondents (4.1%), and 16 respondents (6%), respectively. The rest of the respondents (4 respondents or 1.5%) had answered "Nothing".

In response to the last two demographic questions, the respondents were asked about how frequently they used online payment and their monthly spending via online payment. A total of 184 respondents (69.2%) from 266 respondents used "Mobile money (EVC – PLUS)" on a regular basis, 33 respondents (12.4%) used "EVC-PLUS" on a regular basis, 19 respondents (7.1%) used "Mobile money" on a regular basis, 14 respondents (5.3%) used "Debt card (visa or master card)" on a regular basis, 11 respondents (4.1%) used "E-wallet" on a regular basis, while 5 respondents (1%). Furthermore, the majority of the participants chose "More than 50%", which is 144 or 54.1% of the respondents, while the remainder chose "36% - 50%", "Less than 10%", "11% - 25%", and "26% - 35%", which are respectively 35 respondents or 13.2%, 37 respondents or 13.9%, and for the last two, both had 25 respondents or 9.4% of respondents.

Table 4 - Demographic analysis

No	Description	Frequency	Percentage %	
1	Sex	Male	142	53.4
		Female	124	46.6
		Total	266	100.0
2	Age	Under 18	6	2.3
		19 – 25	158	59.4
		26 – 35	84	31.6
		36 – 45	14	5.3
		Older than 60	4	1.5
		Total	266	100.0
3	Education level	High School	13	4.9
		Bachelor Degree	181	68
		Master Degree	61	22.9
		PhD	11	4.1
		Total	266	100.0
4	Level of subscribers	Hormuud user's services	223	83.8
		Hormuud employee	24	9
		Hormuud's University member	19	7.1
		Total	266	100.0
5	Internet usage	Sometimes	43	16.2
		Frequently	43	16.2
		All the time	180	67.7
		Total	266	100.0
6	Access point	Cybercafé	3	1.1
		University	11	4.1
		Workplace	37	13.9
		Home: Mobile	193	72.6
		Home: Laptop	22	8.3
		Total	266	100.0
7	Experience using payment	Yes	230	86.5
		No	29	10.9
		I will use later	7	2.6
		Total	266	100.0
8	Online Payment methods	Debt card (visa or master card)	29	10.9
		Mobile money (EVC - PLUS)	187	70.3
		EVC - PLUS	23	8.6
		E-wallet	7	2.6
		Offline	4	1.5
		Mobile money	16	6.0
		Total	266	100.0
9	Most regularly	Debt card (visa or master card)	14	5.3
		Mobile money	19	7.1
		Mobile money (EVC - PLUS)	184	69.2
		EVC-PLUS	33	12.4
		Offline	5	1.9
		E-wallet	11	4.1
Total	266	100.0		
10	Monthly	Less than 10%	37	13.9

payment	11% - 25%	25	9.4
	26% - 35%	25	9.4
	36% - 50%	35	13.2
	More than 50%	144	54.1
	Total	266	100.0

Note: N = 266

4.3 Descriptive Analysis

The data and characteristics of the population or phenomenon under study are explained using a descriptive analysis, which provides a brief summary of the sample and observations. Therefore, in order to get the average position of the elements perfectly, the average overall measurement is used. According to the consistency level of the average measurement developed by Chua (2006), table 5 shows that the average is divided into low, medium, and high ranges.

Table 5 - Agreement level of mean measurement (Chuan, 2006)

Means range	Tendency level
Low	1.00 – 2.33
Moderate	2.34 – 3.67
High	3.68 – 5.00

Table 6 - Descriptive statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation	Level
Accessibility of E-commerce (AE)		1	5	4.42	0.949	High
Online payment choice (OPC)	266	1	5	4.06	1.285	High
Customer trust (CT)	266	1	5	4.48	0.980	High

All items have a minimum and maximum data point for the survey, with the minimum point 1 and maximum point 5. Based on table 6, when Hormuud Telecom subscribers shop online, trust is a major factor in determining the e-commerce platform, which is the highest mean (M = 4.48, SD = 0.980). There is a gap on accessibility of e-commerce due to the lack of effective delivery system; hence, Hormuud Telecom subscribers do not shop online (M = 4.42, SD = 0.949). In addition, there is an online payment choice method that the Hormuud Telecom subscribers have used in the past, which is mobile money services (M = 4.06, SD = 1.285). As shown in table 7, the mean score includes other options such as Debt card (visa or master card), Mobile money (EVC - PLUS), E-wallet or Nothing (offline payment). The most chosen online payment among e-commerce users in Somalia is mobile money services (M = 3.11, SD = 0.919).

Table 7 - Descriptive statistics online payment choice

Variable	N	Minimum	Maximum	Mean	Std-Deviation	Level
Online payment choice (OPC)	266	1	6	3.11	0.919	Moderate

4.4 Correlation Analysis

The Spearman correlation test is a non-parametric test. The main objective is to describe the relationship between two score variables. When we have data from the same respondents, they are not normal data.

In this study, the correlation of each variable is measured using the Spearman coefficient, which is a p value that can range from +1 to -1. A p value of +1 means a perfect association, while a p value of 0 means no association. A p

value of -1 means a perfect negative association between the variables. The closer the p value is to 0, the weaker the association between the two variables (Kumar & Chong, 2018).

Table 8 - Correlation between coefficient accessibility of e-commerce and online payment choice

Item		Accessibility of E-commerce (AE)	Online payment choice (OPC)	
Spearman's rho	Accessibility of E-commerce (AE)	Correlation coefficient	1.000	
		P-value (Sig.)	.684*	
		N	.000	
	Online payment choice (OPC)	Correlation coefficient	.684*	1.000
		P-value (Sig.)	.000	
		N	266	266

*. Correlation is significant at the level (1-tailed)

In table 8, the spearman coefficient of correlation is used to find out the relationship between two variables: In table 8, the Spearman coefficient of correlation is used to find the relationship between two variables: accessibility of e-commerce and online payment choice. A general assumption is that e-commerce accessibility should increase with the availability of online payment options, implying a positive relationship between the two variables, which are .684 and P-value = .000. There is a strong, positive relationship between e-commerce accessibility and online payment preference (rs = .684, n = 266, p.005). In conclusion, the accessibility of e-commerce and online payment choice variables are positively significantly correlated, r (266), p 0.05.

Table 9 - Correlation coefficient between accessibility of e-commerce and customer trust

Item		Accessibility of E-commerce (AE)	Customer trust (CT)	
Spearman's rho	Accessibility of E-commerce (AE)	Correlation coefficient	1.000	
		P-value (Sig.)	.526*	
		N	.000	
	Customer trust (CT)	Correlation coefficient	.526*	1.000
		P-value (Sig.)	.000	
		N	266	266

*. Correlation is significant at the level (1-tailed)

From table 9, accessibility of e-commerce should increase with customer trust, which means that there should be a positive association between the two variables, which are .526 and P-value = .000. There is a positive relationship between accessibility of e-commerce and customer trust (rs = .526, n = 266, p < .005). In conclusion, the variables accessibility of e-commerce and customer trust are positively significantly correlated, r (266), p < 0.05.

The study shows a positive relationship between online payment choice and accessibility of e-commerce. table 8 shows the value of R that is the correlation between the dependent variable and all independent variables, which is equal to R = .684. Based on that, the results of this study support hypothesis H1 as shown in table 10. In addition, the study shows a positive relationship between customer trust and accessibility of e-commerce. table 9 shows the value of R that is the correlation between the dependent variable and all independent variables, which is equal to R = .526. Based on that, the study supports hypothesis H1a as shown in table 10.

Table 10 - Summary of hypothesis testing

There is a positive relationship between online payment choice and Accessibility of e-commerce in Somalia (**Accepted**).

There is a positive relationship between Customer trust and accessibility of E-commerce (**Accepted**).

4.5 Discussion

This study focused on identifying e-commerce payment choice among e-commerce users and determining the relationship between the factors used to assess e-commerce payment and accessibility of e-commerce in Somalia, among Hormuud Telecom subscribers in the Mogadishu capital. Three variables were created and tested using the IBM SPSS 26.0 statistical software.

The findings of the study are significant evidence that online payment choice influences the accessibility of e-commerce in Somalia. In this hypothesis, the Hormuud subscribers preferred more online payment choices created for their native perspective. For example, mobile payment is a choice widely available in Somalia but not supported by main international e-retailers, such as Amazon and eBay. This supports the earlier results of (Antwi et al., 2015; Hassan, 2018; Kabir et al., 2015a; World Bank, 2015). These studies agreed that African consumers prefer mobile payments to ATM cards, which subsequently affects their accessibility to the internet shopping cause. This result confirms the study's hypothesis that Africans prefer mobile payment for online transactions.

As shown by the results of the hypothesis test, the study also found that customer trust is determined by the accessibility of e-commerce in Somalia. This means that online retailers are still not entirely trusted by Somali customers. However, this lack of customer trust towards e-commerce accessibility platforms (Ghandour, 2015) confirmed that people do not believe in safe shopping with cash in hand, and many people believe that e-businesses are risky because wholesalers are not always able to fulfil orders according to the customers' requirements. In addition to these issues (Ekekwe, 2015; ITC, 2015), these studies agreed that an effective delivery system is hindered by incorrect street names and signs. Another issue that supports the second hypothesis by (Luther, 2015; Iazzolino, 2015), is that due to the widespread distribution of counterfeit currencies and a lack of a stable government or credible monetary authorities, the Somali people came to distrust the local shillings. This influenced the customers' perception of mobile money transactions, which are in the hands of native local companies like Hormuud Telecom, and a major provider of mobile money (EVC-PLUS) services with a huge number of Somali financial sectors, including the public sector.

Specifically, for the first objective, which is to identify online payment choice among e-commerce users in Somalia, it was completed by using demographics, descriptive, and Spearman's rho non-parametric correlation analysis. The findings showed a moderate support from respondents, where the online payment choice among e-commerce users in Somalia is mobile money services (EVC – PLUS). Also, from the item on "Online Payment methods", the majority used "Mobile Money (EVC-PLUS)", while "debt cards (visa or master card)" were the next most used. In terms of Spearman's rho non-parametric correlation, the accessibility of e-commerce and online payment choice variables were positively significantly correlated.

The second objective was to determine the relationship between the factors to assess e-commerce payment and the accessibility of e-commerce in Somalia. This objective was achieved by using both descriptive and non-parametric Spearman's rho correlation analysis, as mentioned in tables 6, 7, and 8. The findings revealed that trust is a major factor when Hormuud Telecom subscribers shop online using their online payment option on an e-commerce platform. Furthermore, (Ekekwe, 2015; ITC, 2015) agreed with this study that there is a gap in e-commerce accessibility due to the lack of an effective delivery system, which results in Hormuud Telecom subscribers not shopping online. In terms of correlation, accessibility of e-commerce and customer trust variables were positively and significantly correlated.

5. Conclusion

The study concludes that the first objective has moderate support from respondents where the online payment choice among e-commerce users in Somalia is mobile money services (EVC – PLUS) provided by Hormuud Telecom. This finding means that mobile payments can replace physical payments as it is an electronic payment which can actually replace the paper payment method. There is a positive relationship between online payment choice and the accessibility of e-commerce. Based on these findings, one of the important suggestions is that the payment industry needs to actively promote mobile payment products in order to accelerate the transition from paper products to electronic payment cards, which in turn is a prerequisite for the rapid spread of electronic payment transactions. The important difference between broad limits and intensive limits is also highlighted in this conclusion. Given that it is a payment product, it is necessary to encourage the use of local currency by private companies.

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