

**PREDICTORS OF E-COMMERCE ADOPTION – A CASE STUDY OF ONE LIFE
ASSURANCE ZAMBIA**

BY

CHEWE MWAPE

A Dissertation submitted to the University of Zambia in partial fulfilment of the requirements for the award of the Master's Degree of Science in Accounting and Finance

THE UNIVERSITY OF ZAMBIA

LUSAKA

2025

DECLARATION

I, **Chewe Mwape**, do hereby declare that this work is my original work achieved through personal reading and research. This work has never been submitted to the University of Zambia or any other Universities. All sources of data used and literature on related works previously done by others, used in the production of this Dissertation have been duly acknowledged. If any omission has been made, it is not by choice but by error.

Signature:

Date:

COPYRIGHT

All rights reserved. No parts of this Dissertation may be reproduced, stored in any retrieval system or transmitted in any form or by any means: electronic, mechanical, photocopying, recording or otherwise without the consent of either the author or the University of Zambia.

(c) Chewe Mwape, 2025

APPROVAL

This Dissertation by **Chewe Mwape**, is approved as a partial fulfilment of the requirements for the award of the Master's Degree of Science in Accounting and Finance

Examiner 1	Signature	Date
.....

Examiner 2	Signature	Date
.....

Examiner 3	Signature	Date
.....

Chairperson Board of Examiners	Signature	Date
.....

Supervisor	Signature	Date
.....

ABSTRACT

The research problem to be addressed in this study is that despite the strategic plan for One Life Assurance Zambia indicating the need for adopting E commerce in year one of the strategic plan, E commerce is far from been adopted. As such, the purpose of the study was to explore factors that are linked with E Commerce adoption for One Life Assurance Zambia. This was a cross-sectional study design involving employees of one life assurance Zambia. An online survey questionnaire was administered, and data was analysed using SPSS version 22. Linear regression was the main analytic technique. The findings show that there is very little to account for E Commerce adoption at One Life Assurance Zambia. Overall level of E commerce adoption for One Life Assurance Zambia can be graded as imperfect and its customers can only download a mobile app and access the firm physically or by e mail. The firm has no platform for E Commerce. Nearly all employees intend to adopt E Commerce when the system and tools are rolled out as $n = 45$ (93.7%) desire so compared to only $n = 3$ (6.3%) who do not. Regression analysis shows a relationship between the three predictors (Performance Expectancy, Effort Expectancy and Social Influence) and E Commerce Adoption. There was a strong positive relationship ($R = 0.873$) and the model explains 76.2% of the variation in the dependent variable and this is a very good model. The three predictors influence E Commerce Adoption (BI-ECA) noting that the model's sig value was $p < 0.001$. Based on the main findings, an interpretation is ideal. The conclusion is that performance expectancy, effort expectancy and social influence have positive influences on employee intention to use E Commerce when available in future. With this understanding, practitioners can better design appropriate E-Commerce policies and interventions for E-Commerce Adoption, thereby avoiding the development of policies, strategies, and business practices based on the assumption of universal imperatives which have high risks of misguiding and frustrating local efforts to make sense of and appropriate E Commerce activities and platforms.

Key words: *Predictors, E-Commerce, Adoption Insurance and Industry*

ACKNOWLEDGEMENTS

I thank and praise Yahweh, the Lord God Almighty for his Grace and provision throughout the entire period of my study. I render special thanks and appreciation to my supervisor Dr. Jason Mwanza for all her effort, guidance and tireless encouragement to ensure the completion of this work. Heartfelt thanks go to my wife Namuchindo Mwape for her love, support, inspiration and continuous prompts to stay strong and keep on working on my educational goals. I wish to also thank my child who served as motivation to be able to be a role model for her by accomplishing this important educational step.

I also acknowledge my many colleagues as well as work mates for the assistance both in cash and kind they offered to me during my studies and research, my classmates for sharing of ideas, experiences, knowledge and skills.

DEDICATION

I, dedicate this work to, my beloved one my family, friends, and work mates, who have tirelessly inspired and supported me materially and psychologically throughout my studies at the University of Zambia.

TABLE OF CONTENTS

DECLARATION	i
COPYRIGHT	ii
APPROVAL	iii
ABSTRACT	iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF ACRONYMS	xii
CHAPTER 1	1
INTRODUCTION	1
1.1 Background.....	1
1.2 Statement of The Problem.....	4
1.3 General Objective.....	4
1.4 Specific Objectives.....	4
1.5 Research Questions.....	5
1.6 Scope of the Study.....	5
1.7 Theoretical Model.....	5
1.8 Definition of key terms.....	9
CHAPTER 2	10
LITERATURE REVIEW	10
2.1 Introduction.....	10
2.2 Internet and E-commerce.....	11
2.3 Types of E-commerce Application.....	11
2.4 The perceived benefits of e-commerce.....	14
2.5 E-Commerce Barriers.....	15

2.6 E-Commerce in developing countries.....	18
2.7 E Commerce and Adoption.....	25
2.7.1 E Commerce.....	25
2.7.2 Adoption.....	27
2.8 Insurance Industry and E Commerce.....	28
2.9 Theoretical background, proposed conceptual model, and hypotheses development .	29
2.9.1 Applications.....	30
2.9.2 Practical Implications of UTAUT	31
2.9.3 Limitations of UTAUT	31
2.10 Other gaps	32
CHAPTER 3.....	34
METHODOLOGY.....	34
3.1 Introduction	34
3.2 Research Philosophy.....	34
3.3 Research Design	35
3.4 Sample selection, Size and Technique.....	35
3.5 Operationalisation of the variables and Data Collection Instruments	36
3.6 Data Collection Procedure	40
3.7 Data Analysis	41
3.7.1 Reliability and Validity	42
CHAPTER 4.....	44
FINDINGS.....	44
4.1 Overview	44
4.2 Demographics.....	44
4.3 Current of application of E Commerce Adoption	45
4.4 Dominant IT Media Platforms Used.....	46
4.5 Behavioural Intention to Adopt E Commerce	48

4.6 Reasons not taking full advantage of adoption of E-commerce?	51
4.6.1 Performance Expectancy.....	51
4.6.2 Effort Expectancy	54
4.6.3 Social Influence	57
4.6.4 Determining the Linkage.....	60
CHAPTER FIVE.....	63
DISCUSSION AND CONCLUSION.....	63
5.1 Introduction	63
5.2 An Outline of Chapter 5.....	63
5.3 Main Findings.....	63
5.4 Significance and Limitation and scope for the future research	66
5.5 Implications	67
5.5.1 Research Implications	67
5.5.2 Managerial and policy implications.....	67
5.5.3 Theoretical implications.....	67
5.6 Conclusion.....	68
REFERENCES.....	69
APPENDICES.....	78

LIST OF TABLES

Table 1. Studies in developing countries vs least developed countries	20
Table 2: Reliability Analysis Outcomes.....	43
Table 3: Demographic Profile of One Life assurance Zambia N = 48	45
Table 4: One Life Assurance Zambia Website E Commerce Features.....	46
Table 5: Dominant E Commerce Platforms	47
Table 6: Frequency of behavioural intention of E Commerce Adoption N = 48	49
Table 7: Behavioural Intention to Adopt E Commerce N = 48.....	50
Table 8 Categorisation of Behavioural Intention to Adopt E Commerce N = 48	50
Table 9: Frequency of performance expectancy N = 48	52
Table 10: Descriptives of Performance Expectancy to influence Adoption of E Commerce N = 48	53
Table 11 Categorisation of Performance Expectancy to influence Adoption of E Commerce N = 48.....	53
Table 12: Frequency of Effort Expectancy N = 48.....	55
Table 13: Descriptives of Effort Expectancy to influence Adoption of E Commerce N = 48	56
Table 14 Categorisation of Effort expectancy to influence Adoption of E Commerce N = 48	56
Table 15: Frequency of Social Influence N = 48.....	58
Table 16: Descriptives of Social Influence to influence Adoption of E Commerce N = 48.	59
Table 17 Categorisation of Social Influence to influence Adoption of E Commerce N = 48	59
Table 18: Model Summary	61
Table 19 Analysis of Variance (ANOVA)	61
Table 20: Coefficients	62
Table 21 E-Commerce Adoption Stages (Daniel Model)	64

LIST OF FIGURES

Fig. 1.1: The UTAUT Model (Venkatesh et al. 2003).....	6
Figure 4.1: Availability of Website for One Life Assurance Zambia.....	45

LIST OF ACRONYMS

ICT.....	Information and Communication Technology
EU.....	European Union
WTO.....	The European Union
UTAUT.....	Unified Theory of Acceptance and Use of Technology
TMA.....	Total addressable market
TPB.....	theory planned behavior
SCT.....	social cash transfer

CHAPTER 1

INTRODUCTION

1.1 Background

Industries all over the world have been undergoing transformation processes for a number of years. The processes range from deregulation in businesses to advances in technologies, such as telecommunication as well as computer technology. Advances in telecommunication as well as computer networks are an integral part of the economic infrastructure. This has led companies that have embraced these changes to achieve a competitive edge. The Information and communication technologies (ICT) have transformed how retailers and consumers buy, distribute, and customize products. This has led to e-commerce to increase sales and representing 18% of the total sales for instance in the European Union (EU) countries (Eurostat, 2019).

Actually, according to the World Trade Organization (WTO) (2020), the situation induced due to COVID-19 has resulted in an increase in Business-to-Business (B2B) e-commerce. Much research has examined the issue concerning the representation of firms in e-commerce, but also the influence that e-commerce has on overall firm performance (Xia and Zhang, 2010). Actually, e-commerce benefits are numerous, for the users, the firms and society in general. As explained in (WTO, 2020), e-commerce offers opportunities for traditional retailers to expand their market share while improving the efficiency of their operations. Firms that use online sales channel have better overall performance and higher sales in comparison with firms with no online sales (Cosgun and Dogerlioglu, 2012).

This explains the use of E Commerce as one of the modes of business transformation has been the use of electronic commerce. The electronic commerce (e-commerce) boom last decade along with the Internet boom in the 1990's has changed the way industries interact with their customers. Fuelled by mobile and social commerce, e-commerce is expected to be one of the important keys to the success and growth in the current competitive business environment. Although ecommerce has become a familiar retail channel for businesses in developed countries, it is still considered an innovation in developing countries (Damanpour and Damanpour, 2001). Specifically, e-commerce in Zambia is still in the first stage, despite its advance and fast growth in ICT marketplace, the highest increase in Internet penetration in the world, a retail sector that is becoming rather strong, and young population.

The Internet has emerged as one of the most widely utilized technologies and digital phenomena, garnering significant attention across the world. Unequivocally, the utilization of the internet plays a pivotal role in various aspects of contemporary life. Within sub Saharan Africa excluding South Africa, Zambia boasts the second largest number of internet users. The internet has evolved into one of the most significant and prevalent platforms, presenting substantial opportunities for businesses, generally referred to as e-commerce businesses, to market their goods and services on a global scale.

The use of Internet services rapidly increasing, online sales comprise only a small percentage of total retail sales. Zambia's Internet users spend over \$3.28 billion in B2C e-commerce during 2010, with total retail sales of \$77 billion in 2010. More than forty-eight percent of Internet users in Zambia are reported purchasing products and services online and through their mobile hand-sets over the past twelve months according to Business Monitor International Report (2009) the fore-cast annual private consumption growth in the country is 6.0% in 2012 having been boosted by higher government spending on public-sector wages and social and unemployment benefits. The retail market in Zambia is the largest in southern Africa. It is the fourth largest sector in the country after oil, banking, and telecommunication, contributing to 17% of GDP. Despite the mentioned drivers which constitute a good platform for e-commerce adoption, using the Internet as a shopping medium has not been harness at the same speed by both retailers and consumers. Therefore, the main contribution of this study is to identify tangible barriers influencing consumers in Zambia to adopt e-commerce. An exploratory research design is used to shed light on the tangible barriers facing Saudi consumers when shopping online. Although the area of e-commerce adoption from a consumer perspective has been widely studied in developed countries, it is yet to be re-examined in the context of Zambia.

The internet is one channel of communication which has transformed the world of business, making it possible for transactions to be carried out in real-time regardless of the distances that may lie between the parties involved. The growth of computer technology has seen the World Wide Web (www) to become the communication medium for the networked world. Pioneer organizations such as Google, Alibaba, Amazon, Yahoo, e-Bay and so forth, are today using the internet to adapt and in some cases revolutionize their traditional business models. The internet had also revolutionized our society, from governments, to cultures, to education and to shopping. The internet has seen most businesses become interconnected with the use of

electronic commerce (e-commerce) as the norm (Pillai and Bagavathi. 1987). E-commerce was the trading in products using computer networks such the internet (wikiprdia.org).

E-commerce had become the most talked about in today's business world so much that the world is heading towards a scenario where a company without internet presence will soon begin to be marginalized. Though Business-to-Consumer (B2C) e-commerce was the most recognized, Business-to-Business (B2B) e-commerce is the largest type of electronic commerce Kotler. (2003). The Zambian Information Communication Technology (ICT) sector has been faced with a number of challenges some of which include the high cost of technology acquisition, insufficient alertness on the benefits of ICT, low ICT literacy and so forth Zambia National ICT policy, (2005). The Information and communication technologies (ICT) have transformed how retailers and consumers buy, distribute, and customize products. The electronic commerce (e-commerce) boom last decade along with the Internet boom in the 1990's has changed the way businesses interact with their customers. Fuelled by mobile and social commerce, e-commerce is expected to be one of the important keys to the success and growth in the current competitive business environment. Although e-commerce has become a familiar retail channel for businesses in developed countries, it is still considered an innovation in developing countries. Specifically, e-commerce in Zambia is still in the first stage, despite its advance and fast growth in ICT marketplace, the highest increase in Internet penetration in the world, strong retail sector, and young population. Zambia has the fourth largest Internet users and the highest Facebook users (5.9 million) in southern Africa with 49.0% Internet penetration among the population. Although the country is the largest retail market in the Middle East, online sales comprise only a small percentage of total retail sales. Zambia's Internet users spend over \$3.28 billion in B2C e-commerce during 2010, with total retail sales of \$77 billion in 2010. More than forty-eight percent of Internet users in Zambia reported purchasing products and services online and through their mobile hand-sets over the past twelve months. According to Business Monitor International Report (2009) the fore-cast annual private consumption growth in the country is 6.0% in 2012 having been boosted by higher government spending on public-sector wages and social and unemployment benefits. The retail market in Zambia is the largest in the Middle East. It is the fourth largest sector in the country after oil, banking, and telecommunication, contributing to 17% of GDP. Despite the mentioned drivers which constitute a good platform for e-commerce adoption, using the Internet as a shopping medium has not been harness at the same speed by both retailers and consumers.

Following the Mulungushi Reforms of 1968 which ushered in the process of nationalization, this meant that foreign private insurers were to transfer their assets to the Zambia State Insurance Corporation Limited (Financial Sector Development Plan for Zambia, 2004). In 1968, the Zambia State Insurance Corporation Limited was incorporated under the Companies Act Cap 686 of the Laws of Zambia. It was then registered as an insurer under the Insurance Act, Cap 705 of the Laws of Zambia (Financial Sector Development Plan for Zambia, 2004).

As of January 31st 2018, the Zambian insurance industry had the following players: 2 Reinsurance Companies, 15 General Insurance Companies, 8 Life Insurance Companies, 41 Insurance Brokers, 266 Insurance Agents 8 Claims Agents, 6 Motor Assessors, 6 Loss Adjusters and 2 Risk Surveyors. Significant increase in the number of players was especially seen in life insurance, as well as in insurance brokers, loss adjusters and insurance agents. One Life Zambia which is one study site in this study, is one of the insurance firms in Zambia

1.2 Statement of The Problem

The research problem to be addressed in this study is that despite the strategic plan for One Life Assurance Zambia indicating the need for adopting E commerce in year one of the strategic plan, E commerce is far from been adopted. The reality is that One Life Assurance Zambia is engaged in face to face business engagement. As a consequence, the projected servings if E commerce were adopted could have earned the firm an estimated ZMK 800 000 per year by close of the 2022 financial year (End of Year Report, 2022). The Board is afraid of the consequences of non-adoption of E Commerce. The firm has had a reduction in its market share noting that competitors are far ahead of One Life Assurance. The Board requires to understand the current state of E Commerce Adoption and an explanatory account of E-commerce adoption to enable it make a market strategic decision. So far what is yet to be established at One life relates to the gaps regarding current level of application of E commerce, the dominant IT media platforms and why One Life Assurance Zambia has not taken full advantage of adoption of E-commerce. This is withstanding a dearth of research in this area in Zambia.

1.3 General Objective

Given the problem, this study was designed to explore predictors that are linked with E Commerce adoption for One Life Assurance Zambia.

1.4 Specific Objectives

- 1) To describe from the point One Life Assurance Zambia employees, the current level of application of Ecommerce maturity level.
- 2) To describe the IT media platforms One Life Assurance Zambia had opted to adopt for e-commerce.
- 3) To test the assumptions of the UTAUT model if they hold in accounting for One Life Assurance Zambia's adoption of E-commerce?

1.5 Research Questions

Motivated by the statement of the problem the following is the main research question to be answered in this study is “How can adoption of e-commerce at One Life Assurance Zambia's be enhanced?”

The subsidiary research questions are:

- 1) What is the current level of application of E commerce maturity level at One Life Assurance?
- 2) What are the dominant IT media platforms One Life Assurance Zambia has adopted for e-commerce?
- 3) Why has One Life Assurance Zambia not taken full advantage of adoption of E-commerce? This research question will be answered through testing the causal hypothesis which are linked to Unified Theory of Acceptance and Use of Technology (UTAUT) model.

1.6 Scope of the Study

The scope of this study was limited to the two selected non-life and life insurance companies in Zambia the scope of the study was limited to the application of e commerce to optimize business process in order to create value and deliver value. This study was based on Zambian insurance companies involved in both life and non-life insurance of Lusaka District.

1.7 Theoretical Model

Since the topic is about predictors of e-commerce adoption, a review of literature points to the use of UTAUT. The model aims to explain technology acceptance. It is based on eight technology acceptance theories or models. In particular, the UTAUT draws on the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Motivational Model,

the Theory of Planned Behaviour (TPB), the combined TAM and TPB, the model of Personal Computer Utilization, the Innovation Diffusion Theory and the Social Cognitive Theory (Venkatesh et al. 2003). At the core, the UTAUT model uses behavioural intention as a predictor of the technology use behaviour. The included predictors of behavioural intention are based on the components the eight technology adoption models reviewed. The basic form of the UTAUT model is shown in Fig. 1.1.

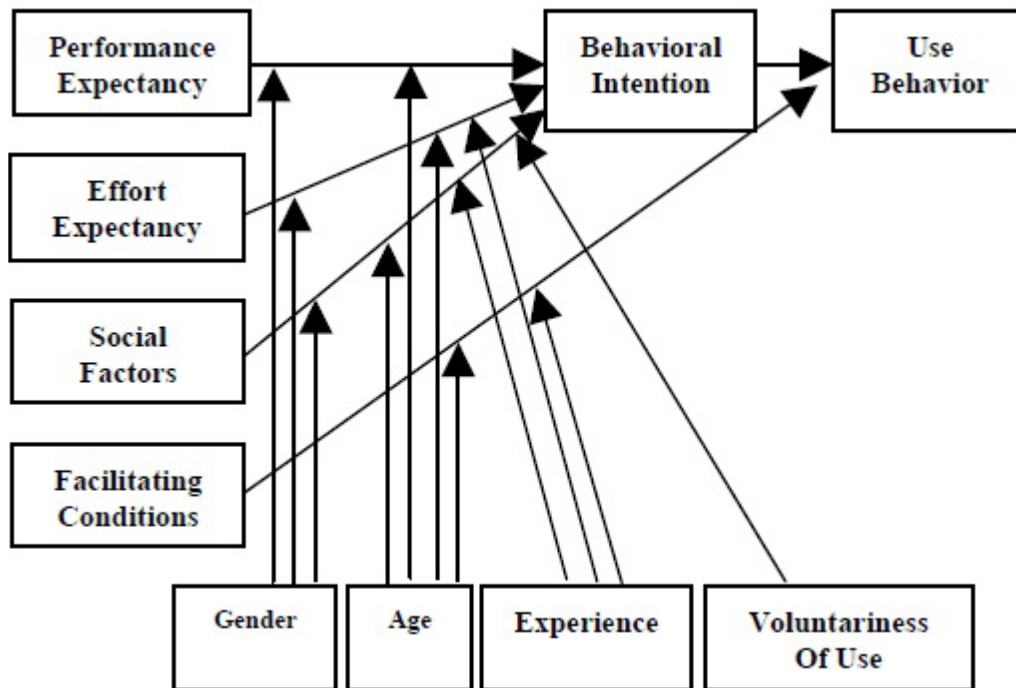


Fig. 1.1: The UTAUT Model (Venkatesh et al. 2003)

Since the UTAUT model is used to identify the psychosocial factors that influence behavioural intention within, the phrasing used in the UTAUT was modified by substituting the words ‘One Life Zambia’ to reflect the firm where the technology type being investigated is situated. In addition, since the model does not discuss E commerce adoption, this term is included to demonstrate specificity.

The details of this model are explained in chapter three to render a historical development and account for the details which is not ideal in this introductory chapter. However, the UTAUT holds that four key constructs (performance expectancy, effort expectancy, social influence, and facilitating conditions) are direct determinants or predictors of usage intention and behaviour (Venkatesh et. al., 2003). Gender, age, experience, and voluntariness of use are posited to mediate the impact of the four key constructs on usage intention and behaviour as

indicated in Figure 1. The three main predictors of behavioural intention are defined as follows (Venkatesh et al. 2003, 447-453):

Performance expectancy (PE) is defined as *"the degree to which an individual believes that using the system will help him or her to attain gains in job performance"* (Venkatesh et al., 2003). Performance expectancy is based on the constructs from Technology Acceptance Model (TAM), TAM2, Combined TAM and the Theory of Planned Behaviour (CTAMTPB), Motivational Model (MM), the model of PC utilisation (MPCU), Innovation Diffusion Theory (IDT) and Social Cognitive Theory (SCT) (i.e, perceived usefulness, extrinsic motivation, job-fit, relative advantage and outcome expectations). Performance expectancy builds on Venkatesh et al.'s (2003) UTAUT model. These authors referred to performance expectancy when they advanced their theoretical model. They indicated that their "new" construct was similar to Davis' (1989) perceived usefulness as well as to other factors, including to extrinsic motivation from Davis et al.'s (1992) Motivation Model, job-fit from Thompson et al.'s (1991) Model of PC Utilization, relative advantage from Moore and Benbasat's (1991) Innovation Diffusion Theory, and to outcome expectations, that is drawn from Compeau and Higgin's (1995) Social Cognitive Theory. Venkatesh et al. (2003) noted that these factors intended to measure how the use or capabilities of a system were instrumental in improving the individuals' job performance, by accomplishing tasks, by enhancing productivity, and/or by increasing their chances of getting a pay rise.

The hypothesis to be tested is thus **HO₁**: Performance expectancy among employees is not linked significantly to their intentions to adopt E Commerce.

Effort expectancy (EE) is defined as *"the degree of ease associated with the use of the system"* (Venkatesh et al., 2003). Effort Expectancy is constructed from perceived ease of use and complexity driven from TAM, MPCU, IDT, which share a similarity in definitions and scales. The effect of the construct becomes nonsignificant after extended usage of technology (Gupta, Dasgupta & Gupta, 2008; Chauhan & Jaiswal, 2016).

The hypothesis to be tested is thus **HO₂**: Effort expectancy among employees is not linked significantly to their intentions to adopt E Commerce.

Social Influence (SI) is defined as *"the degree to which an individual perceives that important other believe he or she should use the new system"* (Venkatesh et al., 2003). Social influence

is similar to the subjective norms, social factors and image constructs used in TRA, TAM2, TPB, CTAMTPB, MPCU, IDT in the way that they denote that the behaviour of people is adjusted to the perception of others about them. Social influence (SI) refers to a friend, or a member of a particular group who influence the behaviour of others by providing information, recommendations and help in decision making (Venkatesh et al., 2003). When an individual feels the importance of others' beliefs in decision making, social influence becomes the biggest supporting factor, which encourages people to adopt a new system (Brata and Amalia, 2018). Venkatesh et al.'s (2012) study showed that social influence significantly affects consumer behaviour towards technology acceptance. The majority of technology acceptance studies have utilized social influence with behavioural intention (Abed, 2018; Friedrich et al., 2021; Sheikh et al., 2017) and found positive and significant relationships.

The effect of social influence is significant when the use of technology is mandated (Venkatesh et al., 2003). In the mandatory context, individuals might use technology due to compliance requirement, but not due to personal preferences (Venkatesh & Davis, 2000). This might explain the inconsistent effect that the construct demonstrated across further studies validating the model (Zhou, Lu & Wang, 2010; Chauhan & Jaiswal, 2016).

The hypothesis to be tested is thus ***H03***: Social Influence among employees is not significantly linked to their intentions to adopt E Commerce

In this study, attitude has not been included in that although, attitude which refers to the individuals' feelings (positive or negative) towards the use of the technologies (Fishbein & Ajzen 1975) is an important component of the TRA and the TAM, it is not explicitly included in the UTAUT model. According to Venkatesh et al. (2003), the effect of attitude on behavioural intention is spurious and it emerges only when performance expectancy and effort expectancy are omitted from the model. This means that attitude towards the use of the technologies does not provide enough unique information beyond that which is already provided jointly by performance expectancy and effort expectancy.

Facilitating conditions were also not included in this study because they are actually related to the availability of sufficient resources and support for individuals to actually use technology (Ambarwati et al., 2020; Venkatesh et al., 2003).

In the UTAUT model, performance expectancy, effort expectancy, and social factors have direct effects on behavioural intention. The effects of interactions of each of performance expectancy, effort expectancy and social factors with each of age and gender; interactions of experience with each of effort expectancy and social factors; and an interaction of voluntariness of use and social factors on behavioural intention are also included. Finally, there are effects of interactions of age and facilitating conditions and experience and facilitating conditions on use behaviour (Venkatesh et al. 2003).

1.8 Definition of key terms

E-commerce is defined as all activities of buying, selling, and providing various services via the internet (Leonard, 2012).

Adoption

In the Unified Theory of Acceptance and Use of Technology (UTAUT), adoption refers to the continued use of a technology (Harindranath et al., 2008).

UTAUAT

The UTAUT model is a theoretical model that explains how users adopt and use new technology (Harindranath et al., 2008).

Behavioural Intention

Behavioural intention is defined as a measure of the strength of one's intention to perform a specified behaviour (Sun and Zhang, 2003)

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Electronic Commerce (e-commerce) has been predicted to be a new driver of economic growth for developing countries (Humphrey et al.2004:31). Adopting e-commerce has not been easy for firms world-wide (Jones et al., 2011) partly because of the ever-changing field of information systems and the varying needs of local and global business in general. The adoption of e-commerce in the current business environment remains a critical area of investigation in information systems research (MacGregor, 2004; Parker and Castleman, 2009). Previous studies of Information and Communication Technology (ICT) and e-commerce adoption report that firms in developing countries generally have not capitalised on the power of the Internet to extend their business beyond traditional borders (; Humphrey et al. 2004; Molla and Licker, 2005a,b; Bai et al., 2008) except in the application of simple technologies such as electronic mail (Mpofu and Watkins-Mathys, 2011). Some of the reasons put forward from the literature include: cost of acquiring and operating ICT, lack of ICT and e-commerce knowledge, owner/manager low literacy levels, inability to perceive e-commerce benefits, unfriendly regulatory policy and requirements, cultural issues and dependence on customer or supplier preferences. According to Cragg, Caldeira and Ward (2011), a low level of organisational readiness is a key reason for slow adoption or an inability to adopt ecommerce.

Several e-commerce adoptions studies have been undertaken in developed countries as can be represented by Scupola (2009), Chibelushi and Costello (2009) and Bharati and Chaudhury (2006). Similarly, studies in developing countries can be represented by Tan et al. (2007), Looi (2005) and Molla and Licker (2005a) although the overall representation in scholarly publications shows that there are fewer studies in developing countries. Researchers do agree that a one-size-fits-all model may not be attainable (Molla and Licker, 2005b). A key area of concern in the previous studies is the lack of detail on how e-commerce adoption by firms is undertaken as most researchers have used exploratory research methods such as surveys that lack depth and theoretical foundation (Riemenschneider et al. 2003). In addition, the unequal distribution of ICT infrastructure, products and services between the developed and developing countries also accounts for differences in how e-commerce is valued and applied in

organisations. Worse still there is dearth of research both on the home and global front relating to E Commerce in the insurance sector. Therefore, the remainder of the literature will rely on closer studies.

2.2 Internet and E-commerce

In the current digital era in e-commerce is a promising strategy for business development. Through the use of the Internet and communication technologies, e-commerce fosters the development of enterprises, particularly small and medium-sized ones, in developed countries (Ocloo et al., 2018). In particular, e-commerce is a critical engine of economic growth in underdeveloped nations (Ndayizigamiye, 2013). It promotes international value chains, increases market access and efficiency, and lowers operational costs (Amornkitvikai and Lee, 2020).

The internet which emerged in 1994 has seen most businesses inter-connect with e-commerce as the norm. According to the Information Systems Audit and Control (ISACA) website, the term e-commerce is used by different parties to mean different things (www.isaca.org). This is shown in the presentations that follow. E-minder (2002), defines e-commerce as the activity between two or more parties that interchange products or services (physical or digital) involving economical transactions and/or contracts performed via electronic data transfer in open networks. Pillai and Bagavathi (1987) on the other hand, define e-commerce as buying and selling of goods and services via the communications capabilities of private and public computer networks including internet. However, research has demonstrated that E-commerce is not only about transactional activities but retention of customers as well. Research has shown that a 5% increase in customer retention results in a 25–95% increase in profits (Prewitt, 2002). This relationship between customer retention and profits underlines the importance of customer loyalty, which arises from trust gained over many transactions. If the African countries could manage to increase customer retention it would mean that they would be guaranteed an increase in their revenue from their activities.

2.3 Types of E-commerce Application

There are major different types of e-commerce and the notable ones are: business-to-business (B2B); business to-consumer (B2C); business-to-government (B2G); consumer-to-consumer (C2C); and mobile commerce (m-commerce).

1) What is B2B e-commerce? B2B e-commerce is simply defined as e-commerce between companies. This is the type of e-commerce that deals with relationships between and among businesses. About 80% of e-commerce is of this type, and most experts predict that B2B e-commerce will continue to grow faster than the B2C segment Business-to-Consumer (B2C). The success story companies above are all B2C companies. This is when businesses are selling products to consumers, basically people like you and me. Online retail (including drop shipping) is more often than not working on a business to consumer model.

The B2B market has two primary components: e-frastructure and e-markets. Efrastructure is the architecture of B2B, primarily consisting of the following: → logistics - transportation, warehousing and distribution (e.g., Procter and Gamble). → Application service providers - deployment, hosting and management of packaged software from a central facility (e.g., Oracle and Linkshare). → Outsourcing of functions in the process of e-commerce, such as Webhosting, security and customer care solutions (e.g., outsourcing providers such as eShare, NetSales, Enterprises and Universal Access). Auction solutions software for the operation and maintenance of real-time auctions in the Internet (e.g., Moai Technologies and OpenSite Technologies) content management software for the facilitation of Web site content management and delivery (e.g., Interwoven and ProcureNet). Web-based commerce enablers (e.g., Commerce One, a browser-based, XMLenabled purchasing automation software).

2) What is B2C e-commerce?

Business-to-consumer e-commerce, or commerce between companies and consumers, involves customers gathering information; purchasing physical goods (i.e., tangibles such as books or consumer products) or information goods i.e. or goods of electronic material or digitized content, such as software, or e-books and for information goods, receiving products over an electronic network. It is the second largest and the earliest form of e-commerce. Its origins can be traced to online retailing B2C e-commerce reduces transactions costs by increasing consumer access to information and allowing consumers to find the most competitive price for a product or service. B2C e-commerce also reduces market entry barriers since the cost of putting up and maintaining a Web site is much cheaper than installing a “brick-and-mortar” structure for a firm. In the case of information goods, B2C e-commerce is even more attractive because it saves firms from factoring in the additional cost of a physical distribution network.

Moreover, for countries with a growing and robust Internet population, delivering information goods becomes increasingly feasible.

3) What is B2G e-commerce?

Business-to-government e-commerce or B2G is generally defined as commerce between companies and the public sector. It refers to the use of the Internet for public procurement, licensing procedures, and other government-related operations. This kind of e-commerce has two features: first, the public sector assumes a pilot/leading role in establishing e-commerce; and second, it is assumed that the public sector has the greatest need for making its procurement system more effective.¹⁵ Web-based purchasing policies increase the transparency of the procurement process (and reduces the risk of irregularities). To date, however, the size of the B2G e-commerce market as a component of total e-commerce is insignificant, as government-procurement systems remain undeveloped.

4) What is C2C e-commerce?

Consumer-to-consumer e-commerce or C2C is simply commerce between private individuals or consumers. This type of e-commerce is characterized by the growth of electronic marketplaces and online auctions, particularly in vertical industries where firms/businesses can bid for what they want from among multiple suppliers. It perhaps has the greatest potential for developing new markets.

This type of e-commerce comes in at least three forms:

- a) Auctions facilitated at a portal, such as eBay, which allows online real-time bidding on items being sold in the Web;
- b) Peer-to-peer systems, such as the Napster model (a protocol for sharing files between users used by chat forums similar to IRC) and other file exchange and later money exchange model and
- c) Classified ads at portal sites such as Excite Classifieds and eWanted (an interactive, online marketplace).

2.4 The perceived benefits of e-commerce

The benefits of e-commerce to company performance can be divided into three aspects: coordination, efficiency, and market and sales position (Kraemer and Gibbs, 2005). From a coordination perspective, e-commerce improves internal communication, coordination with suppliers, order confirmation, delivery reliability, and order accuracy (Ramanathan et al., 2012, Kraemer and Gibbs, 2005). In terms of efficiency, e-commerce reduces market entry costs, distribution costs, procurement and inventory costs, increases the efficiency of marketing and promotion; and allows not to set up a company physically, instead, the core operating system is on the Internet (Thuy, 2022, Kraemer and Gibbs, 2005). Meanwhile, in terms of market and sales position, e-commerce has increased sales, customer awareness, brand recognition, exposure to products/services, widened sales area, and improved customer service and competitive position (Ramanathan et al., 2012, Kraemer and Gibbs, 2005).

The impact of e-commerce adoption on MSMEs may vary, depending on a firm's attributes. There are many previous studies that have discussed e-commerce adoption and its impact on company performance. Determinants of e-commerce adoption have been examined from both individual and firm perspectives. For example, studies by Ünver et al. (2023) and Alkan et al. (2021) have examined socio-demographic and economic factors Affecting the e-commerce use of individuals in Turkey. While Sanchez-Torres and Juarez-Acosta (2019) proposed an integrated model of SMEs' e-commerce adoption determinants that enables detailed examination of variables affecting the adoption of e-commerce in SMEs, Sánchez-Torres et al. (2021), Amornkitvikai and Lee (2020), and Ocloo et al. (2020) empirically analyse variables that influence the adoption of e-commerce in SMEs. Previous empirical studies demonstrated inconsistent results about the effect of e-commerce adoption on SMEs performance. Ojo and Sadiq (2022), and Chatterjee and Kumar Kar (2020) confirm that e-commerce has a positive effect on SME performance, whereas Jovanovic et al. (2020) and Rasheed (2009) confirm that e-commerce has a negative effect on SME performance.

Although the e-commerce effect on SMEs performance has been widely studied, it has been examined little in the insurance sector. To the best of the researcher's our, there are several studies that have examined the impact of e-commerce on firm performance, such as Wirdiyanti et al. (2022), Riadi et al. (2022), and Nurlinda et al. (2020), but none have focused on the insurance sector, let alone the moderating role of firm size on the relationship.

With the rapid development of digital technology, it is important to investigate whether the use of e-commerce can help the insurance in achieving their overall growth and how firm size affects this impact.

2.5 E-Commerce Barriers

Many studies have been conducted globally to better understand challenges and drivers to e-commerce adoption from both B2B and B2C domains. E-commerce adoption has been studied from both information systems and consumer behaviour. In early studies regarding e-commerce adoption in developed countries, Fram and Grady (1995) concluded that the most concerns for online shoppers are transaction issues such as lack of credit card security, vendors not fully identified, and a lack of payment alternatives. In addition, fear of online transaction was identified as the most significant barriers that prevent online browsers from becoming online buyers (Pillai and Bagavathi, 1987).

Trust has been identified in e-commerce literature as a perceived risk and a barrier to Internet adoption. Consumers with previous Internet experience have a positive attitude towards Internet shopping and place more trust on it. In addition, security concerns, for both; credit card and personal information, were identified as the major barrier to Internet shopping adoption. Consumers perceive more security during online transactions if online vendors can demonstrate that their websites are secure, the consumer then, will recognize the seller's intention to provide security requirements during online transaction.

Research has shown conflicting findings regarding e-commerce adoption. In an early stage of online shopping adoption, re-reported that consumers were most concerned about being unable to examine the product physically prior to purchase, cost of shipping, credit card security, and privacy of personal information. Similar findings were also re- Gibbs, *et al.* (2003) conduct a cross-country comparison study including USA, Germany, France, Denmark, Brazil, Mexico, Japan, China and Singapore to examine global, environmental, and policy factors that act as determinant of e-commerce diffusion. Results of the study indicated that B2B is driven by global forces, while B2C is driven by local phenomena. The study further identifies that consumer demand to purchase online, consumer purchasing power, business e-readiness, strong ICT infrastructure, and government promotion act as enablers for B2C e-commerce. Whereas payment method options, language, available shopping alternatives, lack of consumer

trust, shopping channel preference, on site product information, reluctance to buy online, and inequality in socioeconomic level act as barriers to B2C e-commerce.

The OECD (2007) study that looked did not look at barriers but on determinants e commerce adoption. The OECD study brings into focus key barriers that could be considered in case of One Life Zambia not adopting E commerce. The barriers hindering e-commerce adoption in developing countries varied widely. Most identified barriers are related to infrastructure such as (network availability of ICT skills, technology, qualified human resources), cost of equipment and service, security and privacy issues, payment systems, poor distribution logistics, after-sale services, and lack of feel and touch in online shopping context. Other consumers either in developing countries or in developed countries across Europe do most cross-border online shopping, where they face different barriers. SEC (2009) report on cross-border e-commerce across European States concluded that language, cultural barriers, payment methods, delivery and after-sales support are the most important hindering factors.

There are environment and organisational factors that tend to affect E-Commerce adoption in SMEs. The findings show that E-Commerce is influenced by both organisational and environmental factors. Organisational factors of business resources and mobile technology use are perceived to be conducive for E-Commerce while those perceived to be hindrances to E-Commerce are firstly SME owners' perception that E-Commerce is the use of mobile technology and a static website, which translated into management providing support for mobile technology, but minimal support for web-based E-Commerce. Secondly, there is a lack of technological and human resources necessary to implement fully interactive and trans active E-Commerce.

SMEs in this study are able to use mobile technology as a strategy for governance – as it provides a means of governing most business activities. Further, a business resource shown to be important for E-Commerce adoption and institutionalisation is business partners in developed economies. Most SMEs that have such partnership saw it as an opportunity, because such business partners have the capabilities of alleviating web-based challenges like ensuring that there is continuous management of servers (deemed impossible in Zambia due to electricity cuts) and lack of local expertise in web design and development.

Environmental factors that limit SMEs in adopting and institutionalising E-Commerce include: those factors identified by Molla and Licker (2005) - the market readiness (e.g. customers and partners) institutional readiness (e.g., government policies and regulation), industry support for E-Commerce (e.g. banks and telecommunications providers). An emergent influencing factor was the socio-cultural business setting of Zambia (e.g. desire for traditional face to face bargaining). Although MSME owners perceive these as challenges, they did indicate the market was ready and amenable to the use of mobile technology for trans active purposes and that there was higher industry support for mobile technology than there was for traditional web-based E-Commerce. These factors are regarded as opportunities for all SMEs, regardless of the maturity level of E-Commerce adoption.

E-commerce holds a pivotal position in the green economy, boasting unique attributes like its paperless nature, geographic and temporal flexibility, rapid execution, and lack of reliance on physical locations. It serves as a crucial channel for bolstering sustainable growth in countries, fostering economic prosperity, and catalysing production and economic activities. Alwan et al. (2023) have validated that e-commerce drives demand and supply in electronic markets, invigorating trade and overall well-being. Moreover, the adoption of e-commerce reduces the need for city travel to purchase goods and access services, such as banking and insurance, thereby curbing the consumption of non-renewable energy resources.

This reduction in fossil fuel energy consumption significantly advances sustainable development objectives and enhances natural resource efficiency. Chen and Bashir (2022) have highlighted the positive impact of e-commerce on resource utilization efficiency, addressing issues like traffic congestion, air pollution, and waste generation in countries. Small and medium-sized businesses thriving in the e-commerce domain create competitive economic markets, fostering innovation and new technologies throughout the e-business chain. Xie and Wang (2021) have emphasized that e-commerce development spurs patent applications and innovation in the digital economy, as enterprises strive to generate novel value propositions on digital platforms for consumers. The transmission channel of electricity consumption plays a crucial role in understanding the association between e-commerce and natural resource efficiency. The expansion of digital platforms for e-commerce, both in terms of manufacturing digital devices and their consumption, can lead to increased electricity usage. If electricity production remains reliant on fossil fuel power plants, the growth of e-commerce may inadvertently intensify the use of non-renewable energy sources and exacerbate carbon dioxide

emissions. Additionally, the development of e-commerce platforms goes hand-in-hand with the advancement of financial markets.

Financial and banking transactions play a pivotal role in facilitating e-commerce processes, leading to capital accumulation and fostering the implementation of various economic projects, including environmentally focused initiatives. The multifaceted impacts of e-commerce on resource efficiency underscore its potential to be a critical driver of sustainable economic growth and environmentally responsible development. Taking into account the identified transmission channels, the empirical econometric model incorporates resource efficiency, e-commerce, electricity consumption by households, fossil fuels consumption, financial development, and economic mass (GDP). These variables are selected to comprehensively analyse the intricate interplay between ecommerce and resource efficiency, as well as their potential impacts on electricity usage, fossil fuels consumption, financial markets, and overall economic performance. By including these key factors in the model, the study aims to shed light on the multifaceted relationship between ecommerce and sustainable resource allocation, providing valuable insights into the dynamics of green economic growth and development.

2.6 E-Commerce in developing countries

A common thread among researchers in developing countries is that E-Commerce is a form of innovation in which parties interact electronically to perform one or more of the following functionalities depending on their contextual resources and constraints: (i) communication, such as delivering information, products/services, or payments via telephone lines, computer networks, or any other means; (ii) the application of technology towards the automation of business transactions and workflow; (iii) the meeting of the desire of firms, consumers, and management to cut service costs while improving the quality of goods and increasing the speed of service delivery; (iv) the provision of the capability of buying and selling products and information on the Internet and other online services Boateng et al., 2008; Ngai and Wat, (2002). The benefits of E-Commerce have been well documented in literature (Ojukwu et al., 2007). However, there has been little reported on the success of SME adoption and institutionalisation of E-Commerce in developing countries Ghobahloo et al., 2025), and in LDCs in particular. This is partly due to the limited number of studies conducted in these regions that can provide insights about sociocultural contextual imperatives.

Table 1 although not exhaustive, shows the various studies that have been conducted on E-Commerce in developing countries for the period 1990–2013. Studies that were conducted involved: the diffusion, adoption, behavioural influences, Electronic-Banking and e-Government Diffusion. Studies on mobile commerce were also included. It is evident that most of the studies have been in the more developing countries of Africa, Asian, and Latin America. For example, in developing countries there were a total 67 studies in comparison to 31 for LDCs. 75% of the studies in developing countries were on Internet E-Commerce with 7 African countries represented. Studies that focused on LDCs were minimal specifically in Africa. For example, in Africa, only 4 African countries were investigated for E-Commerce specific studies; and 5 countries investigated Mobile Commerce. This is a negligible number given that there are 34 LDCs in Africa. The majority of these studies were positivistic in nature, following an objective approach. The typical theories used were the Technology Acceptance Model (TAM), Theory of Planned Behaviour, Unified Theory of Acceptance and Use of Technology (UTAUT). Only a few studies used theories that address contextual issues, such as social relational and group theory (Mwangi, 2006), change agent theory (Duncombe and Molla, 2006), the Technology-Organisation-Environment Framework (Kurnia and Peng, 2008; Gibbs et al., 2002), an E-Commerce readiness framework Molla and Licker, 2005), innovation diffusion theory (Alghamdi et al., 2011; Windrum and de Berranger, 2002), and culture theory (Vatanasakdakul et al., 2004). Attention to sociocultural context is important as it shapes ICT usage processes and reveals the underlying causes of ICT related failures (Lamb and King, 2003; Sawe and Simbo, 2002).

Table 1. Studies in developing countries vs least developed countries

Region	Total papers	Focus	Method	Underlying Theory	Geographic Coverage and Reference
Least developed country (31)	11	E-Commerce diffusion E-Commerce Adoption Behavioural influences on E-Commerce Electronic-Banking; e-Government Diffusion	Survey based through a questionnaire Literature review analysis Qualitative and interpretive approach - unstructured and semi-structured face-to-face interviews, web-site analysis, observation and document analysis Multiple regression analysis, Exploratory factor analysis, Principle	Study social relational and group theories The technology acceptance model (TAM) Parsimonious evaluation framework Country readiness for the networked world Change-agent theory Theory of planned behaviour	Africa (6) Shemi and Proctor, 2013, Worku, 2010, Asiimwe and Lim, 2010, Uzoka, 2008, Weerakkody et al., 2007, Uzoka et al., 2007, Uzoka and Seleka, 2006, Duncombe and Molla, 2006, Mwangi, 2006

			component analysis, Feature investigation method	Unified Theory of Acceptance and Use of Technology (UTAUT)	
20	<p>Implementation Challenges of Mobile Commerce</p> <p>Appropriation of mobile telephony at the bottom of the pyramid and Agricultural Markets</p> <p>Social and Economic Implications of Mobile Telephony and Opportunities</p> <p>Consumer use of mobile ICT</p> <p>Mobile Phone Usage among Women Entrepreneurs; in rural livelihoods and poverty reduction</p>	<p>Ethnographic</p> <ul style="list-style-type: none"> ▪geospatial approach <p>Survey based questionnaire, face to face interviews and focus group discussions</p> <p>Online Questionnaire & secondary data collected from books, academic journals, articles from the conferences, internet and newspapers</p>	<p>Technology Appropriation</p> <p>Theory On Price Dispersion</p> <p>Activity and Gender Theories</p> <ul style="list-style-type: none"> ▪Theories of Technology Acceptance and Technology Transfer <p>Sustainable Livelihood Framework</p> <p>Capability Approach to Livelihood Status.</p>	<p>Africa (6); Asia (2)</p> <p>Meso et al., 2005, Mtingwi and Van Belle, 2012, Donner, 2007.</p>	

				Technology– Organization – Environment (TOE) Model Task- Technology Fit (TTF) model.	
Developin g countries (67)	50	E-Commerce adoption, intentions acceptance and success Diffusion of ICTs and E-Commerce in manufacturing SMEs Perceived benefits and management commitment to e- business usage, Growth and usage of E-Commerce	Cross- Sectional Survey; Measures of Central Tendency, Dispersion and Correlation Analysis. Survey Based Through a Questionnaire Case Study Approach Utilising Semi- Structured Interviews,	Resource Base View theory Diffusion of Innovation (DOI) Innovation Decision Process (IDP) Technology Acceptance Models (TAM) TOE	Africa (7:25); Asia (10:17); South America (4); Arab nations (2:4). Abdulghader et al., 2011, Grandón et al., 2011, Ghobakh loo et al., 2011, Datta, 2011, Bansal, 2011, Zhai, 2011, Alghamd i et al., 2011, Abbasi et al., 2010, (2008) Boateng et al. (2008)

		<p>E-Commerce Strategy and Performance</p> <p>Adoption and effectiveness of electronic banking and the adoption of more sophisticated ICT solutions</p> <p>E-Readiness in E-Commerce Adoption; infrastructure and policy on e-business</p>	<p>Observation and Document Review</p> <p>Literature Review Analysis</p> <p>Advanced Multivariate Modeling</p> <p>Partial Least Squares Analysis</p> <p>Multiple Regression Model</p> <p>Fuzzy Preference Relations</p>	<p>Internet and EDI adoption models;</p> <p>Transaction cost theory and strategic management perspectives</p> <p>Perceived Organizational E-Readiness (POER) And Perceived Environmental E-Readiness (PEER)</p> <p>Analytic Hierarchy Process (AHP)</p> <p>A Culture Theory</p>	
	17	mCommerce Adoption, Adoption of Mobile Payment	A Survey Approach/Questionnaires,	Activity and Gender Theories	Africa (5:12); Asia (2:5) Duncombe and Molla, 2009, Joubert

		Systems, Evidence On Mobile Use by SMEs, Mobile Phones and Financial Services, and the informal Economy	Face to Face Interviews	TAM UTAUT	and Belle, 2009, Dörflinger et al.
		Determinants of Internet and Cell Phone Banking Adoption, Consumers' attitudes towards online and mobile banking	Focus Group Discussions	Innovation Diffusion characteristics	al. (2009); Jagun et al., 2008, Min et al.,
		Trust and Risk in M-Commerce	Systematic Review Methodology	Decomposed theory of planned Behaviour	2008, Essegbey and Frempong, 2011, Hughes and Lonie, 2007
		Comparative Analysis of Mobile Phone Usage among Women Entrepreneurs	Case Study Interviews and Secondary Data Analysis	Consumer Behaviour, attitude and motivation, subjective norm, control factors	
				Innovation System conceptual framework	

2.7 E Commerce and Adoption

The section that follows discusses E commerce and adoption. The review will cover E commerce first.

2.7.1 E Commerce

E-commerce has been interpreted as comprising a wide range of organizational operations, such as selling, purchasing, shipping, and/or other organizational management activities conducted via the web or other information networks (Ramanathan et al., 2012). Vijayaraman and Bhatia (2002) defined e-commerce as the electronic purchase and sale of items by consumers and businesses using computerized commercial transactions. In this study, e-commerce will be taken to mean buying and selling transactions via the Internet (Ocloo et al., 2020, Asare et al., 2012).

E-commerce allows businesses to grow more easily in the global market and opens new avenues for enterprises to communicate information to consumers, suppliers, and other stakeholders (Thuy, 2022). E-commerce may speed up the ordering, delivery, and payment of goods and services while lowering a company's operational and inventory expenses by replacing manual and paper-based operations with electronic equivalents and by exploiting information flows in innovative and dynamic ways (Vijayaraman and Bhatia, 2002). Previous study shows the importance of the adoption of e-commerce in Indonesia (Martini et al., 2023).

Over the last several years, e-commerce has changed the way firms operate (Ojo and Sadiq, 2022). Due to perceived ease and lower prices, global technology trends and improvements have affected customers' purchasing behaviours and intentions, increasing online transactions and product information collection (Rosário and Raimundo, 2021). According to Rosário and Raimundo (2021), e-commerce enables businesses to share product and service information to influence consumer purchasing decisions, raise awareness of themselves and their products, and track consumer purchasing activities and demographic features to match products and services with consumer needs and expectations.

The benefits of e-commerce to company performance can be divided into three aspects: coordination, efficiency, and market and sales position (Kraemer and Gibbs, 2005). From a coordination perspective, e-commerce improves internal communication, coordination with suppliers, order confirmation, delivery reliability, and order accuracy (Ramanathan et al., 2012, Kraemer and Gibbs, 2005). In terms of efficiency, e-commerce reduces market entry costs, distribution costs, procurement and inventory costs, increases the efficiency of marketing and

promotion; and allows not to set up a company physically, instead, the core operating system is on the Internet (Thuy, 2022, Kraemer and Gibbs, 2005). Meanwhile, in terms of market and sales position, e-commerce has increased sales, customer awareness, brand recognition, exposure to products/services, widened sales area, and improved customer service and competitive position (Ramanathan et al., 2012, Kraemer and Gibbs, 2005).

Many companies seek to adopt e-commerce to increase sales and services and achieve greater customer satisfaction. E-commerce contributes significantly to increasing the revenues and profits of Insurance firms if successful strategies and tools are relied upon in e-commerce (Abbas et al., 2023; Ojha et al., 2023). However, the success of adopting such electronic platforms for companies may be affected by the degree of their commitment and reliance of smart technologies and tools that contribute to providing the best technical services to customers (Mishra et al., 2023). The adoption of e-commerce is one of the most important reasons for business success, as AI tools contribute to exploiting the available data for products and customers to find opportunities that help promote goods and services (Bawack et al., 2022; He & Liu, 2024).

There are many scientific studies that have investigated the role of E commerce in e-commerce with regard to customer services, facilitating sales, and collecting information (Xu & Ruan, 2023; Li et al., 2023). However, there is a dearth of research related to the role of adopting and enhancing E Commerce tools in sustaining e-commerce business performance and supporting the role of entrepreneurship in the performance of Insurance firms.

North et al., (2020) state that Insurance firms play a substantial and influential role in the high economy, as they have a high share of employment and commercial value. Despite this, these companies face many difficulties and challenges in adopting many new technologies and keeping pace with technological development (Barata et al., 2023; Cheng et al., 2024). Consequently, understanding the factors in adopting e-commerce can provide diverse solutions that contribute to supporting the adoption of AI tools and thus enhance the market value of their products and services. Moreover, Insurance firms face challenges in making decisions that improve their business performance due to the lack of exploitation of data (Sharma et al., 2022). Thus, this study contributes to learning more about the obstacles and also presenting strategies for adopting e-commerce for Insurance firms.

The limited understanding of how Insurance firms can leverage AI tools in e-commerce significantly impacts their development and ability to gain a competitive advantage. There is also a need for more in-depth studies in this field in order to address challenges, exploit opportunities, and provide effective recommendations through AI tools (Salah & Ayyash, 2024). Likewise, Bawack et al. (2022); Kumar et al., (2021); and Chung et al., (2022) mentioned that there is a scarcity of research in studies related to the adoption of e-commerce for Insurance firms. This requires further collection and analysis of relevant data to meet research needs as well as support for Insurance firms.

2.7.2 Adoption

E-commerce adoption in Africa Evidence from the literature surveyed shows that most of the research work on e-commerce in Africa is concentrated in the Republic of South Africa (Moodley, 2003; Barnard and Wesson, 2004; Pather et al., 2003). As a result, it has been difficult to tell what the e-commerce adoption is like in the other parts of sub-Saharan Africa. Research studies carried out in the far East in Hong Kong and Singapore give a clearer picture on the current progress of e-commerce adoption in that area. For example, Kendall et al. (2001) carried out a study to find out how e-commerce has been received by the small and medium-sized enterprises (SMEs) while Teo and Raganathan (2004) looked at business-to-business adoption in Singapore. The studies by Lau et al. (2001) and Yeung et al. (2003) focused on e-commerce adoption in Hong Kong by the financial market and SMEs, respectively. Clearly, similar studies need to be carried for sub-Saharan Africa to find the current progress of e-commerce adoption in this region. This paper aims to present a clear picture of the current e-commerce activities in this region. Quality research with data to back up the conclusions has been carried out in South Africa. Barnard and Wesson (2004) carried out a study to find out the importance of trust in e-commerce in the South African context and Pather et al. (2003) created a conceptual model for measuring e-commerce in South Africa. The study by Moodley (2003) examined the potential of e-commerce in enhancing competitiveness of the South African apparel sector. Additionally, some studies have been carried out, which targeted specific industries, namely the horticultural industry in South Africa, and the garments industry in Kenya (Tregurtha and Vink, 2002; Kinyanjui and McCormick, 2002). The main aim of the studies by Tregurtha and Vink (2002) and Kinyanjui and McCormick (2002) was to build an empirical basis for examining whether business-to-business (B2B) e-commerce enables firms in developing countries to overcome the problems they face in trading on the international

market. The other research study on African countries outside South Africa was by Kardaras and Karakostas (2001), who examined the management practices, applications, problems and technological situation in Mauritius with respect to e-commerce. Although these studies provided evidence of e-commerce activities taking place they still do not present a clear picture of either the current progress of e-commerce adoption in general or in a particular industry such as tourism.

2.8 Insurance Industry and E Commerce

E commerce in the insurance sector tends to be conducted for purposes of making information inquiries and/or business transactions by using mobile devices via wireless communications. This is considered the next big wave of investment and application of information technology. Mobile commerce is estimated to account for a sizable portion of the US\$6.9 trillion e-commerce revenue by 2004. Although abundant research on the technology side of mobile commerce has been published, there exists “very limited research on the strategies and applications of M-commerce” in the insurance sector.

A developed and well-regulated insurance sector is a cardinal feature of a proper economic system, contributing to economic prosperity. A low and uneven development of insurance, especially in the non-life of business, increases the level of risk in the economic decisions taken by individuals and firms, hampering, in turn, economic activity (UNCTAD, 1964). As economies become highly industrialized and technology-driven, they are threatened by higher risks than ever (e-Business W@tch, 2002).

The purpose of insurance is to mitigate risks thus providing financial stability as well as peace of mind to all stakeholders. This is an instrument used to pool funds which allows the insured to lessen risks, i.e. every risk that is associated to insurance has possibility of either a loss or no loss. Examples of such risks include fires, theft, accident, floods, business interruption and so forth. Without the risk pooling and transfer mechanism, many the economic activities would not take place (UNCTAD, 2002). Insurance allows businesses and individuals to continue with their activities, such as work or education, by providing financial compensation if an insured risk occurs, insurance provides peace of mind, which is of considerable, if unquantifiable, value (Bemder and Marks, 2000).

2.9 Theoretical background, proposed conceptual model, and hypotheses development

Information technology acceptance and adoption research has developed several competing and complementary models each with a different set of acceptance determinants. These models have evolved over the years and came as a result of persistent efforts towards models' validation and extension that took place during the period each was presented to the research community. Most notable amongst these models are the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980), Theory of Planned Behaviour, (TPB) (Ajzen, 1985; 1991), Technology Acceptance Model (TAM) (Davis, 1989), Extension of the Technology Acceptance Model (TAM2) (Venkatesh and Davis, 2000), TAM 3 (Venkatesh et al., 2008), Diffusion of Innovation Model (DOI) (Rogers, 1995'; 2003), and Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). Unified theory of acceptance and use of technology (UTAUT2) UTAUT is one of the latest developments in the field of general technology acceptance models. Previous research indicates that TAM and UTAUT models are widely recognized frameworks for analysing IS adoption behaviour.

Davis developed the Technology Acceptance Model (TAM) in 1989, positing that users' perceptions of a technology's ease of use and usefulness influence their attitudes and intentions to use it. TAM, based on the theory of reasoned action (TRA), includes two primary predictors—perceived ease of use and perceived usefulness—and the dependent variable, behavioural intention. Its simplicity and understandability make it popular in IS research (King et al., 2006). TAM evolved into TAM2, proposed by Venkatesh and Davis in 2000, to account for additional factors influencing technology acceptance beyond perceived usefulness and ease of use, incorporating social and cognitive processes. TAM has been applied in research on e-pharmacy adoption and combined with theories like innovation diffusion theory (IDT), the comprehensive model of information seeking (CMIS), and the model of external consumer information search to study antecedents of adopting healthcare technology and online non-prescription drug information seeking (Adamako et al., 2016; Cheng and yang, 2022).

Venkatesh et al. (2003) introduced the Unified Theory of Acceptance and Use of Technology (UTAUT), integrating eight models and theories: the personal computer usage model, innovation diffusion theory, technology acceptance model, theory of reasoned action, combined TAM-PBT, theory of planned behaviour (PBT), social cognitive theory, and motivational model, to explain individual adoption of information technology and systems. UTAUT includes four key factors: performance expectancy, social influence, effort

expectancy, and facilitating conditions, along with four moderating variables: gender, age, experience, and voluntariness of use, which affect the relationships between the primary factors and behavioural intention and use behaviour (Venkatesh et al., 2003). Researchers have used UTAUT to study e-commerce adoption and e-learning (Lertwongsatien and Wongpinunwatana, 2003; Ndayizigamiye, 2013) among different user groups. In e-pharmacy research, UTAUT has been used to identify determinants of e-pharmacy adoption (Supriyanto, 2020).

UTAUT2, developed by Venkatesh et al. (2012), extends the original UTAUT model by incorporating consumer market factors such as price value, hedonic motivation, and habit. UTAUT2's predictive capability significantly exceeds UTAUT, explaining about 74 % of the variance in consumers' behavioural intention and 52 % in technology usage (Venkatesh et al., 2016). Numerous studies have utilized UTAUT2 to elucidate the adoption of various health information technologies across different user groups (Supriyanto, 2020). Recently, UTAUT2 has also been employed to examine factors influencing e-pharmacy adoption (Supriyanto, 2020). Apart from TAM and UTAUT models, IS research in context of e-pharmacy also utilized theory of habitual purchase behaviour, (Ojo and Sadiq, 2022) push-pull-mooring theory, (Thuy, 2022) theory of planned behaviour and regulatory focus theory (Lertwongsatien and Wongpinunwatana, 2003; Ndayizigamiye, 2013; Wirdiyanti, 2022) to understand the consumer's behaviour intentions towards e-pharmacy adoption.

2.9.1 Applications

UTAUT and UTAUT2 have been tested in different geographical contexts to understand the role of culture in technology adoption and solidify the generalisability of the theory tenets (Gupta et al., 2008; Im, Hong & Kang, 2011; Venkatesh et al., 2012). The majority of findings showed that the role of UTAUT constructs was significant irrespective of the difference in cultures. For example, the employment of the model in a comparative study on technology acceptance in the USA and China demonstrated the high explanatory power of the model across the two geographical settings. However, the model accounts for a greater variance in the behavioural intention when fewer moderators are tested (Venkatesh et al., 2012). When UTAUT was examined in Korea and the USA, the strength of the relationships slightly varied, although the significance was invariant across the two samples (Im, Hong & Kang, 2011). Similar results were observed when the UTAUT model was tested cross-culturally in

individualistic vs. collectivistic nations. The model was shown to be viable in both types of cultures, but the strength of the relationships was different, suggesting a strong moderating role of culture on the model paths (Udo et al., 2016). UTAUT2 was also validated in different countries with contrasting cultures, economies and level of technology penetration. In Jordan, mobile banking adoption was not affected by social influence (Alalwan, Dwivedi & Rana, 2017). When comparing the adoption of education technology in Korea, Japan and the US, both the strength of the relationships and the significance of the effects were different across samples. For Korean users, the intention to use e-learning correlated with habit and perceived efficacy. For Japanese users, the behavioural intention was underpinned by habit, price value and social influence, while US users stressed only the habit and price value factors. Surprisingly, effort expectancy was not significant for any country, which might indicate that the technology being tested did not demand any effort to operate it (Jung & Lee, 2020). UTAUT2 applications demonstrate that insight into the conditions associated with culture is required, such as nations' socio-economic status or norms.

2.9.2 Practical Implications of UTAUT

UTAUT and UTAUT2 could have a number of applications in practice. UTAUT can be used to examine the anticipated acceptance rate of a product and ensure sufficient stock to satisfy the consumers' demand. Evidence that the model provides can be used by practitioners to design more user.

2.9.3 Limitations of UTAUT

In spite of the fact that the model is the most applied and complex, it has notable limitations. Limitations The Unified Theory of Acceptance and Use of Technology provides a holistic tool to measure technology acceptance and technology use (Venkatesh et al., 2003; Venkatesh, Davis & Morris, 2007). However, despite the rigorousness of the model, UTAUT has some theoretical and methodological limitations that were not addressed in further studies (Venkatesh et al., 2003; Venkatesh, Davis & Morris, 2007). UTAUT faced critique with regards to its inability to explain behavioural intention in different settings. Limited external validity of the model motivated further studies to extend the model by adding additional determinants of behaviour, such as trust, self-efficacy, computer self-efficacy, innovativeness, perceived threats, perceived risk (Martins, Oliveira & Popovič, 2014; Slade et al., 2015). Also, the model was extended by introducing new moderating effects, such as income, location, culture, technology readiness (Im, Hong & Kang, 2011; Borrero et al., 2014) (for a more comprehensive insight see the review by (Venkatesh, Thong & Xu, 2016)). Still, some key

factors, like computer self-efficacy, remained under-researched. Although it was confirmed that this factor plays a role in behavioural intention (Bandura & Locke, 2003), only an indirect effect of self-efficacy on intention was tested while developing UTAUT (Venkatesh et al., 2003). The concern over the wide application of UTAUT was noted by Dwivedi et al. (Dwivedi et al., 2019), who stated that the majority of studies in the IS context cite the original UTAUT paper without using the model. Those surprising findings lead to the conclusion that UTAUT might not be as robust as it claimed to be, given overrated citations compared to the actual implication of the theory. Thus, based on the analysis of MASEM (Combined meta-analysis and structural equation modelling), a revised version of UTAUT was proposed, which included attitude construct as a partial mediator of the effects of exogenous constructs on behavioural intentions (Dwivedi et al., 2019).

The major methodological limitation of UTAUT concerns the development of the scales that were used to measure the core constructs. For the final measurement development, the study used the highest loading items for each scale. While this approach was supported by the literature (Hevner et al., 2004), there was debate as to whether it may be useful to validate the measurements or even develop new ones to eliminate potential content validity issues (Venkatesh et al., 2003). In addition, the intention to use and use behaviour scales were adopted from prior studies (e.g. (Davis, 1989)), but alternative measurements should be developed and validated in future studies (Venkatesh et al., 2003). UTAUT2 also has some limitations inherent in the methodology. The model utilises a self-reported scale to measure intention to use (Venkatesh, Thong & Xu, 2012), which jeopardises the accuracy and validity of the research conclusions. UTAUT2 shares this limitation with many other technology acceptance models (e.g. TAM, original UTAUT) (Venkatesh et al., 2003; Davis, 1989)). In addition, similar to other technology acceptance models, UTAUT 2 can face a threat of common method variance (Straub & Burton-Jones, 2007; Sharma, Yetton & Crawford, 2009). To reduce the potential of common method bias, different methodological approaches need to be used (e.g. using experimental settings that can make manipulation checks possible).

2.10 Other gaps

Although researchers indicate e-commerce offers viable and practical solution for organisation to meet challenges of a predominantly changing environment, available studies related in developing countries reveal a delay or failure of firms adopting ecommerce. This study then became the need to establish the status of the adoption of ecommerce in South Africa and which

factors influences the adoption by firms. Accordingly, this study focused on to determine the current level of e-commerce adoption and factors that motivates this adoption. However, research has not been done to cover insurance firms.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter outlines the methodology that was used in the study. It describes the research design, the target population, the sample size, the sampling techniques, research instruments, data collection procedures, data analysis and ethical considerations.

3.2 Research Philosophy

Researchers ensure that they understand and articulate beliefs about the nature of the reality (Ontology), what they know about it and how they go about attaining this knowledge (Epistemology). Ontology refers to the nature of our beliefs about reality (Richards, 2003:33). Researchers have assumptions (sometimes implicit) about reality, how it exists and what can be done to know about it. While ontology may look at the nature of our beliefs about reality, another element of research paradigm called Epistemology which studies the nature of knowledge and the process by which knowledge is acquired and validated (Gall et al., 2003: 13). Thus, it is the epistemological question that leads a researcher to debate the possibility and desirability of objectivity, subjectivity, causality, validity and generalizability (Patton, 2002). Adhering to an ontological belief system (explicitly or implicitly) guides a researcher to certain epistemological assumptions.

Therefore, this study anchored on the positivist paradigm embracing the logic of induction and deduction. Positivism assumes that reality exists independently of humans. Since reality is context free, different researchers working in different times and places will converge to the same conclusions about a given phenomenon (Rehman and Alharthi, 2016). Thus, Saunders et al (2009:108) argue that, the adopted research philosophy contains important assumptions about the way in which the researcher view of the world and these assumptions underpin the research strategy and the methods chosen in this study.

Research in the positivist paradigm like this one can be conducted by having either an inductive or deductive approach to the research. It is also possible to use a combination of the two (Saunders et al., 2003) and this is the approach being used. However, this study employs more of induction than deduction. The deductive approach was employed to draw concepts from the

UTAUT Model to build the frameworks for exploration and testing of key phenomena and this led to the framework in section in 1.7. This logic enabled the researcher ground the thinking from the critical rationalist epistemological point as the basis of observations of specific facts (Sekaran, 2003). Therefore, researcher's philosophical view is critical in conducting this study.

3.3 Research Design

The study adopted a cross sectional quantitative approach. This aim is to explore factors related to E Commerce adoption in the e-commerce context, while considering the relevant literature to enhance the study's results. The questionnaire was designed to identify factors relating to the current level of adoption, perceived benefits and challenges. In addition, identifying the factors influencing the adoption of adoption in the e-commerce context.

The questionnaire has been designed to get more details regarding the current level of E Commerce adoption, perceived benefits and challenges. In addition, the factors influencing the adoption of in the e-commerce context. The quantitative approach was considered appropriate and effective for this study, as the questionnaire results were considered ideal to contribute to providing accurate and efficient quantitative results in a short time with a large sample size. In addition, questionnaires provide a unified and similar method in the way of collecting data from study participants, which allows consistent results to be given and easily compared and analysed.

Quantitative research provides generalizability, which helps support scientific research by providing more knowledge on the subject and providing valuable information that is applicable to insurance firms in the field of e-commerce. There is also better cost effectiveness compared to other methods such as interviews and observations in terms of effort, time, and material cost (Gable, 1994). Accessibility is considered an additional advantage for quantitative research to access the large sample faster and more accurately in diverse geographical locations (Venkatesh et al., 2013). This helps provide more diverse results, which contributes to achieving more validity and accuracy. All key factors measured in the study will be derived from various sources of valid and established studies.

3.4 Sample selection, Size and Technique

One Life Zambia has 48 employees who are ICT literate across five departments. The study therefore involves a census.

Operationalisation of the main variables is as follows”

3.5 Operationalisation of the variables and Data Collection Instruments

The main variables in this study were E commerce adoption, Behavioural Intention to adopt E commerce and Predictors to E Commerce Adoption. We operationalized theoretical constructs for UTAUT based upon validated items from prior research.

E-commerce adoption

The study employs a dichotomous variable (yes or no) to measure e-commerce adoption. In this study, e-commerce adoption refers to One Life Assurance Zambia's as a supplier and purchaser and does not include its consumption behaviour. Owing to data limitations, the researcher follows prior research (Li et al., 2021) and makes effort to differentiate online sales and procurements through different types of e-commerce platforms like mobile commerce., WeChat, TikTok, and Kuaishou. Essentially, e-commerce adoption is denoted as.

- 1) Having a functional website.
 - 2) Having a website showing products one can access.
 - 3) Having a website that allows one to search for products that One Life Assurance Zambia deals in.
 - 4) Having a website with contact information.
 - 5) Having a website that allows one to sell products.
 - 6) Having a website that allows one to buy products.
-
- a) A score of 3-6 points for yes values indicates perfect E commerce adoption as the website is interactive.
 - b) A score of 1 to 3 for yes values indicates imperfect E Commerce adoption as E Commerce is merely institutionalized and has a partly interactive websites/Mobile/Email.

Dependent variable: Behavioural Intention to adopt E Commerce

The study employs a seven item and ordered seven-point Likert score defined as follows 1 for Fully disagree, 2 for Disagree, 3 for Some-what disagree, 4 for nor agree nor disagree, for Somewhat agree 6 for Agree Fully and 7 for agree.

The following items were used to measure Behavioural Intention for adopting E commerce.

- 1) BI1: I intend to use the E Commerce system and tools when available in the firm.
- 2) BI2: I predict I would use E Commerce system and tools when available in the firm
- 3) BI3: I have no problem in adjusting to using the E Commerce system and tools when available in the firm
- 4) BI4: I always try new advanced technologies and I am ready for the Ecommerce system
- 5) BI5: I can predict that E Commerce system and tools in this firm in the future
- 6) BI6: I will not regret adding personal money for new technology for E Commerce to be used in the Firm
- 7) BI7: I want to use E Commerce tools even when I am compelled to.

An ideal score for Behavioural intention to adopt E Commerce was set *a priori* at 28. Values below 28 suggest Unlikely to adopt E Commerce, between 29 and 37 suggest Likely to adopt E Commerce and values exceeding 38 up to 49 suggest Highly Likely to adopt E Commerce.

Predictor variables

For this research, five constructs will play a significant role as direct determinants of E Commerce usage behaviour:

Performance expectancy (PE) is operationalised as *"the degree to which an individual believes that using the system will help him or her to attain gains in job performance"*

The study employs a seven item and ordered seven point Likert score defined as follows 1 for Fully disagree, 2 for Disagree, 3 for Some-what disagree, 4 for nor agree nor disagree, for Somewhat agree 6 for Agree Fully and 7 for agree.

The following items were used to measure Behavioural Intention to adopt E commerce.

- 1) PE 1: If I use the E commerce system and tools, it would increase my chances of getting a pay rise

- 2) PE 2: If I use the E commerce system and tools, it would enable me to accomplish tasks more quickly
- 3) PE 3: If I use the E commerce system and tools, it would increase my productivity
- 4) PE 4: If I use the E commerce system and tools, it would make more chances for career progression.

An ideal score for Performance expectancy was set a priori at 16. Values below 16 suggest Unlikely to influence E Commerce, between 16 and 20 suggest Likely to influence E Commerce and values exceeding 21 up to 28 suggest Highly Likely to influence E Commerce.

Effort expectancy (EE) is operationalised as *"the degree of ease associated with the use of the system"*

The study employs a four item and ordered seven point Likert score defined as follows 1 for Fully disagree, 2 for Disagree, 3 for Some-what disagree, 4 for nor agree nor disagree, for Somewhat agree 6 for Agree Fully and 7 for agree.

The following items were used to measure Effort expectancy to adopt E commerce.

- 1) EE1: Once operationalised, my interaction with E Commerce system would be clear and understandable to use
- 2) EE2: Once operationalised, it would be easy for me to become a skilful system exploitor
- 3) EE3: Once operationalised, I would find E Commerce system easy to use to meet my needs and those of the customer
- 4) EE4: Once operationalised learning to operate E Commerce system will be easy for me as it would be free of effort

An ideal score for effort expectancy was set *a priori* at 16. Values below 16 suggest Unlikely to influence E Commerce, between 16 and 20 suggest Likely to influence E Commerce and values exceeding 21 up to 28 suggest Highly Likely to influence E Commerce.

Social Influence (SI) is operationalised as *"the degree to which an individual perceives that important other believe he or she should use the new system"*

The study employs a four item and ordered seven point Likert score defined as follows 1 for Fully disagree, 2 for Disagree, 3 for Some-what disagree, 4 for nor agree nor disagree, for Somewhat agree 6 for Agree Fully and 7 for agree. The following items were used to measure Social Influence to adopt E commerce.

- 1) SI 1: Within One Life Assurance Zambia, there are colleagues who would influence my behaviour to use E Commerce system before and once in place
- 2) SI 2: Technocrats who are important to me in One Life Assurance Zambia, believe that I should use E Commerce system before and once in place
- 3) SI 3: One Life Assurance Zambia Management would motivate me to use E Commerce system before and once in place
- 4) SI 4: Learning to operate E Commerce system from others will be easy for me one in place.

An ideal score for Social Influence was set *a priori* at 16. Values below 16 suggest Unlikely to influence E Commerce, between 16 and 20 suggest Likely to influence E Commerce and values exceeding 21 up to 28 suggest Highly Likely to influence E Commerce.

Structure of the survey and measurement scales

The researcher developed the survey instrument (Appendix I) for pre-test to ensure content validity. Davis et al. (1989) pointed out that psychometricians emphasize the validity of a measurement scale is built from the outset (Davis, 1986). To ensure content validity of the scales, the items selected must represent

the concept about which generalizations are to be made. First, all items identified in existing instruments were categorized according to the various UTAUT scales published in the literature. This generated an initial item pool for each construct. To keep the length of the instrument reasonable, the researcher kept the wording similar to the original studies. The typical item in previous instruments tended to ask respondents to indicate a degree of agreement using a seven-point scale and the researcher used this approach for this study.

Eight university lecturers from CBU, ZCAS, Cavendish Univeriuty and UNILIUS with considerable research experience within the framework of internet user behavior collaborated where approached to validate the adopted and modified survey questionnaire in the final survey

definition. Thus, starting from an initial draft survey all the necessary changes were introduced according to the experts' recommendations. Also a preliminary survey was conducted to check adequate the respondents' understanding of the questions. A panel of ten classmates were asked to answer the questionnaire with One Life Assurance Zambia being replaced by "your institution" This pre-tested led to some minor modifications of the question formats based upon the statistical results of their responses and a set of interviews.

The items in the questionnaire were modified from that of Lescevia et al., (2013). The team's questionnaire was a 38 item based questionnaire covering the following dimensions.

- 1) Intention to exploit features of products (3 Items)
- 2) Behavioural Intention (7 Items)
- 3) Social Influence (4 Items)
- 4) Effort Expectancy (4 Items)
- 5) Performance expectancy (4 items)

In this study, Items 1 and 4 were adopted in that 1 was not possible as there were no stated products and for 4, anxiety composed of an initial will include different aspects required for the purpose of the study. This will contribute to collecting in-depth and accurate data that would helped test hypotheses and obtain results that support the aim of the study (Rodeo, 2005; Orodho, 2005).

3.6 Data Collection Procedure

The data for this study was collected by virtue of a web between February and March, 2024. survey. All staff of One Life Zambia belong to the institutional WhatsApp group and have institutional e mail addresses. The questionnaire was designed using Google Forms and distributed by e mail and WhatsApp using a survey link. Participants were invited to complete the survey which was accompanied by a consent form to be part of the study (See Appendix 2).

Ethical Conduct of the Research Ethical approval for this research was obtained prior to the pilot and the main study from the University of Zambia Research Ethics Committee (See Appendix 3)

Informed consent may be broken down into four constituent elements: disclosure (providing adequate information), comprehension (understanding of information), competence (ability of participants to make a rational decision), and voluntariness (no coercion) (Sim, 1998).

Verbal consent

Participants were invited to participate voluntarily in this study following a written consent. Participants will be reassured not to feel obliged to complete the questionnaire and participate in interviews and that they might withdraw from the study at any point in time if they so wished (Carver et al., 2011).

Confidentiality

Participants were informed that all information would be treated with strict confidentiality and used only for research purpose (Carver et al., 2011).

Anonymity

Anonymity was ensured. The questionnaire had no names of respondents. Participants were asked to complete the questionnaire anonymously. Subsequent uses of records and data were subject to standard data use policies, which protect the anonymity of individuals and institutions. Participants were instructed that if they did not wish to participate to place the blank uncompleted questionnaire also in the envelope and return to the researcher (Carver et al., 2011).

3.7 Data Analysis

All statistical analyses were performed using IBM SPSS Statistics for Windows (Version 22.0; IBM Corporation, NY) and significance was set at $p < 0.05$. Nominal data were presented in proportions, and ratio data were presented as mean and standard deviation. Cronbach's alpha was used to assess the internal consistency of the UTAUT, with Cronbach's alpha values being interpreted as follows: $\alpha < 0.70$ (weak), $\alpha = 0.70-0.80$ (acceptable), $\alpha > 0.80$ (strong) (Koo and Li, 2016). The strength of correlation coefficients was interpreted as follows: $r = 0.10-0.29$ (small), $r = 0.30-0.49$ (medium) and $r = 0.50-1.0$ (large) (Cohen, 1988). The details appear later in this section. Using mean UTAUT domain scores, multivariate regression analysis of the impact of the independent variables on behavioural intention was performed. In addition, multivariate regression enables researchers to analyse many complex relationships through more modelling between multiple dependent and independent variables (Hair et al., 2010).

3.7.1 Reliability and Validity

In this research: Cronbach's Alpha reliability test method has been applied. A higher value of Cronbach's Alpha is a better value of reliability. Table 3.1 shows that each of the UTAUT scales that represent the UTAUT constructs are reliable, since Cronbach's Alpha is above 0.7013; x Split-Half Reliability - an alternative way of computing the reliability of a sum scale is to divide it in some random manner into two halves. If the sum scale is perfectly reliable, we would expect that the two halves are perfectly correlated (i.e., $r = 1.0$). Less than perfect reliability will lead to less than perfect correlations. We can estimate the reliability of the sum scale via the Spearman-Brown split half coefficient¹⁴; The Spearman–Brown prediction formula, also known as the Spearman–Brown Prophecy formula, is a formula relating psychometric reliability to test length and used by psychometricians to predict the reliability of a test after changing the test length. Test length must grow by increasingly larger values as the desired reliability approaches 1.0.

In this study, the researcher uses Cronbach's α to measure the reliability of our research instrument. In practical application, the value of Cronbach's α should exceed 0.5. It has been recommended that “the internal consistency, as measured by the Cronbach's α , should be at least 0.60 for a self-report instrument to be reliable and at least 0.8 when used as a screening instrument” The Cronbach's α of our instrument ranges from 0.6347 to 0.9412, indicating a medium high to high reliability. The reliability analysis of our research instrument is summarized in Table 3.1. The results of reliability tests based on 74 respondents summarised in Table 3.1. Calculations were done using a specially prepared format (see [http://www.gifted.uconn.edu/siegle/research/Instrument %20 Reliability% 20 and% 20 Validity/reliability calculator 2.xls](http://www.gifted.uconn.edu/siegle/research/Instrument%20Reliability%20and%20Validity/reliability%20calculator%20.xls)).

Cronbach's Alpha coefficients are higher than 0.7. The same situation can be observed with Split-half correlation coefficients. It means that UTAUT parameters are the right ones and the results are reliable.

Table 2: Reliability Analysis Outcomes

UTAUT parameter	Cronbach's α	Split-half correlation	Spearman-Brown	Number of Item
Performance Expectancy (PE)	0.830	0.717	0.835	4
Effort Expectancy (EE)	0.841	0.717	0.835	4
Social Influence (SI)	0.811	0.793	0.884	3
Behavioural Intention (BI)	0.834	0.716	0.834	7

The main inferential analytic technique was binary logistic regression .

CHAPTER 4

FINDINGS

4.1 Overview

Chapter 3 examined the methodological trail used for this thesis. It set out how the research was done. The chapter examines what is happening in One Life Zambia in terms of E commerce adoption. The study uses aggregated univariate analysis, contingency tables and regression analysis tables to support the analysis. In this chapter, the researcher examines and presents the general profile of respondents. The findings are presented in an ordered fashion beginning with foundational questions and ending up with testing of hypotheses.

4.2 Demographics

One Life Zambia is dominated by male employees. Just about a quarter of the workforce $n = 35$ (72.9%) account for males and a paltry $n = 13$ (27.1% are females. The population was composed a youthful group of employees whose mean age was 35.7 (± 5.9 SD) whose dominant age group was 24 to 36. The distribution for the number of years having worked for One Life Assurance Zambia was that employees had worked between 3 and 8 eight years. The mean working years was 6 (± 1.8 SD). Diploma and bachelor's degree holders form the backbone of employee categories as they both account for $n = 61$ (87.2%) (see Table 4.1).

Table 3: Demographic Profile of One Life assurance Zambia N = 48

	<i>Frequency</i>	
	n	%
<i>Gender of respondent</i>		
Male	35	72.9
Female	13	27.1
<i>Indicate the highest qualification you have</i>		
Certificate	6	12.5
Diploma	17	35.4
Bachelor's Degree	16	33.3
Master's Degree	9	18.8

4.3 Current of application of E Commerce Adoption

This section answers the first research question which is “What is the current level of application of E commerce maturity level at One Life Assurance Zambia?” The data shows that One Life Assurance Zambia has a website n = 41 (85.4%) as compared to n = 7 (14.6%) who claim that there is no functional website (see Figure 4.1).

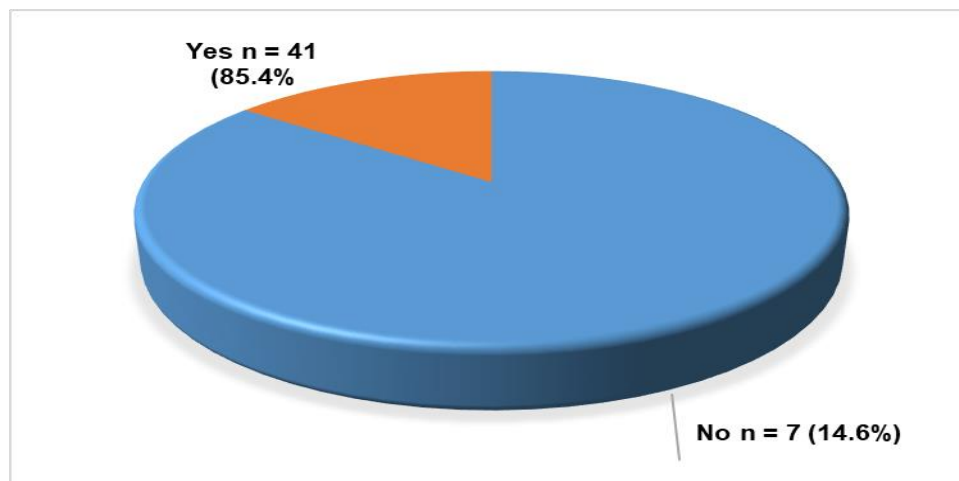


Figure 4.1: Availability of Website for One Life Assurance Zambia

However, while there is a website for One Life Assurance Zambia, there is very little to account for E Commerce adoption by the firm (See table 4.2).

Table 4: One Life Assurance Zambia Website E Commerce Features

<i>Website E commerce Features</i>	Frequency			
	Yes		No	
	n	%	n	%
One Life Assurance Zambia has a functional website	7	14.6	41	85.4
One Life Assurance Zambia website has products you can access	13	27.1	35	72.9
One Life Assurance Zambia website allows you to search for products that One Life Assurance Zambia deals in	6	12.5	42	87.5
One Life Assurance Zambia has a website with contact information	48	100	0	0
One Life Assurance Zambia website allows you to transact	0	0	48	100.0

The overall level of E commerce adoption for One Life Assurance Zambia can be graded as an imperfect E Commerce adoption as E Commerce is merely institutionalized. A visit at the website for purposes of triangulation shows that customers can only download a mobile app and access the firm physically and by e mail being info@one.co.zm.

4.4 Dominant IT Media Platforms Used

This section answers the research question “What are the dominant IT media platforms One Life Assurance Zambia has adopted for e-commerce?”

While there is no E commerce activity at One life Zambia as shown in section 4.3, the researcher earlier had planned to profile the dominant platform. From the common platforms (See table 4.3), The firm has not considered any to cut costs by way improving internal environment and accessing its customers.

Table 5: Dominant E Commerce Platforms

E Commerce Platform	Yes	No
Big Commerce: An enterprise platform with features for order management, inventory management, and payment solutions.	0	48
Shopify: An all-in-one solution that acts as a payment gateway, and fulfilment provider, and email marketing service.	0	48
Wix : Offers a free plan with limited features, and premium plans with advanced features like inventory management, shipping, tax settings, and abandoned cart recovery.	0	48
WooCommerce “Offers ready-to-use templates for building a website, but also allows merchants to customize their site by building their own code.	0	48
Squarespace: An all-in-one platform that includes website design, domain hosting, online store building, and marketing. It comes with themes and designs, SEO tools, and easy setup.	0	48
Adobe Commerce: Formerly known as Magento, this open-source platform offers a flexible shopping cart system and control over the look, content, and functionality of the online store	0	48
Big Cartel: A hosted platform that's popular in the creative industry, with most of its stores being for jewellery, fashion, music, arts, crafts, and other creative endeavours.	0	48
Square: A platform that allows store owners to set up their stores based on the cost of their payment processing. The setup is designed to be straightforward, intuitive, and easy for beginners.	0	48

4.5 Behavioural Intention to Adopt E Commerce

This section covers the third research question “What is the pattern of E Commerce Behavioural Intention among employees at One Life Assurance Zambia?”

Seven dimensions of Behavioural Intention to Adopt E Commerce were assessed as shown in Table 4.4. Employees have intentions in all behavioural dimensions as the sums of agreements are more than those of disagreements. However, the frequency scores are more for readiness for two dimensions which are the E commerce system and tools when available in the firm and having not regret adding personal money for new technology for E Commerce to be used in the Firm (See Table 4.4).

Table 6: Frequency of behavioural intention of E Commerce Adoption N = 48

<i>Behavioural intention element</i>	<i>Fully disagree</i>	<i>Disagree</i>	<i>Some-what disagree</i>	<i>Not sure</i>	<i>Somewhat agree</i>	<i>Agree</i>	<i>Fully agree</i>	<i>Ranking</i>
1) I intend to use the E Commerce system and tools when available in the firm.	6	2	3	8	10	4	15	6
2) I predict I would use E Commerce system and tools when available in the firm	2	2	1	8	9	13	13	2
3) I have no problem in adjusting to using the E Commerce system and tools when available in the firm	6	4	6	4	4	18	9	5
4) I always try new advanced technologies and I am ready for the Ecommerce system	2	2	1	10	10	16	17	1
5) I can predict that E Commerce system and tools in this firm in the future	6	2	2	6	5	21	6	4
6) I will not regret adding personal money for new technology for E Commerce to be used in the Firm	2	1	1	6	6	22	10	2
7) I want to use E Commerce tools even when I am compelled to	3	2	3	7	7	12	13	4

Based on the frequency distributions above, composite scores were computed to further understand the distribution. The ideal population mean score for Behavioural intention to adopt E Commerce was 34.4 (See Table 4.5) and this was higher than the set *a priori* value of 28. This value fell in the category “likely to adopt e commerce” whose range between 29 and 37.

Table 7: Behavioural Intention to Adopt E Commerce N = 48

Mean	Median	Mode	SD	Min	Max
34.4	35.50	38	6.6	13	46

An assessment was done to categorise the likeliness of intention to adopt E Commerce. Table 4.6 Shows that nearly all employees intend to adopt E Commerce n = 45 (93.7%) when compared to only n = 3 (6.3%).

Table 8 Categorisation of Behavioural Intention to Adopt E Commerce N = 48

<i>Dimensions of Behavioural intention to adopt E Commerce</i>	<i>Frequency</i>	<i>Percent</i>
Behavioural intention unlikely to adopt E Commerce	3	6.3
Behavioural intention Likely to adopt E Commerce	17	35.4
Behavioural intention Highly like to adopt E Commerce	28	58.3
Total	48	100.0

4.6 Reasons not taking full advantage of adoption of E-commerce?

Why has One Life Assurance Zambia not taken full advantage of adoption of E-commerce? This research question will be answered through testing the causal hypothesis which are linked to Unified Theory of Acceptance and Use of Technology (UTAUT) model. However, before determining the linkage between the selected predictors and behavioural intention to adopt E Commerce, descriptive data are presented first. Since there are

Employees have reasons for their behavioural dimensions using four predictor domains which are (i) Performance expectancy (ii) Effort expectancy, (iii) Social Influence and (iv) Facilitating conditions. Below are the descriptive of these four domains.

4.6.1 Performance Expectancy

Four dimensions of performance expectancy influencing adoption E Commerce were assessed as shown in Table 4.7. The frequency scores are more for three performance dimensions which are (i) using the E commerce system and tools, enabling one to accomplish tasks more quickly, (ii) using the E commerce system and tools, to enable one increase their productivity and (iii) using E commerce system and tools, to create more chances for career progression (See Table 4.7).

Table 9: Frequency of performance expectancy N = 48

<i>Performance Expectancy</i>	<i>Fully Disagree</i>	<i>Disagree</i>	<i>Some-What Disagree</i>	<i>Not Sure</i>	<i>Somewhat Agree</i>	<i>Agree</i>	<i>Fully Agree</i>	<i>Ranking</i>
If I use the E commerce system and tools, it would increase my chances of getting a pay rise	16	6	1	7	5	9	4	-
If I use the E commerce system and tools, it would enable me to accomplish tasks more quickly	0	0	3	17	13	9	6	3
If I use the E commerce system and tools, it would increase my productivity	1	5	5	8	14	10	5	2
If I use the E commerce system and tools, it would make more chances for career progression	0	0	4	12	9	16	7	1

Based on the frequency distributions above, composite scores were computed to further understand the distribution. The ideal population mean score for the predictor performance expectancy was 18.0 (See Table 4.8). This value higher than the set *a priori* value of 16. This value fell in the category “likely to influence E commerce” whose range is between 16 and 20.

Table 10: Descriptives of Performance Expectancy to influence Adoption of E Commerce N = 48

Mean	Median	Mode	SD	Min	Max
18.0	18	18	3.0	12	25

An assessment was done to categorise the likeliness of intention to influence E Commerce. Table 4.9 Shows that less than a quarter n = 11 (22.9%) of all employees agree that performance expectancy is un likely to influence E Commerce when compared to more than three quarters who n = 37 (77.1%) who either agree that Performance Expectancy is both Highly likely to influence E Commerce Adoption and Very Highly likely to influence E Commerce Adoption

Table 11 Categorisation of Performance Expectancy to influence Adoption of E Commerce N = 48

<i>Categorisation of Performance Expectancy of E Commerce Influence</i>	<i>Frequency</i>	<i>Percent</i>
Unlikely to influence E Commerce Adoption	11	22.9
Highly likely to influence E Commerce Adoption	26	54.2
Very Highly likely to influence E Commerce Adoption	11	22.9
Total	48	100.0

4.6.2 Effort Expectancy

Four dimensions of Effort expectancy influencing adoption E Commerce were assessed as shown in Table 4.8. Effort expectancy is a construct related to the degree of ease associated with the use of the E Commerce system or tools. The frequency scores are more for three Effort Expectancy dimensions which are (i) Once operationalised, it would be easy for one to become a skilful system exploitor (ii) Once operationalised learning to operate E Commerce system will be easy for one as it would be free of effort, to create more chances for career progression (See Table 4.10).

Table 12: Frequency of Effort Expectancy N = 48

<i>Effort expectancy</i>	<i>Fully Disagree</i>	<i>Disagree</i>	<i>Some-What Disagree</i>	<i>Not Sure</i>	<i>Somewhat Agree</i>	<i>Agree</i>	<i>Fully Agree</i>	<i>Ranking</i>
Once operationalised, my interaction with E Commerce system would be clear and understandable to use	6	5	3	11	14	4	5	0
Once operationalised, it would be easy for me to become a skilful system exploitor	1	1	1	8	14	13	10	2
Once operationalised, I would find E Commerce system easy to use to meet my needs and those of the customer	16	10	6	11	5	0	0	0
Once operationalised learning to operate E Commerce system will be easy for me as it would be free of effort	4	2	1	16	13	7	5	1

Based on the frequency distributions above, composite scores were computed to further understand the distribution. The ideal population mean score for the predictor Effort Expectancy was 16.1 (See Table 4.11). This value is equal to the set *a priori* value of 16 and was within the reference category “likely to influence E commerce” whose range is between 16 and 20.

Table 13: Descriptives of Effort Expectancy to influence Adoption of E Commerce N = 48

Mean	Median	Mode	SD	Min	Max
16.1	15	15	3.2	11	25

An assessment was done to categorise the likeliness of intention to influence E Commerce. Table 4.12 Shows that less than a quarter n = 11 (22.9%) of all employees agree that Effort expectancy is un likely to influence E Commerce when compared to more than three quarters who n = 37 (77.1%) who either agree that Effort expectancy is Highly likely to influence E Commerce Adoption and Very Highly likely to influence E Commerce Adoption.

Table 14 Categorisation of Effort expectancy to influence Adoption of E Commerce N = 48

<i>Categorisation of Effort expectancy of E Commerce Influence</i>	<i>Frequency</i>	<i>Percent</i>
Unlikely to influence E Commerce Adoption	27	56.3
Highly likely to influence E Commerce Adoption	16	33.3
Very Highly likely to influence E Commerce Adoption	5	10.4
Total	48	100.0

4.6.3 Social Influence

Four dimensions of Social Influence influencing adoption E Commerce were assessed as shown in Table 4.21. Social Influence is a construct related to the degree of individuals' acceptance and usage of E Commerce system or tools that can be triggered by the encouragement of significant others even when actors do not like the behaviour or the consequences. Yet, they may decide to engage in certain activities if the persons around them think they should. The frequency scores are more for four Social Influence dimensions (See Table 4.13).

Table 15: Frequency of Social Influence N = 48

<i>Social Influence</i>	<i>Fully Disagree</i>	<i>Disagree</i>	<i>Some-What Disagree</i>	<i>Not Sure</i>	<i>Somewhat Agree</i>	<i>Agree</i>	<i>Fully Agree</i>	<i>Ranking</i>
Within One Life Assurance Zambia, there are colleagues who would influence my behaviour to use E Commerce system before and once in place	9	3	1	4	15	13	3	2
IT Technocrats who are important to me in One Life Assurance Zambia, believe that I should use E Commerce system before and once in place	5	1	1	1	14	13	13	1
One Life Assurance Zambia Management would motivate me to use E Commerce system before and once in place	9	10	2	5	7	10	5	4
Learning to operate E Commerce system from others will be easy for me one in place	0	1	4	17	9	10	7	3

Based on the frequency distributions above, composite scores were computed to further understand the distribution. The ideal population mean score for the predictor Social Influence was 18 (See Table 4.14). This value is higher than the set *a priori* value of 16 and was within the category “likely to influence E commerce” whose range is between 16 and 20.

Table 16: Descriptives of Social Influence to influence Adoption of E Commerce N = 48

Mean	Median	Mode	SD	Min	Max
18	18	18.3	3.2	12	25

An assessment was done to categorise the likeliness of intention to influence E Commerce. Table 4.15 Shows that less than a quarter n = 11 (22.9%) of all employees agree that Social Influence is un likely to influence E Commerce when compared to more than three quarters who n = 37 (77.1%) who either agree that Social Influence as Highly likely to influence E Commerce Adoption and Very Highly likely to influence E Commerce Adoption.

Table 17 Categorisation of Social Influence to influence Adoption of E Commerce N = 48

<i>Categorisation of Social Influence of E Commerce Influence</i>	<i>Frequency</i>	<i>Percent</i>
Unlikely to influence E Commerce Adoption	11	22.9
Highly likely to influence E Commerce Adoption	24	50.0
Very Highly likely to influence E Commerce Adoption	13	27.1
Total	48	100.0

4.6.4 Determining the Linkage

Following the descriptive, this section examines the influence of Social Influence (SI), Effort Expectancy (EE) and Performance Expectancy (PE) on Behavioural Intention to E Commerce Adoption (BI-ECA). In total, three structural equation models with latent variables are estimated. In the first case, only the UTAUT factors (performance expectancy, effort expectancy, Social Influence) with effects on behavioural intention as indicated by Venkatesh et al. (2003) are of concern.

As detailed in the methodology, the Logistic Linear Regression (LLR) model results are presented. This analysis aims to identify the key domains that significantly influence One Life Assurance Zambia employees' intentions to adopt E Commerce. The findings indicate that all examined variables serve as significant predictors of data analytics adoption. Notably, facilitating conditions and social influence emerged as the most influential factors, underscoring their critical role in shaping social workers' readiness to embrace data-driven approaches.

Regression analysis was done to produce correlations, the coefficient of determination and analysis of variance (ANOVA). Correlation sought to show the nature of the relationship between dependent and independent variables and coefficient of determination showed the strength of the relationship. Analysis of variance was done to show whether there is a significant mean difference between dependent and independent variables. The ANOVA was conducted at 95% confidence level. Regression analysis was used to establish the relationship between the three predictors (Performance Expectancy, Effort Expectancy and Social Influence) and E Commerce Adoption.

The findings as shown in Table 4.17 of the model summary indicated that there was a strong positive relationship ($R = 0.873$) between the variables as shown by this value of multiple correlation coefficient. Further than this, the model explains 76.2% of the variation in the dependent variable at One Life Assurance Zambia and this could be explained by three predictors under study and only 14.8% of the variation cannot be explained by other variables not included in this study. Further, it is widely accepted in the statistical applications that an R^2 adjusted of above 75 per cent is very good; between 50–75 per cent is good; between 25–50 per cent is fair and below 25 per cent is poor. Based on the result the model is very good (76.2%).

Table 18: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.873	.762	.749	867.89

a. Predictors: (Constant), Social Influence score, Performance Expectancy Score, Effort Expectancy Score

The ANOVA table (See Table 4.18) is being used to report how well the regression equation fits the data (i.e., predicts the dependent variable). The overall model is significantly useful in explaining the Dependent Variable: Behavioural Intention Score, $F(4, 65) = 23.097$; $p < .05$

Table 19 Analysis of Variance (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	468774.13	4	44198553.5	23.097	.000
Residual	136754.09	65	765336.71		
Total	585986.45	69			

a. Dependent Variable: Behavioural Intention to E Commerce Adoption (BI-ECA)

b. Predictors: (Constant), Social Influence (SI), Performance Expectancy (PE), Effort Expectancy (EE)

The ANOVA Table (4.16) indicates that the regression model predicts the dependent variable “Behavioural Intention to E Commerce Adoption (BI-ECA)” significantly well noting that, $p < 0.001$, is less than the ideal $\alpha = 0.05$ (i.e., it is a good fit for the data). Furthermore, we can use the values in the "B" column under the "Unstandardized Coefficients" column, as shown below are in the positive. The model indicates that the three predictors do influence E Commerce Adoption at One Life Assurance Zambia as the p values in all cases are < 0.05 (See Table 4.19).

Table 20: Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	8286.786	1852.25		4.474	.002
Performance Expectancy	.664	0.74	.873	7.865	0.000
Effort Expectancy	.689	.257	.776	5.065	0.000
Social Influence	.729	.327	.812	6.618	0.000

a. Dependent Variable: Behavioural Intention to E Commerce Adoption (BI-

ECA)

From the multiple regression analysis results, the three predictors have a direct positive relationship with the employees' behavioural intention to adopt E Commerce. It is proven that all the three factors have positive impact on the employees' intention to adopt E Commerce. This shows that the UTAUT model which was used to determine the employees' intention to adopt E Commerce is valid through the data collected. All the three factors can be applied to the design of E Commerce activities.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 Introduction

Chapter Four examined the state of E Commerce adoption at One Life Assurance Zambia. Chapter Five interprets and explains the results within the thesis. It explains the significance of the results and links everything to the research questions.

It will also show the meaning, importance and relevance of the results. It will further focus on explaining and evaluating what has been found and how this relates to the reviewed literature and research questions in order to support the overall conclusion.

5.2 An Outline of Chapter 5

Chapter Five has seven sections for discussion. Section one is the introduction while section two looks at the main findings. Section three discusses the main findings. It also examines and discusses each research question supporting the problem. Section four examines the significance and limitations of the study. Section five covers the research implications before making conclusions in section 6.

This study was premised on the assumption that despite the strategic plan for One Life Assurance Zambia indicating the need for adopting E commerce in year one of the strategic plan, E commerce is far from been adopted. One Life Board was afraid of the consequences of non-adoption and desired to know what the state was like on the ground if E commerce adoption would be possible.

5.3 Main Findings

There, there is very little to account for E Commerce adoption at One Life Assurance Zambia. Overall level of E commerce adoption for One Life Assurance Zambia can be graded as imperfect and its customers can only download a mobile app and access the firm physically or

by e mail. The firm has no platform for E Commerce. Nearly all employees intend to adopt E Commerce when the system and tools are rolled out as n = 45 (93.7%) desire so compared to only n = 3 (6.3%) who do not. Regression analysis shows a relationship between the three predictors (Performance Expectancy, Effort Expectancy and Social Influence) and E Commerce Adoption. There was a strong positive relationship (R= 0.873) and the model explains 76.2% of the variation in the dependent variable and this is a very good model. The three predictors influence E Commerce Adoption (BI-ECA) noting that the model's sig value was $p < 0.001$. Based on the main findings, an interpretation is ideal.

Relating to the first research question, the current level of application of E commerce in terms of maturity level is rather un expected. While One Life Assurance Zambia has a non-functional web page, the insurance firm is not in the process of buying, selling, transferring or exchanging products, services, and/or information via computer networks, mostly internet and intranets as expected of the ICT age (Turban et al., 2008). Using Daniel's model to classify levels of E commerce adoption, One Life Zambia does fall into any of the four clusters (See Table 5.1).

Table 21 E-Commerce Adoption Stages (Daniel Model)

Cluster 1	Developers	The lowest level of e-commerce usage but very high level of services under development. This company is at the very beginning of their e-commerce adoption
Cluster 2	Communicators	Making extensive use of email to communicate and web to find business information
Cluster 3	Web Presence	Using email to communicate and create website to provide information about their company
Cluster 4	Transactors	Taking orders online, provide after-sales services, doing recruitment online

Considering research question number 3, which is about testing the assumptions of the UTAUT model if they hold in accounting for One Life Assurance Zambia's adoption of E-commerce, the model holds and the following is worthy of noting. This will require discussing the three predictor variables.

Effort Expectancy-Performance Expectancy

The researcher combines the interactive effect of the two. Interestingly, the results report that there are highly significant links between effort expectancy-performance expectancy. This seems to demonstrate that employees at One Life Assurance Zambia's see the two as drivers of E Commerce Adoption. Research has shown that ease of use is a significant driver of perceived usefulness of technology (Bressolles et al., 2014; Davis, 1989; Davis et al., 1989; Kamble et al., 2019; Yoo and Donthu, 2001). Furthermore, there are significant relational paths between E Commerce Adoption and even between effort expectancy-intentions to E Commerce Adoption, albeit to a lesser extent. Yet, this research indicates that performance expectancy partially mediates effort expectancy-intentions to E Commerce Adoption. In this case, this link is highly significant.

The employees of One Life Zambia seem to point simplicity of use of E Commerce systems and tools in that there is an in built presence of human resource to build inner capacity. Researchers argue that individuals would be intrigued to use clear and understandable technologies that are uncomplicated and easy to use (Thompson et al., 1991; Venkatesh et al., 2012). Previously, Davis's (1989) as well as Davis et al.'s (1989).

It was also interesting to note that regarding performance expectancy as “the degree to which an individual believes that using the system will help him or her attain gains in job performance”. This was one of the drivers of the intentions to adopt E Commerce. When Venkatesh et al. (2003) put forward their UTAUT, they theorized that the individuals' performance expectancy from technological systems significantly affects their behavioural intentions to use them. Since then, a number of researchers have reported similar results, even though they examined and validated this causal path for a wide array of technologies, in various contexts (Alalwan, 2020; Alam et al., 2020; Al-Saedi et al., 2020; Raza et al., 2021; Tam et al., 2020).

Social Influences

Another important finding from this research is that the individuals' social influences from, friends or colleagues are affecting their interactions with E Commerce Adoption. Again, this causal path is also very significant. Similar results were also reported in UTAUT studies that are focused on the link between social influences and its link with intentional adoption behaviours to use technologies (Gursoy et al., 2019; Patil et al., 2020). This is in stark contrast

with other studies that reported that there was no significant relationship between social influences and behavioural intentions (Ho et al., 2020; Kamble et al., 2019).

In sum, this study's contribution validates key information on E Commerce Adoption measures, specifically, performance expectancy, effort expectancy, social influences and behavioural intentions from UTAUT.

5.4 Significance and Limitation and scope for the future research

This study acknowledges a few limitations and provides recommendations for future research.

First, there is the definition of intention behaviour relating to E Commerce Adoption itself, this study did not refer to any specific insurance product or service categories, so the results of this study could be affected. However, the researcher's choice to consider e-commerce adoption from a general perspective implies the search for an online purchasing and selling pattern not considering the effects of specific insurance product categories. Nevertheless, the effects that both specific product categories and their corresponding characteristics have on E Commerce adoption relating to purchasing and selling decisions form instance would be interesting to study in future research. In particular, an analysis of the differences in the procedures relating the online purchasing and selling of goods and services linked to an insurance form would be especially relevant.

Second, the limitations of this study include the coverage of the sample area, which is only at the regency level, and the measurement of e-commerce, which is limited to e-commerce adoption.

The third limitation of this study is that because it sought to explain behavioural intention, rather than actual behaviour, participants did not use a specific technology and therefore were not able to evaluate device specifications and functionality to inform their responses. Therefore, results should be interpreted as attitudinal intention towards adopting in a generic form of 'E Commerce into future practice, rather than adoption intentions towards a specific element of E Commerce Adoption.

Last but not least, is the fourth limitation. From a methodological perspective, the study opted to study intention of use of E Commerce as a form of technology innovation and not actual use of E Commerce as the dependent variable used constitutes a limitation to our study. This is due to the fact that intention of E Commerce Adoption behaviour was subjectively measured

through users' perceptions of their own anticipated behaviour. Even though this method is frequently used in e-commerce research (see Taylor and Todd, 1995; Chau, 1996; Chau and Hu, 2001), other possible approaches have also been proposed which are better. Some authors suggest the use of objective measures such as actual behaviour (Thompson et al. 1994; Szajna 1996). While this argument holds water, the measurement of intention was appropriate noting that the firm has not actualised E Commerce.

5.5 Implications

In spite of the limitations outlined above, this study has notable significances outlined in the implications set below.

5.5.1 Research Implications

First, it should be mentioned that this study uses a cross-sectional case study design, which is common in the literature on the subject. However, the ability to directly examine causality is constrained by this research design. As a result, the researcher recommends future research to employ an experimental research design to support the causality of the correlations under investigation.

5.5.2 Managerial and policy implications

The study gives practitioners at One Life Zambia Assurance a better understanding of how employees perceive E-Commerce Adoption amidst organisational and environmental opportunities and constraints. With this understanding, practitioners can better design appropriate E-Commerce policies and interventions for E-Commerce Adoption, thereby avoiding the development of policies, strategies, and business practices based on the assumption of universal imperatives which have high risks of misguiding and frustrating local efforts to make sense of and appropriate E Commerce activities and platforms.

5.5.3 Theoretical implications

On the theoretical side, this study contributes to supporting and enriching the literature on e-commerce adoption in the insurance sector and especially regarding the application of the UTAUT model.

5.6 Conclusion

This study analyses the features of e-commerce adoption determining its adoption by employees of One Life Assurance Zambia. In particular, this study is carried out from a commercial perspective in contrast to the technology-oriented approach that is the main topic of e-commerce literature. Thus the study departed from the technology-oriented approach that focuses on the technological attributes of e-commerce, and instead focused the research on business and commercial attributes of online activities, which are much more relevant from a business management perspective. Based on the data collected and the results of the analysis, it can be concluded that Performance Expectancy, Effort Expectancy and Social Influence have positive influences on employee intention to use E Commerce when available in future. Finally, the conclusions the study has reached motivate a number of questions for future research related to E Commerce Adoption within One Life Assurance Zambia to other insurance firms.

REFERENCES

- A.Y.K., (2003). Current progress of E-commerce adoption: small and medium enterprises in Hong Kong. *Communications of the ACM* 46 (9), 226–232.
- Aarabi N., Bromideh A.A. (2006), Impact of e-Commerce on Iranian Insurance Companies <http://epubl.ltu.se/1653-0187/2006/03/LTU-PB-EX-0603-SE.pdf>.
- Abbasi, M.R., Sarlak, M.A., Ghorbani, A., Abbaasi, H.E., (2010). CSFs of e-commerce admission in small and medium size enterprises (SMEs). *Afr. J. Bus. Manage.* 4 (16), 3480–3490.
- Abdulghader, A.A., Dalbir, S., Ibrahim, M., (2011). Potential E-Commerce adoption strategies for Libyan organization. *Int. J. Inf. Commun. Technol. Res.* 1 (7), 321–328.
- Adomako, S., Danso, A., Ofori Damoah, J., (2016). The moderating influence of financial literacy on the relationship between access to finance and firm growth in Ghana. *Ventur. Cap.* 18 (1), 43–61.
- Alghamdi, R., Drew, S., AlGhaith, W., (2011). Factors influencing E-Commerce adoption by retailers in Saudi Arabia: a qualitative analysis. *Electron. J. Inf. Syst. Dev. Countries* 47 (7), 1–23.
- Allianz Bulgaria Holding Annual Report (2005)- <http://www.allianz.bg/docs/ABH2005.pdf>
- Alvarez, R., (2002). Confessions of an information worker: a critical analysis of information requirements discourse. *Inf. Organ.* 12, 85–107.
- Ashrafi, R., Murtaza, M., (2008). Use and impact of ICT on SMEs in Oman. *Electron J. Inf. Syst. Eval.* 11 (3), 125–138.
- Asiimwe, E.N., Lim, N., (2010). Usability of government websites in Uganda. *Electron. J. e-Govern.* 8 (1), 1–12.
- Attewell, J., Savill-Smith, C., (2004). *Learning With Mobile Devices: Research and Development: A Book of Papers.* LSDA, London.
- Avgerou, C., (2001). The significance of context in information systems and organizational change. *Inf. Syst. J.* 11, 43–63.
- Bansal, R., (2011). Growth of the electronic commerce in China and India: A comparative study. *J. Asia-Pac. Bus.* 12 (4), 356–374.

- Barley, S.R., (1986). Technology as an occasion for structuring: evidence from the observation of CT scanners and the social order of radiology departments. *Admin. Sci. Quart.* 31, 78–109.
- Barnard, L., Wesson, J., (2004). A trust model for e-commerce in South Africa. In: *Proceedings of South African Institute of Computer Scientists and Information Technologists*, pp. 23–32.
- Barnard, L., Wesson, J.L., (2003). Usability issues for e-commerce in South Africa: an empirical investigation. In: *Proceedings of South African Institute of Computer Scientists and Information Technologists*, pp. 258–267.
- Barnes, S., Vidgen, R., 2002. An integrative approach to the assessment of e-commerce quality. *Journal of Electronic Commerce Research* 3 (3), 114–127.
- Berger, M. (ed.) (1997) ‘After the Third World’ special issue of *Third World Quarterly* 25(1).
- Bernstein, Henry (2004) ‘Colonialism, capitalism and development’ in Allen, Tim and Alan Thomas (eds.) *Poverty and Development into the 21st Century* Milton Keynes: Open University Press (Chapter 11: pp. 241-70).
- Boateng, R., Heeks, R., Molla, A., Hinson, R., (2008). E-Commerce and socio-economic development: conceptualizing the link. *Internet Res.* 18 (5), 562–594.
- Boohene, R., Ofori, D., Boateng, B.D., Boohene, K.A., (2015). Information and communication technology usage and small and medium-sized enterprises growth in the Accra Metropolis. *J. Bus. Enterprise Dev.* 5 (1).
- Bradley, P., (2004). *The Advanced Internet Searcher’s Handbook*, third ed. Facet Publishing.
- Dieke, P.U.C., 2000. *Developing tourism in Africa: issues for policy consideration*.
- Braun, V., Clarke, V., (2006). Using thematic analysis in psychology. *Qual. Res. Psychol.* 3, 77–101.
- Brooks, L., 1997. Structuration theory and new technology: analysing organizationally situated computer-aided design (CAD). *Inf. Syst. J.* 7, 133–151.
- Chatterjee, D., Grewal, R., Sambamurthy, V., 2002. Shaping up for E-Commerce: institutional enablers of the organisational assimilation of web technologies. *MIS Q.* 26 (2), 65–89.
- Cheng, C., Yang, L., 2022. What drives the credit constraints faced by Chinese small and micro enterprises. *Econ. Model.* 113 (2020), 105898 <https://doi.org/10.1016/j.econmod.2022.105898>.
- Chu, C., Smithson, S., 2003. Organisational structure and e-business: a structural analysis. In: *Proceedings of the 5th International Conference on Electronic Commerce*. ACM, New York, pp. 205–212.

- Clapham, Christopher (1985) *Third World Politics* Madison: University of Wisconsin Press. (Chapter 1: pp 1-11).
- Cloete, E., 2002. SMEs in South Africa: Acceptance and adoption of E-Commerce. In: Lubbe, S. (Ed.), *The Economic and Social Impacts of E-Commerce*. LIDEA Group Publishing, pp. 121–134.
- Colle, R.D., Yonggong, L., 2002. ICT capacity-building for development and poverty alleviation enhancing the role of agricultural universities in China. *Third Asian for Information Technology in Agriculture*. Beijing, October 26-28.
- Cooper, D.R., Schindler. P.S. (2006), *Business Research Methods* 9th Edition, Tata McGraw Hill: New Delhi.
- Crowston, K., Sawyer, S., Wigand, R., 2001. Investigating the interplay between structure and information and communications technology in the real estate industry. *Inf. Technol. People* 14 (2), 163–183.
- Daniel, Elizabeth, Wildon, Hugh and Myres, A.(2002), “Adoption of E-Commerce by SMEs in the UK Towards a Stage Model”, *International Small Business Journal*, Vo.1 20(3): 253-270.
- Datta, P., 2011. A preliminary study of ecommerce adoption in developing countries. *Inf. Syst. J.* 21 (1), 3–32.
- De Vaujany, F., 2008. Capturing reflexivity modes in IS: a critical realist approach. *Inf. Organ.* 18 (1), 51–72.
- Dholakia, R.R., Kshetri, N., 2004. Factors impacting the adoption of the internet among SMEs. *Small Bus. Econ.* 23, 311–322.
- Donner, J., 2007. The rules of beeping: exchanging messages via intentional “missed calls” on mobile phones. *J. Comput.-Mediated Commun.* 13 (1), 1–22.
- Duncombe, R., Molla, A., 2006. E-Commerce development in developing countries: profiling change-agents for SMEs. *Int. J. Entrepreneurship Innovation* 7 (3), 185–196.
- Duncombe, R., Molla, A., 2009. Formalisation of information systems in developing country small and medium enterprises. *Afr. J. Inform. Syst.* 1 (2), 1–29.
- Edwards, T., Delbridge, R., Munday, M., 2005. Understanding innovation in small and medium-sized enterprises: a process manifest. *Technovation* 25 (10), 1119–1127.

- Efendioglu, A.M., Yip, V.F., Murray, W.L., (2004), *E-Commerce in developing countries: issues and influences*, San Francisco: University of San Francisco Press.
- Erumi-Esin, R., & Heeks, R. (2015, May). e-business adoption and use among African women-owned SMEs: an analytical study in Nigeria. In: *Proceedings of the Seventh International Conference on Information and Communication Technologies and Development* (p. 11). ACM.
- Essegbey, G.O., Frempong, G.K., 2011. Creating space for innovation—The case of mobile telephony in MSEs in Ghana. *Technovation* 31 (12), 679–688.
- Esselaar, P., Miller, J., 2001. Towards electronic commerce in Africa: a perspective from three country studies. *South. Afr. J. Inf. Commun.* 2 (1).
- Eurostat (2004). *E-commerce and the Internet in European Businesses (2002)*. Detailed tables. Brussels, Eurostat. See europa.eu.int/comm/enterprise/ict/studies/entr-ict-2002.pdf.
- Gall, M. D., Gall, J. P., and Borg, W. R. (2003). *Educational research: An introduction* (7th ed.). Boston, MA: Pearson.
- Georgian Electronic Scientific Journal: Computer Science and Telecommunications* 01/2009;5.
- Georgiou, C.J., Stefaneas, P.S., 2002. Strategies for accelerating the worldwide adoption of e-commerce. *Communication of the ACM* 2 (4), 145–151.
- Ghobakhloo, M., Arias-Aranda, D., Benitez-Amado, J., 2011. Adoption of E-Commerce applications in SMEs. *Ind. Manage. Data Syst.* 111 (8), 1238–1269.
- Ghobakhloo, M., Hong, T.S., Standing, C., 2015. B2B E-commerce success among small and medium-sized enterprises: a business network perspective. *J. Organ. End User Comput.* 27 (1), 1–32.
- Gibbs, J., Kraemer, K.L., Dedrick, J. (2002). *Environment and policy factors shaping E-Commerce diffusion: A cross-country comparison*. Center for Research on Information Technology and Organizations. Retrieved from
- Giddens, A., 1984. *The Constitution of Society: Outline of the Theory of Structuration*. University of California Press, Los Angeles.
- Goedhuys, M., Janz, N., Mohnen, P., 2013. Knowledge-based productivity in “low-tech” industries: evidence from firms in developing countries. *Ind. Corporate Change* 2008, 1–37.

Goldstein, A., and O'Connor, D., (2000), E-commerce for Development: Prospects and Policy Issues, OECD Development Centre 94, rue Chardon Lagache – 75016 Paris Globalising Technologies and Economic Development in Developing <http://www.oecd.org/dev>.

Government of Zambia, Insurance Act 1997, Government Printer: Lusaka, Zambia.

Grandón, E., Nasco, S.A., Mykytyn, P.P., 2011. Comparing theories to explain E-Commerce adoption. *J. Bus. Res.* 64 (3), 292–298.

Greenhalgh, T., Stones, R., 2010. Theorising big IT programmes in healthcare: strong structuration theory meets actor-network theory. *Soc. Sci. Med.* 70 (9), 1285–1294.

Gregor, S., Johnston, R.B. (2000). “Developing an Understanding of Interorganizational Systems: Arguments for Multi-Level Analysis and Structuration Theory”. In: Proceedings of 8th European Conference on Information Systems, Vienna, Austria: (Forthcoming).

Grossman, M., et al (2004), E-Commerce Adoption in the Insurance Industry, *Issues in Information Systems*, Vol. 2, pp. 467-473.

Hardcastle, M.A.R., Usher, K.J., Holmes, C.A., 2005. An overview of structuration theory and its usefulness for nursing research. *Nurs. Philosophy* 6 (4), 223– 234.

Heeks, R.B., 2006. Theorizing ICT4D research. *Inf. Technol. Int. Dev.* 3 (3), 1–4. Huff, L., Kelley, L., 2005. Is collectivism a liability? The impact of culture on organisational trust and customer orientation: a seven nation study. *J. Bus. Res.* 58, 96–102.

Humphrey J, Mansell R, Paré D and Schmitz H (2004). E-commerce for Developing Countries: Expectations and Reality. *IDS Bulletin*, 35(1): 31–39.

Humphrey, J., Mansell, R., Paré, D. and Schmitz, H., 2003, *The Reality of E-commerce with Developing Countries*, London: Media Studies, LSE, www.gapresearch.org/production/ecommerce.html.

International journal of information science and management, 2009 .vol. 7, No.1 January/ June, 94 Readiness Assessment of Iran's Insurance Industry for E-commerce

Jutla, D., Bodorik, P., Wang, Y., 1999. Developing Internet E-commerce benchmarks. *Information Systems* 24 (6), 475–493.

Karakaya, F., and Khalil, O., (2004), “Determinants of Internet Adoption in Small and Mediumsized Enterprises”, *International Journal of Internet and Enterprise Management*, Vol. 2, No. 4.

- Kardaras, D., Karakostas, B., 2001. An empirical investigation of the management practices and the development of electronic commerce in Mauritius. *International Journal of Information Management* 21 (Issue 6), 441–455.
- Kendall, J.D., Tung, L.L., Chua, K.H., Ng, C.H.D., Tan, S.M., 2001. Receptivity of Singapore's SMEs to electronic commerce adoption. *Journal of Strategic Information Systems* 10, 223–242.
- Kole, Ellen (2000a) Cyber democracy: a condition not an outcome <http://www.x4all.nlekde/public/toolart.html>.
- Kole, Ellen. (2000b) African women speak on the Internet: research report of an electronic survey of African women. <http://www.x54all.nl/-ekole.html>.
- Kraemer, K.L., Dedrick, J. and Dunkle, D. (2002) E-Commerce in the United States: Leader or One of the Pack? Global B Commerce Survey, Report of Results for the United States, Center for Research on Information Technology and Organisations, University of California, Irvine.
- Kurnia, S. and Johnston, R.B. "Adoption of Efficient Consumer Response: Key Issues and Challenges in Australia", *Supply Chain Management: An International Journal*, (8:2), 2003, pp 251-262.1.
- Kurnia, S. and Johnston, R.B. "The Issue of Mutuality in ECR Adoption: A Case Study". The Eighth European Conference on Information Systems, 2000, Vienna, Austria. pp. 1009-1016.
- Kurnia, S., (2006), E-Commerce Adoption in Developing Countries: an Indonesian Study, San Diego International Systems Conference, San Diego State University.
- Lau, A., Yen, J., Chau, P.Y.K., 2001. Adoption of on-line trading in the Hong Kong financial market. *Journal of Electronic Commerce Research* 2 (2), 58–65.
- Lawrence, J.E., (2002), The Use of Internet in Small to Medium-Sized Enterprises, PhD thesis, University of Salford, UK.
- Lertwongsatien, C., Wongpinunwatana, N., 2003. E-commerce adoption in thailand: an empirical study of small and medium enterprises (smes). *J. Glob. Inf. Technol. Manag.* 6 (3), 67–83.
- Lightner, N., Eastman, C., 2002. User preference for product information in remote purchase environments. *Journal of Electronic Commerce Research* 3 (3), 174–186.
- Mann, C. L., (2000), Electronic Commerce in Developing Countries: Issues for Domestic Policy and WTO Negotiations, Institute for International Economics.

- Mann, C.L. (2000a), "Electronic Commerce in Developing Countries. Issues for Domestic Policy and WTO Negotiations", Institute for International Economics Working Paper, No. 2000-03.
- Mansell, Robin. (2001) "Digital opportunities and the missing link for developing countries" *Oxford Review of Economic Policy* 17 (2):282-295.
- Marshall, P., Sor, R., McKay, J., 2000. An industry case study of the impacts of electronic commerce on car dealerships in Western Australia. *Journal of Electronic Commerce Research* 1 (1), 1–12.
- Maswera, T., Dawson, R., 2003. An evaluation of the use of the Internet to promote tourism in four African countries. In: *Proceedings of the Software Quality Management Conference*. Glasgow, Scotland, pp. 325–341.
- Maswera, T., Dawson, R., 2004. Website accessibility and usability of tourist organisations in four African countries. In: *Proceedings of the Software Quality Management Conference*. Canterbury, England, pp. 367–376.
- Maswera, T., Dawson, R., Edwards, J., 2005. Analysis of usability and accessibility errors of E-commerce websites of tourist organisations in four African countries. In: *Proceedings of the Information and Communication Technologies in Tourism Conference*. Innsbruck, Austria, pp. 531–542.
- Mbarika, V., Jensen, M., Meso, P., 2002. Cyberspace across sub-Saharan Africa. *Communications of the ACM* 45 (12), 17–21.
- Molla, A., Licker, P.S., 2001. E-commerce systems success: an attempt to extend and respecify the delone and maclean model of IS success. *Journal of Electronic Commerce Research* 2 (4), 131–141.
- Moodley, S., 2003. The challenge of e-business for the South African apparel sector. *Technovation* 23, 557–570.
- Ndayizigamiye, P., (2013). A unified approach towards e-commerce adoption by SMMEs in South Africa. *Int. J. Inf. Technol. Bus. Manag.* 16 (1).
- Ndayizigamiye, P., (2013). A unified approach towards e-commerce adoption by SMMEs in South Africa. *Int. J. Inf. Technol. Bus. Manag.* 16 (1).
- O'Brien, R., and M. William (2004) *Global Political Economy: Evolution and Dynamics* Basingstoke: Palgrave Macmillan.

Ocloo, C.E., Xuhua, H., Akaba, S., Addai, M., Worwui-Brown, D., Spio-Kwofie, A., 2018. B2B E-commerce adoption amongst manufacturing SMEs: evidence from Ghana. *Aust. J. Econ. Manag. Sci.* 1 (8), 126–146.

Odedra-Straub, M., (2003), “E-Commerce and Development”: Whose development?, *Electronic Journal on Information Systems in Developing Countries*, 11, 2, 1-5, <http://www.eiisdc.org>.

OECD (2004) *Promoting Entrepreneurship and innovative SMEs in a Global Economy: Towards a More Responsive and Inclusive Globalisation*, 2nd OECD Conference of Ministers Responsible for Small Scale Enterprises.

Ojo, A.C., Sadiq, H.A., 2022. E-commerce adoption and the performance of small and medium scale enterprises in gombe metropolis. *Afr. Sch. J. Afr. Innov. Adv. Stud.* 26 (2), 43–54

Pather, S., Erwin, G., Remenyi, D., 2003. Measuring e-commerce effectiveness: a conceptual model. In: *Proceedings of South African Institute of Computer Scientists and Information Technologists*, pp. 143–152.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

PIA (2004), *Report on the Insurance Industry*, Pensions and Insurance Authority, Printech: Lusaka, Zambia.

PIA (2005), *Annual Report*, Pensions and Insurance Authority, Printech: Lusaka, Zambia

PIA (2006), *Report on the Insurance Industry*, Pensions and Insurance Authority, Printech: Lusaka, Zambia.

Pillai R.S.N, Bagavathi (1987), *Modern Marketing – Principles and Practices*, S. Chand & Company: New Delhi.

Rehman, A.A., and Alharthi, K. (2016). *An Introduction to Research Paradigms*. *International Journal of Educational Investigations*.

Richards, K. (2003). *Qualitative inquiry in TESOL*. New York, NY: Palgrave Macmillan.

Saunders, M., Lewis, P., and Thornhill, A. (2003). *Research Methods for Business Students*. (3rd ed.). Harlow: Financial Times Prentice Hall.

Saunders, M., Lewis, P., and Thornhill, A. (2009). *Research Methods for Business Students*, 5th ed. England: Pearson Education Limited.

Sekaran, U., and Bougie, R (2013). *Research Methods for Business* (5th edn). New York: John Wiley and Sons, Inc

Shemi, A.P., Procter, C.T., 2013. Challenges of E-commerce adoption in SMEs: an interpretive case study of Botswana. *Botsw. J. Bus.* 6 (1), 17–30. <<http://journals.ub.bw/index.php/bjb/article/view/141/18>.

Singh, S., Kotze', P., 2002. Towards a framework for e-commerce usability. In: *Proceedings of South African Institute of Computer Scientists and Information Technologists*, Port Elizabeth, South Africa, pp. 2–10.

Stansfield, M., Grant, K., 2003. An investigation into issues influencing the use of the internet and electronic commerce among small medium sized enterprises. *Journal of Electronic Commerce Research* 4 (1), 15–33.

Supriyanto, S., (2020). Can E-commerce adoption improve SME's performance? (Case studies on micro, small and medium enterprises with Gojek services in Indonesia). In: *Proceedings of the Third Workshop on Multidisciplinary and Its Applications, WMA-3 2019*, December 2019, Medan, Indonesia, pp. 11–14.

Teo, T.S.H., Raganathan, C., 2004. Adopters and non-adopters of business-to-business electronic commerce in Singapore. *International Journal of Information and Management* 42, 89–102.

Thuy, D.N.H.T., 2022. Empirical research on the influence factors of e-commerce adoption among e-commerce companies in Vietnam. *Global Changes and Sustainable Development in Asian Emerging Market Economies Vol. 1 Proceedings of EDESUS 2019 (Issue January)*. <<https://doi.org/10.1007/978-3-030-81435-9>.

UNCTAD (2002), *E-commerce and Development Report*, United Nations: New York and Geneva.http://r0.unctad.org/ecommerce/docs/edr02_en/ecdr02ch8.pdf

Venkatesh, V., Davis, F. & Morris, M. (2007). Dead Or Alive? The Development, Trajectory And Future Of Technology Adoption Research. *Journal of the Association for Information Systems*, 8 (4), 267-286.

Venkatesh, V., Thong, J. & Xu, X. (2016). Unified Theory of Acceptance and Use of Technology: A Synthesis and the Road Ahead. *Journal of the Association for Information Systems*, 17 (5), 328-376.

Verhoef, P.C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Qi Dong, J., Fabian, N. & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889-901.

Wang, H. (2005). The Role of Personality Traits in UTAUT Model under Online Stocking. *Contemporary Management Research*, 1 (1), 69-82.

Washington, D.C. www.iie.com/CATALOG/WP/2000/00-3.pdf (last accessed April 4, 2001).

Werthner, H., Ricci, F., 2004. E-commerce and tourism. *Communications of the ACM* 47 (12), 101–105. Wiig, A., 2003. Developing countries and the tourist industry in the Internet age: The Namibian case.

Wirdiyanti, R., Yusgiantoro, I., Sugiarto, A., Harjanti, A.D., Mambela, I.Y., Soekarno, S., Damayanti, S.M., 2022. How does e-commerce adoption impact micro, small, and medium enterprises' performance and financial inclusion? Evidence from Indonesia. *Electronic Commerce Research*. Springer, US. <https://doi.org/10.1007/s10660-022-09547-7>.

World Tourism Organisation, 2005. *Tourism highlights: 2005 Edition*. Yao, J.T., 2004. E-commerce adoption of insurance companies in New Zealand. *Journal of Electronic Commerce Research* 5 (1), 54–61. Yeung, J.H.Y., Shim, J.P., Lai,

Yi, M.Y., Jackson, J.D., Park, J.S. & Probst, J.C. (2006). Understanding information technology acceptance by individual professionals: Toward an integrative view. *Information & Management*, 43 (3), 350-363.

Zhang, J. & Mao, E. (2020). Cash, credit, or phone? An empirical study on the adoption of mobile payments in the United States. *Psychology & Marketing*, 37 (1), 87-98.

Zhou, T., Lu, Y. & Wang, B. (2010). Integrating TTF and UTAUT to explain mobile banking user adoption. *Computers in Human Behaviour*, 26 (4), 760-767. van der Heijden (2004). User Acceptance of Hedonic Information Systems. *MIS Quarterly*, 28 (4), 695

APPENDICES

Appendix I: Survey Questionnaire

- 1) Gender of respondent
- 2) How long have you been working here?
- 3) Indicate the highest qualification you have

- 4) How old are you?

Section A - E Commerce Adoption

Indicate the extent to which One Life Assurance Zambia has embraced E Commerce in its operations? Indicate as follows 1 for Fully Disagree, 2 for Disagree, 3 for Some-What Disagree , 4 for Not Sure, 5 for Somewhat Agree, 6 for Agree and 7 for Fully Agree.

- 5) One Life Assurance Zambia has a functional website
- 6) One Life Assurance Zambia has website showing products one can access
- 7) One Life Assurance Zambia website allows you to search for products that One Life Assurance Zambia deals in
- 8) One Life Assurance Zambia website allows you to sell products
- 9) One Life Assurance Zambia website allows you to buy products
- 10) Level of application of E commerce maturity

Section B Performance Expectancy

The statement that follow below are about Performance Expectancy. Indicate as follows 1 for Fully Disagree, 2 for Disagree, 3 for Some-What Disagree , 4 for Not Sure, 5 for Somewhat Agree, 6 for Agree and 7 for Fully Agree.

- 11) If I use the E commerce system and tools, it would increase my chances of getting a pay rise
- 12) If I use the E commerce system and tools, it would enable me to accomplish tasks more quickly
- 13) If I use the E commerce system and tools, it would increase my productivity
- 14) If I use the E commerce system and tools, it would make more chances for career progression

Section C: Effort Expectancy

The statement that follow below are about Effort Expectancy Score. Indicate as follows 1 for Fully Disagree, 2 for Disagree, 3 for Some-What Disagree , 4 for Not Sure, 5 for Somewhat Agree, 6 for Agree and 7 for Fully Agree.

- 15) Once operationalised, my interaction with E Commerce system would be clear and understandable to use
- 16) Once operationalised, it would be easy for me to become a skilful system exploitor
- 17) Once operationalised, I would find E Commerce system easy to use to meet my needs and those of the customer
- 18) Once operationalised learning to operate E Commerce system will be easy for me as it would be free of effort

Section D: Social Influence

The statement that follow below are about Social Influence. Indicate as follows 1 for Fully Disagree, 2 for Disagree, 3 for Some-What Disagree , 4 for Not Sure, 5 for Somewhat Agree, 6 for Agree and 7 for Fully Agree.

- 19) Within One Life Assurance Zambia, there are colleagues who would influence my behaviour to use E Commerce system before and once in place
- 20) Technocrats who are important to me in One Life Assurance Zambia, believe that I should use E Commerce system before and once in place
- 21) One Life Assurance Zambia Management would motivate me to use E Commerce system before and once in place
- 22) Learning to operate E Commerce system from others will be easy for me one in place

Section E: Behavioural Intention

The statement that follow below are about Behavioural Intention. Indicate as follows 1 for Fully Disagree, 2 for Disagree, 3 for Some-What Disagree , 4 for Not Sure, 5 for Somewhat Agree, 6 for Agree and 7 for Fully Agree.

- 23) I intend to use the E Commerce system and tools when available in the firm.
- 24) I predict I would use E Commerce system and tools when available in the firm
- 25) I have no problem in adjusting to using the E Commerce system and tools when available in the firm
- 26) I always try new advanced technologies and I am ready for the Ecommerce system
- 27) I can predict that E Commerce system and tools in this firm in the future

- 28) I will not regret adding personal money for new technology for E Commerce to be used in the Firm
- 29) I want to use E Commerce tools even when I am compelled to

Appendix II: Ethical Approval Letter



THE UNIVERSITY OF ZAMBIA DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Great East Road Campus | P.O. Box 32379 | Lusaka10101 | Tel: +260-211-290 258/291 777 Fax: (+260)-211-290 258/253 952 | E-mail: director.drgrs@unza.zm | Website: www.unza.zm

APPROVAL OF STUDY

IORG No. 0005376
HSSREC IRB No. 00006464
REF NO. HSSREC-2024-OCT-028

14th November, 2024

Mr Chewe Mwape
The University of Zambia
P.O. Box 32379
LUSAKA

Dear Mr Mwape

RE: "FACTORS AFFECTING E-COMMERCE ADOPTION – A CASE STUDY OF ONELIFE ASSURANCE ZAMBIA"

Reference is made to your submission of the protocol captioned above. The HSSREC resolved to approve this study and your participation as Principal Investigator for a period of one year.

REVIEW TYPE	ORDINARY REVIEW	APPROVAL NO. HSSREC:- 2024-OCT-028
Approval and Expiry Date	Approval Date: 14 th November, 2024	Expiry Date: 13 th November, 2025
Protocol Version and Date	Version - Nil.	13 th November, 2025
Information Sheet, Consent Forms and Dates	<input type="checkbox"/> English.	To be provided
Consent form ID and Date	Version - Nil	To be provided
Recruitment Materials	Nil	Nil
Other Study Documents	Questionnaire.	
Number of Participants Approved for Study		

Specific conditions will apply to this approval. As Principal Investigator it is your responsibility to ensure that the contents of this letter are adhered to. If these are not adhered to, the approval may be suspended. Should the study be suspended, study sponsors and other regulatory authorities will be informed.

CONDITIONS OF APPROVAL

- No participant may be involved in any study procedure prior to the study approval or after the expiration date.
- All unanticipated or Serious Adverse Events (SAEs) must be reported to HSSREC within 5 days.
- All protocol modifications must be approved by HSSREC prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address.
- All protocol deviations must be reported to HSSREC within 5 working days.
- All recruitment materials must be approved by HSSREC prior to being used.
- Principal investigators are responsible for initiating Continuing Review proceedings. HSSREC will only approve a study for a period of 12 months.
- It is the responsibility of the PI to renew his/her ethics approval through a renewal application to HSSREC.
- Where the PI desires to extend the study after expiry of the study period, documents for study extension must be received by HSSREC at least 30 days before the expiry date. This is for the purpose of facilitating the review process. Documents received within 30 days after expiry will be labelled "late submissions" and will incur a penalty fee of K500.00. No study shall be renewed whose documents are submitted for renewal 30 days after expiry of the certificate.
- Every 6 (six) months a progress report form supplied by The University of Zambia Humanities and Social Sciences Research Ethics Committee as an IRB must be filled in and submitted to us. There is a penalty of K500.00 for failure to submit the report.
- When closing a project, the PI is responsible for notifying, in writing or using the Research Ethics and Management Online (REMO), both HSSREC and the National Health Research Authority (NHRA) when ethics certification is no longer required for a project.
- In order to close an approved study, a Closing Report must be submitted in writing or through the REMO system. A Closing Report should be filed when data collection has ended and the study team will no longer be using human participants or animals or secondary data or have any direct or indirect contact with the research participants or animals for the study.
- Filing a closing report (rather than just letting your approval lapse) is important as it assists HSSREC in efficiently tracking and reporting on projects. Note that some funding agencies and sponsors require a notice of closure from the IRB which had approved the study and can only be generated after the Closing Report has been filed.

- A reprint of this letter shall be done at a fee.
- All protocol modifications must be approved by HSSREC by way of an application for an amendment prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address or methodology and methods. Many modifications entail minimal risk adjustments to a protocol and/or consent form and can be made on an Expedited basis (via the IRB Chair). Some examples are: format changes, correcting spelling errors, adding key personnel, minor changes to questionnaires, recruiting and changes, and so forth. Other, more substantive changes, especially those that may alter the risk-benefit ratio, may require Full Board review. In all cases, except where noted above regarding subject safety, any changes to any protocol document or procedure must first be approved by HSSREC before they can be implemented.

Should you have any questions regarding anything indicated in this letter, please do not hesitate to get in touch with us at the above indicated address.

On behalf of HSSREC, we would like to wish you all the success as you carry out your study.

Yours faithfully,



DR. ELIJAH M. BWALYA
ACTING CHAIRPERSON
THE UNIVERSITY OF ZAMBIA HUMANITIES AND
SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE - IRB

cc: Director, Directorate of Research and Graduate Studies
Assistant Director (Research), Directorate of Research and Graduate Studies
Assistant Registrar (Research), Directorate of Research and Graduate Studies