

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



**THE BEHAVIOURAL INTENTION TO ADOPT E-BANKING
SERVICES AMONG SMALL AND MEDIUM SIZED ENTERPRISES IN
MOGADISHU-SOMALIA**



SARA HUSSEIN AHMED

**MASTER OF ISLAMIC BUSINESS STUDIES
UNIVERSITI UTARA MALAYSIA
2023**



Pusat Pengajian Perniagaan Islam
ISLAMIC BUSINESS SCHOOL
كلية إدارة الأعمال الإسلامية
Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PENYELIDIKAN
(Certification of Research Paper)

Saya, mengaku bertandatangan, memperakukan bahawa
(I, the undersigned, certified that)

SARA HUSSEIN AHMED (829513)

Calon untuk Ijazah Sarjana
(Candidate for the degree of)

MASTER OF ISLAMIC BUSINESS STUDIES (MIBS)

telah mengemukakan kertas penyelidikan yang bertajuk
(has presented his/her research paper of the following title)

THE BEHAVIOURAL INTENTION TO ADOPT E-BANKING SERVICES AMONG SMALL AND MEDIUM SIZED ENTERPRISES IN MOGADISHU-SOMALIA

Seperti yang tercatat di muka surat tajuk dan kulit kertas penyelidikan
(as it appears on the title page and front cover of the research paper)

Bahawa kertas penyelidikan tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.
(that the research paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the research paper).

Nama Penyelia : **DR. MUHAMAD FIKRI BIN AZIZ**
(Name of Supervisor)

Tandatangan :
(Signature)

Tarikh : **30 MAC 2023**
(Date)

Permission to use

In presenting this dissertation/project paper in partial fulfillment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this dissertation/project paper in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence, by the Director of Postgraduate Studies Unit, College of Business where I did my dissertation/project paper. It is understood that any copying or publication or use of this dissertation/project paper parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM in any scholarly use which may be made of any material in my dissertation/project paper.

Request for permission to copy or to make other use of materials in this dissertation/project paper in whole or in part should be addressed to:

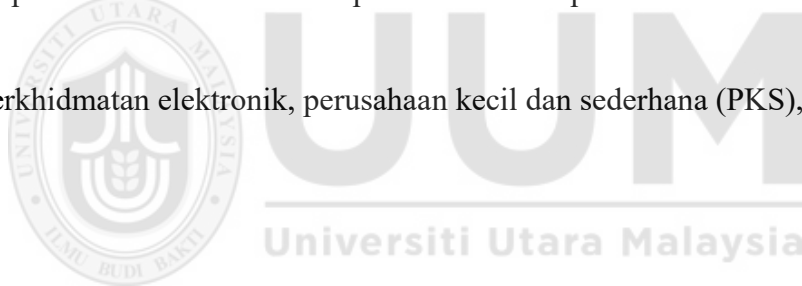
Director of Postgraduate Studies Unit,
College of Business
Universiti Utara Malaysia
06010 Sintok,
Kedah Darul Aman, Malaysia.

The logo of Universiti Utara Malaysia (UUM) is a circular emblem featuring a stylized 'U' and 'M' with a book and a torch. The text 'UNIVERSITI UTARA MALAYSIA' is written around the top, and 'ILMU BUDI BAKTI' is at the bottom. A large, light gray 'UUM' watermark is visible in the background, and the text 'Universiti Utara Malaysia' is printed at the bottom.

ABSTRAK

Kajian ini bertujuan untuk mengkaji faktor-faktor yang mempengaruhi penggunaan perkhidmatan e-perbankan oleh perusahaan kecil dan sederhana (PKS) di Mogadishu, Somalia. Data sikap dan pengalaman pemilik dan pengurus PKS dengan perkhidmatan e-perbankan dikumpul melalui tinjauan dan temubual. Hasil kajian menunjukkan bahawa jangkaan usaha, jangkaan prestasi, pengaruh sosial dan keadaan pemudahcara mempunyai kesan positif terhadap penggunaan perkhidmatan e-perbankan di kalangan PKS di Mogadishu. Oleh itu, langkah-langkah untuk meningkatkan kesedaran pengguna tentang manfaat e-perbankan dan memudahkan penggunaan perkhidmatan perlu diambil. Adalah dinasihatkan agar semua PKS di Mogadishu diberikan akses kepada infrastruktur seperti internet yang berkelajuan tinggi dan berharga berpatutan untuk memaksimumkan kesan positif keadaan pemudahcara terhadap penggunaan perkhidmatan e-perbankan. Kajian ini memberikan pandangan dan cadangan untuk kerajaan dan organisasi kewangan dalam usaha untuk menggalakkan penggunaan perkhidmatan e-perbankan di Somalia dan persekitaran serupa..

Kata kunci: perkhidmatan elektronik, perusahaan kecil dan sederhana (PKS), penerimaan



ABSTRACT

This thesis studies the variables that impact SMEs' use of e-banking services in Mogadishu, Somalia. The purpose of this study is to identify the primary drivers and challenges affecting the adoption of e-banking services by small and medium-sized enterprises (SMEs), and to provide suggestions for improving the adoption process. The research collects data on SME owners' and managers' attitudes and experiences with e-banking services using a survey and interviews. The results of the research reveal that effort expectance, performance expectance, social influence and facilitating conditions have a positive influence to the adoption of e-banking services among small and medium-sized enterprises (SMEs) in Mogadishu. On the basis of these findings, alluring, and informative actions should be undertaken to increase users' understanding of these benefits, and e-banking services should be created in such a way that customers encounter no issues while utilising them. It is advised that all SMEs in Mogadishu, Somalia, be given access to the infrastructure needed in this field, such as high-speed and reasonably priced internet, in order to maximise the beneficial and significant effects of facilitating conditions on adopting e-banking services. This research offers insights for governments and financial organisations attempting to encourage the use of e-banking services in Somalia and other comparable environments.

Keywords: e-banking services, small and medium enterprises (SMEs), adoption

Acknowledgements

First and foremost, I am very grateful to Allah the almighty for His mercy He gave strength and ability for me to complete my masters successfully throughout the period starting from January 2022 until June 2023.

Secondly, it is my pleasure to pay tribute to Dr. Muhamad Fikri bin Aziz for his constant guidance and encouragement throughout the year, her useful suggestions and unwavering support.

With this opportunity too, I would like to dedicate this thesis to my loving father, Hussein Ahmed, my darling mother, Fartuun Shariif, my beloved Brothers, Musab Ahmed and Yasir Ahmed. I would like to express my deep gratitude for everything they have done for me to be who I always want to be. Regardless of time and distance, they have been giving full concern for me to complete my study and the project.

Finally, this work would not be completed without the support and love from my beloved brother, Khalid Ahmed . A big thanks for all friends who helped me and were with me all the way until I finished this thesis. Without their participation, this thesis will not be accomplished. May God bless them all.

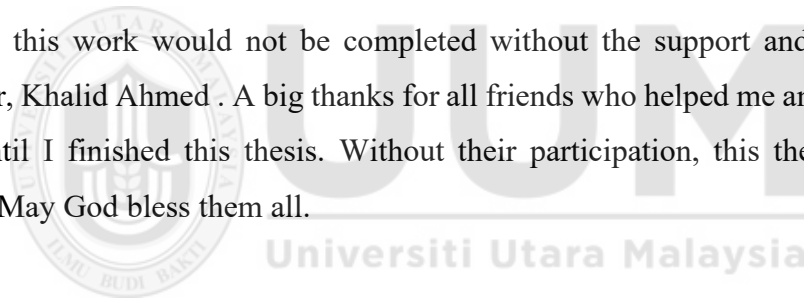


Table of Contents

PERMISSION TO USE.....	I
ABSTRAK	II
ABSTRACT	III
ACKNOWLEDGEMENTS.....	IV
TABLE OF CONTENTS	V
LIST OF	
S	VII
LIST OF FIGURES.....	VIII
LIST OF ABBREVIATIONS.....	IX
CHAPTER ONE.....	1
1.1 INTRODUCTION	1
1.2 RESEARCH BACKGROUND	1
1.3 AN OVERVIEW OF THE SOMALIAN ISLAMIC BANKING SYSTEM	3
1.4 PROBLEM STATEMENT	6
1.5 RESEARCH QUESTIONS.....	10
1.6 RESEARCH OBJECTIVES	10
1.7 RESEARCH SCOPE.....	11
1.8 SIGNIFICANCE OF THE RESEARCH	11
1.9 DEFINITION OF KEY TERMS.....	12
1.10 INTENTION TO ADOPT E-BANKING.....	13
1.11 PERFORMANCE EXPECTANCY	13
1.12 EFFORT EXPECTANCY	14
1.13 SOCIAL INFLUENCE	14
1.14 FACILITATING CONDITIONS.....	14
1.15 ORGANIZATION OF THE THESIS	15
CHAPTER TWO.....	16
LITERATURE REVIEW	16
2.1 LITERATURE REVIEW	16
2.2 ISLAMIC BANKING PHILOSOPHY COMPARED TO CONVENTIONAL BANKING.....	16
2.3 ADOPTION OF TECHNOLOGY AND E-SERVICES BANKING	17
2.4 THEORETICAL BACKGROUND REVIEW	19
2.5 REVIEWED VARIABLES	20
2.5.1 Performance expectancy.....	20
2.5.2 Effort expectancy.....	21
2.5.3 Social influence	21
2.5.4 Facilitating conditions	22
CHAPTER THREE.....	24
3.1 INTRODUCTION.....	24
3.2 CONCEPTUAL/THEORETICAL FRAMEWORK	24
3.3 HYPOTHESIS/PROPOSITIONS DEVELOPMENT	25
3.3.1 Performance expectancy.....	26
3.3.2 Effort expectancy.....	26
3.3.3 Social influence	27
3.3.4 Facilitating conditions	28
3.4 RESEARCH DESIGN.....	28
3.5 MEASUREMENT OF VARIABLES/INSTRUMENTATION (QA DEVELOPMENT).....	30
3.5.1 Operational Definition and Research Instruments	30

3.5.2 Demographic Information	31
3.5.3 Intention to Adopt E-banking Service Offered by Islamic Banks in Somalia.....	31
3.5.4 Performance Expectancy	32
3.5.5 Effort Expectancy.....	33
3.5.6 Social Influence	34
3.5.7 Facilitating Conditions	34
3.6 DATA COLLECTION PROCEDURE (POPULATION, SAMPLE, SAMPLING TECHNIQUE, SOURCE OF DATA)	35
3.6.1 Research Sampling.....	35
3.6.2 Population	35
3.6.3 Sampling Frame.....	36
3.6.4 Sampling Method	36
3.6.5 Content Validity.....	37
3.6.6 Instrument's Translation	37
3.6.7 Questionnaire Administration and Data Collection Procedure.....	38
3.7 DATA ANALYSIS TECHNIQUES	39
3.8 CHAPTER SUMMARY	39
CHAPTER FOUR	40
4.1 INTRODUCTION.....	40
4.2 RESPONSE RATE	40
4.3 DATA SCREENING.....	41
4.3.1 Missing Value.....	41
4.3.2 Treatment of Outliers	42
4.4 DESCRIPTIVE STATISTICS (PROFILE OF THE RESPONDENTS).....	42
4.4.1 Gender of the Respondents	43
4.4.2 Age Profile of the Respondents.....	43
4.4.3 Marital Status of the Respondents.....	44
4.4.4 Distribution by Educational Level.....	44
4.4.5 Distribution by Business Type	45
4.4.6 Working Experience of the Respondents.....	45
4.4.7 Distribution by customer of any Islamic bank in Mogadishu.....	46
4.4.8 Distribution by customer of any Islamic bank in Mogadishu.....	46
4.5 DESCRIPTIVE STATISTICS OF CONSTRUCTS.....	47
4.6 MULTIPLE LINEAR REGRESSION ASSUMPTIONS.....	48
4.6.1 Normality Test	48
4.6.2 Multicollinearity Test	50
4.7 CORRELATION ANALYSIS	56
4.8 REGRESSION ANALYSIS AND TESTING OF HYPOTHESES	57
4.9 CHAPTER SUMMARY	60
CHAPTER FIVE	62
5.1 INTRODUCTION.....	62
5.2 DISCUSSION OF FINDINGS	62
5.2.1 Effort Expectancy and Behavioral Intention	64
5.2.2 Effect of Performance Expectancy on Behavioral Intention	65
5.2.3 Social Influence and Behavioral Intention	66
5.2.3 Facilitating Condition and Behavioral Intention.....	66
5.3 CONTRIBUTION OF THE STUDY	67
5.4 LIMITATION OF THE STUDY	68
5.5 SUGGESTIONS OF FURTHER STUDIES	69
5.6 CONCLUSIONS.....	69
REFERENCES.....	71

List Of Tables

Table 1.1 : Licensed Islamic banks in Somalia.....	5
Table 2.1 : Summary of the reviewed variables	20
Table 3.1: Summary of Measurement of Variables	30
Table 3.2: Items and Sources of Intention	30
Table 3.3: Items and Sources of Performance Expectancy.....	31
Table 3.4: The Result of the Pilot Study (Reliability – Cronbach Alpha).....	32
Table 3.5: Items and Sources of Effort Expectancy	33
Table 3.6: Items and Sources of social influence	34
Table 3.7: Items and Sources of facilitating conditions.....	35
Table 4.1: Survey Response Rate	41
Table 4.2: Replaced Missing Value Result.....	42
Table 4.3: Gender.....	43
Table 4.4: Age.....	44
Table 4.5: Marital Status.....	44
Table 4.6: Educational Level	45
Table 4.7: Distribution by Business type.....	46
Table 4.8: Distribution by Working Experience.....	46
Table 4.9: Are you a customer of any Islamic bank in Mogadishu?	47
Table 4.10: Does the usage of e-banking facilitate your business operations?	47
Table 4.11: Mean and Standard Deviation of the Variables	48
Table 4.12: Normality Test (Skewness and Kurtosis of the Variables).....	50
Table 4.13: Multi-collinearity Test (VIF and Tolerance)	51
Table 4.14: Principal component analysis	53
Table 4.15: Result of the Factor Analysis for performance expectancy, effort expectancy, social influence and facilitating condition	55
Table 4.16: Correlation Analysis of the Exogenous Constructs	57
Table 4.17: Model Summary	59
Table 4.18: ANOVA ^a	59
Table 4.19: Coefficients ^a	60
Table 4.20: Summary of the Hypotheses Testing.....	62

List of Figures

Figure 3.1: Theoretical Framework of the study	24
Figure 4.1: Histogram and Normal Probability Plots	49



List of Abbreviations

SMEs.	:	small and medium-sized enterprises
ICT	:	information and communication technology
LSES	:	large-scale enterprises
UTAUT	:	Unified Theory of Acceptance and Use of Technology
TAM	:	Technology Acceptance Model
PE	:	performance expectation
EE	:	effort expectation
SI	:	social influence
IDT	:	Innovation Diffusion Theory
BI	:	Behavioural intention
IS	:	information systems



CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter provides a detailed explanation of the research background, problem statement, research questions and objectives, as well as research scope and significance.

1.2 Research Background

The notion of electronic banking has grown around the world, particularly in industrialised nations, with Somalia being one of the countries to adopt it (Mohamad, 2011). In spite of its novelty and infancy in Somalia, e-banking is gaining appeal in developing nations (Sayid & Echchabi, 2012). As a consequence of the fast spread of information technology (IT), especially e-banking, there have been many recent changes, particularly in the manner in which banks provide services. Since they are the biggest IT service provider and spend the most money on IT systems, financial service providers, such as the banking sector, are considered as the most significant IT-based service provider (Alkafagi, 2015). Bank consumers are now substantially more concerned about the quality of their e-service interactions.

According to studies, e-banking innovation gives bank customers with decreased risk (such as loss and theft), less service costs, more simplicity, quicker access, and payment options, all while saving them time and money (Bacinello et al., 2017). In their 2016 study, Hamid, Razak, Bakar, and Abdullah discovered that internet banking enhances client job effectiveness. Adams

et al. (2016) stated that e-banking benefits banks more than customers. Traditional banking has been mostly replaced by the internet of things (IoT). Since e-banking is contactless and available 24 hours a day, seven days a week, consumers do not need to physically visit banks to do transactions (Donovan, 2012; Auta, 2010; Lee & Chung, 2009).

Despite the fact that a large majority of Somalis are keen to use e-banking, the primary challenge is figuring out how to utilise the technology (i.e. computer) in combination with slow internet connection, poor consumer trust, perceived benefit, and perceived ease of use (Sayid, & Echchabi, 2012; Mutengezanwa, & Mauchi, 2013). In accordance with the "consumer choice and demand" thesis of Au and Kauffman (2008), e-banking use is steadily expanding in Somalia due to its ease of use and the widespread availability of mobile phones. Customers may opt to use a particular banking technology, such as e-banking, based on its perceived ease of use and other attractive aspects.

Customer service is a significant impediment to the adoption of e-banking (Amin, 2016; Calisir & Gumussoy, 2008). According to Bhattacharjee (2017), customers' discontent with e-banking stems mostly from a lack of trust. In addition, studies have uncovered a number of e-banking adoption challenges that are prevalent in developing nations, such as lagging internet speed, poor online experience, insufficient government support, security and privacy concerns, and client trust (Sánchez-Torres et al., 2018; Bacinello et al., 2017; Rahman et al., 2017).

Several studies have examined the difficulties of e-banking in developing nations (Courchane et al., 2002; Pikkarainen et al., 2004; Mattila & Mattila, 2005; Roussos, 2007; Forrester Research, 2009; The World Bank, 2009; Yousafzai & Yani-de-Soriano, 2012; Devi Juwaheer et al., 2012). The Technology Acceptance Model (TAM) (Davis, 1989), the Theory of

Reasoned Action (TRA) (Fishbein & Ajzen, 1975), and the Theory of Planned Behavior (TPB) are a few of the theories that have been used in numerous studies to identify the determinants of e-banking adoption in developing countries, such as perceived ease of use, perceived usefulness, level of income and education, age, and so on (Ajzen, 1991).

In Somalia, a small number of studies focused on consumer trust, internet speed, perceived ease of use, and perceived value as e-banking acceptability drivers (Sayid & Echchabi, 2012; Mutengezanwa & Mauchi, 2013). The current study intends to enhance previous findings by providing further evidence of the driving factors, such as poor use, public rejection, inadequate modern services, etc.

1.3 An overview of the Somali Islamic Banking System

Since 1991, Somalia has been plagued by political unrest and instability; it is evident that the nation has been plagued by civil strife and persistent economic decline for a very long time. As a consequence, the nation's economic, legal, and social institutions, as well as the rule of law, have ceased to operate. The banking industry, like all other economic sectors, has entirely crumbled during the turmoil.

All national institutions, including the financial and economic sectors that supplied services and managed the nation's economic affairs, were destroyed when the Somali state collapsed. Since the fall of the last central government, Somalia has had no recognised financial institutions, with the exception of hastily established informal money transfer businesses and, more recently, major telecoms companies that have begun offering mobile money services. The minimal financial services offered by money transfer companies, which are mostly used

by Somalis living abroad to send money to family and friends in Somalia, serve as a lifeline for a significant portion of the population (The World Bank, 2016). Frequently, mobile money services are used for cash-in, cash-out, and cash-withdrawal transactions (Firestone, Kelly & Refon, 2017).

In addition to invoicing and salary receipts, the service is also utilised for merchant payment transactions. Due to the lack of regulation, these mobile money companies expose their clients to financial risks. The situation gradually returned to normal after the establishment of Somalia's internationally recognised federal government in 2012 and the country's unsuccessful efforts to achieve peace due to political disagreements. This provides the banking sector and other economic sectors hope that their destroyed institutions may be restored. Due to the wartime closure of Somalia's central bank, the country's official financial system and monetary authority were absent (Mubarak, 2002).

Prior to the civil war and the fall of the state government, there was only one commercial bank in Somalia, the Commercial and Savings Bank of Somalia, since the country was managed by a socialist government that nationalised private financial institutions and combined them into one bank (Mauri, 1988). After the country's only remaining financial institution (Commercial and Savings Bank and Central Bank) discontinued operations, the country's financial system dramatically worsened.

Initially, the purpose of the money transfer organisations that developed after the fall of the Somalian government was confined to money transfers, which were mostly used by Somalis living abroad to send money home.

Upon the establishment of Somalia's federal government and the return of the country's central bank, however, new fully-fledged Islamic banks were established, and the country's major money transfer companies shifted to these banks (Central Bank of Somalia, 2018). This gave the country's financial industry, particularly the Islamic banking sector, newfound hope.

Table 1.1
Licensed Islamic Banks in Somalia

NO	Financial Institution Name	Status
1	AMAL BANK	Active and Licensed
2	PREMIER BANK	Active and Licensed
3	INTERNATIONAL BANK OF SOMALIA (IBS)	Active and Licensed
4	DAHABSHIL BANK INTERNATIONAL	Active and Licensed
5	SALAM SOMALI BANK	Active and Licensed
6	TAWAKAL BANK	Active and Licensed
7	DARYEEL BANK	Active and Licensed

Source: Central Bank of Somalia

As indicated in Table 1.1, the development of Sharia-compliant regional banks would result in a paradigm shift and the revival of the country's ailing financial industry. This supports Warsame's (2016) argument that the formation of new Islamic financial institutions in Somalia would serve as the basis for a more durable and robust financial sector in the country in the future. Somalia's expanding economy presents Islamic banks with more opportunities for profit.

According to the International Monetary Fund's 2017 evaluation, the country's fiscal policy implementation has significantly improved despite the obstacles experienced by the newly formed federal government (IMF). In 2017, Somalia's domestic revenues increased by 26.5%

thanks to a thriving private sector. Moreover, the GDP growth rate was fair in comparison to past years, when there was limited economic progress due to conflict.

1.4 Problem Statement

According to UNCTAD, development professionals and policymakers have recognised the significance of information, communication, and technology (2015). For instance, the eighth MDG intended to make new technology advantages, particularly ICTs, available to all developing nations. The availability of ICTs to SMEs is one of the aspects that contribute to the evolution of information and communication technologies, which in turn encourages the growth of SMEs and streamlines processes throughout company activities. According to González et al. (2014), the accessibility of technology for businesses, especially small and medium-sized enterprises (SMEs), influences the impact of ICTs on development.

According to Kadjie et al., experts in the academic field of entrepreneurship have recently emphasised how SMEs help developing countries achieve their macroeconomic goals (2022). The success, expansion, and survival of small and medium-sized enterprises (SMEs) in a complicated international environment is a top priority for policymakers in both established and growing countries worldwide. Due to their reputation for being labor-intensive and utilising local resources, SMEs are well-known and popular across the world. The contribution of small and medium-sized enterprises to national and global economic growth provides a unifying theme for the need for support.

The majority of countries' economic and industrial development is controlled by small and medium-sized enterprises (SMEs), according to global data on SMEs. There are 6,53 million private businesses in Japan, of which 6,47 million are small and medium-sized enterprises (SMEs), accounting for 99 percent of all private firms. Similarly, the nation's 41.42 million SMEs employ 54.16 million individuals, accounting for 76.5 percent of total employment. In all of the European Union's member states, small and medium-sized enterprises (SMEs) play a critical role. 99.8 percent of Austria's businesses are small and medium-sized enterprises (SMEs) (Muller et al., 2015). Small and medium-sized companies (SMEs) account for 97.5% of all businesses, while large-scale enterprises (LSEs) account for 2.5% of manufacturing businesses (Kimiya & Omiti, 2000). Numerous governments, notably in Somalia, have acknowledged the importance of small and medium-sized enterprises as economic and industrial growth drivers in the majority of African nations.

Many African governments, like that of Somalia, recognize the vital role that SMEs play in spurring economic and industrial development across the continent. Although there aren't any government statistics on the number of small and medium-sized enterprises registered in the country, a report by the World Bank indicates that Somalia has a substantial informal economy, with estimates indicating that up to 70% of the workforce is employed in the informal sector. The overwhelming majority of these workers are likely to be employed by small and medium-sized enterprises (SMEs), which are vital to the nation's economy. The significance of small and medium-sized enterprises lies in their ability to generate jobs, increase competition, and foster innovation. In a country like Somalia, where unemployment is high and formal employment opportunities are scarce, small and medium-sized enterprises (SMEs) can be a vital source of employment and income. Moreover, by increasing productivity and broadening access to products and services, SMEs can contribute to economic growth and peace building

process in Somalia. According to the Bina (2021), a micro enterprise employs up to four people and has annual sales or total assets of less than \$5,000; a small enterprise employs between five and twenty people and has annual sales or total assets between \$5,000 and \$50,000; and a mid-sized enterprise employs between twenty-one and one hundred people and has annual sales or total assets between \$50,000 and \$500,000, respectively. This demonstrates the significance of small and medium-sized enterprises to the Somali economy (Bina, 2021).

In the meanwhile, organisations may generate value in a digital environment due to the rapid expansion and development of information and communication technology (ICT) (Schreieck & Wiesche, 2017). To create value in the present, businesses must include innovation into their plans. Innovation is greatly facilitated by value co-creation, which O'Hern and Rindfleisch (2010) define as consumer engagement in actively engaging and selecting product or service components. Therefore, in the digital age, value creation increasingly requires the collaboration of consumers and businesses (Hosseini et al., 2020).

Internet and technical advancements have altered the availability and use of financial services (Malaquias & Hwang, 2019). To preserve a competitive edge and to meet client expectations, banks and other financial institutions provide alternative, creative electronic channels. According to Zhang et al. (2018), customers are increasingly utilising mobile devices and desktop as e-banking tools for purchasing items and services. As a consequence, e-banking may accommodate customer requirements, such as allowing them to do financial transactions without physically visiting a branch or ATM (Malaquias & Hwang, 2019). Therefore, e-banking is very beneficial for both financial institutions and their consumers (Baabdullah et al., 2019).

As a result of the proliferation of Internet services, consumers may now participate in the production and/or improvement of products and services, which raises the likelihood of business engagement and enhances value. Consequently, businesses aim to attract clients who wish to contribute to the partnership (Chepurna & Criado, 2018). The banking industry's transition toward value co-creation is a fascinating research subject (Mostafa, 2020). Due to the severe competition in the banking industry, e-banking is recognised as the most creative self-service electronic-based distribution channel (Malaquias & Hwang, 2019).

E-banking is envisioned as a distribution and communication channel that enables customers to cooperate with a bank to conduct transactions quickly and affordably, mostly via the use of electronic devices such as smartphones and tablets (Singh & Srivastava, 2020). Customers may benefit from a wide range of e-banking services, including account checks, bill payments, transfers, and text message alerts, which enhance their life value and provide them a competitive advantage (Mostafa, 2020).

Due to the widespread usage of the Internet and technological devices, academics are increasingly focusing specifically on e-banking. As shown by Glavee-Geo et al. (2017), Singh and Srivastava (2020), and Mostafa et al. (2017), prior research has examined the variables that influence e-banking use (2020). Despite the fact that e-banking services provide consumers with a number of outstanding benefits, acceptance is lower than anticipated and remains in the adoption stage (Shankar et al., 2020). This study aims to develop an empirical model of technology adoption in order to better comprehend e-banking user behaviour. The Original Unified Theory of Acceptance and Use of Technology (UTAUT) characteristics that facilitate the adoption of e-banking in Somalia are explored specifically.

1.5 Research Questions

1. How does performance expectancy affect the behavioral intention of SMEs to adopt E-banking in Somalia?
2. How does effort expectancy affect the behavioral intention of SMEs to adopt E-banking in Somalia?
3. How does social influence affect the behavioral intention of SMEs to adopt E-banking in Somalia?
4. How does facilitating condition affect the behavioral intention of SMEs to adopt E-banking in Somalia?
5. What are the challenges and prospects of E-banking adoption in Somalia?

1.6 Research Objectives

1. To examine how performance expectancy, affect the behavioral intention of SMEs to adopt E-banking in Somalia.
2. To examine how effort expectancy, affect the behavioral intention of SMEs to adopt E-banking in Somalia.
3. To examine how social influence, affect the behavioral intention of SMEs to adopt E-banking in Somalia.
4. To examine how facilitating condition, affect the behavioral intention of SMEs to adopt E-banking in Somalia.
5. To identify the challenges and prospects of E-banking adoption in Somalia.

1.7 Research Scope

This research is restricted to SMEs in Mogadishu, Somalia. Somalia is one of the fastest developing Islamic banks in East Africa, making a study of this region of the globe essential to the literature.

1.8 Significance of the Research

This study offers a variety of potential contributions that may be used to pinpoint the factors that contribute most to the popularity of online banking services provided by Islamic financial institutions in Somalia. Therefore, this study is significant to policymakers, Islamic financial institutions, SMEs, and investors, among other stakeholders:

1. The study's findings can be used by Somali policymakers to create rules and laws that encourage SMEs to use e-banking services. The study concentrates on the Somali Islamic Banking industry, which has recently experienced significant growth. In order to encourage the use of Islamic e-banking services and create laws that support innovation and competition in the industry, policymakers might make use of the study's findings.
2. The study's findings can be used by Islamic financial institutions to create e-banking services that are catered to the needs and preferences of SMEs in Mogadishu. The original Unified Theory of Acceptance and Use of Technology model is used in the study to assess the actual factors influencing company owners in Mogadishu's acceptance of e-banking services. These facts can assist Islamic financial institutions in creating and marketing e-banking services for SMEs that are more appealing and user-friendly.

3. Reading this study can help SMEs in Mogadishu better grasp the advantages and difficulties of implementing e-banking services. The study focuses on the elements that have the most impact on Somalia's preference for Islamic financial institutions' online banking services. As a result, SMEs are better equipped to decide whether to implement e-banking services and how to do so efficiently.
4. The results of the study can be used to pinpoint potential in the e-banking industry for investors looking to provide highly inclusive financial services in Somalia. Research on e-banking use among SMEs in Mogadishu, one of the most rapidly rising cities in Africa, would be helpful for investors looking to enter or increase their position in the Somali market.

Overall, the study on SMEs in Mogadishu, Somalia's behavioural intention to adopt e-banking services is an important contribution to the literature on e-banking adoption and will likely have a substantial impact on the growth of the Somali economy. The study's emphasis on Islamic e-banking services and the operations of Somali Islamic Banks offers a distinctive viewpoint on the elements that influence SMEs in Mogadishu to use e-banking services. As a result, the study is pertinent to a wide range of stakeholders and has the potential to influence future research in this area as well as policy and practise.

1.9 Definition of Key Terms

E-banking: Electronic banking, often known as electronic funds transfer, is the method through which customers acquire access to deposited money via the use of computer technology (EFT). Common kinds of EFT services include automated teller machines, direct

deposits, pay-by-phone systems, personal computer banking, debit cards, and electronic check conversion.

Small and Medium-sized Enterprises (SMEs): Small and Medium-sized Enterprises (SMEs) are firms that fall below a certain size threshold in terms of employee count, annual revenue, or entire balance sheet. Country and industry-specific definitions and criteria for SMEs diverge. They are typically small businesses with fewer than 50 employees. Nonetheless, the maximum number of staff differs between nations.

E-banking adoption: The move from conventional financial services offered by banks to more virtual ones is referred to as electronic banking adoption. This is crucial because many financial institutions are shifting their attention away from conventional bank branch operations and toward electronic customer connections. This activity allows banks to reach a bigger target demographic while being cost-effective.

1.10 Intention to Adopt E-banking

Behavioural intention (B.I.) is defined as "the extent to which a person has formed conscious plans to execute or refrain from performing a specified future behaviour" (Fishbein & Ajzen, 1975). This research defines "intention" as a person's proclivity to use E-banking services supplied by Somali Islamic banks.

1.11 Performance Expectancy

P.E. is defined as "the degree to which an individual perceives that the system helps increase work performance" by Venkatesh et al. (2003). This research operationalizes performance

expectation as the view of SMEs in Somalia while considering adopting E-banking services supplied by Islamic banks.

1.12 Effort Expectancy

E.E. was defined as "the degree of ease associated with the usage of the system" by Venkatesh et al. (2003). In this context, effort expectation refers to SMEs' perceptions of the ease and utility of Islamic banks' E-banking services in Somalia.

1.13 Social Influence

The amount to which a person believes it is critical that other people believe they should use the new system is referred to as social influence. In this context, social impact refers to how the opinions of peers, relatives, and other relevant parties affect the SME's behavioural intents to use Islamic banks in Somalia's e-banking services.

1.14 Facilitating Conditions

The degree to which a person feels that an organisational and technological infrastructure exists to facilitate the operation of the system is referred to as the Facilitating Conditions (F.C.). In the present research, enabling factors include the availability of critical resources to assist the adoption of e-banking by Somali SMEs.

1.15 Organization of the Thesis

This thesis is divided into five chapters. The first chapter outlines the research backdrop, issue statement, research questions and goals, as well as the study's scope and importance. The second chapter examines past studies on the usage of online banking services and technological adoption. The chapter sets the groundwork for the development of theoretical models and hypotheses before providing the theoretical framework of the inquiry. The third chapter discusses the research methodology, questionnaire design, and analytical methods used. The study results and comments are revealed in Chapter 4, while the key findings and research suggestions for future investigations are summarised in Chapter 5.



CHAPTER TWO

LITERATURE REVIEW

2.1 Literature Review

Before introducing the theoretical framework, this chapter first establishes the basis for the construction of theoretical models and hypotheses. It will begin with a review of prior studies on technology adoption and the use of online banking services.

2.2 Islamic Banking Philosophy Compared to Conventional Banking

The ethical foundation, products, and governance of Islamic banks are three distinguishing characteristics that set them apart from interest-based conventional banks. Shariah law is a different ethical system that incorporates moral principles into commercial circumstances (Abedifar et al., 2015; Belal et al., 2015). In contrast to conventional banks, which are not bound by religious responsibilities, Islamic banking is built on a Shariah-based moral framework (Basah & Yusuf, 2013).

As previously indicated, the application of the *maslahah* ideal indicates that Islamic banks should serve community interests (Dusuki & Abdullah, 2007a). Mit Ghamr Local Savings Bank, Egypt's first Islamic bank, was founded in 1963 as a social bank to promote social welfare (Belal et al., 2015; Nor and Hashim, 2015). Operational differences include outlawing both *riba* (interest) and *haram* (illegal) operations, in addition to funding potentially harmful to society (Dusuki & Abdullah, 2007b). With significant exceptions such as socially responsible

investment funds, banks deploy money in the interest-free system using the profit-loss participation approach (Gün, 2016) with no limitations on their investment philosophy.

These ethical funds, which are managed by conventional banks, avoid investing in businesses that engage in unethical or harmful behaviour, which is similar to the investment philosophy of Islamic banking (Saiti & Noordin, 2018). In addition, Islamic businesses must pay the Zaqat tax. This involves making a mandatory payment to redistribute money for the community's benefit (Aribi & Arun, 2015). The Shariah Board, or religious supervisory board, is the most significant governance distinction between the two types of banks (Farook et al., 2011). Islamic banks are required to answer to a board of Islamic experts who verify their validity by determining if their business practises comply with Shariah law (Quttainah & Almutairi, 2017).

Created by the Islamic institution, the Shariah Advisory Board is a voluntary alternative to the national Shariah Supervisory Board (Gün, 2016). Therefore, unlike their conventional counterparts, who are exempt from these additional religious restrictions, the operations and governance of Islamic banks must conform with both the current regulatory framework and Shariah law (Basah & Yusuf, 2013). As a result, Islamic finance has transformed from an optional addition to conventional banking to a "demanding" financial system that adheres to Islamic principles while serving a rising clientele (Rashid & Paltrinieri, 2018).

2.3 Adoption of Technology and e-Services Banking

Internet and information technology advancements have recently impacted the functionality of conventional services. Consequently, e-banking has altered the antiquated practises of banks and financial institutions, garnering the interest of academics and industry participants (Wang

et al., 2017). E-banking adoption is seen as a fresh distribution channel for financial services due to e-banking advances and high levels of expertise (Sikdar et al., 2015; Yaseen & El Qirem, 2018).

As a consequence, the adoption and use of e-banking is now a major area of research. The TAM created by Davis et al. (1989) is the most significant in terms of generalizability and adaptability, according to the literature (Yaseen & El Qirem, 2018). The TAM is mostly used for analysing technology adoption intentions. The TAM uses models to investigate the adoption and intent to adopt information system methods including mobile commerce (e.g., Natarajan et al., 2018), m-banking (e.g., Mostafa, 2020; Shankar et al., 2020), and e-banking (e.g., Mostafa, 2020; Shankar and al., 2020). (Yoon & Steege, 2013; Salimon et al., 2017; Yaseen & El Qirem, 2018; Ahmad et al., 2019). According to the original TAM, the key drivers of technology adoption are perceived usefulness and perceived usability (Davis et al., 1989).

Perceived ease of use is the degree to which a person feels that utilising a certain system involves minimal physical and mental effort. In contrast, perceived utility is the extent to which customers feel that a technology will enhance their performance (Davis et al., 1989; Mostafa, 2020). Previous research on technology adoption reveals that perceived usability positively influences the intention to utilise technology, with perceived usability serving as a moderator (Natarajan et al., 2018).

Perceived utility is one of the factors of behavioural intention to use e-banking (Malaquias & Hwang, 2019). To illustrate, e-banking provides characteristics that offline banking does not, such as the constant availability of financial services from any location (Yoon & Steege, 2013; Shankar & Jebarajakirthy, 2019).

2.4 Theoretical Background Review

In the early 1980s, adoption theories for information systems arose (IS). Each IS adoption hypothesis posits a collection of variables that affect how customers adopt new technology (Taherdoost, 2018). IS researchers and theorists continually analysed the viability of existing frameworks at the time of each model's inception, as shown by the following immensely popular ideas.

- 1) Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975);
- 2) Social Cognitive Theory by Bandura (1986);
- 3) Model of PC Utilization by Thompson et al. (1991);
- 4) Technology Acceptance Model (TAM) by Davis (1986);
- 5) Theory of Planned Behavior (TPB) by Ajzen (1991);
- 6) Innovation Diffusion Theory (IDT) by Moore and Benbasat (1991);
- 7) Motivational Model (MM) by Davis et al. (1992);
- 8) Combined TAM and TPB or C-TAM-TPB by Taylor and Todd (1995); and
- 9) UTAUT by Venkatesh et al. (2003).

UTAUT synthesises key components of established theories such as the TAM, TRA, TPB, and IDT. This model identifies performance expectation (PE), effort expectation (EE), social influence (SI), and enabling circumstances (FC) as the four primary drivers of IS adoption. Behavioral intention to use (BI) mediates these elements when analysing actual technology adoption trends (Venkatesh et al., 2003). As a consequence, the original UTAUT model is favoured by this study as a suitable model for solving the research issues.

2.5 Reviewed Variables

The correlations indicated in the original UTAUT model are likely to be applicable to this study, since it tries to evaluate whether the original UTAUT model proposed by Venkatesh et al. (2003) is acceptable for explaining SME adoption of electronic banking in Mogadishu, Somalia. The diagram below illustrates the logical connections between the variables.

The newest UTAUT2 and 3 were not analysed in this study since the new additional criteria are irrelevant to the setting of the study and no other studies utilise them. The initial four distinct criteria are thus hypothesised to impact Somalia's behavioural intention (BI) to adopt E-banking.

2.5.1 Performance expectancy

PE is defined as the user's perception that a technology will enhance his performance and deliver professional benefits (Venkatesh et al., 2012). It has been shown that performance anticipation increases the behavioural intent to donate to crowdfunding (Li et al., 2018). In the context of this model's adoption, a substantial positive association was established between performance expectations and the propensity of Muslim crowd funders to employ the Zakat-driven crowdfunding platform model. In China, Mensah (2019) found that performance expectations are not a significant predictor of E-government adoption intent. Similarly, customers' propensity to utilise the E-banking services of Jordanian commercial banks is unaffected by performance expectations (Yaseen et al., 2018). In this study, PE entails the SME conviction that E-banking is essential for the effective and efficient discharge of their responsibilities.

2.5.2 Effort expectancy

EE refers to a person's expectation that their use of the proposed technology will be problem-free (Venkatesh et al., 2012). Sair and Danish (2018) discovered that consumers' expectations of effort had a significant impact on their intentions to utilise mobile commerce in Pakistan. Moreover, Subawa et al. (2020) shown that effort expectation has a positive effect on behavioural intention to use E-marketplace in Indonesia. Alabdullah et al. (2020) indicated that students' behavioural intention to use tele-dentistry is connected to their effort expectation. In this study, EE refers to academics' views of the usability of online banking services.

2.5.3 Social influence

SI measures the extent to which a person feels he or she must use technology to function in society (Venkatesh et al., 2012). Particularly in the early phases of adoption, Venkatesh et al. (2003) described the forced usage effect of SI (Venkatesh & Davis, 2000). For instance, Buabeng-Andoh and Baah (2020) found that social influence had a substantial effect on behavioural intentions to utilise technology in Ghana. Similar findings were found in a variety of settings and environments, such as acceptance of cloud classroom technology (Yang et al., 2019), adoption of hospital electronic information management systems (Zhou et al., 2019), adoption of restaurant mobile applications (Palau-Saumell et al., 2019), and adoption of mobile payment systems (Wang et al., 2019). (AlSaedi et al., 2020). In this context, "social effect" refers to external forces that influence an individual's view of e-banking, such as peer or supervisor pressure, academic support, etc.

2.5.4 Facilitating conditions

FC refers to the user's perception that institutional infrastructure and support are accessible to help them adopt a certain technology (Venkatesh et al., 2012). Frequently, technical assistance and supporting infrastructure are designated as FC. FC impact both user intent and actual use (Venkatesh et al., 2012). (Venkatesh et al., 2003). Literature has emphasised the significance of favourable conditions as a factor driving IT adoption and as a crucial indicator of the desire to use a variety of unrelated technologies. For instance, Wang et al. (2020) found that conducive surroundings had a positive effect on consumers' behavioural intention to use healthcare wearable technologies (HWDs). According to Khechine and Augier (2019), the most significant predictor of behavioural intentions to use social learning platforms in higher education in the United States, France, Brazil, and China is enabling conditions.

On the next page, Table 2.1 shows the summary of the reviewed variables.

Table 2.1
Summary of the Reviewed Variables

Author	Area	Country	Respondents	Finding
Performance Expectance				
Li et al. (2018)	Donation-based crowdfunding	China	Platform users	Significant
Yaseen and El Qirem (2018)	E-banking services	Jordan	Jordanian commercial banks	Insignificant
Mensah (2019)	E-government services	China	College students	Insignificant

Effort Expectance				
Subawa et al. (2020)	E-marketplace	Indonesia	MSMEs who use e-marketplace	Significant
Alabdullah et al. (2020)	Tele-dentistry	US	Dental students	Significant
Sair and Danish (2018)	Mobile commerce	Pakistan	Mobile commerce users	Significant
Social Influence				
Yang et al. (2019)	E-learning	China	Students	Significant
Zhou et al. (2019)	E-health	Ghana	Nurses	Significant
AlSaedi et al. (2020)	Mobile payment	Oman	M-payment users	Significant
Palau-Saumell et al. (2019)	E-restaurants	Spain	Applications users	Significant
Buabeng-Andoh and Baah (2020)	E-learning	Ghana	Pre-service teachers	Significant
Facilitating Conditions				
Wang et al. (2020)	E-health	China	HWDs users	Significant
Khechine and Augier (2019)	E-learning	USA, France, Brazil, China	Higher education students	Significant

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter focuses mostly on the processes and methodologies used to conduct the present investigation. It begins with a discussion of the study's philosophy, paradigm, methodology, and appropriateness of the selected approach.

3.2 Conceptual/Theoretical Framework

A theoretical framework is a set of interrelated ideas that serves as a road map for research, outlining what should be evaluated and what data linkages should be emphasised (Borgatti, 1999). A theoretical framework also reflects reality and emphasises the key connections between real-world elements (factors) that the researcher deems significant to the subject under investigation (Nachmias & Nachmias, 1996).

The research model shown in Figure 1 is based on the UTAUT paradigm created for this study. The model investigates how performance expectation, effort expectation, social influence, and enabling variables impact the intentions of Somali SMEs to use online banking services offered by Islamic banks in Mogadishu, Somalia. Figure 1 displays the conceptual framework of the research.

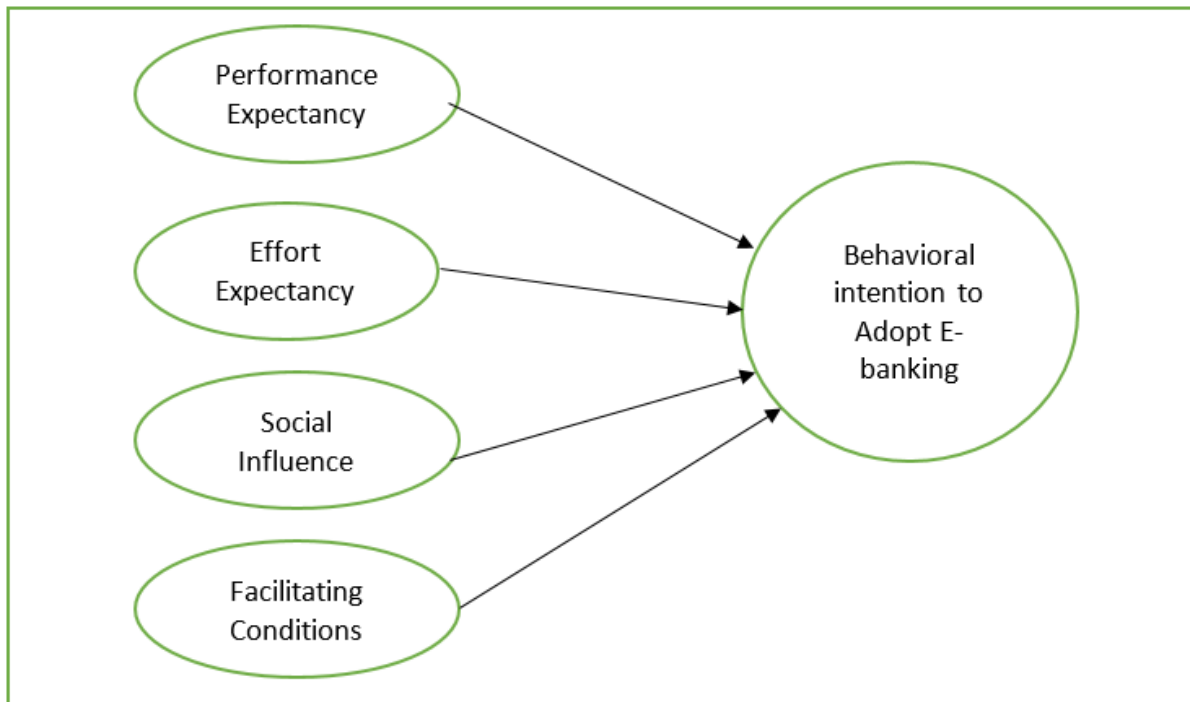


Figure 3.1: Theoretical Framework of the study
Source: Author's illustrations

3.3 Hypothesis/Propositions Development

The correlations of the original UTAUT model are anticipated to be applicable to this study, since the authors seek to determine if the original UTAUT model by Venkatesh et al. (2003) adequately explains SME adoption of E-banking in Mogadishu, Somalia.

The most current UTAUT2 and UTAUT3 were not evaluated in this study since the new added criteria are irrelevant to the study's context and no other studies employ them. Therefore, it is believed that the first four independent variables impact the behavioural intention (BI) of Somalian customers to use electronic banking.

3.3.1 Performance expectancy

PE signifies the user's conviction that a certain technology will enhance his capacity to acquire professional advantages (Venkatesh et al., 2012). According to Li et al. (2018), performance anticipation increases the behavioural intent to give to crowdfunding. A significant positive connection was found between performance expectations and the propensity of Muslim crowd funders to employ the Zakat-based crowdfunding platform model in the context of this model's adoption.

Mensah (2019) found that in China, performance expectations had no effect on the propensity to use E-government services. Similarly, customers' propensity to utilise the E-banking services of Jordanian commercial banks is unaffected by performance expectations (Yaseen et al., 2018). As a consequence, this study defines PE as the perception of small and medium-sized enterprises (SMEs) that using electronic banking will help them perform their activities more efficiently. Consequently, it is assumed:

H1. PE influences SMEs' behavioural intention to use E-banking.

3.3.2 Effort expectancy

EE refers to an individual's expectation that their engagement with the proposed technology will be problem-free (Venkatesh et al., 2012). Sair and Danish (2018), for instance, discovered that consumers' inclination to utilise mobile commerce in Pakistan was significantly influenced by their expectations of the effort involved. According to Subawa et al. (2020), the relationship between effort expectation and behavioural intention to utilise an e-marketplace in Indonesia

is favourable (2020). Alabdullah et al. (2020) confirmed that students' behavioural intention to use tele-dentistry is connected to their effort expectation. This study refers to the scholarly consensus that online banking systems are user-friendly as EE. Consequently, it is assumed:

H2. EE influences SMEs' behavioural intention to use E-banking.

3.3.3 Social influence

SI measures an individual's conviction that he or she must use technology to operate in society (Venkatesh et al., 2012). Venkatesh et al. (2003) corroborated the effect of social influence on forced consumption, particularly in the first stages of adoption (Venkatesh & Davis, 2000). In Ghana, Buabeng-Andoh and Baah (2020) found that social influence had a major impact on the behavioural intent to use technology.

Similar findings were discovered in a variety of settings and environments, including the acceptance of cloud classroom technology (Yang et al., 2019), the adoption of hospital electronic information management systems (Zhou et al., 2019), the adoption of restaurant mobile applications (Palau-Saumell et al., 2019), and the adoption of mobile payments (Wang et al., 2019). AlSaedi and coworkers (2020). In this research, social influence is defined as any external pressure that affects an individual's e-banking attitude, such as peer or supervisor pressure or academic endorsement. Consequently, it is anticipated that:

H3. SI influences SMEs' behavioural intention to use E-banking.

3.3.4 Facilitating conditions

FC refers to the user's idea that institutional infrastructure and support are readily accessible to facilitate their adoption of a certain technology (Venkatesh et al., 2012). Technical assistance and supporting infrastructure are often categorised as FC. FC have an impact on both user intent and actual use (Venkatesh et al., 2012). Venkatesh and associates (2003). Literature has highlighted the significance of favourable conditions as a factor in the adoption of information technology and as a significant indicator of preparedness to employ a variety of unrelated technologies.

Wang et al. (2020), for instance, demonstrated the effect of a supportive environment on the behavioural intent to utilise healthcare wearable technologies (HWDs). Khechine and Augier (2019) found that favourable conditions are the most significant predictor of behavioural intents to utilise social learning platforms in higher education throughout the United States, France, Brazil, and China. Consequently, the following hypothesis is put forward:

H4. FC influences SMEs' behavioural intention to use E-banking.

3.4 Research Design

This study used a quantitative research methodology to investigate the factors influencing small and medium-sized enterprises (SMEs) in Somalia, particularly those in Mogadishu, to utilise e-banking services. Quantitative research refers to social studies using empirical methodology and hypotheses. An empirical statement is a statement that describes what the situation "is" in the "actual world," as opposed to what it "should be" (Cohen, 1988).

The current study employs a quantitative research approach since it allows the researcher to analyse a large sample of respondent perspectives on the specified event in depth. As a result, the researcher may adopt a certain perspective on human behaviour (Lakshman, Sinha & Biswas, 2000). Quantitative research seeks to evaluate the generalizability of its findings (Neuman, 2006). Quantitative research, according to Smith, is often connected with the positivist experimental and/or empiricist paradigm, while qualitative research is primarily associated with the constructivist approach (1983).

This study used a quantitative approach to acquire primary data. When structural equation modelling (SEM) is utilised to analyse the main data collected during field study, it is most suitable and effective (Hair et al., 2006). This study used a quantitative research methodology to investigate the factors influencing small and medium-sized enterprises (SMEs) in Somalia, particularly those in Mogadishu, to utilise e-banking services. Quantitative research refers to social studies using empirical methodology and hypotheses. An empirical statement is a statement that describes what the situation “is” in the “actual world,” as opposed to what it “should be” (Cohen, 1988).

The current study employs a quantitative research approach since it allows the researcher to analyse a large sample of respondent perspectives on the specified event in depth. As a result, the researcher may adopt a certain perspective on human behaviour (Lakshman, Sinha & Biswas, 2000). Quantitative research seeks to evaluate the generalizability of its findings (Neuman, 2006). Quantitative research, according to Smith, is often connected with the positivist experimental and/or empiricist paradigm, while qualitative research is primarily associated with the constructivist approach (1983).

This study used a quantitative approach to acquire primary data. When structural equation modelling (SEM) is utilised to analyse the main data collected during field study, it is most suitable and effective (Hair et al., 2006).

3.5 Measurement of Variables/Instrumentation (QA development)

3.5.1 Operational Definition and Research Instruments

The instruments for this study include 51 statements modified or adapted from previously published research. Utilizing modern measurement devices has many advantages. Primarily, it saves time and energy. Second, it allows you to confirm and build upon the findings of others. Consequently, the researcher may use or alter 30 re-existing measures (Sekaran & Bougie, 2019). To ensure acceptance in the context of SMBs using E-banking services, it is necessary to make minor linguistic alterations in a number of areas depending on the operational definition. The operational definitions of the demographic information from the questionnaire, as well as the instruments for each variable in the study's model, are shown below.

Table 3.1
Summary of Measurement of Variables

Measurement	Items	Source
Intention	5	Venkatesh et al. (2003); Amin et al. (2011)
Performance Expectancy	4	Venkatesh et al. (2003)
Effort Expectancy	4	Venkatesh et al. (2003)
Social Influence	4	Venkatesh et al. (2003)
Facilitating Conditions	4	Venkatesh et al. (2003)

Source: Author

3.5.2 Demographic Information

The bits of demographic data were generated by the author. They have been used to gather background information about respondents, including gender (male/female), age (young/old), degree of education, and income.

3.5.3 Intention to Adopt E-banking Service Offered by Islamic Banks in Somalia

Respondents were asked whether they intended to utilise Islamic banks' Mogadishu, Somalia, E-banking services. The SMEs' intent to adopt E-banking services is measured using five items adapted from the UTAUT model (Venkatesh et al., 2003) and a comprehensive review of previous studies concerning measuring intention variables (Amin et al., 2011; Chawla & Joshi, 2019) to strengthen the study's validity and permit the researcher to collect more data from the respondents. On a 5-point Likert scale, 1 indicated severe disagreement and 5 indicated strong agreement. Table 3.2 displays the items.

Table 3.2
Items and Sources of Intention

Items Code	Items	Sources
INT 1	I intend to use E-banking service in the future	Venkatesh et al. (2003)
INT2	I predict I would use E-banking service in the future	Venkatesh et al. (2003)
INT3	I plan to use E-banking service in the future	Venkatesh et al. (2003)
INT4	I am interested in using the E-banking service offered by Islamic banks in Mogadishu, Somalia	Amin et al. (2011)
INT5	I will recommend E-banking service to others	Amin et al. (2011)

3.5.4 Performance Expectancy

Respondents were asked to indicate the extent to which they feel embracing the E-banking service offered by Islamic banks in Mogadishu, Somalia would improve their ability to complete international and local transactions. The performance expectation construct was explored utilising four questions taken from the UTAUT model in order to bolster the validity of the current study and enable the researcher to collect extra data from the respondents (Venkatesh et al., 2003). A 5-point Likert scale was used, with 1 representing severe disagreement and 5 representing strong agreement. The Items are shown in Table 5.

Table 3.3
Items and Sources of Performance Expectancy.

Items Code	Items	Sources
PE 1	Using E-banking service can make my business transactions more efficient	Venkatesh et al. (2003)
PE 2	Using E-banking service can save my time in performing business transactions	Venkatesh et al. (2003)
PE 3	Using E-banking service can make my business transactions more convenient	Venkatesh et al. (2003)
PE 4	Using E-banking service can help manage my business transactions	Venkatesh et al. (2003)

After the validation of instruments from an expert, forty (40) copies of questionnaires were distributed to the experts as pilot in the Simad University to examine whether the proposed instrument actually measure the proposed variables. Out of the 50 copies of questionnaire distributed, only 33 copies were retrieved from the respondent. From the result of the analysis, the loadings are between 0.71 and 0.90 which is greater than the threshold value of 0.6 as suggested by Chin (2010). The reliability are between 0.81 and 0.96 and the Cronbach alpha value are between 0.708 and 0.814 which are all greater than the threshold value of 0.7 as indicated in the Table 3.4 below.

Table 3.4

The Result of the Pilot Study (Reliability – Cronbach Alpha)

SN	Constructs	Items	Cronbach Alpha
1	Behavioral Intention	5	0.724
2	Effort Expectancy	4	0.735
3	Performance Expectancy	4	0.793
4	Social Influence	4	0.814
5	Facilitating Condition	4	0.708

When it comes to reliability testing, Sekaran and Bougie (2016) suggest using a Cronbach's Alpha value of 0.70 are all greater than the threshold value of 0.7. Therefore, the instrument are said to be valid and reliable.

3.5.5 Effort Expectancy

The respondents were asked to rate the simplicity and utility of the E-banking services offered by Islamic banks in Mogadishu, Somalia, based on their perceptions. The construct of effort expectation was evaluated using four questions developed from the UTAUT model (Venkatesh et al., 2003) in order to increase the validity of the current study and enable the researcher to get extra information from the respondents. A 5-point Likert scale was used, with 1 representing severe disagreement and 5 representing strong agreement. The objects are shown in Table 3.5 below:

Table 3.5

Items and Sources of Effort Expectancy

Items Code	Items	Sources
EE 1	Learning to use E-banking service is easy for me	Venkatesh et al. (2003)
EE 2	Becoming skillful at using E-banking service is easy for me	Venkatesh et al. (2003)
EE 3	Interaction with E-banking service is easy for me	Venkatesh et al. (2003)
EE 4	Overall, I think E-banking service is easy to use	Venkatesh et al. (2003)

3.5.6 Social Influence

The respondents were asked how their friends, relatives, and other influential individuals affected their decision to use the E-banking services of Islamic banks in Mogadishu, Somalia. Afin d'accroître la validité de l'actuelle étude et de permettre au chercheur d'obtenir additional information from the respondents, the social influence construct was studied using four questions derived from the UTAUT model (Venkatesh et al., 2003). A 5-point Likert scale was employed, with 1 representing "strongly disagree" and 5 representing "strongly agree." Table 3.6 has a listing of the goods.

Table 3.6
Items and Sources of social influence

Items Code	Items	Sources
SI 1	People who are important to me think that I should use E-banking service	Venkatesh et al. (2003)
SI 2	People who are familiar with me think that I should use E-banking service	Venkatesh et al. (2003)
SI 3	People who influence my behavior think that I should use E-banking service	Venkatesh et al. (2003)
SI 4	It is trendy to use E-banking service	Venkatesh et al. (2003)

3.5.7 Facilitating Conditions

Respondents were questioned on the availability of technical resources required to execute the E-banking services of Islamic banks in Mogadishu, Somalia. Additional information from the respondents, the enabling circumstances construct was examined using five questions derived from the UTAUT model (Venkatesh et al., 2003). A 5-point Likert scale was employed, with 1 representing "strongly disagree" and 5 representing "strongly agree." Table 3.6 has a listing of the things.

Table 3.7
Items and Sources of facilitating conditions

Items Code	Items	Sources
FC 1	I have the knowledge necessary to use E-banking service	Venkatesh et al. (2003)
FC 2	I have the resources necessary to use E-banking service	Venkatesh et al. (2003)
FC 3	Using E-banking service suits my living environment	Venkatesh et al. (2003)
FC 4	Using E-banking service is compatible with my transactions	Venkatesh et al. (2003)

3.6 Data Collection Procedure (Population, Sample, Sampling Technique, Source of Data)

3.6.1 Research Sampling

Quantitative research involves sampling because collecting data from a large population is time- and cost-intensive (Bryman & Cramer, 2012). According to Parasuraman et al. (2004), “sampling” is the selection of a subset of the total units of interest to decision-makers in order to draw general conclusions about the whole body.

3.6.2 Population

The population is the whole group of people, activities, or things that the researcher want to examine (Creswell & Creswell, 2017; Sekaran & Bougie, 2019). The target audience for this study is Somali SMEs aged 18 and up operating in Mogadishu, Somalia (the capital city is selected since it has the biggest population and enterprises) (the capital city is chosen because it has the highest population and businesses).

3.6.3 Sampling Frame

The sample frame is established once the target population has been defined. Saunders et al. (2009) developed the sample frame as a list of all population occurrences. A sample frame must be current, comprehensive, affordable, and user-friendly (Creswell & Creswell, 2017; Sekaran & Bougie, 2019). As mentioned earlier, the study's target audience comprises of Mogadishu, Somalia-based Somali small and medium-sized enterprises. Since the postal address system, electoral record, and telephone directory were missing, it was impossible to find frames containing all of the city's SME businesses. In addition, the researcher visited several Somali organisations in order to determine the actual number of SMEs in Mogadishu.

It was revealed that the majority of Somali government agencies lack a centralised database, and institutions that are likely to have a functional database did not participate in data sharing. Non-probability sampling is used when the sample frame of a population is unavailable or difficult to establish (Bryman & Cramer, 2012). It seems that non-probability sampling is the optimal method for this inquiry.

3.6.4 Sampling Method

Given the lack of a sampling frame, the most suited sampling technique is non-probability sampling, which relies on human judgement and prohibits the calculation of the probability that any portion of the population will be included in the sample. In contrast, the probability technique refers to a sample in which each population element has a known (non-zero) probability of being included (Churchill & Iacobucci, 2010).

Snowball sampling is one of three non-probability methods (on top of convenience sampling and quota sampling). The researcher contacts a limited number of relevant individuals using “snowball sampling.” Afterward, these volunteers are pushed to recruit others (Bryman & Cramer, 2012). The snowball method was inspired by a snowball’s expansion as it rolls downhill. Normal sampling is infeasible when respondents are not visible, but snowball sampling is feasible (Bailey, 1994).

3.6.5 Content Validity

Prior to its usage in data collection, the instrument’s applicability is evaluated (Creswell & Creswell, 2017; Sekaran & Bougie, 2019). A content validity test ensures that the questions used to assess constructs are relevant, appropriate, and indicative of the problem at hand (Creswell & Creswell, 2017; Sekaran & Bougie, 2019). A team of experts may evaluate the instrument to see if the items accurately represent the required structures and whether the wording is plain, clear, and easily understood (Straub, 1989; Sekaran & Bougie, 2019).

Before collecting data for the study, the researcher met with academics, charitable experts, and survey professionals. Five renowned academics, nonprofits, and survey professionals evaluated the questionnaire’s wording, readability, and layout. The collected feedback helped to enhance the design of the device. Consequently, the content validity is complete.

3.6.6 Instrument’s Translation

According to Sekaran and Bougie (2019), the ability to translate data collection devices is a distinguishing characteristic. Back-translation guarantees that the localised version of the

instrument is similar to the original and uses the same language (Sekaran & Bougie, 2019). Back-translation, often known as double translation, is a method frequently used by intercultural researchers (Cha et al., 2007). The first bilingual person translates the original material into the target language. A second bilingual speaker translates the translated text back into the original language (Sekaran & Bougie, 2019).

Even though the majority of Somalis speak English, an authorised bilingual translator translated the original English instrument of the research into Somali. A second licenced translator edited and re-translated the Somali language into English. The semantic equivalence of the source and back-translated versions was then evaluated. It was revealed that the original and back-translated texts were identical. The questionnaire for Somali is offered.

3.6.7 Questionnaire Administration and Data Collection Procedure

Because questionnaires record quantitative data, computerised questionnaires have risen in popularity as ICT has improved (Sekaran & Bougie, 2019). Online surveys are straightforward and quick to complete. In this circumstance, researchers need just issue an email invitation, include a link on a website or blog, or use social media (Fowler, 2014; Sekaran & Bougie, 2019). Utilizing online surveys to collect client preferences and opinions. Online survey research increases the internet's ability to reach hard-to-reach individuals (Sekaran & Bougie, 2019). Large-scale surveys are feasible utilising online questionnaires. Respondents get an email including a link to an online survey, which they may complete at their convenience (Sekaran & Bougie, 2019). This change is beneficial since computerised processing decreases costs, time, and effort (Fowler, 2014; Sekaran & Bougie, 2019).

Self-administered questionnaires are proposed for this study due of their benefits. The researcher aimed to deliver the surveys to Somali SMEs on the streets of Mogadishu using either a printed version of the survey or the SMEs' previously collected contact information. Due to Somalians' extensive use of WhatsApp, Facebook, and Twitter, the researcher developed a Google Form survey for internet and social networking sites after locating the phone numbers or social media platforms of these SMEs. Throughout the duration of data collection, reminders and compliments were shown.

3.7 Data Analysis Techniques

After data collection was concluded, descriptive and inferential statistics were used to analyse the data. IBM SPSS 26 was used to collect data screening and descriptive information for the descriptive analysis.

3.8 Chapter Summary

This chapter provided a comprehensive summary of the research methodology. It explained the premise of the study, the justification for the research design, and the mixed methods used. It also outlined the methodologies for the qualitative and quantitative empirical components of the research, including sampling, instrument development, pilot testing, data collection, and final analysis. The chapter on methodology is followed by the chapter on data analysis and findings.

CHAPTER FOUR

ANALYSIS RESULT AND INTERPRETATIONS

4.1 Introduction

This chapter contains the analytical results and a discussion of how the findings relate to the objectives of the research. Therefore, the research started with a discussion of the response rate and data filtering for the data acquired from respondents. In addition, descriptive statistics were examined for both demographic data and the whole collection of factors. This study concludes with correlation and regression analysis for hypothesis testing and outcome interpretation.

4.2 Response Rate

Through an online web survey, 200 copies of the questionnaire were sent to the targeted respondents. As a consequence, some respondents answered immediately, while others required follow-up before responding. In addition, e-mail reminders and phone calls were made to guarantee that data was supplied to the targeted Somali SMEs operating in Mogadishu, the capital of Somalia. After six (6) weeks of data distribution, a total of 150 questionnaires were completed and returned, representing seventy-five percent of the total. However, four (4) questions were eliminated due to missing data and outliers. Finally, 146 (73 percent) of the questionnaires were retained and further analyzed. Sekaran (2003) deems the retained questionnaires good and proposes that a 30% response rate is suitable for the research, as indicated in Table 4.1.

Table 4.1
Survey Response Rate

Detail	Frequency	Percentages (%)
Distributed Questionnaires	200	100
Retrieved Questionnaires	150	75
Rejected Questionnaires	4	2
Retained Questionnaires	146	73

4.3 Data Screening

After importing the data into SPSS and checking the coding of the research variable, a preliminary analysis including missing values and outliers was conducted. According to Hair et al. (2018), it is essential to validate and verify data, especially in quantitative research. Due to the fact that the quality of the data screening influences the quality of the results (Hair et al., 2014). Consequently, data cleansing is separated into two categories: missing data and outliers, as described in the next section.

4.3.1 Missing Value

Hair et al. (2010) defines missing data as the lack of an acceptable value on one or more key data structures. Given the detrimental effect of missing data, the researcher took all efforts throughout the development of an electronic questionnaire survey (Google survey) to ensure that no data points were missing. After finishing the survey, the researcher quickly evaluated the results to ensure that each item was appropriately answered. This helps to guarantee that only a small number of missing values are discovered, since the first descriptive statistics only indicate six (6) missing values. As demonstrated in Table 4.2, missing values were corrected using the mean of surrounding points.

Table 4.2
Replaced Missing Value Result

	Result Variable	N of Replaced Missing Values	Case Number of Non- Missing Values		N of Valid Cases	Creating Function
			First	Last		
1	IN1_1	1	1	150	150	SMEAN(IN1)
2	IN4_1	3	1	150	150	SMEAN(IN4)
3	PE4_1	1	1	150	150	SMEAN(PE4)
4	EE3_1	2	1	150	150	SMEAN(EE3)
5	SI3_1	1	1	150	150	SMEAN(SI3)
6	FC2_1	2	1	150	150	SMEAN(FC2)
7	FC4_1	3	1	150	150	SMEAN(FC4)

4.3.2 Treatment of Outliers

Outliers are instances that deviate significantly from the remainder of a certain data set. Byrne (2010) and Tabachnick and Fidell (2007) examined the identification of outliers using the Mahalanobis distance (multivariate outliers). As a consequence, the Mahalanobis distance was calculated according to the method suggested by experts, and all occurrences with a degree of freedom more than 25 were excluded. As a consequence, thirteen occurrences of multivariate outliers that above the cutoff value of 84.02 were detected and deleted. The remaining 146 instances from this inquiry were chosen for multivariate analysis.

4.4 Descriptive Statistics (Profile of the Respondents)

The information of the respondents was analysed, and they were asked to describe aspects of their demographic profile, such as age, gender, educational background, location, duration, marital status, business types, Islamic bank customer, work experience, and use of e-banking facilities for business operations. As a result, the demographic information of the respondents is shown in Table 4.3.

4.4.1 Gender of the Respondents

According to the descriptive statistics, 146 (61.3%) of the 146 questionnaires lawfully used in this study were completed by men, while 56 (38.7%) were completed by women. As demonstrated in Table 4.3, the gender distribution of respondents follows the general ratio of female to male Somali SME company owners in Mogadishu.

Table 4.3

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	90	61.3	61.3	61.3
	Female	56	38.7	38.7	100.0
	Total	146	100.0	100.0	

4.4.2 Age Profile of the Respondents

According to the descriptive statistics, 45.3% of respondents are between the ages of 21 and 30, 36.7% are between the ages of 31 and 40, 12.7% are between the ages of 41 and 50, and just 5% are beyond the age of 51. As seen in Table 4.4, the majority of respondents are between the ages of 21 and 30.

Table 4.4

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20yrs and below	3	2.0	2.0	2.0
	21-30yrs	66	45.3	45.3	47.3
	31-40yrs	53	36.7	36.7	84.0
	41-50yrs	19	12.7	12.7	96.7
	51yrs and above	5	3.3	3.3	100.0
	Total	146	100.0	100.0	

4.4.3 Marital Status of the Respondents

Among the 146 valid replies evaluated for this research, the majority of respondents (82 (56 percent)) were married, according to the survey. Those who were single numbered 60 (41.3%), whereas those who were divorced numbered just 4. (2.7 percent). Table 4.5 provides a summary of the distribution based on marital status.

Table 4.5
Marital Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single	62	41.3	41.3	41.3
Married	84	56.0	56.0	97.3
Divorce	4	2.7	2.7	100.0
Total	146	100.0	100.0	

4.4.4 Distribution by Educational Level

The majority of respondents (93 out of 146 valid responses) had completed a bachelor's degree, according to this study (63.3 percent). Following that is the postgraduate study, which received 30 field responses (21,3 percent). There were 22 respondents with a high school diploma, or 14.7% of the total. As seen in Table 4.6, only 1 (0.7% of the population) possessed a high school diploma or less.

Table 4.6
Educational Level

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Diploma	22	14.7	14.7	14.7
Bachelor's degree	93	63.3	63.3	78.0
Postgraduate (MSc/PhD)	30	21.3	21.3	99.3
No education	1	.7	.7	100.0
Total	146	100.0	100.0	

4.4.5 Distribution by Business Type

The 146 valid replies contained in this study were categorised into eight business kinds of Mogadishu, Somalia-based Somali SMEs. The majority of Somali SMEs (44 total) were Functional SMEs (30.7 percent). The operators of Hybrid Instruction SMEs follow with 31 and 32 value responses, respectively. Technical SMBs had 23 (15.3%) answers, whereas Sintinual SMBs received 12 (8%) responses. One (0.7 percent) and one (0.7 percent) of the responders were engineers and managers, respectively. As demonstrated in Table 4.7, just two respondents (1.3% of the total) were employed.

Table 4.7
Distribution by Business type

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Employee	2	1.3	1.3	1.3
An Engineer	1	.7	.7	2.0
Manager	1	.7	.7	2.7
Technical SMEs	23	15.3	15.3	18.0
Hybrid SMEs	31	20.7	20.7	38.7
Functional SMEs	44	30.7	30.7	69.3
Instruction SMEs	32	22.7	22.7	92.0
Sintinual SMEs	12	8.0	8.0	100.0
Total	146	100.0	100.0	

4.4.6 Working Experience of the Respondents

According to the descriptive data, 22 (14.7 percent) of the respondents have experience between 1 and 5 years, 65 (44.7 percent) have experience between 6 and 10 years, 47 (32.7 percent) are between 41 and 50 years of age, and only 12 (8 percent) have experience between

16 and 20 years. According to Table 4.8, the majority of SME respondents had between six and ten years of experience.

Table 4.8
Distribution by Working Experience

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1-5yrs	22	14.7	14.7	14.7
6-10yrs	67	44.7	44.7	59.3
11-15yrs	49	32.7	32.7	92.0
16-20yrs	12	8.0	8.0	100.0
Total	146	100.0	100.0	

4.4.7 Distribution by customer of any Islamic bank in Mogadishu

According to the descriptive data shown in Table 4.9, the majority of respondents (143, or 98 percent) were clients of an Islamic bank in Mogadishu. Only three respondents in Mogadishu were not clients of an Islamic bank. According to Table 4.9 below.

Table 4.9
Are you a customer of any Islamic bank in Mogadishu?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	143	98	98	98
No	3	2	2	100
Total	146	100	100	

4.4.8 Distribution by customer of any Islamic bank in Mogadishu

According to the descriptive data shown in Table 4.10, the majority of respondents (145, or 99.3 percent) agree that e-banking improves their business operations. One respondent (0.7

percent) did not feel that e-banking facilitated their business operations. According to Table 4.10 below.

Table 4.10
Does the usage of e-banking facilitate your business operations?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	145	99.3	99.3	99.3
	No	1	.7	.7	100.0
	Total	146	100.0	100.0	

4.5 Descriptive Statistics of Constructs

Sekaran and Bougie (2016) defined descriptive statistics as the average value and variability index of a dataset. As a result, the mean is the most often employed central tendency measure. The standard deviation measures dispersion. Thus, for ratio and interval scales, the mean and standard deviation are largely descriptive studies. According to Nik, Jatan, and Taib (2010), this research used five-point likert scales with variable scale interpretation. A score of less than 2.33 is considered low, 2.33-3.67 is considered moderate, and 3.67 and above is considered high. Table 4.11 displays the mean and standard deviation of the latent constructs in this investigation.

Table 4.11
Mean and Standard Deviation of the Variables

Constructs	N	Min	Max	Mean	SD
Behavioral Intention	146	1	5	4.5413	.44241
Effort Expectancy	146	1	5	4.6167	.48869
Performance Expectancy	146	1	5	4.5667	.51705
Social Influence	146	1	5	4.6250	.48445
Facilitating Condition	146	1	5	4.6367	.45019

Table 4.11 demonstrated that the mean and standard deviation of all variables utilised in this research were in the high level range. The facilitation condition had the greatest mean ($M = 4.64$; $SD = .450$), whereas the behavioural intention condition had the lowest ($M = 4.54$; $SD = .442$). As a result, the average means of all variables were in the high range.

4.6 Multiple Linear Regression Assumptions

To ensure that the underlying assumptions of the multiple linear regression analysis were met, all variables were tested for normality and multicollinearity prior to doing the multivariate analysis, as advised by Hair et al. (2016) and Pallant (2012). This was done before to doing the multivariate analysis.

4.6.1 Normality Test

Regression analysis presupposes that each variable and all linear groups are normally distributed. It is statistically or visually examined. Skewness and kurtosis are used in statistical normality. If the skewness and kurtosis are close to zero, the data distribution must be normal. Histogram residual plots are often used to test normality. This demonstrates that the data distribution for continuous variables corresponds to the normal distribution. As a result, in order to satisfy the premise, the residual must be independently and normally distributed (Tabachniche & Fidell, 2007). As seen in Figure 4.1, the bars of the normal histogram were all close to the normal curve, verifying the assumption of normality.

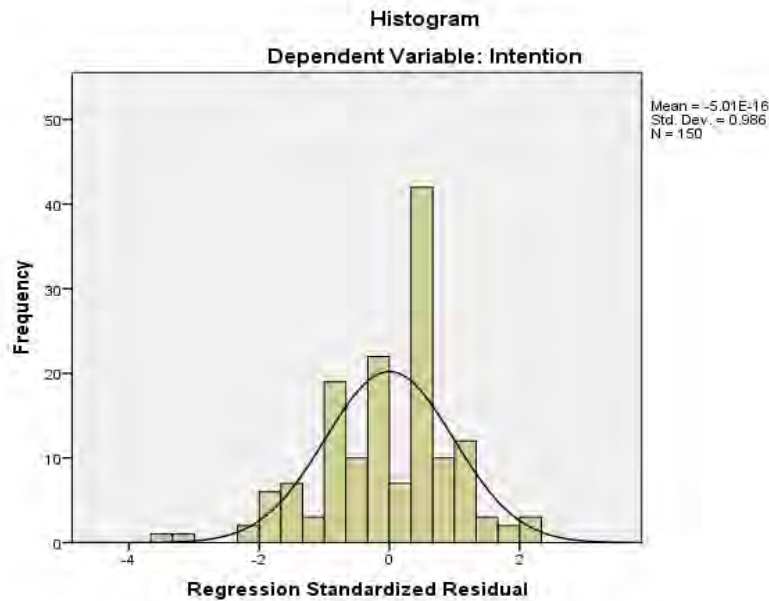


Figure 4.1
Histogram and Normal Probability Plots

The normality test assumption was identified using skewness and kurtosis. Investigations, according to Hair et al. (2018), may determine data normalcy. As a result, severely skewed and kurtotic data may raise bootstrapped standard error estimates while underestimating the statistical significance of component coefficients. Structures must be within 2.58 metres to be correctly dispersed (Tabachnich & Fidel, 2013). As a result, the skewness and kurtosis of all variables fulfil the normality assumption of this research. Table 4.12 displays no abnormally.

Table 4.12
Normality Test (Skewness and Kurtosis of the Variables)

Constructs	N	Skewness	Se of Skewness	Kurtosis	Se of Kurtosis
Behavioral Intention	150	-.557	.198	-.779	.394
Effort Expectancy	150	-1.102	.198	.406	.394
Performance Expectancy	150	-1.069	.198	.549	.394
Social Influence	150	-1.068	.198	.052	.394
Facilitating Condition	150	-.982	.198	.098	.394

4.6.2 Multicollinearity Test

Another essential concept of multivariate analysis is that each variable, as well as any linear groups of variables, must be considered. As a consequence, correlation, along with the VIF and tolerance, are often used to explore the multicollinearity test. The VIF and tolerance approaches were used to evaluate the multicollinearity test in this research project. Hair et al. (2016) discovered that the existence of a multicollinearity issue may be deduced from any variables with a VIF larger than 5 and a tolerance value less than 0.2. Table 4.15 shows the VIF findings and the tolerance value for the independent variables.

Table 4.13

Multi-collinearity Test (VIF and Tolerance)

Constructs	Items	Tolerance	VIF
Effort Expectancy	4	.403	2.483
Performance Expectancy	4	.488	2.051
Social Influence	4	.434	2.303
Facilitating Condition	4	.373	2.680

Table 4.13 demonstrates that there is no multicollinearity among the exogenous constructs since the VIF is less than 5 and the tolerance values are more than 0.2. This indicates that the multicollinearity assumption was not broken.

4.7 Goodness of Measures – Factor Analysis

Factor analysis summarizes data variable structure. Factor analysis requires particular conditions. The sample must have 300 instances (Tabachnick & Fidel, 2007). Hair et al. (1998, 2010) and Coakes and Stead (2003) recommended a minimum of five respondents per variable to carry a factor. Comrey and Lee (1992) classified 50 as extremely poor, 100 as poor, 200 as

fair, 300 as acceptable, 500 as very good, and 1000 as superb. The study met this requirement with 448 data points and six variables. Statistical significance requires a factor loading of 0.30 for a sample size over 350. (Hair et al., 2010, Tabanichnic & Fidell, 2014).

This study used PCA to extract factors with eigenvalues larger than 1. Pallant (2007) and Hair et al. (2010) consider component analysis suitable when most item correlation coefficients are at least 0.3. Bartlett's sphericity test must be substantial ($p < 0.05$). Kaiser – Meyer – Olkin (KMO) and the overall measure of sampling adequacy (MSA) should be at least 0.6 for good factor analysis. If they are below 0.6, further data or variables should be added (Field, 2009). Hutcheson and Sofroniou (1999) classified KMO as ordinary, good, very good, and exceptional.

Hair et al. (2010) stated that the measure of sampling adequacy (MSA) must exceed 0.5 for the overall test and individual variables, and item load lower than 0.5 is discarded. A loading of 0.3 is regarded minimum (Tabachnich & Fiddel, 2014). Consider other key outputs while choosing the number of components (factors) to extract (KMO, total variance explained). Just the factor with higher loading is named. This study considers item loading and cross loading of 0.5 and above on one factor due to its statistical and practical significance (Hair et al., 2010; Tabachinick & Fidell, 2014). This study employed decision rules for principal component analysis. Dependent and independent variables factor analysis:

4.7.1 Dependent variable – Behavioral Intention

The findings of the factor analysis performed on the dependent variable are presented in Table 4.12. (behavioural intention). Following the first measurement of the dependent variable, which

was performed with SPSS version 20, the dependent variable was 52 behaviour with principal component analysis (PCA). The goods have factor loadings that range from 0.676 to 0.918 on the scale. An examination of the correlation matrix reveals that every one of the coefficients has a value greater than or equal to 0.3. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was carried out before the factor analysis in Table 5.12, and it indicated a value of 0.918. As this value is higher than the benchmark of 0.60, it demonstrates that the sample size is sufficient for the factor analysis to be carried out. In a similar vein, the results of Bartlett's test of sphericity are statistically significant, lending support to the notion that the correlation matrix can be factored. The p-value for this particular test is 0.000.

Table 4.14

Principal component analysis

Code	Items	Loadings
BI1	I intend to use E-banking service in the future	0.825
BI2	I predict I would use E-banking service in the future	0.676
BI3	I plan to use E-banking service in the future	0.678
BI4	I am interested in using the E-banking service offered by Islamic banks in Mogadishu, Somalia	0.918
BI5	I will recommend E-banking service to others	0.903
Eigenvalue		2.379
Percentage of variance		79.991
KMO		0.588
Bartlett's Test of Sphericity		375.290
Significance		0.000

The Principal component analysis (PCA) shows the presence of only one component with eigenvalue exceeding 1. The extracted component is named behaviour intention. The percentage of the variance was 79.991 percent.

4.7.2 Independent variables – PE, EE, SI & FC

The independent variables of this study are the performance expectancy, effort expectancy, social influence and facilitating condition, all measured as uni-dimensional. The performance expectancy has 4 items, effort expectancy 4 items, social influence 4 items and facilitating condition 4 items respectively. The total items measuring the entire four independent variables are 16 items. Before the conduct of factor analysis in (Table 4.18), the Kaiser – Meyer – Olkin for measuring, sampling adequacy (KMO/MSA) was performed with the following value 0.789 which was over and above the minimum value of 0.6 for a good factor analysis (Hutcheson & Sofroniou, 1999). The Bartlett's test of sphericity was significant at $p < 0.000$ which strongly supported the factorability of correlation matrix.

Table 4.15

Result of the Factor Analysis for performance expectancy, effort expectancy, social influence and facilitating condition

Code	Items	PE	EE	SI	FC
Performance Expectancy					
PE 1	Using E-banking service can make my business transactions more efficient	0.897			

PE 2	Using E-banking service can save my time in performing business transactions	0.872
PE 3	Using E-banking service can make my business transactions more convenient	0.647
PE 4	Using E-banking service can help manage my business transactions	0.614

Effort Expectancy

EE 1	Learning to use E-banking service is easy for me	0.948
EE 2	Becoming 54ehavio at using E-banking service is easy for me	0.938
EE 3	Interaction with E-banking service is easy for me	0.647
EE 4	Overall, I think E-banking service is easy to use	0.687

Social Influence

SI 1	People who are important to me think that I should use E-banking service	0.864
SI 2	People who are familiar with me think that I should use E-banking service	0.819

SI 3	People who influence my	0.826
	55ehaviour think that I should use E- banking service	
SI 4	It is trendy to use E-banking service	0.748
Facilitating Condition		
FC 1	I have the knowledge necessary to use E-banking service	0.908
FC 2	I have the resources necessary to use E-banking service	0.899
FC 3	Using E-banking service suits my living environment	0.931
FC 4	Using E-banking service is compatible with my transactions	0.572
Eigenvalue	2.360 2.668 3.258 2.826	
Percentage of variance	58.988 66.696 81.453 70.658	
KMO	0.645 0.697 0.850 0.792	
Bartlett's Test of Sphericity	258.64 390.877 502.53 389.887	
	5 9	
Significance	0.000 0.000 0.000 0.000	

Table 4.15 shows the outcome of the factor analysis for the independent variables (performance expectancy, effort expectancy, social influence and facilitating condition). Inspection of the correlation matrix was conducted and it shows that most item coefficients were 0.3 and above, as indicated in the table, the principal component analysis extracted one (1) component for each with eigenvalue exceeding 1. Based on the factor analysis results, items that loaded on

effort expectancy 4 items, social influence 4 items and facilitating condition 4 items respectively achieved the validity value via PCA. The percentage of the variance was 81.453%. The factor loading value as indicated in table 5.13 was in the range of 0.792 to 0.887.

4.8 Correlation Analysis

The intensity and direction of the variables' linear connection. Each variable and all linear groups of constructs are assumed in multivariate analysis. Hair et al. (2018) discovered that correlation coefficients greater than 0.9 suggest multicollinearity between independent variables. Table 4.10 shows how behavioural intention, effort expectation, performance expectancy, social influence, and enabling situation are all connected. Pallant (2011) defines 0 as no relationship, +1 as a positive correlation, and -1 as a complete negative correlation. As a result, Table 4.16 illustrates the correlation analysis of all external components evaluated.

Table 4.16
Correlation Analysis of the Exogenous Constructs

Constructs		Intention	EE	PE	SI	FC
Intention	Pearson Correlation	1	.603**	.647**	.615**	.615**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	150	150	150	150	150
Effort Expectancy	Pearson Correlation	.603**	1	.653**	.677**	.695**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	150	150	150	150	150
Performance Expectancy	Pearson Correlation	.647**	.653**	1	.569**	.662**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	150	150	150	150	150

Social Influence	Pearson Correlation	.615**	.677**	.569**	1	.704**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	150	150	150	150	150
Facilitating Condition	Pearson Correlation	.615**	.695**	.662**	.704**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	150	150	150	150	150

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

The findings in Table 4.16 indicate that the amount of correlation between the different independent variables was much lower than the necessary benchmark value of 0.9. (Pallant, 2012). This implies that the independent variables were not substantially related and were determined independently.

4.9 Regression Analysis and Testing of Hypotheses

Multiple regression analysis outlines how to objectively analyse the strength and direction of the relationship between independent factors (such as effort expectation, performance expectation, social effect, and enabling situation) and the dependent variable (Sekaran & Bougie, 2016). The regression coefficients are used to illustrate the relative importance of each exogenous factor (such as effort expectation, performance expectation, social influence, and enabling environment) on the prediction of behavioural intention. When external variables are concurrently regressed against behavioural intention to explain its fluctuation, the size of each (individual) regression coefficient indicates how much a one-unit increase in the individual variable influences the behavioural intention. Various correlation coefficients occur when all influencing factors and behavioural intention are taken into consideration (Sekaran & Bougie, 2016). In this study, regression analysis was used to test the hypotheses and examine the

relationship between influential factors and behavioural intention. As a consequence, multiple regression analysis was utilized to assess the relationship between influential variables and SME aspirations to use E-banking in Somalia.

Table 4.17
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.725 ^a	.526	.513	.30878
a. Predictors: (Constant), Facilitating Condition, Performance Expectancy, Social Influence, Effort Expectancy				
b. Dependent Variable: Behavioral Intention				

The model summary in table 4.17 shows that R-Square is 0.526; this indicates that the constant variables (exogenous factor) accounted for 53% of the variation in the dependent variable (behavioural intention), with the remaining 47% owing to factors not included in the model. This indicates that predictions can be made using the regression model.

Table 4.18
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.339	4	3.835	40.218	.000 ^b
	Residual	13.825	145	.095		
	Total	29.164	149			
a. Dependent Variable: Behavioral Intention						
b. Predictors: (Constant), Facilitating Condition, Performance Expectancy, Social Influence, Effort Expectancy						

In contrast to the residual sum of squares, the regression sum of squares was much larger (15,339) in the analysis of variance in behavioural intention, as shown in table 24. (13.825). This indicated that the model explained a substantial proportion of the variation in behavioural intent. In spite of this, the estimated F-value (40.218) with a significance value of 0.000 in the table above is less than the p-value of 0.05. (p0.05). This shows that the external components as a whole may influence the modification of behavioural intentions.

Table 4.19
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.061	.282		3.763	.000
Effort Expectancy	.194	.082	.124	2.376	.017
Performance Expectancy	.289	.070	.338	4.132	.000
Social Influence	.225	.079	.246	2.835	.005
Facilitating Condition	.221	.092	.132	2.409	.016

a. Dependent Variable: Behavioral Intention

The table 4.19 dependent variable indicates the impact of external variables on the behavioural intentions of Somalian SMEs to adopt E-banking. This served as a benchmark for evaluating the influence of the four separate components. In terms of the relationship between effort expectation and behavioural intentions of SMEs in Somalia to utilise E-banking, the findings demonstrated that effort expectation was significantly associated with behavioural intention ($=.194$, $t = 2.376$, $p 0.05$). Thus, the H1 hypothesis was supported.

Hypothesis H2 predicted that the behavioural intentions of Somalian SMEs to utilise E-banking are positively related to their performance expectations. The findings revealed a favourable and statistically significant relationship between performance expectation and behavioural intention ($= 0.289$, $t = 4.132$, $p .01$). Consequently, the H2 hypothesis is supported at the 1% significance level. Similarly, when the role of social influence on behavioural intention was examined, the findings indicated that social influence had a positive and statistically significant relationship with behavioural intention ($=.225$, $t = 2.83$, $p .05$). The conclusion is that Hypothesis H3 is supported.

Regarding the relationship between the facilitating condition and behavioural intention, Hypothesis H4 predicted that the facilitating condition is positively connected with the behavioural intentions of SMEs in Somalia to use E-banking. As stated, there was a significant positive relationship between enabling condition and behavioural intention ($r = .221$, $t = 2.409$, $p < .05$), which provides support for Hypothesis H4. The overall outcome of this regression study in relation to the coefficient of exogenous factors has a significant impact on the E-banking adoption intentions of SMEs in Mogadishu, Somalia. This indicates that the null hypothesis will not be supported (i.e., external variables have a substantial impact on the behavioural intentions of SMEs in Somalia to use E-banking). Consequently, all four (4) assumptions were verified.

4.10 Chapter Summary

This chapter contains the findings of the analysis and an interpretation of the empirical data. The first topic of this chapter was a discussion of the response rate. In addition, data filtering was performed to check for the absence of value and any outliers. The descriptive data were presented in a manner that highlighted the respondents' input about their activities in Mogadishu. In addition, the fundamental assumption of the multivariate analysis was tested, and as a result, none of the hypotheses were judged to be false. The results of a Pearson correlation indicate that all of the variables are substantially connected to one another. To confirm the hypothesised associations between variables, multiple regression analyses were conducted. Consequently, each of the four hypotheses investigated in this study was confirmed. The next chapter explores this discovery's ramifications as well as any recommendations that may be made as a consequence. As a result, the investigated hypotheses are shown in Table 4.20.

Table 4.20

Summary of the Hypotheses Testing

Hypo	Details	t	Sig.	Decision
H1	Effort Expectancy has positive effects on tourist behavioural intention of Somali SMEs operates in Mogadishu Somalia	2.376	.017	Significant
H2	Performance Expectancy has positive effects on behavioural intention of Somali SMEs operates in Mogadishu Somalia	4.132	.000	Significant
H3	Social Influence has positive effects on behavioural intention of Somali SMEs operates in Mogadishu Somalia	2.835	.005	Significant
H4	Facilitating condition has positive effects on behavioural intention of Somali SMEs operates in Mogadishu Somalia	2.409	.016	Significant



CHAPTER FIVE

DISCUSSIONS AND CONCLUSIONS

5.1 Introduction

This chapter provides an in-depth examination of the study's findings, concentrating on how they relate to and support the hypotheses provided in the introduction. The chapter also examined the study's findings about the link between influential factors and the behavioural intention of Mogadishu, Somalia's small and medium-sized enterprises (SMEs) to adopt Islamic e-banking. These covered both theoretical and practical advancements as well as advances in methodology. The chapter also evaluated the limitations of the study and gave recommendations for further research. Then, the results and analysis were given.

5.2 Discussion of Findings

The primary objective of this study was to examine the influence of external factors on the Islamic E-banking adoption intentions of small and medium-sized enterprises (SMEs) in Mogadishu, Somalia. Thus, the study was conducted largely to address gaps in the literature about the relationship between social media impact and behavioural intent. Based on the aforementioned justifications, the research goals and questions outlined in the first chapter of this study were determined, as the study's objectives are listed below: This objective is broken into four sub-objectives. This includes (a) studying the effect of performance expectations on the behavioural intentions of Somalian SMEs to adopt E-banking. A) To explore the effect of effort expectancies on the behavioural intentions of Somalian SME bank customers to utilise

E-banking. (c) Examine how social effect impacts the behavioural intentions of Somalian SMEs to utilise E-banking. (c) Examine how enabling environments impact the behavioural intentions of Somalian SMEs to adopt E-banking.

Moreover, in chapter two, it was emphasised crucially that the theoretical model is based on the concept of planned behaviour as its underlying theory. This is supported by the UTAUT theory, which describes the relationship between exogenous characteristics (such as effort expectation, performance expectation, social influence, and enabling circumstance) and the behavioural intentions of Somalian SMEs to use E-banking. TAM, TRA, TPB, and IDT are long-standing theories that are included into UTAUT. Thus, the influencing factor of the SMEs operators in Mogadishu increases behavioural intents, and the relevant concepts used have been verified as the primary influencing factors by several previous studies.

In the meanwhile, a cross-sectional study of SME Operators in Mogadishu, Somalia was done. Using semi-structured questionnaires, the management of SME's were surveyed for the majority of the research's data. The questionnaire was designed to evaluate matters of interest. As a consequence, the instrument used in several prior research was changed. In addition, statistical methods for social science (SPSS version 26) were used to analyse data collected from SME operators and managers in the Mogadishu area of Somalia. Consequently, multiple regression analysis was used to examine these hypotheses. The findings indicated that the seven predictive components accounted for 53% of the model ($R^2 = 0.526$, $F\text{-Change} = 40.218$, $P < .001$).

This research indicates that effort expectation, performance expectation, social influence, and enabling circumstance are positively connected with the behavioural intention of Somalian SMEs to utilise E-banking. This is consistent with the proposed theory (UTAUT) and prior findings. This study investigated each of the aims listed in the subsections that follow:

5.2.1 Effort Expectancy and Behavioral Intention

This study predicted a positive and statistically significant relationship between SME E-banking adoption intentions and perceived effort levels. This indicates that the more the effort expected of SMEs, the greater their behavioural purpose. According to the data in the preceding table, the attitude-test coefficient is .109 and the P-value is .065 (i.e., $T = 2.37$; $P = 0.05$).

According to the findings of this study, SMEs' behavioural intentions to utilise E-banking in Somalia are influenced by their expectations of effort. The summary of this regression result in relation to the effort expectation coefficient has a strong influence on the behavioural intentions of Somalian SMEs to utilise E-banking. Thus, the H1 hypothesis was supported. This result on the substantial link between effort expectation and behavioural intent is consistent with past study findings. Subawa et al. (2020); Alabdullah et al. (2020); Sair and Danish (2020). (2020).

According to the UTAUT paradigm, the use of effort expectation influences tourist decisions (Li et al., 2020). A number of past studies have shown a positive relationship between effort expectation and behavioural intention (Subawa et al., 2020; Alabdullah et al., 2020). Subawa et al. (2020) discovered that the anticipation of effort has a positive effect on the behavioural

intention to use E-marketplace in Indonesia. Alabdullah et al. (2020) indicated that students' behavioural intention to use tele-dentistry is connected to their effort expectation. In this study, EE refers to academics' views of the usability of online banking services. Consequently, the effort expectation impacts the behavioural intentions of Somalia's SMEs to adopt E-banking.

5.2.2 Effect of Performance Expectancy on Behavioral Intention

This study predicted that performance expectations would have a large and positive effect on the behavioural intentions of Somalian SMEs to adopt E-banking. This shows that visitor satisfaction is proportional to the service quality and perceived value effect. The results of the research supported this hypothesis, as the path coefficient between performance expectations and behavioural intentions was positive and statistically significant ($=.289$; $T\text{-value} = 4.132^{***}$; $P.01$). Consequently, the H2 theory is supported.

This finding on the significant relationship between service quality and tourist satisfaction is consistent with past studies (Li et al., 2018; Yaseen & El Qirem, 2018; Mensah, 2019). According to Li et al. (2018), the expectation of future performance increases the behavioural intent to contribute to crowdfunding. In this study, PE entails the SME conviction that E-banking is essential for the effective and efficient discharge of their responsibilities. This implies that the performance expectations provided to small and medium-sized enterprises (SMEs) in Mogadishu, Somalia, would influence their behavioural intents.

5.2.3 Social Influence and Behavioral Intention

This study anticipated that social influence would have a positive and large effect on the behavioural intentions of Somalian SMEs to utilise E-banking. This shows that the larger the social influence, the stronger the desire to behave. This hypothesis was supported by the data of the research, as the path coefficient between social influence and behavioural intentions was positive and statistically significant ($\beta = .225$; $T\text{-value} = 2.835^{**}$; $P < 0.05$). Therefore, the H3 theory is supported. This result on the substantial relationship between social influence and behavioural intentions is consistent with findings from previous studies (Buabeng-Andoh & Baah, 2020; Palau-Saumell et al., 2019; AlSaedi et al., 2020; Zhou et al., 2019; Yang et al., 2019).

Particularly in the early phases of adoption, Venkatesh et al. (2003) described the forced usage effect of SI (Venkatesh & Davis, 2000). In this context, social effect refers to external forces that influence an individual's view of e-banking, such as peer or supervisor pressure, academic support, etc. According to Yang et al. (2019), social influence has a positive effect on the social influence and behavioural intentions of SMEs in Somalia to adopt E-banking.

5.2.3 Facilitating Condition and Behavioral Intention

This study hypothesises that favourable circumstances have a positive and considerable effect on the E-banking adoption intentions of Somalia's SMEs. This means that the enabling state increases with the quality of the behavioural goal. The results of the investigation supported this hypothesis, as the path coefficient between enabling condition and behavioural intents was positive and statistically significant ($\beta = .221$; $T\text{-value} = 2.409^{**}$; $P < 0.05$). Therefore, the H4

hypothesis is supported. This finding on the substantial relationship between the enabling state and behavioural intentions is consistent with previous studies (Wang et al., 2020; Khechine & Augier, 2019).

Wang et al. (2020) discovered that hospitable environments had a positive effect on consumers' behavioural intent to use healthcare wearable technologies (HWDs). According to Khechine and Augier (2021), the most significant predictor of behavioural intentions to use social learning platforms in higher education in the United States, France, Brazil, and China is enabling conditions. Wang et al. (2020) assert that social influence has a positive effect on the circumstances and behavioural intents of Somalian SMEs to utilise E-banking.

5.3 Contribution of the Study

This study contributes to the theory, practise, and technique inside and outside the SME sector. Theoretically, the results of the current investigation imply that all theorised factors impact behavioural intentions in both symmetrical and asymmetrical models. According to the findings of this study, the UTAUT theory was most often used to describe the relationship between influential factors and the intents of Somalian SMEs to adopt E-banking. The UTAUT theory is the most well-known hypothesis that discusses the relationship between influential factors and SME aspirations to utilise E-banking in Somalia.

This study also emphasises the number of contributions that may be used to establish the most important aspects of the acceptance of e-banking services and products offered by Islamic banks in Somalia. As SMEs are a significant contributor to the Somalian economy, Somali business owners and entrepreneurs are the first focus of the research. Second, the study utilises

the Somali Islamic Banks industry, which has seen rapid rise in recent years. Thirdly, the study used the most current Unified Theory of Acceptance and Use of Technology (UTAUT-3) model to evaluate the genuine variables of E-banking service adoption among business owners in Mogadishu, Somalia. Mogadishu is one of the fastest-growing cities in Africa; thus, study on the usage of e-banking by small and medium-sized enterprises (SMEs) in the city would be useful for policymakers and investors looking to provide highly inclusive financial services.

The success, expansion, and survival of small and medium-sized enterprises (SMEs) in a complicated international environment is a top priority for policymakers in both established and growing countries worldwide. Due to their reputation for being labor-intensive and utilising local resources, SMEs are well-known and popular across the world. The contribution of small and medium-sized enterprises to national and global economic growth provides a unifying theme for the need for support. Due to the widespread usage of the Internet and technological devices, academics are increasingly focusing specifically on e-banking. Previous research has examined the elements that influence e-banking use, as shown by Glavee-Geo et al. (2020), Singh and Srivastava (2020), and Mostafa et al (2021). Despite the fact that e-banking services provide consumers with a number of outstanding benefits, acceptance is lower than anticipated and remains in the adoption stage (Shankar et al., 2021).

5.4 Limitation of the Study

Despite its substantial contributions, this study's inherent limitations provide opportunities for further research. Initially, the research was limited to SMEs conducting Islamic E-banking in Mogadishu, Somalia; however, for the sake of generalisation, more locations and countries might be investigated. As a second disadvantage, this study only considers four factors that

impact behavioural intention. For a third reason, the study included a number of variables that may serve as moderators. This study focused only on quantitative techniques of analysis, not qualitative or mixed approaches.

5.5 Suggestions of Further Studies

To address the limitations of this study, more research in other nations will almost certainly be useful in verifying these findings and expanding the field of use for the proposed framework. In addition, while the study only examined the direct relationship with behavioural intention, potential modifiers such as income or education may help us get a deeper understanding of the implementation of the proposed framework, since these variables may impact behavioural intention. In conclusion, only quantitative methodologies were used in this study. In order to generalise the research, this study used a hybrid method/triangulation or qualitative technique.

5.6 Conclusions

This study experimentally examines the relationship between influencing factors and the intents of Somalia's SMEs to adopt E-banking. Consequently, the gathered data were analysed in line with the specified objectives. All four hypotheses were shown to be significantly associated with the behavioural intentions of Somalia's SMEs to use E-banking.

This significant finding provides insight into some influencing factors that impact behavioural intention and can be used as a starting point for understanding the level of adoption of Islamic e-banking operations in Mogadishu, Somalia, as well as pointing the way for future research

in this crucial area of study. The issue of influencing factors and behavioural intentions of SMEs in Somalia to adopt E-banking should be prioritised by Somalian and international owners/managers and other stakeholders. Consequently, this research contributes to theory, practises, and methods.



References

- Abedifar, P., M. Ebrahim, S., Molyneux, P., & Turzai, A. (2016). Islamic banking and finance: Recent empirical literature and directions for future research. *A Collection of Reviews on Savings and Wealth Accumulation*, 59-91.
- Adams, A.M. Bashiru, M. and Abdulai, I.A. (2016). Customer satisfaction in the banking industry in Ghana: A case of GCB bank limited in WA Municipality. *Journal of Social Science Studies*, 3(2), 217-235. <https://ideas.repec.org/a/mth/jsss88/v3y2016i2p217-235.html>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Al-Saedi, K., Al-Emran, M., Ramayah, T., & Abusham, E. (2020). Developing a general extended UTAUT model for M-payment adoption. *Technology in Society*, 62, 101293.
- Alabdullah, J. H., Van Lunen, B. L., Claiborne, D. M., Daniel, S. J., Yen, C. J., & Gustin, T. S. (2020). Application of the unified theory of acceptance and use of technology model to predict dental students' behavioural intention to use tele dentistry. *Journal of Dental Education*, 84(11), 1262-1269.
- Ali Aribi, Z., & Arun, T. (2015). Corporate social responsibility and Islamic financial institutions (IFIs): Management perceptions from IFIs in Bahrain. *Journal of Business Ethics*, 129(4), 785-794.
- Alkafagi, A.A.C. (2015). Understanding internet banking services and customer's adoption in Iraqi public universities (Doctoral dissertation, University Utara Malaysia). Ph.D. thesis, University Utara Malaysia, <http://etd.uum.edu.my/5435/>
- Amin, H., Rahim Abdul Rahman, A., Laison Sondoh, S. and Magdalene Chooi Hwa, A. (2011). Determinants of customers' intention to use Islamic personal financing: The case of Malaysian Islamic banks, *Journal of Islamic Accounting and Business Research*, Vol. 2 No. 1, pp. 22-42. <https://doi.org/10.1108/17590811111129490>
- Amin, M. (2016). Internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty. *International journal of bank marketing*, 34(3), 280-306.
- Aracil, E. (2019). Corporate social responsibility of Islamic and conventional banks: The influence of institutions in emerging countries. *International Journal of Emerging Markets*.

- Auta, E.M. (2010). E-Banking in developing economy: empirical evidence from Nigeria. *Journal of applied quantitative methods*, 5(2), <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.470.7440>
- Bacinello, E. Carmona, L.J.D.M. Tomelim, J. Da Cunha, H.C. and Tontini, G. (2017). Nonlinear antecedents of consumer satisfaction on e-banking portals. *The Journal of Internet Banking and Commerce*, 1-21. <https://www.icommercecentral.com/open-access/nonlinear-antecedents-of-consumer-satisfaction-on-ebanking-portals.php?aid=85700>
- Bailey, K.D. (1994). *Methods of social research*. New York: Free Press.
- Bandura, A. (1986), “The explanatory and predictive scope of self-efficacy theory”, *Journal of Social and Clinical Psychology*, Vol. 4 No. 3, pp. 359-373.
- Basah, M. Y. A., & Yusuf, M. M. (2013). Islamic bank and corporate social responsibility (CSR). *European Journal of Business and Management*, 5(11), 194-209.
- Belal, A. R., Abdulsalam, O., & Nizamee, S. S. (2015). Ethical reporting in Islamic bank Bangladesh limited (1983–2010). *Journal of business ethics*, 129(4), 769-784.
- Bhattacharjee, K. (2017). Satisfaction of E-banking: A comparative study on degree holder & non-degree-holder customers. *Management Research*, 4(12).
- Borgatti, P. (1999). Element of Research: Theoretical framework. Retrieved June, 2012, from <http://www.analytictech.com/mb313/elements.htm>
- Bryman, A., & Cramer, D. (2012). *Quantitative data analysis with IBM SPSS 17, 18 & 19: A guide for social scientists*. Routledge.
- Buabeng-Andoh, C., & Baah, C. (2020). Pre-service teachers’ intention to use learning management system: an integration of UTAUT and TAM. *Interactive Technology and Smart Education*, 17 (4), 455-474. <https://doi.org/10.1108/ITSE-02-2020-0028>
- Calisir, F. and Gumussoy, C.A. (2008). Internet banking versus other banking channels: Young consumers’ view. *International journal of information management*, 28(3), 215-221. <https://doi.org/10.1016/j.ijinfomgt.2008.02.009>
- Central Bank of Somalia. (2018, July 28 June). Licensed Banks. Retrieved June 28, 2018, from Central Bank of Somalia: <https://www.centralbank.gov.so/banks.html>
- Cha, E. S., Kim, K. H., & Erlen, J. A. (2007). Translation of scales in cross-cultural research: issues and techniques. *Journal of advanced nursing*, 58(4), 386-395.

- Chawla, D. and Joshi, H. (2019). Consumer attitude and intention to adopt mobile wallet in India – An empirical study, *International Journal of Bank Marketing*, Vol. 37 No. 7, pp. 1590-1618. <https://doi.org/10.1108/IJBM-09-2018-0256>
- Churchill, D. A., & Iacobucci, D. (2010). Market research. *Methodological Foundations*, 2.
- Courchane, M. Nickerson, D. and Sullivan, R. (2002). Investment in internet banking as a real option: theory and tests. *Journal of Multinational Financial Management*, 12(4-5), 347-363. [https://doi.org/10.1016/S1042-444X\(02\)00015-4](https://doi.org/10.1016/S1042-444X(02)00015-4)
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Daniel, P.E.Z. and Jonathan, A. (2013). Factors affecting the adoption of online banking in Ghana: Implications for bank managers. *International Journal of Business and Social Research*, 3(6), 94-108. <https://thejournalofbusiness.org/index.php/site/article/view/49>
- Davis, F. (1986), “A technology acceptance model for empirically testing new end-user information systems: theory and results”, “Doctoral dissertation”, Sloan School of Management, Massachusetts Institute.
- Davis, F. (1989), “Perceived usefulness, perceived ease of use, and user acceptance of information technology”, *MIS Quarterly*, Vol. 13 No. 3, pp. 319-340.
- Davis, F., Bragozzi, R. and Walshaw, P. (1992), “Extrinsic and intrinsic motivation to use computers in the workplace”, *Journal of Applied Social Psychology*, Vol. 22 No. 14, pp. 1111-1132, Doi: 10.1111/j.1559-1816.1992.tb00945.x.
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/249008>
- Devi Juwaheer, T. Pudaruth, S. and Ramdin, P. (2012). Factors influencing the adoption of internet banking: A case study of commercial banks in Mauritius. *World Journal of Science, Technology and Sustainable Development*, 9(3), 204-234. Doi: 10.1108/20425941211250552
- Donovan, K. (2012). Mobile money for financial inclusion. *Information and Communications for development*, 61(1), 61-73. https://doi.org/10.1596/9780821389911_ch04
- Dusuki, A. W., & Abdullah, N. I. (2007a). Maqasid al-Shariah, Maslahah, and corporate social responsibility. *American Journal of Islamic Social Sciences*, 24(1), 25.
- Dusuki, A. W., & Abdullah, N. I. (2007b). Why do Malaysian customers patronise Islamic banks?. *International Journal of Bank Marketing*.

- Dwivedi, Y.K., Rana, N.P., Jeyaraj, A., Clement, M. and Williams, M.D. (2017), "Re-examining the unified theory of acceptance and use of technology (UTAUT): towards a revised theoretical model", *Information Systems Frontiers*, Vol. 21, pp. 1-16.
- Farook, S., Hassan, M. K., & Lani's, R. (2011). Determinants of corporate social responsibility disclosure: the case of Islamic banks. *Journal of Islamic Accounting and Business Research*, 2(2), 114-141.
- Farooq, M.S., Salam, M., Jaafar, N., Fayola, A., Ayupp, K., Radovich-Markovic, M. and Sajid, A. (2017), "Acceptance and use of lecture capture system (LCS) in executive business studies: extending UTAUT2", *Interactive Technology and Smart Education*, Vol. 14 No. 4, pp. 329-348.
- Firestone, R., Kelly, T., & Rifon, A. (2017). A game changer—the prospects and pitfalls of mobile money in Somalia. Washington, the World Bank Report
- Fishbein, M. and Ajzen, I. (1975), *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Addison-Wesley Reading, MA.
- Fishbein, M. and Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Addison-Wesley, ISBN: 978-0201020892
- Forrester Research (2009). Internet banking is booming. available at: www.internetbanking.com/tag/gartner-group/ (accessed March 2010).
- Fowler Jr, F. J. (2014). The problem with survey research. *Contemporary Sociology*, 43(5), 660–662. <https://doi.org/10.1177/0094306114545742f>
- González, L. A., Bishop-Hurley, G., Henry, D., & Charmley, E. (2014). Wireless sensor networks to study, monitor and manage cattle in grazing systems. *Animal Production Science*, 54(10), 1687-1693.
- GÜN, M (2016). Analysis of participation banks in Turkey in terms of agency theory and a model proposal. *International Journal of Islamic Economics and Finance Studies*, 2(1), 51-65.
- Hamid, A.A. Razak, F.Z.A. Bakar, A.A. and Abdullah, W.S.W. (2016). The effects of perceived usefulness and perceived ease of use on continuance intention to use e-government. *Procedia Economics and Finance*, 35, 644-649. [https://doi.org/10.1016/S2212-5671\(16\)00079-4](https://doi.org/10.1016/S2212-5671(16)00079-4)
- Ibok, N.I. and Ikoh, I.M. (2013). Determinants of customer satisfaction with internet banking services. *Journal of Arts and Social Sciences*, 14(2), 178-186.

- Kadjie, C. F., Hikouatcha, P., Njamen Kengdo, A. A., & Nchofoung, T. N. (2022). Determinants of adoption of electronic payment by small and medium-sized enterprises (SMEs) in Cameroon. *African Journal of Science, Technology, Innovation and Development*, 1-13.
- Khechine, H., & Augier, M. (2019, January). Adoption of a social learning platform in higher education: An extended UTAUT model implementation. In *Proceedings of the 52nd Hawaii International conference on system sciences*.
- Kimuyu, P., & Omiti, J. (2000). Institutional impediments to access to credit by micro and small scale enterprises in Kenya (Vol. 26). Nairobi: Institute of Policy Analysis and Research.
- Li, Y. Z., He, T. L., Song, Y. R., Yang, Z., & Zhou, R. T. (2018). Factors impacting donors' intention to donate to charitable crowd-funding projects in China: a UTAUT-based model. *Information, Communication & Society*, 21(3), 404-415.
- Mattila, A. and Mattila, M. (2005). How perceived security appears in the commercialisation of internet banking. *International Journal of Financial Services Management*, 1(1), 89-101. Doi: 10.1504/IJFSM.2005.007986
- Mauri, A. (1988). Promoting savings in the developing countries. *Journal des Caisses d'Epargne*, 107(5).
- Mensah, I. K. (2019). Factors influencing the intention of university students to adopt and use e-government services: An empirical evidence in China. *Sage Open*, 9(2), 2158244019855823.
- Moore, G.C. and Benbasat, I. (1991), "Development of an instrument to measure the perceptions of adopting an information technology innovation", *Information Systems Research*, Vol. 2 No. 3, pp. 192-222.
- Mubarak, J. A. (2002). A Case of Private Supply of Money in Stateless Somalia. *Journal of African Economics*, 11(3), 309–325.
- Muller, P., Caliendo, C., Peycheva, V., Gagliardi, D., Marzocchi, C., Ramlogan, R., & Cox, D. (2015). Annual report on European SMEs. European Commission.
- Mutengezanwa, M. and Mauchi, F.N. (2013). Socio-demographic factors influencing adoption of internet banking in Zimbabwe. Department of Banking and Finance, <https://ir.buse.ac.zw/handle/11196/463>
- Nachmias, C.F., and Nachmias, D. (1996). *Research Methods in the Social Sciences*: London. Arnold.
- Nor, S. M., & Hashim, N. A. (2015). CSR and sustainability of Islamic banking: The bankers view. *Journal Pengurusan*, 45, pp. 73-81.

- Palau-Saumell, R., Forges-Coll, S., Sánchez-García, J., & Robbers, E. (2019). User acceptance of mobile apps for restaurants: An expanded and extended UTAUT-2. *Sustainability*, 11(4), 1210.
- Parasuraman, A., Grewal, D. and Krishnan, R. (2004). *Marketing Research*, Houghton Mifflin, New York, NY.
- Pikkarainen, T. Pikkarainen, K. Karjaluoto, H. and Pahnla, S. (2004). Consumer acceptance of online banking: An extension of the technology acceptance model. *Internet Research*, 14(3), 224-235.
- Quttainah, M. A., & Almutairi, A. R. (2017). Corporate ethics: evidence from Islamic banks. *Journal of Management & Governance*, 21(4), 815-840.
- Rahman, M. Saha, N.K. Sarker, M.N.I. Sultana, A. and Prodhan, A.Z.M.S. (2017). Problems and prospects of electronic banking in Bangladesh: A case study on Dutch-Bangla bank limited. *American Journal of Operations Management and Information Systems*, 2(2), 42-53. Doi: 10.11648/j.ajomis.20170202.13
- Roussos, P. (2007). The Greek computer attitudes scale: construction and assessment of psychometric properties. *Computers in Human Behavior*, 23(1), 578-590. <https://doi.org/10.1016/j.chb.2004.10.027>
- Sair, S. A., & Danish, R. Q. (2018). Effect of performance expectancy and effort expectancy on the mobile commerce adoption intention through personal innovativeness among Pakistani consumers. *Pakistan Journal of Commerce and social sciences (PJCSS)*, 12(2), 501-520.
- Saiti, B., & Noordin, N. H. (2018). Does Islamic equity investment provide diversification benefits to conventional investors? Evidence from the multivariate GARCH analysis. *International Journal of Emerging Markets*, 13(1), 267-289.
- Sánchez-Torres, J.A. Canada, F.J.A. Sandoval, A.V. and Alzate, J.A.S. (2018). E- banking in Colombia: factors favouring its acceptance, online trust and government support. *International Journal of Bank Marketing*, 36(1), 170-183.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson education.
- Sayid, O. Echchabi, A. and Aziz, H.A. (2012). Investigating mobile money acceptance in Somalia: An empirical study. *Pakistan Journal of Commerce and Social Sciences*, 6(2), 269. <https://www.econstor.eu/handle/10419/188057>
- Sekaran, U & Bougie, R. (2019). *Research methods for business: A skill building approach*. John Wiley & Sons.

- Subawa, N. S., Widhiasthini, N. W., & Mi maki, C. A. (2020, February). An empirical study of E-marketplace acceptance in MSMEs under the constructs of effort expectancy, social influence and facilitating condition factors. In *Proceedings of the 2020 The 6th International Conference on E-Business and Applications* (pp. 116-120).
- Taherdoost, H. (2018), "A review of technology acceptance and adoption models and theories", *Procedia Manufacturing*, Vol. 22, pp. 960-967.
- Taylor, S. and Todd, P. (1995), "Understanding information technology usage: a test of competing models", *Information Systems Research*, Vol. 6 No. 2, pp. 144-176.
- The World Bank. (2016). World Bank Makes Progress to support Remittance Flows to Somalia. Mogadishu: The World Report
- Thompson, R.L., Higgins, C.A. and Howell, J.M. (1991), "Personal computing: toward a conceptual model of utilization", *MIS Quarterly*, Vol. 15 No. 1, pp. 125-143.
- United Nations Conference on Trade and Development (UNCTAD). *Information Economy Report 2015: Unlocking the Potential of E-Commerce for Developing Countries*. New York and Geneva: United Nations, 2015.
- Van Raaij, E.M. and Scheper's, J.J.L. (2008), "The acceptance and use of a virtual learning environment in China", *Computers and Education*, Vol. 50 No. 3, pp. 838-852.
- Venkatesh, V. and Davis, F. (2000), "A theoretical extension of the technology acceptance model: four longitudinal field studies", *Management Science*, Vol. 46 No. 2, pp. 186-204, Doi: 10.1287/mnsc.46.2.186.11926.
- Venkatesh, V. Morris, M.G. Davis, G.B. and Davis, F.D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478. <https://doi.org/10.2307/30036540>
- Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F. (2003), "User acceptance of information technology: toward a unified view", *MIS Quarterly*, Vol. 27 No. 3, pp. 425-478.
- Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS quarterly*, 157-178.
- Venkatesh, V., Thong, J.Y.L. and Xu, X. (2012), "Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology", *MIS Quarterly*, Vol. 12 No. 1, pp. 157-178.

- Wang, W., Sun, L., Liu, T., & Lai, T. (2021). The use of E-health during the COVID-19 pandemic: a case study in China's Hubei province. *Health Sociology Review*, 1-17.
- Warsame, M. (2016). Can Islamic Banks Flourish in Somalia after 25 Years of the Collapse of the Country's Entire Financial System? *European Journal of Business and Management*, 8(15), 2222-2839.
- Yang, H. H., Feng, L., & MacLeod, J. (2019). Understanding college students' acceptance of cloud classrooms in flipped instruction: integrating UTAUT and connected classroom climate. *Journal of Educational Computing Research*, 56(8), 1258-1276.
- Yaseen, S. G., & El Qirem, I. A. (2018). Intention to use e-banking services in the Jordanian commercial banks. *International Journal of Bank Marketing*, 36 (3), 557-571. <https://doi.org/10.1108/IJBM-05-2017-0082>
- Yousafzai, S. and Yani-de-Soriano, M. (2012). Understanding customer-specific factors underpinning internet banking adoption. *International Journal of Bank Marketing*, 30(1), 60-81. Doi: 10.1108/02652321211195703
- Zhang, T., Lu, C. and Kizildag, M. (2018), "Banking "on-the-go": examining consumers' adoption of mobile banking services", *International Journal of Quality and Service Sciences*, Vol. 10 No. 3, pp. 279-295. <https://doi.org/10.1108/IJQSS-07-2017-0067>
- Zhou, L. L., Owusu-Marfo, J., Asante Antwi, H., Antwi, M. O., Kachie, A. D. T., & Ampon-Wireko, S. (2019). Assessment of the social influence and facilitating conditions that support nurses' adoption of hospital electronic information management systems (HEIMS) in Ghana using the unified theory of acceptance and use of technology (UTAUT) model. *BMC medical informatics and decision making*, 19(1), 1-9.
- Hair Jr, J. F., Hult, G. T. M., Proksch, D., Sarstedt, M., Pinkwart, A., & Ringle, C. M. (2018). Addressing endogeneity in international marketing applications of partial least squares structural equation modeling. *Journal of International Marketing*, 26(3), 1-21.
- Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2016). *Advanced issues in partial least squares structural equation modeling*. Sage publications.
- Hair, J. F., Andersen, R. E., & Tatham, R. L. (2010). *Multivariate data analysis* (7thed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks: Sage Publications.

- Pallant, J. (2011). *SPSS survival manual: A step by step guide to data analysis using SPSS for windows* (4 th ed.) England: McGraw Hill Open University Press.
- Pallant, J. (2012). *SPSS survival manual*. McGraw-Hill Education (UK).
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Tabachnick, B., Mestre, V., & Fidell, L. (2013). Aircraft noise-induced awakenings are more reasonably predicted from relative than from absolute sound exposure levels. *The Journal of the Acoustical Society of America*, 134(5), 3645-3653.
- Tabachnick, B. G., & Fidell, L.S. (2007). *Using multivariate statistics* (5th ed.). Boston: Pearson Education Inc.
- Al-Saedi, K., Al-Emran, M., Ramayah, T., & Abusham, E. (2020). Developing a general extended UTAUT model for M-payment adoption. *Technology in Society*, 62, 101293.
- Alabdullah, J. H., Van Lunen, B. L., Claiborne, D. M., Daniel, S. J., Yen, C. J., & Gustin, T. S. (2020). Application of the unified theory of acceptance and use of technology model to predict dental students' behavioural intention to use tele dentistry. *Journal of Dental Education*, 84(11), 1262-1269.
- Buabeng-Andoh, C., & Baah, C. (2020). Pre-service teachers' intention to use learning management system: an integration of UTAUT and TAM. *Interactive Technology and Smart Education*, 17 (4), 455-474. <https://doi.org/10.1108/ITSE-02-2020-0028>
- Mensah, I. K. (2019). Factors influencing the intention of university students to adopt and use e-government services: An empirical evidence in China. *Sage Open*, 9(2), 2158244019855823.
- Li, Y. Z., He, T. L., Song, Y. R., Yang, Z., & Zhou, R. T. (2018). Factors impacting donors' intention to donate to charitable crowd-funding projects in China: a UTAUT-based model. *Information, Communication & Society*, 21(3), 404-415.

- Khechine, H., & Augier, M. (2019, January). Adoption of a social learning platform in higher education: An extended UTAUT model implementation. In *Proceedings of the 52nd Hawaii International conference on system sciences*.
- Palau-Saumell, R., Forges-Coll, S., Sánchez-García, J., & Robbers, E. (2019). User acceptance of mobile apps for restaurants: An expanded and extended UTAUT-2. *Sustainability*, 11(4), 1210.
- Sair, S. A., & Danish, R. Q. (2018). Effect of performance expectancy and effort expectancy on the mobile commerce adoption intention through personal innovativeness among Pakistani consumers. *Pakistan Journal of Commerce and social sciences (PJCSS)*, 12(2), 501-520.
- Subawa, N. S., Widhiasthini, N. W., & Mi maki, C. A. (2020, February). An empirical study of E-marketplace acceptance in MSMEs under the constructs of effort expectancy, social influence and facilitating condition factors. In *Proceedings of the 2020 The 6th International Conference on E-Business and Applications* (pp. 116-120).
- Venkatesh, V. Morris, M.G. Davis, G.B. and Davis, F.D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478. <https://doi.org/10.2307/30036540>
- Wang, W., Sun, L., Liu, T., & Lai, T. (2020). The use of E-health during the COVID-19 pandemic: a case study in China's Hubei province. *Health Sociology Review*, 1-17.
- Yaseen, S. G., & El Qirem, I. A. (2018). Intention to use e-banking services in the Jordanian commercial banks. *International Journal of Bank Marketing*, 36 (3), 557-571. <https://doi.org/10.1108/IJBM-05-2017-0082>
- Yang, H. H., Feng, L., & MacLeod, J. (2019). Understanding college students' acceptance of cloud classrooms in flipped instruction: integrating UTAUT and connected classroom climate. *Journal of Educational Computing Research*, 56(8), 1258-1276.

Zhou, L. L., Owusu-Marfo, J., Asante Antwi, H., Antwi, M. O., Kachie, A. D. T., &Ampon-Wireko, S. (2019). Assessment of the social influence and facilitating conditions that support nurses' adoption of hospital electronic information management systems (HEIMS) in Ghana using the unified theory of acceptance and use of technology (UTAUT) model. *BMC medical informatics and decision making*, 19(1), 1-9.

