

**IMPACT OF E-COMMERCE ON CORPORATE  
GOVERNANCE AND ETHICS: A CASE OF  
CORPORATES IN ZIMBABWE**

**BY**

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# **DECLARATION**

Student No: **43556752**

I declare that the thesis **IMPACT OF E-COMMERCE ON CORPORATE GOVERNANCE AND ETHICS** is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I have not previously submitted this work, or part of it, for examination at UNISA for another qualification or at any other higher education institution.

Signature:.....Date:.....

## **DEDICATION**

This research is dedicated to the Almighty who made it possible and also to my son Tawananyasha Keith.

## **ACKNOWLEDGEMENT**

I would like to acknowledge all the people who made this document perfect.

Special thanks go to my supervisor, Professor F.O. Bankole for his tireless guidance while I was conducting and compiling this research dissertation. Many thanks also goes to my family, friends, and workmates and to my son for such encouragement and patience in critical and difficult circumstances in order for this work to be finalized.

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## **ABSTRACT**

The business environment is impacted by technology both negatively and positively. To this extent, therefore, it is only prudent that the business environment adopts technological platforms, such as e-commerce, but there is a need to ascertain the risks involved, in order to optimize the benefits.

This study set out to determine the impact of e-commerce on corporate governance in the retail sector in Zimbabwe. The corporates under investigation were Total Zimbabwe, Complete Solutions Architects, Venturecom and Kenac. The study included gathering the views of suppliers, customers, employees, government, and trade as well as investors. It employed a quantitative research design which involved the ultimate determination of the regression equation and a qualitative design which used interviews from stakeholder respondents.

Some of the notable results from the questionnaire indicated poor customer relationship management on e-commerce platforms, a more stringent control than regulatory requirements and inadequate monitoring of the behaviour and activity of clients on e-commerce platforms. The investors also felt that the impact of electronic commerce impact on shareholder activity was not satisfactory especially with regards to meetings, but they indicated satisfaction with the enhancement of resources with regards to the generation of organizational profits. The regression equation finally revealed that for overall satisfaction, as a proxy for good corporate governance, as the dependent factor the statistically independent factors were investors and government as a trade, which could imply that these are the definitive stakeholders.

From the interviews, there was indication some of the salient issues about e-commerce that were indicated included the untrustworthiness of intermediaries, the difficulty in describing physical goods and the difficulty of eliminating unethical practices on electronic commerce platforms. Inter-organizational compliance between the organizations and their stakeholders was also revealed as being a major factor that was needed in order to reduce the contagion effect. This action was followed by the view that the boards' responsibilities and roles of the corporate boards needed had to change to manage risk on e-commerce platforms.

The study concluded by suggesting a longitudinal study of the same topic incorporating more stakeholders and including more hypotheses to test all the possible and proposed relationships. More time is also recommended to cater for the fast development of e-commerce and IT in general.

**Keywords:** Stakeholders, e-commerce, corporate governance, ethics, impact, customers, suppliers, investors, employees, government

# TABLE OF CONTENTS

Declaration.....	ii
Dedication.....	iii
ACKNOWLEDGEMENT.....	iv
ABSTRACT.....	v
LIST OF TABLES.....	xii
LIST OF FIGURES.....	xiii
List of Abbreviations.....	xiv
CHAPTER 1.....	1
Introduction and Problem Description.....	1
1.0 Introduction.....	1
1.1 Background to Study.....	1
1.2 Statement of Research Problem.....	2
1.3 Research Questions.....	2
1.4 Objectives.....	3
1.5 Purpose.....	3
1.6 Scope.....	3
1.7 Value.....	4
1.8 Limitations of the Study.....	4
1.9 Overview of the Research Report.....	4
CHAPTER 2.....	6
Literature Review.....	6
2.0 Introduction.....	6
2.1 Electronic Commerce.....	6
2.2.1 E Commerce and Compliance.....	7
2.3 Corporate Governance.....	8
2.3.1 Corporate governance in Zimbabwe.....	10
2.4 Ethics.....	11
2.4.1 Ethics in Zimbabwe.....	11
2.5 What is the Impact of E-Commerce on Ethics?.....	12
2.6 What is the impact of E-Commerce on Corporate Governance?.....	13
2.7 Stakeholder Theory.....	15

2.9	Summary .....	18
CHAPTER 3 .....		19
Conceptual Framework-Theoretical Framework.....		19
3.0	Introduction .....	19
3.1	Theoretical Framework .....	19
3.1.1	Stakeholder Theory, E-commerce, Corporate Governance and Ethics .....	19
3.1.2	Stakeholders in e-commerce trading in Zimbabwe .....	20
3.2	Conceptual framework .....	24
3.3	Hypothesis.....	26
3.3	Chapter Summary.....	26
CHAPTER 4 .....		27
RESEARCH METHODOLOGY .....		27
4.0	Introduction .....	27
4.1	Research Paradigm.....	27
4.2	Approach to Theory .....	28
4.2.1	Case Study Approach.....	28
4.3	Research Questions and Objectives Revisited .....	29
4.4	Research Objectives .....	30
4.5	Research Population.....	30
4.5.1	Sample calculation .....	31
4.5.2	Sampling .....	32
4.5.3	Time and financial resources .....	32
4.5.4	Managing huge volumes of data .....	32
4.6	Data Collection.....	32
4.6.1	Information searching/Literature Review .....	33
4.6.2	Questionnaire Design .....	33
4.7	ANALYSIS OF THE DATA .....	34
4.7.1	Quantitative data analysis .....	34
4.7.2	Qualitative data analysis .....	35
4.8	Validation of Instrument .....	35
4.8.1	Validity and reliability.....	35
4.8.2	Reliability .....	36
4.9	Ethical Issues.....	37

4.9.1	Informed Consent .....	37
4.9.2	Confidentiality/privacy .....	37
4.10	Limitations and Assumptions to Data Gathering .....	38
4.10.1	Time and financial resources .....	38
4.10.2	Managing huge volumes of data .....	38
4.11	CHAPTER SUMMARY .....	38
CHAPTER 5	.....	39
Data Analysis – Quantitative and Qualitative.....		39
5.1	Introduction .....	39
5.2	Demography .....	39
5.2.1	Gender Distribution .....	39
5.2.2	Age Distribution .....	40
5.2.3	Distribution based on Level in the Company .....	40
5.2.4	Level of Education Distribution .....	41
5.2.5	Distribution Based on Length of Service.....	41
5.3	Cross tabulations .....	42
5.3.1	Gender and Customers .....	42
5.3.2	Gender and Employees .....	43
5.3.3	Gender and Suppliers .....	44
5.3.4	Gender and Investors .....	45
5.3.5	Gender and Trade and Government .....	46
5.3.7	Level of Education and Employees .....	48
5.3.8	Level of Education and Suppliers.....	48
5.3.9	Level of Education and Investors .....	50
5.4	Summary of Questionnaire Responses.....	51
5.4.1	Customer Perspective .....	52
5.4.2	Employee Perspective .....	53
5.4.3	Supplier Perspective .....	54
5.4.4	Government and Trade Perspective.....	54
5.4.5	Investors’ Perspective.....	55
5.5	Regression Analysis Model.....	56
5.5.1	Analysis of Variance (ANOVA) .....	56
5.5.2	Dependent Variable –Overall Satisfaction (Corporate Governance) .....	56

5.5.3 R Square .....	57
5.5.4 Regression Coefficients .....	57
5.6 Qualitative Results .....	59
5.6.1 Results from interviews .....	59
5.6.2 Ethics .....	59
5.6.3 Corporate Governance and e-Commerce .....	64
5.7 Summary .....	66
CHAPTER 6 .....	67
Discussion of findings .....	67
6.0 Introduction .....	67
6.1 Stakeholder influence .....	67
6.1.1 Stakeholder influence variables .....	67
6.1.2 Implementation of E-Commerce Technologies .....	68
6.1.3 Functions Performed electronically vs. Transaction Volumes .....	68
6.1.4 Governance .....	68
6.1.5 Vital Capabilities of Maintaining Security of E-Commerce Transactions ....	69
6.1.6 Trading partners .....	69
6.1.7 Extent of cybercrime .....	69
6.1.8 Awareness .....	70
6.2 Summary .....	71
CHAPTER 7 .....	72
CONCLUSION .....	72
7.0 Introduction .....	72
7.1 Research Questions and Objectives Revisited .....	72
7.2 Research Objectives .....	72
7.3 Contributions of the research .....	73
7.4 Limitations of the Study .....	74
7.5 Areas of Further Research .....	74
7.6 Recommendations .....	75
8.0 References .....	76
Appendices .....	80
Appendix A: Questionnaire .....	80
Appendix B: Interview Guide .....	85

Appendix C: Cronbach Alpha Reliability Tests.....	88
Appendix D: Frequencies.....	89
Appendix E: Descriptives .....	91
Appendix F: Test of normality.....	95
Appendix G: Correlations .....	96
Appendix H: Regression .....	111
Appendix I: Snap shot of Raw Data.....	114
Appendix J: Ethical clearance .....	115

## LIST OF TABLES

Table 1: Types of E-Commerce: Source (Trever, 2009) .....	7
Table 2: Summary of OECD (1999) Guidelines .....	10
Table 3:1 Sample Size Determination(Source:Bartlett et al).....	31
Table 3: Gender (Source: Primary data) .....	39
Table 4: level in the company (Source: Primary data) .....	41
Table 5: Cross tabulation-customers*gender (Source: Primary data) .....	42
Table 6: Chi-square test customer *gender (Source: Primary data) .....	43
Table 7: Cross tabulation gender*employees (Source: Primary data).....	43
Table 8: Chi square-gender*employees.....	44
Table 9: Cross tabulation-gender*Suppliers.....	44
Table 10: Chi Square –gender*suppliers(Source: Primary data).....	44
Table 11: Cross tabulation for Gender and Investors (Source: Primary data).....	45
Table 12: Chi-Square test for cross tabulation-Gender and investors (Source: Primary data).....	45
Table 13: Chi-square test-Gender and Trade as Government (Source: Primary data) .....	46
Table 14: Gender and Trade as Government(Source: Primary data).....	46
Table 15: Level of Education and Customers Cross-tabulation (Source: Primary data).....	47
Table 16: Level of Education and Customers Chi Square (Source: Primary data) .....	47
Table 17: Cross tabulation-level of education*employees .....	48
Table 18: chi square test –education level*employees (Source: Primary data) .....	48
Table 19: Cross tabulation-education level*suppliers .....	49
Table 20: Chi square-level of education*suppliers.....	49
Table 21: Cross tabulation-education level*investor responses .....	50
Table 22: Chi-square test –investors*level of education .....	50
Table 23: Cross tabulation-trade as government*level of education (Source: Primary data) .....	51
Table 24: Chi square test-education level *trade as government .....	51
Table 25: Questionnaire Responses –Customer Perspective (Source: Primary data) .....	52
Table 26: Questionnaire Responses –Employee Perspective (Source: Primary data).....	53
Table 27: Questionnaire Statistics-Supplier Perspective (Source: Primary data).....	54
Table 28: Questionnaire statistics-Government and Trade Perspective (Source: Primary data) .....	54
Table 29: Questionnaire Statistics-Investor Perspective (Source: Primary data) .....	55
Table 30: ANOVA (Source: Primary data) .....	56
Table 31: Model Summary (Source: Primary data).....	57
Table 32: Coefficients of regression (Source: Primary data) .....	58
Table 33: Answers with stress indicators .....	60

# LIST OF FIGURES

Figure 1: Schematic of Stakeholder Theory (Donaldson & Preston, 1995) .....	16
Figure 2: Stakeholder Typology (Source (Elias & Cavana, 2004) .....	17
Figure 3: Internet stakeholder communities: Source (Elias & Cavana, 2004) .....	22
Figure 4: Conceptual Framework: .....	24
Figure 5: Stakeholder Influence Map .....	25
Figure 6: Age distribution (Source: Primary data).....	40
Figure 7: Level of education (Source: Primary data) .....	41
Figure 8: Length of Employment (Source: Primary data) .....	42

## LIST OF ABBREVIATIONS

AISPA	African ISP Associations
AfrISP	African ISP
AfNOG	African Network Operators Group
ANOVA	Analysis of Variance
B2B	Business to Business e-commerce
C2C	Consumer to Consumer e-commerce
COBIT Technology	Control Objectives for Information Related
COSO	Committee of Sponsoring Organisations
E-Commerce	Electronic Commerce
ETF	Economic Trade Forum
IGF	Internet Governance Forum
ISP	Internet service provider
ITU	International Trade Union
OECD	Organisation for Economic Corporation and Development
POTRAZ	Postal and Regulation Authority of Zimbabwe
P2P	Peer to Peer
PDA	Personal Digital Assistant
RIR	Regional Internal Registries
WTO	World Trade Organisation

# **CHAPTER 1**

## **INTRODUCTION AND PROBLEM DESCRIPTION**

### **1.0 Introduction**

This chapter will look at the background of the study followed by the purpose and objectives of the study. The scope and value of the research follows and finally, the general outline of the document and the chapters is given.

### **1.1 Background to Study**

E-Commerce has become the fastest way of carrying out business transactions in this world and has emerged as one of the methods to make the world a global village (market). E-Commerce transactions are done electronically (WTO, 2013), and as for this particular research, an emphasis was put on significant commercial and corporate facilities (Watson et.al, 2008; Tiwari & Buse, 2007; Chinasubarrao, 2016; Sen Et.al 2015). E-Commerce involves online banking, online buying, online payments and selling as well as reservations. The introduction of e-commerce has brought about changes in the way in which corporate institutions run and has also impacted on the ethics of the organizations both negatively and positively.

Tiwari & Buse, 2007, and, UNCTAD, 2007 highlight that electronic commerce is the execution of commercial activities through electronic devices. E-commerce is a subset of electronic business which is an integral part of mobile commerce and mobile business (Tiwari & Buse, 2007, p.34). Electronic commerce is used in electronic customer relations management (e-CRM), which is used to acquire and retain customers electronically (Romano & Fjermestad, 2003; Adelaar, Bouwman, & Steinfield, 2004). The financial institutions in Zimbabwe are introducing online banking systems referred to as e-banking, for example, Stanbic Bank has launched Business online for Corporates and Internet banking for regular customers.

The mobile service operators in Zimbabwe are also participating in e-commerce in the form of mobile payments (m-payment). Econet, the biggest mobile operator, has launched Ecocash for mobile money along with the other two operators. Econet launched

connections with several banks so that mobile users can access their bank accounts. The mobile users can perform transactions: that are transfers and payments to some of the retail outlets and companies like Edgars, Truworths, Total, CSA and OK Zimbabwe, only to mention a few. Standard Chartered offers services to its clients where they can pay for goods over the Internet. Electronic commerce has become a modern way of doing business in the whole world and has impacted the way the corporates run. E-Commerce has brought both negative and positive impacts to the corporate governance and ethics (Kabango & Asa, 2006). Attributed to the cash shortages in Zimbabwe, e-commerce is growing fast, this growth is seeing predominantly in the use of m-payments, e-banking, and e-payments, only to mention a few.

## **1.2 Statement of Research Problem**

E-Commerce is a fast-evolving technological development which, for business, can be regarded as a double-edged sword as it comes with inherent advantages of enhancing business efficiency and growth as well as downside factors caused by the human nature temptations of greed and selfishness on the part of the organization and other third parties. The exploits of the latter threaten the viability of the e-commerce platform as stakeholders become hesitant to embrace the development due to security, trust, and other threats and as such the efficient delivery of a company's mandate is threatened with the harmful impact on its corporate governance and ethics.

## **1.3 Research Questions**

After having looked at the problem statement, the next section looks at the research questions. The research questions emanate from the problem statement. The main research question is: -

What is the impact of e-commerce on corporate governance and ethics?

The sub-questions are

- i. What is the influence of key stakeholders on e-commerce
- ii. What is the benefit of key stakeholders to e-commerce
- iii. What are the appropriate corporate governance practices that can be adopted to adapt to the e-commerce domain?

## **1.4 Objectives**

Having looked at the research questions the main objective of the study was to ascertain the positive and negative impacts of e-commerce practices of large companies on corporate governance and ethics with regards to key stakeholders. The sub-objectives of this research were:

- i. To determine the stakeholders in e-commerce trading
- ii. To understand stakeholder importance, influence, and behaviour
- iii. To bring out (identify) the impact of e-commerce on corporate governance

## **1.5 Purpose**

E-Commerce has brought about an impact on the governance and ethics of corporates. Technology has been advancing in Zimbabwe: this includes having the internet readily available to the general public. At the same time Zimbabwe launched its corporate governance code early in 2017 replacing the Companies Act of 1951 which had been used to regulate the operations of Zimbabwean companies. Technological advancements have increased the rate of growth of e-commerce businesses, in particular online shopping and banking and mobile banking and payments. The general public now has the internet readily available through computers or cell phones. E-commerce has also affected the way corporates are governed; that is the way organizations are controlled and directed. It is now the purpose of this research to identify such changes to corporate governance and ethics.

## **1.6 Scope**

Literature about e-commerce, ethics, corporate governance and stakeholder theory does not cover a wide variety of implementations. Some studies have been done. The Jordan Electronic Transaction Law no. 85 of 2001 was examined by Dahiyat (2011) research by Chua et al. (2005), based on stakeholder theory. Other studies include a moral development of advanced technology by Yuthas and Dillard (1999), ERP implementation effects on stakeholders by Boonstra (2006), and implementation and success of telecenters in India (Bailur, 2006).

The present research focuses on financial institutions and retail, corporate organizations that work with the e-commerce industry. A survey is conducted on the topic in question

and its results are tabled for analysis and evaluation, then compared against the existing literature on the effects of e-commerce on corporate governance and ethics.

## **1.7 Value**

The study will help in identifying the impact of e-commerce on corporate governance and ethics in Zimbabwe, both positive and adverse. The determination of these effects will help corporates in Zimbabwe and throughout the world to curb the negative effects that poor corporate governance can have on business execution and the collapse of such corporates. The study also adds value to the e-commerce industry by looking at the role of ethics in organizations/ corporates, and their execution for the increase in profits. Zimbabwe is growing its technology industry fast, including e-commerce. Many companies in Zimbabwe are practicing online advertising systems. Hence, corporates would need to govern e-commerce in an ethical way. Slyke (2005) has done a study, and his findings are that electronic commerce is fast growing in third world countries due to technological advancements which have an impact on the business.

## **1.8 Limitations of the Study**

The study is confined to a few organisations: Total Zimbabwe, Complete Solutions Architects, Venturecom and Kenac. If time and resources permitted the study could be spread over many organisation and corporates.

## **1.9 Overview of the Research Report**

The research (ER) report has been broken down into various chapters. The abstract summarizes the purpose and scope of the research, the methodology used, the key findings and conclusions of the research. Chapter 1 gives the introduction followed by the background to the study. This is then followed by the problem statement and research questions. Also included in chapter one is the scope of the study. This chapter also emphasizes the value of the survey.

Chapter 2 gives a compressed and focused summary of the literature, which forms the basis of this investigation. The chapter examines the e-commerce, corporate governance, ethics

and the stakeholder theory. These concepts are then brought together, and the studies that investigated them are summarized.

Chapter 3 looks at the theoretical and conceptual framework of the study that underpins the research framework. This is then followed by the hypothesis of the study.

Chapter 4 provides a description of the problem statement, the research questions, and the research objectives. It also explains the underlying research approach. This section includes the research purpose and the approach to theory and philosophy. Models relevant to the research are described and discussed. The chapter also looks at the methodology used in conducting this study. Included are the explanation of the research instrument used, the sampling plan, the data collection strategy, and the data analysis technique. Furthermore, the chapter discusses the validity and limitations of the methodology employed.

Chapter 5 explains the data presentation and analysis from both quantitative and qualitative points of view and their interpretation. It also contains the results of the data analysis performed on the data collected from the sample. It describes the model fit through regression.

Chapter 6 then describes the results under each of the stakeholder models identified in the literature review. The findings of the study are then discussed and evaluated. The focus is also given to the implications of the findings.

Chapter 7 concludes the research paper. In this section, the theories and concepts discussed in the research are reviewed. Recommendations for possible avenues for future research are provided, and a few limitations of the study are addressed.

Relevant appendices detailing the research results and the data analysis process are in the final chapters at the end of the research report.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This section is going to present literature on e-commerce and its impact on corporate governance and ethics. It will summarize, evaluate and clarify concepts, theories and approaches regarding this area of study. It will give a theoretical base for the research and will help to determine the nature of the survey. The chapter is going to form the foundation upon which the study findings will be discussed.

#### **2.1 Electronic Commerce**

Electronic Commerce is the process of exchanging goods or services through many electronic networks such as the internet (Watson et.al, 2008; Tiwari & Buse, 2007; Chinasubarrao, 2016; Sen Et.al 2015). E-commerce uses technologies like Internet marketing, mobile commerce, online transaction processing, electronic funds transfer, automated data interchange, automated electronic data collection systems and inventory management systems. E-commerce allows the flow of information between organizations (Phan, 2001). The complete online system of developing, selling, delivering, servicing and paying for merchandise and services is included in e-commerce. However, in the process, this affects corporate governance and ethics because corporates and financial institutions want to maximize profits by making sure that the business performs to its best. To this end, e-commerce has engendered advantages such as enhanced governmental performance, lower cost structure, increased scope and scale of services and faster transactions (Kabango and Asa, 2006)

E-commerce began as early as the 1970s in the form of B2B e-commerce using the telephone-based modem. It evolved through phases until it got reinvented from 2006 to the present time using Internet technologies. The following table summarizes the types of e-commerce, according to (Traver, 2009).

*Table 1: Types of E-Commerce: Source (Trever, 2009)*

<b>Types</b>	<b>Definitions</b>	<b>Examples</b>
Business-to-Consumer (B2C)	Typically mentioned form of e-commerce wherein online businesses attempt to reach individual, consumers	Amazon, Global AdMart
Business-to-Business (B2B)	Businesses focus is on selling to other firms. It is the largest form of e-commerce	Food trade, Supplier Centric
Consumer-to-Consumer (C2C)	Provides a way for end-users to trade with each other, with the assistance of online marketplace maker	eBay Inc., Craig list site using social networks like Facebook and YouTube “Handmade accessories and clothes groups”
Peer-to-Peer (P2P)	This technology enables internet users to share files directly without having to go through a central web server by using their personal computers	BitTorrent Software, Napster music file-sharing
Mobile Commerce (M-Commerce)	Use of wireless digital devices to enable e-transaction. It is commonly employed in Japan and Europe. It is expected to develop rapidly in the US over the following five years because of boom of smartphones	Wireless devices with mobility as Personal Digital Assistants (PDA) and mobile phones

The advent of E-commerce has also invited some paradigm shifts in terms of compliance.

### **2.2.1 E-Commerce and Compliance**

Regarding interfacing e-commerce with legal issues, according to Gasser & Haeusermann (2007) who defined compliance regarding observance of norms which include legislation, industry standards, statutes, etc. by an organization there are a few examples. Due to the genesis of e-commerce in the banking sector focus has been targeted on specific areas of risk. These areas include financial market surveillance, insider trading, etc. and have evolved outside specific legal issues to include antitrust, anti-bribery, and labour to incorporate the electronic communication stage now called e-compliance (Gasser & Haeusermann, 2007). E compliance is mandated with the adaptation of the legal system to digitization (Gasser & Haeusermann, 2007). The legal order to digitization is concerned with risk areas which include the following:

- i. Security-

IT security is concerned with virus, spyware, hacking or theft of data or hardware. Information and information systems protection is supposed to be attuned to the legal system and self-regulatory initiatives such as industry codes of practice.

ii. Data Privacy

Data privacy has to be adhered to when processing customer and employee data. To this end, this has implications on the prohibition of private email usage.

iii. Consumer Protection

Consumer protection laws need to be observed in e-commerce.

iv. Intellectual Property

Intellectual property includes risk of infringement of copyright for online intermediaries and especially violations committed by a company's customers.

Further, uniform national standards were established by the federal of Electronic Signatures Act (2000). Electronic signature legal standards were specified; however, the technological standards for implementing the act were not defined by this law. E-commerce grew rapidly in the late 1990s because the worries of using online credit worldwide had eased. Online retail sales doubled in 1998 to USD\$7.2 billion, compared to those of 1997. Half of the web shoppers were ordering books from organizations like Amazon.com. Books are the most popular online product; there is also the trading of stocks, the purchase of groceries, airline tickets, homeware and bedding materials, and auctions are done online.

### **2.3 Corporate Governance**

The Economist Intelligence Unit (2002) defines corporate governance as a system by which enterprises are directed and controlled. Tricker (1984) cited in Musson (n.d.) pointed out that corporate governance is not in the nitty-gritty day to day operations of the company but is concerned with the overall direction of the enterprise. Chinasubbarao (2016) views corporate governance as involving a set of relationships between the organization's management, the board of directors, its shareholders, its auditors and other stakeholders. Rights distribution and responsibilities among the parties concerned in the organization are specified in the corporate governance structure (board, managers, shareholders and stakeholders). Milton Friedman (1962) states that corporate governance is to carry out the business in agreement with owners and shareholder's aspirations, which

entails profit maximization, while in compliance with the fundamental rules of the society embodied in law and local customs.

Corporate governance or ethics in the organization also depend on the prevailing culture within the organization. A study was done by Elbeltagi (2007) on how cultures could influence the use of the internet. The case study of Egypt indicated that there was potential development for e-commerce. However, the local culture needed to be taken into account especially the custom that Egyptians were used to paying in cash rather than paying with debit and credit cards.

The procedures and rules for making decisions on corporate affairs are spelled out by corporate governance. These procedures and rules provide the structure through which the company objectives are formulated and explain how to attain the goals and monitor performance. The Great Depression of 1930 was a critical stage in the evolution of corporate governance in many countries. The financial crisis of 2008 and the cases of bankruptcy that followed led to a greater need for corporate governance. Guidelines for e-commerce were set by the Organization for Economic Cooperation and Development (OECD) as tabled below.

*Table 2: Summary of OECD (1999) Guidelines*

<b>Scope</b>	<b>General Principles</b>	<b>Implementation</b>	<b>Global Cooperation</b>
They apply to B2C e-commerce	1. Transparent and effective protection	1. Promote self-regulatory practices	1. Facilitate joint initiative
	2. Fair Business, advertising, and marketing practices	2. Promote consumers' participation in the development and implementation process	2. Make use of existing international networks
	3. Full online disclosures Information about the goods and services b) Information about the business transactions	3. Encourage technology development to protect and empower consumers	3. Enhance consumer by working hard and adapting the latest technology
	4. Secure payments	4. Provide system to handle consumer's complaints regarding e-commerce	4. Cooperate and work towards developing agreements to solve the disputes due to the misconducts
	5. Dispute resolution		
	6. Education and awareness		

### **2.3.1 Corporate governance in Zimbabwe**

Zimbabwe launched its corporate governance code in April 2015 replacing the Companies Act of 1951 which the country had used up to then to govern the operations of the companies. The corporate governance framework laid down by Zimbabwe was also looking at (the following) issues like corruption in the private and public sector, corporate disclosure, communication and mechanisms of creating dialogue between shareholders, management boards and employees (Herald 10 April 2015). Miriyu and Mouna 2011: Bebchunk et al. 2014 stated that well-governed organizations perform better than poorly governed ones, thus emphasizing the need for good corporate governance. In the journal "Corporate governance and ethical behaviour: The case of the Zimbabwe Broadcasting Corporation" it is said that bad corporate governance leads to problems such as

mismanagement, red tape, wastage, unreliable services, operational inefficiencies and pilferage.

## **2.4 Ethics**

The word ethics came from the Greek word ethos. Ethos has several meanings like custom, habit, character or disposition. Ethics is based on personal beliefs, morals and appropriate behaviour (Chaffey, 2009, p209). According to [www.techterm.com](http://www.techterm.com), a set of moral principles that govern the behaviour of a group or individual is called ethics. In the mid-1940s, developments in science led to the formation of computer ethics or information values. Technology advances and the computer continue to have an impact on society. Computer ethics is defined as the moral principles that regulate the use of computers. Computer Ethics was founded by American scholar Norbert Wiener, who was a professor of mathematics and engineering at MIT. He later wrote a book *Human Use of Human Beings*, and that dealt with the likely impact of technology on human beings. Computer ethics is evolving into a broader and even more important field which could be called global information ethics (Terrell B, 2011).

As said by Mackie JL (1977) moral and ethical statements provide different views of character and actions as either bad or good. Studies are working around the empirically and evolutionary-based science of morality or ethics.

### **2.4.1 Ethics in Zimbabwe**

In a Business ethics symposium meeting held in Harare, Mrs. Eve Gadzikwa proposed that the declining economy in Zimbabwe was promoting unethical practices. The current economy is characterized by industrial output and liquidity challenges, and companies want to do anything to stay afloat (Herald 21 November 2012). Ethical issues are affecting banks, the private sector and also the public sector. Industrial Psychology Consultants (Ltd), headed by Memory Nguwi, who is the managing consultant, conducted a study of Zimbabwe businesses which sort to highlight the level of adherence to ethical business practices in their paper “Zimbabwe: Firms flout Business Ethics.” The research revealed that most organizations were treating ethics as an abstract concept, ([reputationalcompliance.com](http://reputationalcompliance.com)). The article highlighted some issues which included that unethical business practices were prevalent in legal entities and public enterprises; the

researchers found that in the Information Communication Technology and telecommunication sector 23.8% of people had witnessed unethical practices.

## **2.5 What is the Impact of E-Commerce on Ethics?**

E-compliance, an aspect of e-commerce has been identified by Glasser and Haeubermann (2007) to include the organization's ethical behaviour or its corporate citizenship. These authors say that the most prominent factors constraining e-commerce are ethical problems, and these problems are internet fraud, credit default and exploiting loopholes. Professor Li Lun of Hunan Normal University in his paper "Virtue under the Mouse: Ethical connotations of Electronic Commerce" elaborated the moral and ethical impact of e-commerce such as network information pollution, viruses, but did not analyse the reasons or make suggestions for resolution.

Kabango and Asa (2006), Glasser and Haeubermann (2007) and Duh et.al (2012) identified factors which challenged e-commerce which in turn had a bearing on corporate governance and ethics and these included trust, security, fraud and hacking, awareness and perceived usefulness by customers, perceived quality. The present study will focus on the ethical impact of e-commerce through corporate practices, and where these are perpetrated by third parties, it is pertinent at the end of the analyses to suggest solutions on how companies can ameliorate these impacts.

Consumers believe that electronic information about products or services on retailers' websites is accurate and that credit card numbers are protected in online purchase transactions (Desai and Embse, 2008; Kim and Tadsina, 2007). Johnson DG (1977) raised some questions with regards to ethics. Some of the issues are "Is computer technology eroding personal privacy? Will the use of encryption make crime detection impossible? Can democracy be applied on the global scale of the Internet?" Deeper questions came because of the above issues. These questions were trying to find out how technology is useful to human beings and what benefits will be achieved by a customer after taking the risk of trading on an e-commerce website. Another question arose among ethicists as to whether ethical issues were different for computer technology. These questions led to some authors claiming that moral concepts and theories can address ethical issues in computer technology because of the implicitly of issues.

Customers of the Halifax Bank gained access to other people's accounts in 2000 resulting in the bank suspending their Internet banking share dealing (BBC online, 2000). Clarke, (1997) said that what the interest of an individual has in influencing or controlling the handling of data about themselves is called information privacy. There are some studies that have assessed behaviour on the internet by users towards their privacy. The results showed that most users are still unaware of risks and are sure that the transactions they do are secure (Scollay, 1998). The users are not sure if the security of online transactions does not affect their bank accounts. There are a number of techniques and technologies that support e-commerce through unethical means. The University of Georgetown did a survey and found out that ninety-four percent of the hundred most frequently visited sites have privacy disclosure, (Detroit Free Press, 1999, Clarke, 1997).

## **2.6 What is the impact of E-Commerce on Corporate Governance?**

An information security management framework has been provided by Khoo, Harris, and Hartman (2010). Management should use a balanced scorecard to conduct IT risk assessment, is argued by Brown and Nasuti (2005). Organizations need to have control for them to have the acceptance of their stakeholders. Qualitative research that was conducted by Mlitwa and Birch (2011) in Cape Town, South Africa used purposive sampling techniques majoring intrusion detection and access control systems. Their findings were that IDSs have vulnerabilities and that they offer an added cushion to current network access control efforts. The potential attacker is alerted by the system and enables you to respond promptly. There needs to be a framework for network security that should help guide the operations. The establishment of control in e-commerce requires the expansion of internal controls to monitor the activities of customers, suppliers and other users of electronic platforms. Internal control is the policy including the code of conduct formulated by management to regulate the behaviour of their subordinates. Examples of the checks are segregation of duties, authorization policies and recording and reconciliation procedures.

What have other researchers found on the link between E-commerce and Governance?

Miranjanamurthy and Chahar (2013) believe that electronic commerce security is the most important information security component due to its interaction with end users via daily transactions with the business. Trautmann (2016) interrogates risks perceived by e-commerce players including potential hazards which upon manifestation may degenerate

into cost escalations and corporate life threats. Using PayPal as a case study the identified potential risks included cyber-crime, infrastructure security, and intellectual property protection. Management sources at e-Bay (parent to PayPal) believed that threats emanated from the following issues, among others

- Ability to migrate from online commerce to mobile and multi-channel commerce and payments.
- Customer confidence and security of transactions in their use of the company's websites and technology.
- Ability to comply with existing and new laws relating to among other issues, money transmission, electronic funds transfers...terrorist financing, consumer protection...(p.282)
- Ability to manage costs of compliance with both new and existing laws and regulations

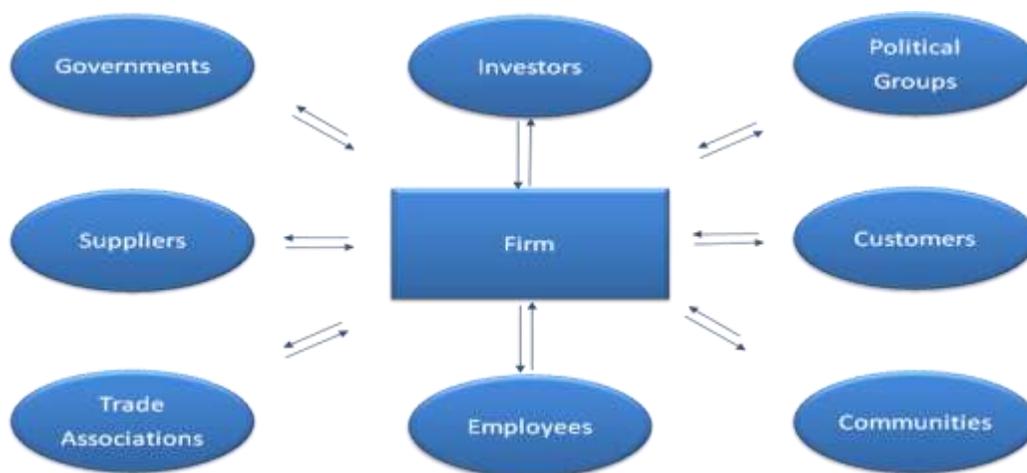
Control Objectives for Information Related Technology (COBIT) and Committee of Sponsoring Organizations (COSO) are two of the governance frameworks applicable to e-commerce. COSO deals with a broad-based approach that has fewer complexities and no technical issues, while COBIT deals with technical problems with a more comprehensive approach that have process-oriented risk and control needs. COSO deals with some issues like managing the environment and associated activities, risk assessment and information communication. RongRuey (2001) argues that establishing control among all e-commerce participants is necessary. Difficulties on e-auction platforms arise from lack of trust in oversight mechanisms. Putting oversight mechanisms in place can be done using the COBIT framework using the best practices framework which is in the Information Technology Infrastructure Library.

The Jordan Electronic Transaction Law no. 85 of 2001 has been examined by Dahiyat (2011) to determine whether it was giving attention to consumer protection in an online environment. This examination gave a negative picture of the future of Jordan. Luis Casalo (2011) examines the level of e-commerce penetration looking at the relationship between trust and consumer commitment in Spain. The results show that the development of online trust is governed by the same factors as in other countries. These factors are availability and cultural.

## 2.7 Stakeholder Theory

The Stakeholder theory originates in the strategic management of Freeman (1984). The use of the term “stakeholder,” as opposed to interest groups, is deliberate in order to make a contrast to “stockholders” and “shareholders” (Scholl, 2001). Elias and Cavana (2004) describe stakeholders as those groups whose absence could make it difficult or impossible for the organization to survive. However, Freeman (1984) as cited by Elias and Cavana (2004) define stakeholders as any individual or group who can be impacted by or can affect the firm in the achievement of its objectives. It was predicted that businesses that were less focused on stockholders alone would benefit their stakeholders (Taylor, 1971 cited in (Elias & Cavana, 2004)). Nwanji and Howell (2006) noted that the traditional Anglo-Saxon business model of profit maximization for the shareholder was found to be inadequate and consideration needed to be granted to the German model which considered the other stakeholders.

The stakeholder theory states that businesses are merely an arrangement by which one group of people; (the stakeholders) advance capital to another team (the managers) to be used to realize the profit. Stakeholder theory is viewed as challenging the prevailing neoclassical economic theory of the firm (Scholl, 2001). The neoclassical economic theory of undertakings focuses on the conventional input-output model of the company. This model sees businesses changing investor, supplier, and worker inputs into client outputs (Donaldson & Preston, 1995). Stakeholder Theory takes into account the interests of interested parties in the firm also bearing in mind that the priority of these interests is not always immediately evident (see figure below)

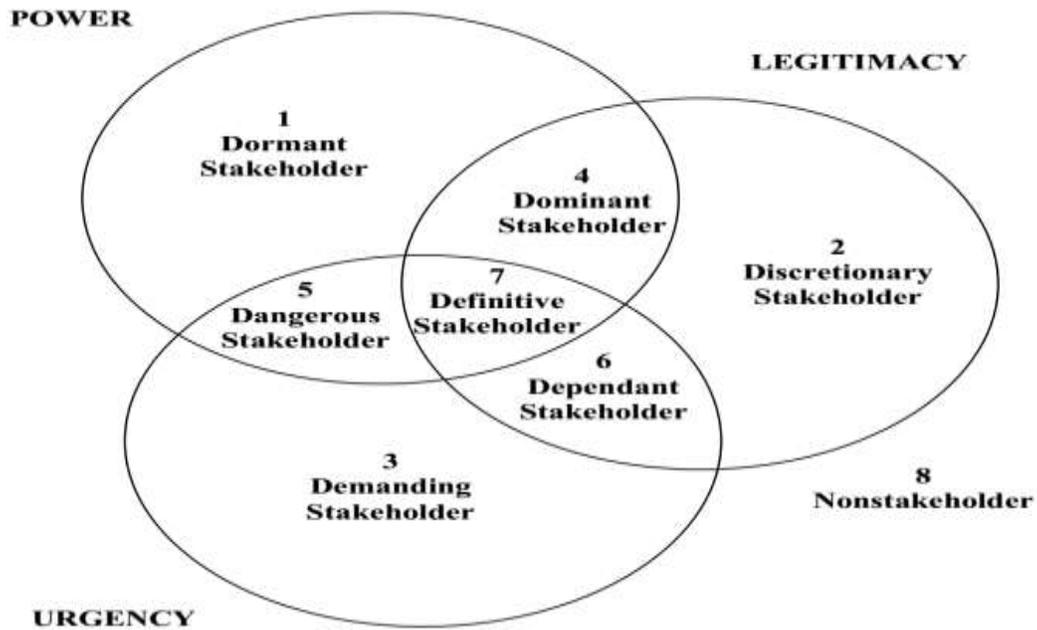


*Figure 1: Schematic of Stakeholder Theory (Donaldson & Preston, 1995)*

Donaldson and Preston (1995) offer a systematic classification of Stakeholder theory which is quoted in the literature (Scholl, 2001) into normative, descriptive and instrumental views. It is descriptive in the sense that it describes how organizations manage or interact with stakeholders, normative because it prescribes how organizations should treat their stakeholders, and instrumental because the framework for examining the connections is established between stakeholder management and achievement several performance goals for corporate. However, Freeman (1999) criticizes the Donaldson and Preston (1995) systematic classification as being too positivist and denies the distinction between normative and descriptive views. Research using Stakeholder theory has subsequently evolved into two distinct strands which are the “Business Ethics” strand the “Instrumental” strand (Scholl, 2001).

Stakeholder theory, in general, has had its critics especially among economists and particularly in the area of business ethics. Milton Friedman in the stockholder model explains his position regarding business and social responsibility in the manner of capitalism and freedom. Friedman states that there is only one social responsibility of business, the responsibility of using resources to engage in activities designed to maximize its profits. Gioia (1999) says that the stakeholder theory has also drawn criticism from within its own camp, that it needs more data to ground itself, because as it is, it is too theoretical. Jones and Wicks (1999) have argued for a unified Stakeholder theory which combines all the separate strands into a single coherent theory. Freeman (1999) and subsequent authors (Scholl, 2001) have argued that a convergent method is not in existence and that though ideas may have originated from the same source, their prescriptions and implications differ (Scholl, 2001).

Mitchel et al (1997) as cited in (Elias & Cavana, 2004) has proposed that the influence of a stakeholder has been premised on the level of three essential relationship strengths namely power, legitimacy and urgency. Elias and Cavana (2004) point out that the last attribute could be a leverage to obtain salience in the mental maps of corporate managers regarding the relationship. The three characteristics have evolved into the relationship in the figure below which also indicates the recommendations for the various levels of stakeholder relationship.



*Figure 2: Stakeholder Typology (Source (Elias & Cavana, 2004)*

Latent stakeholders are classified as having low salience by possessing only one of the three attributes, with expectant stakeholders being those with moderate salience arising out of possession of two attributes in the relationship and those with three attributes being definitive interested parties and perceived by managers as having high salience. What needs to be interrogated in the e-commerce domain is the identification of stakeholders and their classification according to the above model. The moderating effect of the various stakeholders as identified and presented should be elicited: what their impact is and how they are affected by different e-commerce activities regarding corporate governance.

## **2.8 Stakeholder Influence variables**

Some variables influence stakeholder influence. The government is one of the key variables in stakeholder influence (Roberts, 1992). State interest in a corporate and tax issues affect corporate governance and ethics within an organization (Elias & Cavana, 2004). Besides government, customers and employees are key variables in stakeholder

influence. Corporate clients and staff determine the direction which an organization takes (Scholl, 2001). If customers are disgruntled this affects the corporate governance of a company, and if employees are negative towards their operations and are not happy with the day to day operation of the company, then this also has an impact on corporate governance and e-commerce in general. Suppliers also have an influence on corporate governance, as their role and association with customers does have a controlling effect on the behaviour and ethics of the company.

## **2.9 Summary**

The literature review shows that there are studies around the impact of e-commerce on corporate governance and ethics. Most previous studies showed that there was an impact of standards on computers. Where there were impacts on values more were negative rather than positive. However these studies are relatively new. There are more studies on the impact of e-commerce on corporate governance and ethics than on values. Decision makers need to prioritize risks and remediate issues that could have an adverse impact on the organization. Studies on the effect of e-commerce on corporate governance were limited; however, the majority discussed were those procedures used in measuring trust in electronic commerce, and electronic commerce security threats and vulnerabilities, as in the book of Efraim Turban (2009) "Introduction to Electronic Commerce."

In business ethics, one of the most influential theories is the Stakeholder theory. The study by Pouloudi et al., (1999) gives a holistic view to the study of information systems stakeholders. Information systems stakeholders are expected to encourage a more ethical approach to information systems developments and contribute by addressing the organizational and cultural issues of information systems projects.

## **CHAPTER 3**

### **CONCEPTUAL FRAMEWORK-THEORETICAL FRAMEWORK**

#### **3.0 Introduction**

The previous chapter looked at the literature review. This chapter is going to look at the conceptual framework as well as the theoretical framework emanating from the research. It starts by explaining the theoretical framework which is followed by the conceptual framework.

#### **3.1 Theoretical Framework**

##### **3.1.1 Stakeholder Theory, E-commerce, Corporate Governance and Ethics**

The stakeholder theory addresses the role of a corporation in a capitalist society, and Zimbabwe is one such capitalistic country. The stakeholder theory has models that were developed to look at issues that capitalistic firms experience in the evolving world of technology. Freeman (1984, 2014) argues that stakeholder competencies should be conceived as the technological capabilities continue to advance, and the responsibilities of the corporations also increase dramatically. Organizations that manage their stakeholder relationships survive longer and perform better than an organization that does not have the management of relationships as its core idea.

Friedman (1999), in the stockholder model, clearly explains business and social responsibility in the manner of capitalism and freedom. Friedman (1999) states that there is only one social responsibility of business, the responsibility of using resources to engage in activities designed to boost (its) profits. These activities should comply with the law. A point to note is that Friedman (1999) wrote the theory when the economy was not as globalized as it is now and also the economy was not handling a range of ethical and social norms. He argues that “the market itself is the best tool by which to promote the public good” and that by pursuing profit business is already giving back to the community in the most efficient manner possible (Friedman, 1999).

Mitchel et al. (1997), however, acknowledge that the traditional stakeholder theory was conceptualized around the issue of survival within the four categories of corporate planning, corporate social responsibility, systems theory and organization theory.

E-commerce is a contemporary social issue that relates to technology, and it has impacts on society, both positive and negative, and on corporate governance and ethics. Privacy and the security of confidential information must be addressed when organizations are adopting e-commerce. Most teams are now pursuing not only increased profits but moral and ethical benefits. Corporate governance is always changing and evolving due to internal and external environmental dynamics. Domestic issues concern stakeholders and shareholders, as well as maximizing profits. Foreign issues involve human diversity, globalization, e-commerce and advance in communication and information technology. The stakeholder theorists suggest that managers in the organizations have a network of relationships to serve.

For corporates to succeed, stakeholders have a social responsibility beyond making a profit. The implication is that an organization needs to look at all the factors that can impact the governance of the business or corporate.

### **3.1.2 Stakeholders in e-commerce trading in Zimbabwe**

This section looks at different stakeholder groups that participate in electronic commerce trading in Zimbabwe.

E-commerce has become one of the important components of life in Zimbabwe in its day to day operation. This practice has spread from industries to the informal sector where trading is now almost all done through e-commerce. E-commerce now has a positive impact not only on social behavior, but also the delivery of services throughout civil society and government departments. A large proportion of Zimbabwe's growing population depends, almost entirely, on e-commerce, especially the rising younger generation (World Trade Organisation, 2013).

Therefore, e-commerce is now a game changer. It is changing the social norms by opening new challenges and opportunities for informal and upcoming businesses. Interaction between stakeholders and government now becomes very easy. The use of e-commerce has

been facilitated by technology, such as mobile platforms and the big data component. Information then becomes available very easily without facing the traditional challenges of time, as stated by Nwanji & Howell (n.d.). Everyone is now affected by e-commerce in one way or another in their day to day operations.

Coming to the multi-stakeholder participation which has been the driving force in e-commerce, there are a number of global governance entities such as ICANN and IETF. These are non-governmental multi-stakeholders that have played a significant role in e-commerce as compared to the government stakeholders like ITU (World Trade Organisation, 2013).

Their multi-stakeholder ethos and structure have been replicated in other governance entities such as e-commerce's Regional Internet Registries (RIRs) and the E-commerce Trading Forum. It has resonated, too, at a national level, as the following description of Zimbabwe will display. The increasing importance of e-commerce is, however, a source of growing tension between the multi-stakeholder standards of digital trade and the more conventional governmental and intergovernmental standards of other public policy domains, and this is turning into an increasingly valuable aspect in the international discussion of the future of e-commerce.

Critical questions are raised in trying to explore stakeholder participation in Zimbabwe in the e-commerce trading environment. The questions are:-

Question1: Who is affected by e-commerce?

Question2: Which are the stakeholders who participate in e-commerce trading?

To answer these questions the framework identifies five main stakeholder groups within an e-commerce environment. These are government, private sector, civil society, the e-commerce technical and professional communities and the users who are the consumers or the citizens (Ojo & Rosati, 2016).

There are important distinctions between operations in these categories. The private sector, for example, includes both businesses which supply e-commerce (such as telecommunications companies, ISPs, and cafés and those who make use of it. These are depicted in the diagram at Figure 3, below, as the supply and demand sides of the private sector so far as e-commerce is concerned. Government agencies and civil society

organizations likewise include those which are primarily or substantially concerned with promoting and enabling ICTs, such as the telecommunications regulator in Zimbabwe called Postal and the Telecommunication Regulatory Authority of Zimbabwe (POTRAZ).

Interaction with e-commerce is through individuals as citizens and as consumers. However, there is an overlap where individuals do not necessarily fit as illustrated in the diagram below, Figure 3. Some play a partial role while others play a major role (Monteiro, 2014).

The last of these include individuals and organizations whose lives, work, and livelihoods are substantially affected by e-commerce and electronic commerce trading decisions (Trautman, 2016). Their interests should not be ignored in an assessment of the social e-commerce business environment. Instead, this evaluation should try to identify what results follow from their lack of engagement, why it arises and how they might be more effectively involved.

The main stakeholder groups in e-commerce trading and their relationship with international stakeholders is shown below.

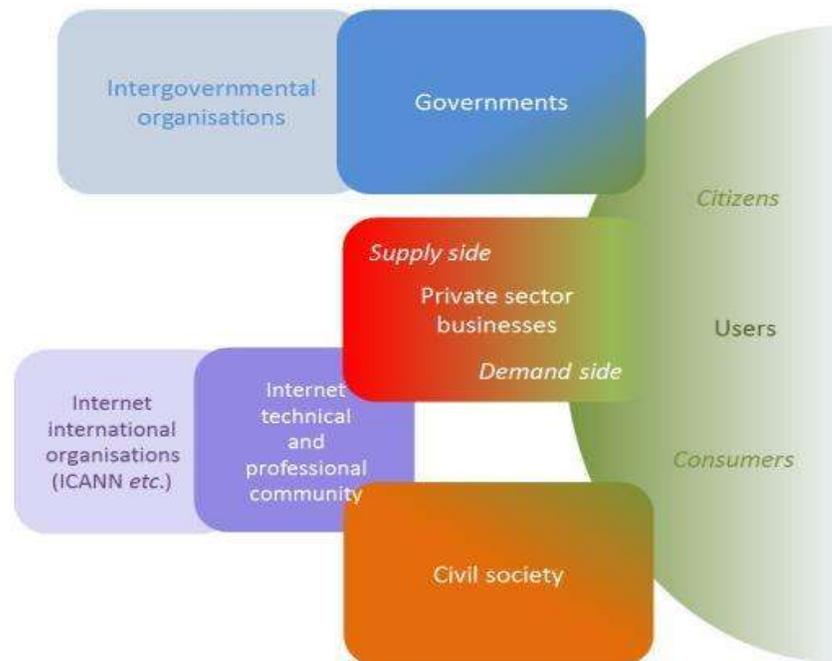


Figure 3: Internet stakeholder communities: Source (Elias & Cavana, 2004)

Stakeholder engagements in Zimbabwe, through e-commerce, have evolved and teamed up with various groups from different e-commerce trading teams. This engagement has

produced a significant debate and raised concerns, from these groups. Such is the case with the telecommunication e-commerce players such as Telecel, Econet and Netone companies which are the key telecommunication service providers in Zimbabwe. The concerns have been highlighted in many fora and the press, through the regulatory authority, which is the Postal and Telecommunication Regulatory Authority of Zimbabwe (POTRAZ).

However many Zimbabweans, be they from government, civil society, business or elsewhere, all take a leading role in e-commerce trading and meetings. This is done by taking leading roles in international, technical and professional communities in SADC, AU and even globally. Roles are being played in African ISP Associations (AISPA), African Network Operators Group (AfrISPA) and even AfNOG. This, however, tends to be a minimal role for those who are the leaders in national e-commerce trading, with the majority mainly coming from the capital city Harare.

There is a very critical differentiation to be drawn between people's awareness and understanding of e-commerce trading, on the one hand, and the significance of electronic commerce trading on corporate governance (Trautman, 2016). It is not only those that identify themselves as stakeholders that have a stake in the decisions that are being taken. As in many countries, so in Zimbabwe, it has proved difficult to engage the interest of ordinary Internet users in how e-commerce is governed.

Stakeholder theory concept factors out that an enterprise needs to be controlled for the gain of all stakeholders, not only for the interest of financial shareholders (Ojo & Rosati, 2016). The linkage to corporate governance amongst e-commerce trading organizations is clear; decisions which might be made must take into account both financial and non-financial stakeholders to ensure a clear and consistent message to the market. A core tenant of stakeholder theory is the inclusion of the needs and necessities of non-financial stakeholders while at the same time giving the quantitative data that financial analysts and decision makers require.

Communicating such non-traditional data to the marketplace is important, particularly to financial stakeholders accustomed to a different format and specific content (Monteiro, 2014). As measures continue to increase on a range of fronts, financial and environmental being two of the most frequently referenced, it is imperative that corporates adapt to this business landscape. Integrating the needs and requests from non-financial stakeholders, especially regulators, and environmental groups (relevant to the regulated utility business

in Zimbabwe) it is important that the organization addresses the needs and concerns of these teams promptly (Parrot & Tierney, 2012). Corporate governance is connected to stakeholder theory in that both ideas highlight the importance of factoring in a wide range of variables for corporate decision making. Specifically, about regulators and environmental issues, such as the management that AEP has, minimizes the probability of non-compliance as well as expensive fines; a clear instance of economic value added. The example of AEP is merely one such case where a business, which incorporates stakeholder theory into the comprehensive presentation of financial results, meets the needs of all stakeholders.

### 3.2 Conceptual framework

The conceptual framework shows that e-commerce consists of several transactions that lead to the stakeholder's influence (Donaldson & Preston, 1995). However, the stakeholder's power is mainly through five primary variables which are government, customers, suppliers, investors and employees. These then lead to good corporate governance and ethics which are also interlinked as shown in figure 3 below.

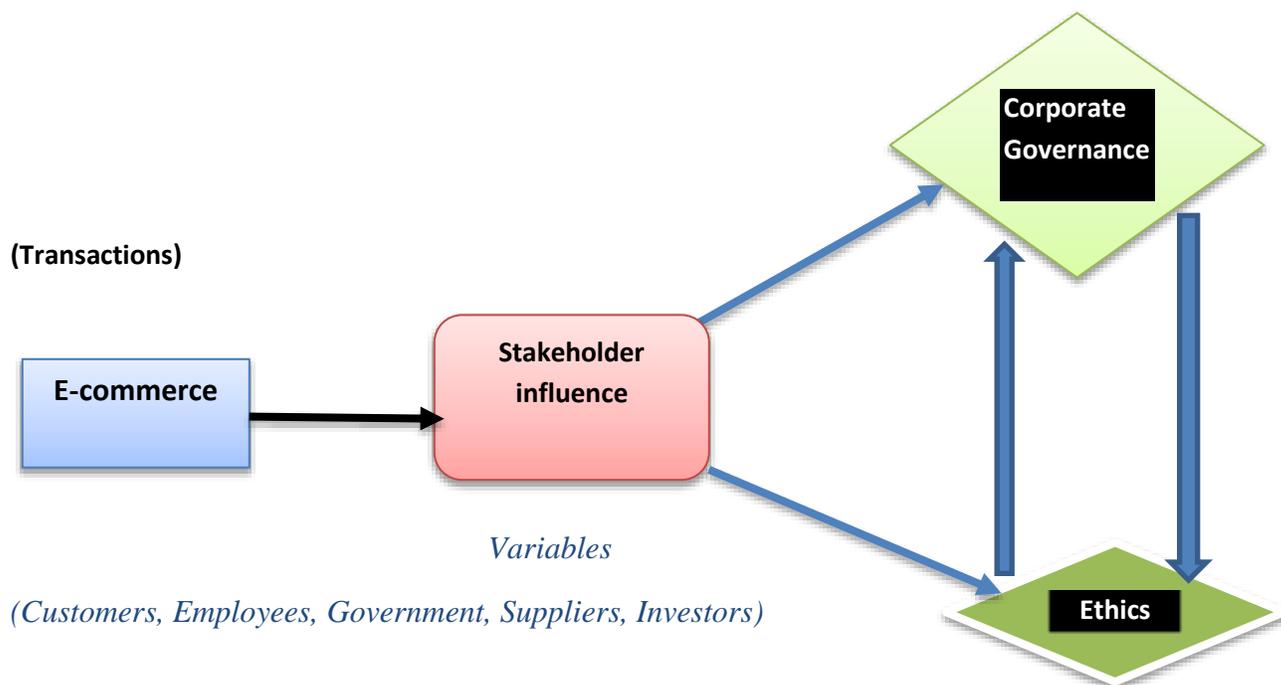
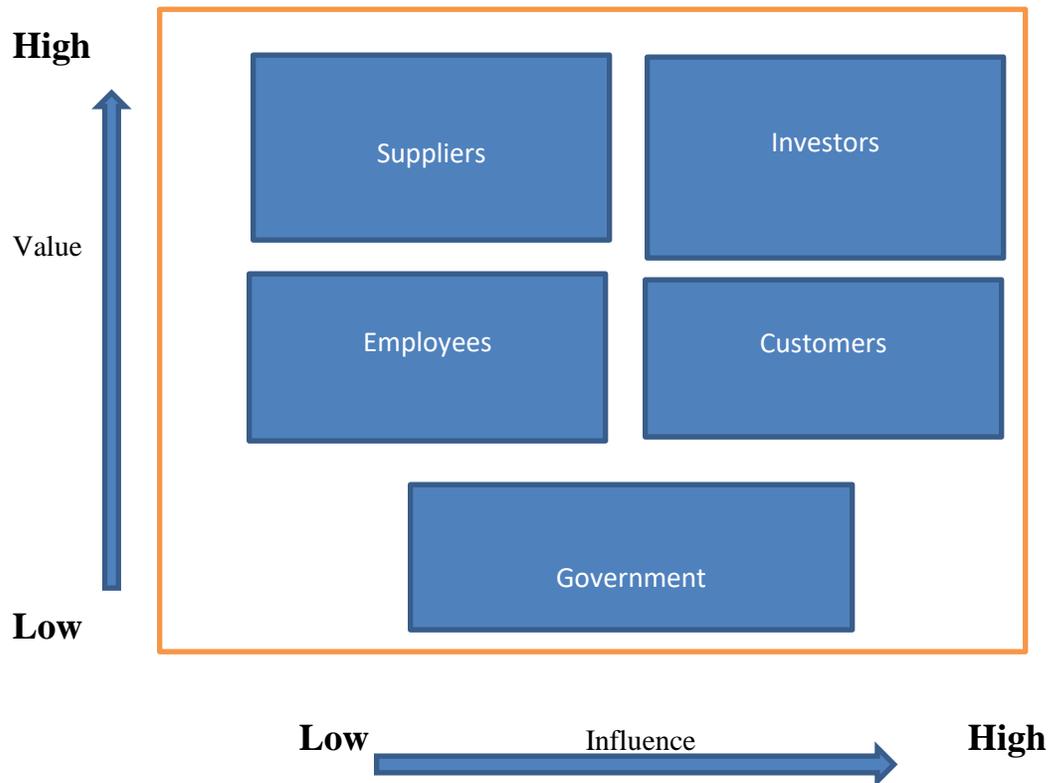


Figure 4: Conceptual Framework:

Source Primary Research

From the diagram above it can be noticed that (the) corporate governance and ethics are influenced by the stakeholder influence through the five main variables, as shown in figure 4 above. This stakeholder influence is also influenced by transactions done by e-commerce.



*Figure 5: Stakeholder Influence Map*

*Source: Primary Research*

Stakeholder influence tends to be affected by the five primary variables as shown in figure 5 above. The stakeholder value is high mainly because of the investors and suppliers. The investors have a high stakeholder influence as the money they put into corporates affects the execution of the e-commerce business. If the influence becomes weak, it is a signal that the investors have lost interest in the corporate. However, suppliers play the same role as

the investors. A reduction in the influence suppliers affects the operation and profit of the organization and prices tend to increase, affecting the customers. Suppliers, therefore, should be constant providers. The quality of the products supplied has an effect on the role of the suppliers.

The stakeholders are mainly influenced by the customers and suppliers as shown in figure 5. Customers are considered as the driving force in any corporate, so poor customer care affects the operation and profit in general. Hence many e-business organizations should do customer care training as well as customer satisfaction surveys, to determine the level of customer satisfaction. The training can be done at two-year intervals. Customers are then regarded as the golden tool for any e-commerce business.

In Zimbabwe, the stakeholder influence is mainly held by the investors, although the economic and political situation tends to repel investors, it has an impact on corporate governance. Suppliers and investors have much more stakeholder influence than government and customers. Many e-commerce companies are being affected by the clients and investors while employees tend to be the stakeholder with minimal effect, as shown in the diagram above.

### **3.3 Hypothesis**

Hypothesis plays a crucial role in research. Given the conceptual framework above, the following hypothesis is derived from that.

E-commerce, through stakeholder management dynamics, has a positive impact on corporate governance and business ethics.

### **3.3 Chapter Summary**

This chapter looked at the theoretical framework and the conceptual framework that will be used in this research. The next chapter looks at the methodology.

## **CHAPTER 4**

### **RESEARCH METHODOLOGY**

#### **4.0 Introduction**

The previous chapter looked at the theoretical and conceptual frameworks. This chapter is going to give the problem statement followed by the research questions and objectives of the study. According to Terre Blanche and Durkheim (2006), the detailed description of how the research is conducted is given by the methodology as well as by the type of the research design used. Issues of sampling or sampling technique, as well as data collection methods, is also pointed at through methodology. Methodology also includes the research instruments used. This section details the methods and techniques used to identify and collect data, to perform the data analysis, together with the expected outcomes and the study assumptions.

#### **4.1 Research Paradigm**

Social science research is perceived along research paradigms or philosophies which relate to the nature of knowledge and reality, and these are epistemology and ontology (Wahyuni, 2012). Epistemology refers to the basis regarding beliefs, on the mode by which knowledge is generated, understood and used in a manner that is regarded as valid and acceptable. The ontological dimension relates to the perception of reality whether it is objective or subjective. According to Wahyuni (2012), axiology and methodology are two new beliefs that back the preceding research philosophies. Axiology relates to ethics and addresses the roles of values between the researcher and the subject under study.

However, the researcher is not independent of the phenomena under study and therefore a mixture of post-positivism (critical realism) which though assuming a positivist or objective stance, incorporates the researcher's interpretation that is obtained through social conditioning to the issue under study (Wahyuni,2012). However, a subjectivism or interpretivism is also incorporated. Thus, a mixed research is proposed here as the structured questionnaires are needed for three quantitative views, and these are complemented by interviews which are subjective.

The decisions about where, what, when and how much and by what means regarding an inquiry are the basis of research design, according to Kothari (1990, 2004). The research design is then divided into the following

- i) (Sampling design-)The sampling design is concerned about the method of item selection for observation in a given study.
- ii) The observational design is concerned with the conditions to be considered for observation to be made.
- iii) The number of items to be observed and the mode of collection of information or data and how it will be analysed is the statistical design.
- iv) The Operational design is involved with the techniques and procedures for executing the foregoing research design components.

## **4.2 Approach to Theory**

This research used a descriptive survey design in which data was collected from the population through self-administered questionnaires and interviews. Under this research design, data relating to the variables was collected at about the same time to describe the relationship between the variables under study. This type of investigation design was selected because it helps to secure a wealth of information about the unit of study which may provide clues and ideas for further research. It also employs a variety of techniques in data collection, such as historical method, a descriptive method where a factual picture was needed, interviewing and questionnaires. As this research sought to assess the impact of e-commerce on corporate governance and ethics, a descriptive survey design was appropriate as it will highlight the relationship that exists between the dependent variable (e-commerce) and the predictor variables (corporate governance and ethics).

### **4.2.1 Case Study Approach**

Case studies of corporates in Zimbabwe (Total Zimbabwe, Complete Solutions Architects, Venturecom and Kenac) were used. The corporates were selected by purposive sampling. These corporates constitute the business organisations that deal with a wide range of customers, government and other entities as explained in the stakeholder entities. This case

study approach used structured interviews administered on a personal basis. The purpose of the interviews was mainly to get appropriate and relevant responses. These were conducted with concerned and intended participants.

The communication method of collecting data was employed as opposed to the observation approach. This has much strength as the method is quite versatile by giving scope for the collection of data. It is a fast and low cost method of collecting data within the given research time constraints. However, the method has weakness if some respondents show unwillingness to reveal information.

The use of a case study has its own drawbacks. However, these were mitigated by mainly targeting the appropriate participants and guaranteeing them confidentiality.

There were a few respondents who were unable to provide the data as required. The researcher gave scope and liberty in arguments associated to the discussion topic and only taped the relevant viewpoints. Communication skills demonstrated an association with a high level of influence on the questioning process, on the feedback. The researcher ensured that such impact was positive and of a strong nature and this allowed a greater independence on the structure of the questions.

### **4.3 Research Questions and Objectives Revisited**

Having looked at the approach of theory and research design the following section is going to look at the research questions. The main research question from chapter one is:-

What is the impact of e-commerce on corporate governance and ethics?

This gives the sub research questions which emanate from the main research question.

The sub-questions are:

- i. What is the influence of key stakeholders on e-commerce
- ii. What is the benefit of key stakeholders to e-commerce
- iii. What are the appropriate corporate governance practices that can be adopted to adapt to the e-commerce domain?

#### **4.4 Research Objectives**

Guided by the research questions the primary purpose of the study is to ascertain the positive and negative impact of e-commerce practices of large companies on corporate governance and ethics with regards to key stakeholders.

The secondary objectives which then follow from the primary purpose are

- i. To determine the stakeholders in e-commerce trading
- ii. To understand stakeholder importance, influence, and behaviour
- iii. To bring out (identify) the impact of e-commerce on corporate governance

#### **4.5 Research Population**

A statistical population is a set of entities from which statistical inferences are to be drawn (from), regularly based on a random pattern taken from the population. The population is likewise used to refer to a set of potential measurements or values, including not only cases observed but those that are potentially observable.

The population for this study is composed of public sector organizations and private companies. This has been determined using the sample size calculator. Sample size has to take into considerations factors such as the purpose behind the research, population size (Israel, 2013; Kothari, 2004; Bartlett et.al, 2001), risk of selecting a bad sample and the acceptable sampling error (Kothari, 2004; Isarel, 2013). Kothari (1998, 2004) also considers precision level and confidence level to be requisite criteria stated as 95% or 99%, or +/-5% or +/-1% respectively.

- a) Confidence level (risk level) -This is described by Kothari (1998, 2004) as the sample approximation to the true population value when the universe or population is successfully sampled. Thus a confidence level of 99 percent is an endeavour to minimise risk. The present study will select the 95 per cent confidence level.
- b) Precision Level-Precision level is alternatively described as the sampling error and is the limit within which it is expected to find the true estimated value of the population (Israel, 2013; Kothari, 1998, 2004).

The preciseion level selected for this study is +/-5%

#### 4.5.1 Sample calculation

Two approaches have been used in sample size calculation.

*Table 3:1 Sample Size Determination(Source:Bartlett et al)*

<b>Population Size</b>	<b>Sample size</b> <b>Margin of error=0.03</b> <b>alpha =0.05;</b> <b>t=1.96</b>	<b>Population Size</b>	<b>Sample size</b> <b>Margin of error=0.03;</b> <b>Alpha=0.05</b> <b>T=1.96</b>
100	55	900	105
200	75	1000	106
300	85	1500	110
400	92	2000	112
500	96	4000	119
600	100	6000	119
700	102	8000	119
800	104	10000	119

The above table would yield a population of 55 for a population of 100 at e-commerce at +/-5% precision.

Yamane(1967) also considered precision level but in addition, included the confidence level and the level of precision in order to determine sample size. For the 95% confidence level and +/-5% precision level the formula is as below

$$n = \frac{N}{1+N(e)^2}$$

Where n represents sample size

N is the population size

e is the precision level

An E-commerce organisation may have a staff complement of 100 but the relevant population, which includes supervisory and members, would be 93, which in turn yields a sample size of 45.

The researcher opted for the second method since it gives a larger sample size at +/-5% level of precision.

#### **4.5.2 Sampling**

Sampling is a process that is used to select a portion of the population under study (Maree, 2007). It is essential that the choice of sampling strategy fits the purpose of the study. This includes the assets available, the question being asked, the restrictions being faced and whether it is representative enough for generalization (Mugo, 2009). Purposive sampling techniques were used for this study.

#### **4.5.3 Time and financial resources**

Time and financial constraints were key factors that limited the scope and breadth of the study. The qualitative part of the study was time-consuming and required a lot of financial resources to acquire the relevant and right amount of information. This component of the study tended to take time that should have been committed to the field survey part of the survey.

#### **4.5.4 Managing huge volumes of data**

Qualitative case studies, by their nature, generate large quantities of data since everything observed is data. The researcher felt overwhelmed by the sheer volume of data produced from a small sample requiring analysis and linkages to theory or models either existing or new (Ambert, 1995). The researcher addressed this problem by concentrating on the most important data collected.

### **4.6 Data Collection**

The survey tool was used in this research to gain insight and knowledge into how stakeholders interact at various levels in e-commerce, the intricacies regarding differences between companies, and the way the stakeholders perceive these intricacies. The primary data of the research was collected through a structured questionnaire. The relevant

secondary data was collected from magazines, journals, newspapers, published information research articles and details from websites of the companies selected for study.

The internet proved very useful to the researcher by way of being a fast method of data collection, and information could be found very quickly about e-commerce and corporate governance. This source was inexpensive since updated publications affecting the research area were available online. The major drawback was that internet services were only available on certain connected computers and at scheduled times which incurred connection costs for the researcher. However, this had a minimal negative impact on progress. Journals were consulted to get the views of other scholars on the topics under discussion.

#### **4.6.1 Information searching/Literature Review**

This technic was mainly used for secondary data collection that was related to the research topic. The researcher made use of the references to some articles that came from reputable authors and sources. Permission to access corporate governance guidelines and organizational ethical codes of conduct was sought from the relevant authorities, justifications on the objective[s] of acquiring these were provided.

Both qualitative and quantitative data was extracted from documents over a range of years. The cited data from auxiliary information were acknowledged using appropriate reference coding, meeting research principles.

#### **4.6.2 Questionnaire Design**

##### **Questionnaire Structure**

Cover Letter - A cover letter was attached to the questionnaire introducing the aims of conducting the survey. Appendix A shows a sample of the cover letter.

Simplicity -The questionnaire was structured to have simple closed-end questions.

Anonymity –The identity of respondents was not required.

For ease of distribution, a printed form of the questionnaire was used. However, most participants required an electronic form to be emailed to them.

## **Questionnaire Format**

The questionnaire was divided into three parts as follows:

**Numerical Data** - The options to questions such as age and income were provided through the selection of a numerical range provided in the questionnaire. The options were limited to whole numbers.

**Scaled Response** -Some of the questions required a scaled response by the participants. Following similar studies related to technology adoption by Ramburn (2007), Marchewka et al. (2007), a scaled response of one to five was employed.

## **4.7 ANALYSIS OF THE DATA**

Data analysis is when data is split into manageable themes, patterns, trends and relationships, Mouton (2006). This research used both quantitative and qualitative techniques to capture and analyse data. The reason for this was that by using both these methods the data analysis was strengthened and data gaps were eliminated. Both qualitative and quantitative data analysis is able to provide numerical descriptions and detailed narratives and more elaborate accounts of employees' perceptions.

This study used the statistical analysis that employs the Pearson correlation coefficient, in order to determine the relationship strength between the regressor and the dependent variable, which takes values (as denoted by the letter  $r$ ), between -1 and +1 (Saunders et.al (2009) with the sign of – or + indicating negative or positive correlation and zero is an indicator of no correlation. This statistical test is employed where data are not normally distributed and with the convenience and/or judgemental sampling employed in this research normally distributed data were not expected.

### **4.7.1 Quantitative data analysis**

This is a systematic method for investigations. Statistical information is gathered and then transformed or observed as numeric. Quantitative data uses research that involves measuring of quantities (Bryan, 2006). Capturing is easy since the data is well structured but not as rich in meaning as qualitative data (Mouton, 2001). The use of quantitative approaches and techniques is mainly used to gather large quantities of numerical data (in

large sums) which can then be used to give appropriate summaries and to infer or generalise a given phenomenon of the study.

To accomplish this, quantitative research commonly entails few variables and lots of cases. It employs prescribed methods to ensure validity and reliability. Kruger (2003) and O'Neill (2008) confirm that quantitative techniques permit researchers to summarize significant sources of data and accommodate comparisons across categories and over time. Quantitative study tools are applied when the researcher seeks to find evidence to either support or contradict a concept in the proposition.

#### **4.7.2 Qualitative data analysis**

Qualitative data are derived from interviews and they take the form of large unstructured questions which sometimes are not easy to analyse (Bryman & Bell, 2007). Mouton (2006) maintains that qualitative data analysis is textual and very rich in meaning. In qualitative analysis, the data and information obtained from respondents are not expressed in numerical form. This research applied the grounded theory as a way of analysing the qualitative data. The grounded theory is concerned with the development of theory out of data (Bryman and Bell, 2007). The same data were used with the quantitative data (triangulated) to give meaningful results.

### **4.8 Validation of Instrument**

#### **4.8.1 Validity and reliability**

Validity is regarded to be both internal and external. The questionnaire was distributed anonymously, therefore, discouraging study respondents to discuss their answers.

In order to determine the internal consistency of the instrument of measurement, the Chronbach's (1951) alpha test was employed. Internal consistency measurement is an indicator of how well all the test items in the scale on a certain factor, for example liquidity risk, are consistent in measuring the factor that is under investigation (in the example , liquidity risk). A range of 0.6 to 0.8 for Chronbach's alpha are in the acceptable region of reliability. In the current study, the Cronbach's alpha was 0.72 and was an indication of a reliable and consistent scale.

Normality was tested by using the Kolmogorov-Smirnov as well as the Shapiro-Wilk tests on the full set of variables in the study. If the p-value is greater than 0.05 the data is deemed to be normally distributed which implies reliable sample representativeness of the

population and parametric tests are employable on the data and the obtained results can be extrapolated to the population (Ghasemi & Zahedias, 2012). However, if p-value is less than 0.05 the data is regarded as not normally distributed as the sample significantly differs from the population which requires non-parametric tests to be performed. In the study, the latter was obtained and the corresponding non-parametric tests had to be performed.

#### **4.8.1.1 External validity**

This refers to quality where one is able to generalise things that are not done through experiments, to other situations. This study will ensure that external validity is controlled through the selection of a representative sample and by personally conducting the interviews.

#### **4.8.1.2 Internal validity**

Internal validity focuses on general inferences that can be made regarding the cause and effect relationship (Coldwell & Herbst, 2004). These authors argue that internal validity can be affected by the following factors:

- i. Maturation – this causes changes in respondents.
- ii. History – the events that may occur between the start of a study and the end. In this research material changes that take place to the environment are not envisaged.
- iii. Testing effect – results when respondents have had an opportunity to have pre and post-tests which affect responses. The questionnaire will be distributed anonymously, discouraging the respondents from discussing their responses.

#### **4.8.2 Reliability**

Data reliability will be ensured by correct identification of respondents to be included in the research, working on the subject error (knowing the time to conduct the surveys and interviews) and subject bias (taking clear steps to ensure anonymity of respondents to questionnaires).

The researcher will also use methodology triangulation, which is a combination of the different tools to strengthen the research since each method has its strengths and weaknesses. Using more than one technique, therefore, offsets possible weaknesses of using one method.

## **4.9 Ethical Issues**

Saunders et al. (2009) refer to ethics as the appropriateness of the researchers' behaviour about the rights of those who participate as the subject of their study or those who are affected by it. The common issues of ethical concerns will be addressed through notification of the intention to conduct the research; seeking consent from all participants, and non-disclosure of identities to ensure privacy.

### **4.9.1 Informed Consent**

The researcher ensured that the subjects (respondents) to the research gave their informed agreement to take part in the study by clearly explaining purpose and methods, and what their participation entailed. The participants were made aware that they had the right to refuse to take part in the study and that they had the right to withdraw at any time without giving an explanation.

The respondents were additionally informed that they had the privilege to request that information collected from them should be removed from the study. An outline summarizing all the above information was prepared and written in the language spoken and written by the respondents. In cases where the subjects were unable to read and write, the information was read to them by an independent person.

### **4.9.2 Confidentiality/privacy**

In the process of obtaining informed consent, participating members were guaranteed that the information provided would be treated confidentially. The process was done to ensure that the identifying characteristics of individuals or groups were removed from quotes. Where this was impossible, for example, when the information was still attributed to sources, especially for individual interviews, permission was requested from the participants before use.

The researcher ensured that risks to study participants were minimized. Any risks or potential benefits that might arise from the conduct of the survey would be made known to study participants.

## **4.10 Limitations and Assumptions to Data Gathering**

### **4.10.1 Time and financial resources**

Time and financial constraints were key factors that limited the scope and breadth of the study. The qualitative part of the survey was time-consuming and required a lot of financial resources to acquire the relevant and right amount of information. This component of the study tended to take the time that should have been committed to the field survey part of the investigation.

### **4.10.2 Managing huge volumes of data**

Qualitative case studies by their nature generate large quantities of data since everything observed is data. The researcher felt overwhelmed at the sheer volume produced from a small sample requiring analysis and linkages to theory or models either existing or new (Ambert, 1995). The researcher addressed this problem by concentrating on the most valuable data collected.

## **4.11 CHAPTER SUMMARY**

This chapter looked at the methodology to be used in this research. It first looked at the research philosophy, the study design as well as the sources of the data. It then looked at the study population and sampling criteria. Further to that, it looked at the validity and reliability of the instruments. Finally, the chapter looked at how the analysis is going to be done.

The next section looks at the data presentation, analysis, and interpretation of results with discussions.

## CHAPTER 5

### DATA ANALYSIS – QUANTITATIVE AND QUALITATIVE

#### 5.1 Introduction

In this chapter, the summary of the frequencies and major relationships are going to be presented. The demography of respondents will be presented in tabular and bar graph form. This presentation is followed by the regression analysis as well as the qualitative analysis.

#### 5.2 Demography

A total of 35 responses were received, and the tables and graphs below summarize some of the statistics. Gender, age, the length of service in employment, seniority in the organization and period of operation in the business, are all factors which affect the impact of e-commerce.

##### 5.2.1 Gender Distribution

The following table shows gender distribution. The majority of the respondents were male.

*Table 4: Gender (Source: Primary data)*

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	21	60.0	60.0	60.0
Female	14	40.0	40.0	100.0
Total	35	100.0	100.0	

The gender distribution shows that sixty percent were male and forty percent were female. This shows that the majority of respondents were male

### 5.2.2 Age Distribution

The largest group of respondents was in the age range 36 to 45 years.

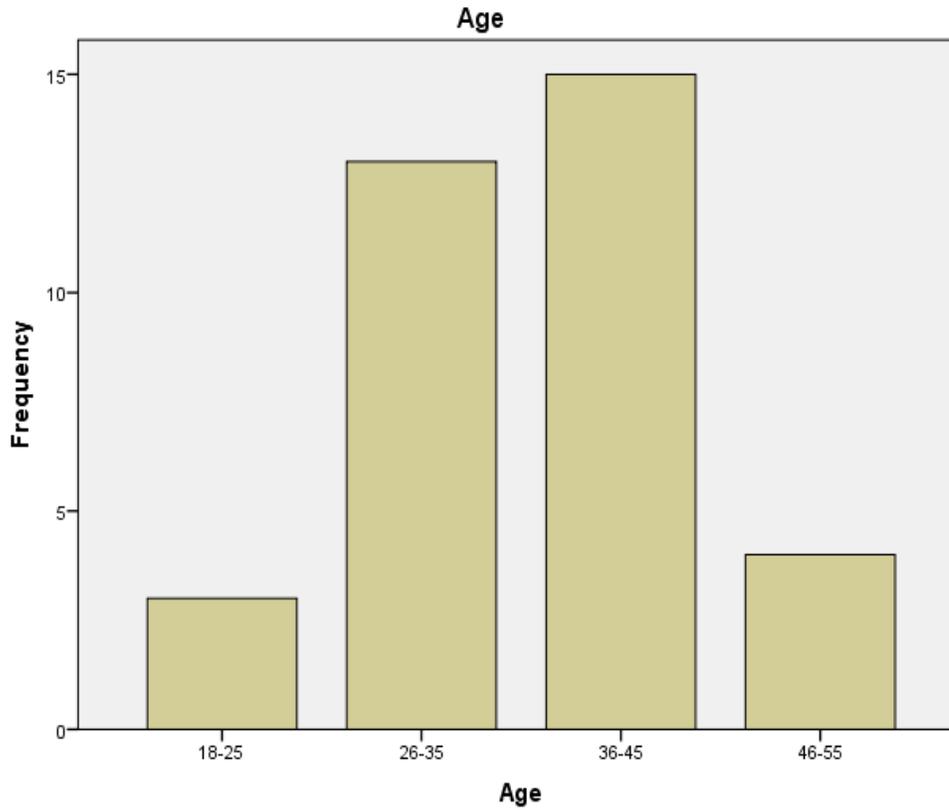


Figure 6: Age distribution (Source: Primary data)

### 5.2.3 Distribution based on Level in the Company

The majority were technical people though the distribution was similar.

Table 5: level in the company (Source: Primary data)

	Frequency	Percent	Valid Percent	Cumulative Percent
Middle level Management (functional head)	10	28.6	28.6	28.6
Valid Technician/Engineer	14	40.0	40.0	68.6
Sales/Business/Marketing Officer	11	31.4	31.4	100.0
Total	35	100.0	100.0	

#### 5.2.4 Level of Education Distribution

The figure below shows that the majority of employees were graduates.

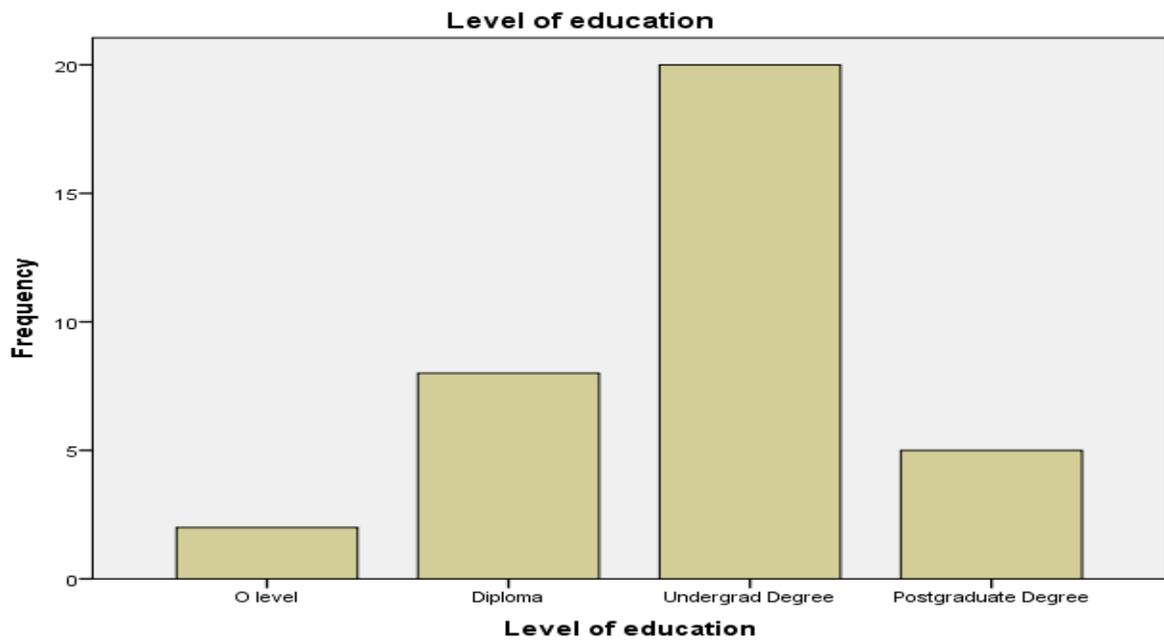


Figure 7: Level of education (Source: Primary data)

#### 5.2.5 Distribution Based on Length of Service

The majority have more than eight years working in in the company.

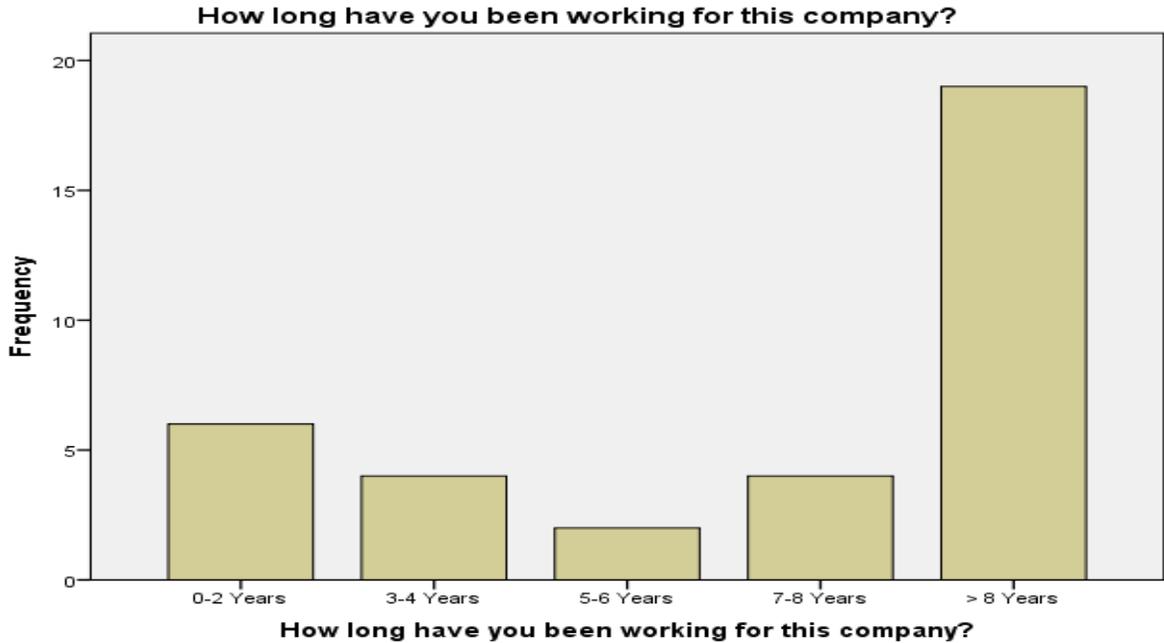


Figure 8: Length of Employment (Source: Primary data)

### 5.3 Cross tabulations

According to Kothari (2004), cross tabulations are employed to unravel deeper relationships between variables through sub-variables. The Chi-square tests used use Pearson's rho which ranges from -1 to +1 with moderate correlations around 0.5 and weak correlations below 0.5.

#### 5.3.1 Gender and Customers

Table 6: Cross tabulation-customers\*gender (Source: Primary data)

		Customers											Total
		2.44	2.56	2.67	2.78	2.89	3.00	3.11	3.22	3.33	3.44	3.67	
Sex	Male	1	1	1	2	4	2	2	3	1	3	1	21
	Female	1	2	1	3	1	2	2	1	1	0	0	14
Total		2	3	2	5	5	4	4	4	2	3	1	35

Table 7: Chi-square test customer \*gender (Source: Primary data)

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	6.181 <sup>a</sup>	10	.800
Likelihood Ratio	7.651	10	.663
Linear-by-Linear Association	2.696	1	.101
N of Valid Instances	35		

The responses of customers were significantly sex correlated with Pearson correlation coefficient approximately 1 (0.800).

### 5.3.2 Gender and Employees

There was a moderate correlation between gender and employees meaning that responses from employees were not strongly linked to gender.

Table 8: Cross tabulation gender\*employees (Source: Primary data)

		Employees						Total
		2.78	2.89	3.00	3.11	3.22	3.33	
Sex	Male	1	2	5	4	5	4	21
	Female	0	1	7	2	2	2	14
Total		1	3	12	6	7	6	35

Table 9: Chi square-gender\*employees

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	3.006 <sup>a</sup>	5	.699
Likelihood Ratio	3.339	5	.648
Linear-by-Linear Association	.307	1	.580
N of Valid Instances	35		

### 5.3.3 Gender and Suppliers

Table 10: Cross tabulation-gender\*Suppliers

Count		Suppliers			Total
		2.33	2.67	3.00	
Sex	Male	6	7	8	21
	Female	0	5	9	14
Total		6	12	17	35

Table 11: Chi Square –gender\*suppliers(Source: Primary data)

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	5.200 <sup>a</sup>	2	.074
Likelihood Ratio	7.302	2	.026
Linear-by-Linear Association	4.383	1	.036
N of Valid Instances	35		

The response from suppliers did not have any sex correlation as Pearson's correlation was low at 0.074

### 5.3.4 Gender and Investors

Cross-tabulations for gender and investors had below moderate correlation and therefore were not significant.

*Table 12: Cross tabulation for Gender and Investors (Source: Primary data)*

		Investors											Total	
		3.00	3.25	3.38	3.50	3.63	3.75	3.88	4.00	4.13	4.25	4.50		4.63
Sex	Male	0	4	1	4	0	2	1	2	4	2	0	1	21
	Female	1	1	0	4	1	2	0	1	0	3	1	0	14
Total		1	5	1	8	1	4	1	3	4	5	1	1	35

The crosstab from sex and investors had a weak correlation at Pearson's rho=0.411

*Table 13: Chi-Square test for cross tabulation-Gender and investors (Source: Primary data)*

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	11.389 <sup>a</sup>	11	.411
Likelihood Ratio	14.922	11	.186
Linear-by-Linear Association	.021	1	.884
N of Valid Instances	35		

### 5.3.5 Gender and Trade and Government

Table 14: Chi-square test-Gender and Trade as Government (Source: Primary data)

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	6.103 <sup>a</sup>	5	.296
Likelihood Ratio	7.647	5	.177
Linear-by-Linear Association	.303	1	.582
N of Valid Instances	35		

The cross tabulations from trade as the government had a weak correlation with gender i.e. the responses from this sector were not sex correlated.

Table 15: Gender and Trade as Government (Source: Primary data)

		Trade_As_Government						Total
		3.17	3.33	3.50	3.67	4.00	4.33	
Gender	Male	2	5	3	9	0	2	21
	Female	1	1	2	8	2	0	14
Total		3	6	5	17	2	2	35

### 5.3.6 Level of Education and Customers

Table 16: Level of Education and Customers Cross-tabulation (Source: Primary data)

		Customers										Total	
		2.44	2.56	2.67	2.78	2.89	3.00	3.11	3.22	3.33	3.44		3.67
Level of education	O level	0	0	0	1	1	0	0	0	0	0	0	2
	Diploma	1	0	1	1	1	0	2	0	1	1	0	8
	Undergrad Degree	1	3	0	3	2	3	2	2	1	2	1	20
	Postgraduate Degree	0	0	1	0	1	1	0	2	0	0	0	5
	Total	2	3	2	5	5	4	4	4	2	3	1	35

Table 17: Level of Education and Customers Chi-Square (Source: Primary data)

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	22.867 <sup>a</sup>	30	.821
Likelihood Ratio	26.357	30	.657
Linear-by-Linear Association	.436	1	.509
N of Valid Instances	35		

The level of education and trade as the government were correlated and this is important as e-commerce issues need personnel with some education to understand the phenomena.

### 5.3.7 Level of Education and Employees

Table 18: Cross tabulation-level of education\*employees

		Employees						Total
		2.78	2.89	3.00	3.11	3.22	3.33	
Level of education	O level	0	0	2	0	0	0	2
	Diploma	1	1	2	2	1	1	8
	Undergrad Degree	0	1	6	4	4	5	20
	Postgraduate Degree	0	1	2	0	2	0	5
	Total	1	3	12	6	7	6	35

There was a moderate correlation between education level and employee responses. These results could be due to the fact that it is not only education level, but also by being employees, so that the level of training in IT and e-commerce could be the contributing factor, as shown below.

Table 19: chi square test –education level\*employees (Source: Primary data)

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	12.854 <sup>a</sup>	15	.614
Likelihood Ratio	14.072	15	.520
Linear-by-Linear Association	1.125	1	.289
N of Valid Cases	35		

### 5.3.8 Level of Education and Suppliers

Table 20: Cross tabulation-education level\*suppliers

		Suppliers			Total
		2.33	2.67	3.00	
Level of education	O level	0	2	0	2
	Diploma	1	3	4	8
	Undergrad Degree	4	5	11	20
	Postgraduate Degree	1	2	2	5
Total		6	12	17	35

Table 21: Chi square-level of education\*suppliers

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	4.877 <sup>a</sup>	6	.560
Likelihood Ratio	5.377	6	.496
Linear-by-Linear Association	.089	1	.766
N of Valid Cases	35		

Moderate correlation between supplier responses and education level could be implying that other factors such as level of training could come into play thus reducing the effect of education level.

### 5.3.9 Level of Education and Investors

Table 22: Cross tabulation-education level\*investor responses

		Investors											Total	
		3.00	3.25	3.38	3.50	3.63	3.75	3.88	4.00	4.13	4.25	4.50		4.63
Level of education	O level	1	0	0	0	0	1	0	0	0	0	0	0	2
	Diploma	0	1	1	3	0	1	0	0	1	0	1	0	8
	Undergrad Degree	0	3	0	5	0	2	0	3	3	3	0	1	20
	Postgraduate Degree	0	1	0	0	1	0	1	0	0	2	0	0	5
	Total	1	5	1	8	1	4	1	3	4	5	1	1	35

There is no correlation between investor responses and level of education. Investors do not necessarily need to be educated for them invest, but access to the appropriate advice is needed.

Table 23: Chi-square test –investors\*level of education

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square(Pearson)	49.066 <sup>a</sup>	33	.036
Likelihood Ratio	37.273	33	.279
Linear-by-Linear Association	2.533	1	.111
N of Valid Instances	35		

Table 24: Cross tabulation-trade as government\*level of education (Source: Primary data)

		Trade_As_Government						Total
		3.17	3.33	3.50	3.67	4.00	4.33	
Level of education	O level	1	0	0	1	0	0	2
	Diploma	1	1	1	4	1	0	8
	Undergrad Degree	1	4	3	9	1	2	20
	Postgraduate Degree	0	1	1	3	0	0	5
Total		3	6	5	17	2	2	35

Table 25: Chi square test-education level \*trade as government

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	8.616 <sup>a</sup>	15	.897
Likelihood Ratio	8.532	15	.901
Linear-by-Linear Association	.670	1	.413
N of Valid Instances	35		

There was a high correlation in cross tabulation between trade as government and education level. The high correlation is possible because respondents at state levels accessed by the researcher through purposive sampling were not only computer literate but also Tech savvy, having attained those positions through educational attainment deemed appropriate by the government.

#### 5.4 Summary of Questionnaire Responses

The analyses of tables 26 to 30 will be based on the five perspectives of customer, employees, suppliers, trade associations and government and investors.

### 5.4.1 Customer Perspective

*Table 26: Questionnaire Responses –Customer Perspective (Source: Primary data)*

Customer perspective	N	Min	Max	Mean	Std. Dev
	Statistic	Statistic	Statistic	Statistic	Statistic
1.Transactions conducted online are secure	35	1.00	5.00	3.8286	1.27154
2.There is a system to handle consumer’s complaints regarding e-commerce	35	1.00	5.00	2.1143	.99325
3.Systems which handle consumer’s complaints regarding e-commerce are effective	35	1.00	5.00	2.2571	1.06668
4.Credit card numbers are protected in online purchase transactions	35	1.00	5.00	4.0286	.98476
5.e-commerce traders cooperate and work towards developing agreements to solve the disputes due to misconducts	35	1.00	5.00	3.6286	1.05957
6.We enhance consumer value by working hard and adapting the latest technology	35	1.00	4.00	1.7143	.75035
7. e-commerce trader’s business activities are transparent.	35	1.00	5.00	3.3143	.99325
8.Computer technology erodes personal privacy	35	3.00	4.00	3.2286	.42604
9. Security of online transactions has an impact on how e-commerce business would convince people to do business.	35	2.00	5.00	2.6857	.96319

According to the questionnaire responses, there are some aspects that need to be worked upon in relation to issues of customer complaints handling (Kabango and Asa, 2006) regarding the existence of systems to handle these as well as their effectiveness. Customer

value with regards to e-commerce is apparently weak on adapting to the latest technology (OECD Guidelines, 1999) by the organizations and risk assessment needs to be improved, possibly by deploying the balanced scorecard system.

#### 5.4.2 Employee Perspective

The remarkable result emerging from the questionnaire results in Table 27 is that there appear to be inadequate systems to monitor the behavior and activities of customers (OECD Guidelines, 1999). Adequate education and awareness about online business transacting are provided. Employee perspective indicates that the general interaction with clients is good and the view seems to imply that customers are neither controlled nor monitored.

*Table 27: Questionnaire Responses –Employee Perspective (Source: Primary data)*

ITEM	N	Min	Max	Mean	Std Dvt
10.Our organization employs fair business, advertising, and marketing practices	35	1.00	5.00	3.0571	.72529
11.We make full online disclosures on information about our goods and services	35	1.00	5.00	3.5429	1.14642
12.We make full online disclosures on information about the business transactions	35	2.00	5.00	3.8000	.86772
13.We give education and awareness to our clients about our products and services	35	2.00	5.00	3.9714	.66358
14.We provide information and awareness to our clients on online transacting	35	2.00	5.00	4.2857	.98731
15.Our organization develops technology to protect and empower consumers	35	2.00	4.00	2.9714	.56806
16.We resolve disputes which may arise from e-commerce customers amicably	35	2.00	4.00	2.9714	.51368
17.There are tools in place to monitor the activities of customers	35	1.00	5.00	1.9429	1.05560
18.Duties are segregated to monitor the behavior of customers	35	1.00	3.00	1.4000	.60391

### 5.4.3 Supplier Perspective

*Table 28: Questionnaire Statistics-Supplier Perspective (Source: Primary data)*

ITEM	N	Min	Max	Mean	Standard Deviation
19. There are mechanisms in place to monitor the activities of customers	35	2.00	4.00	2.3143	.52979
20. Duties are segregated to monitor the behavior of customers	35	2.00	4.00	2.9714	.51368
21. e-commerce authorization policies at our organization guide our online operations	35	2.00	4.00	3.0286	.38239

Suppliers are of the general opinion that there are adequate controls to monitor the activities of customers and the duties to monitor customer behaviour on e-commerce platforms are appropriately segregated. Online operations are guided by authorisation policies.

### 5.4.4 Government and Trade Perspective

*Table 29: Questionnaire statistics-Government and Trade Perspective (Source: Primary data)*

ITEM	N	Min	Max	Mean	Standard Deviation
22. There is adequate control of the e-commerce trading environment	35	2.00	5.00	3.8286	.85700
23. Management should use a balanced scorecard to conduct IT risk assessment.	35	2.00	5.00	4.0000	.76696
24. There are controls in place to monitor the activities of users of electronic platforms	35	2.00	5.00	4.2286	.94202
25. e-commerce platforms are controlled by regulatory frameworks	35	1.00	4.00	2.1143	.93215
26. Regulatory frameworks in e-business positively affect corporate governance issues.	35	2.00	5.00	3.2000	.75926
27. There are effective frameworks which protect consumers in an online environment	35	3.00	5.00	4.2286	.54695

The government and trade, however, believes that there are adequate controls to monitor activities of users on electronic platforms though this is apparently not influenced by regulatory frameworks which may imply that such checks are stricter than required by regulatory authorities. This position appears to support the positive impact of regulatory frameworks on corporate governance of e-business. However IT risk management is a definite necessity.

#### 5.4.5 Investors' Perspective

*Table 30: Questionnaire Statistics-Investor Perspective (Source: Primary data)*

	N	Min	Max	Mean	Standard Deviation
28.e-commerce positively affects the financial practices of e-commerce traders	35	2.00	5.00	4.1143	.75815
29.organizations have effective e-commerce platforms which positively affect disclosure of material information from operations	35	1.00	5.00	2.0000	1.11144
30.There is lack of trust in e-commerce control mechanisms	35	3.00	5.00	4.1714	.51368
31.e-commerce negatively affects the general meeting practices of shareholders	35	3.00	5.00	4.1714	.61767
32.e-business activities enhance measurement of board performances	35	3.00	5.00	4.2000	.53137
33.e-commerce activities enhance the responsibility of using resources to engage in activities designed to increase organizational profits	35	1.00	5.00	4.0000	1.00000
34.e-commerce transactions are adequately recorded and accounted for	35	1.00	5.00	3.5714	1.31251

A salient point emerging from this perspective is that organizations do not have effective e-commerce platforms that would positively affect material information disclosure about their operations (item 29). Although there appears to be a lack of trust about e-commerce (item 30) control mechanisms and also the negative impact of e-commerce on the general meeting practices(item 31) of shareholders by the investors the same respondents however

believe that e-commerce enhances the performance measurement of the board (item 32) as e-commerce transactions are complete. Investors believe that traders' financial practices are positively impacted by e-commerce dealers (item 28). Except for the lack of trust in the control mechanisms of e-commerce and its negative impact on the general meeting. The practices of shareholders as well as the perception of a disconnect between disclosure of material information from operations and e-commerce platforms it is patently clear that investors are generally supporters of electronic commerce and its positive impact on corporate governance.

## 5.5 Regression Analysis Model

In this section, regression analysis is going to be used to determine the significance of the relationships between the independent variables and the dependent variable. The independent variables are customers, employees, suppliers, government, and trade as well as investors.

### 5.5.1 Analysis of Variance (ANOVA)

The analysis of variance technique is deployed in statistics to attempt to establish the relationship between one or more independent variables and a dependent variable (Kothari, 2004).

*Table 31: ANOVA (Source: Primary data)*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.376	5	3.675	6.087	.001 <sup>b</sup>
	Residual	17.510	29	.604		
	Total	35.886	34			

a. Dependent Variable: Overall Satisfaction

b. Predictors: (Constant), Investors, Suppliers, Trade\_As\_Government, Employees, Customers

### 5.5.2 Dependent Variable –Overall Satisfaction (Corporate Governance)

The F test above is below 0.05 and indicates that based on the regression model the predictors can be used to explain overall satisfaction as a proxy for corporate governance. This confirms that the variables of employees, investors, government and trade, customers and suppliers can be used to explain variation in overall satisfaction as a proxy for good corporate governance. The used regression model is a good fit.

### 5.5.3 R Square

Table 32 is an illustration of how the R-square parameter at 51.2% is an indication that the same figure, as composed of the listed predictor variables, can be employed to explain the overall satisfaction as a proxy for corporate governance. The remaining 48.8% are explained by other variables which are not part of the study. This is significant on  $p < 0.05$  given that  $p$  in the model is 0.001.

*Table 32: Model Summary (Source: Primary data)*

Model Summary <sup>b</sup>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.716 <sup>a</sup>	.512	.428	.77704	.512	6.087	5	29	.001

a. Predictors: (Constant), Investors, Suppliers, Trade\_As\_Gouvernement, Employees, Customers

b. Dependent Variable: Overall Satisfaction

### 5.5.4 Regression Coefficients

Coefficients of analysis provide beta values for each predictor or independent variable as an indication of its contribution towards the dependent variable. In this study, the employees, suppliers, customers, trade and government, as well as investors, were employed as the independent variables and overall satisfaction or corporate governance as the dependent variable and the extent to which each of the former variables contributed to the latter was examined. Statistical significance of the coefficients was determined, and if the  $p$ -value for the relationship was less than 5% or 0.05, then the relationship was accepted. The accepted results are summarized in Table 33 below.

Table 33: Coefficients of regression (Source: Primary data)

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	2.813	4.263		.660	.515	-5.907	11.533
Customers	-.373	.545	-.112	-.684	.499	-1.488	.742
Employees	.123	1.058	.018	.116	.908	-2.041	2.286
Suppliers	.045	.617	.011	.073	.943	-1.218	1.307
Trade_As_Gouvernement	-1.408	.579	-.372	2.431	.021	-2.593	-.223
Investors	1.729	.420	.695	4.120	.000	.871	2.586

a. Dependent Variable: Overall Satisfaction

The overall equation for the relationship is then as follows

$$\text{Overall satisfaction} = 2.813 - 1.408(\text{GTRD}) + 1.729(\text{INV})$$

Where GTRD - Government as Trade

INV- Investors

2.813 is a constant.

The interpretation of the equation above is that if government as trade decrease their perceptions by one unit the overall satisfaction would fall by 141%, but if investors' perceptions of e-commerce platforms increase by one unit the overall satisfaction would increase by 172%.

## **5.6 Qualitative Results**

### **5.6.1 Results from interviews**

The nature of this investigation creates some fundamental analysis problems. The participants of e-commerce trading were arranged for an interview one by one. A few inquiries including those concerning the moral code were asked and responses recorded. Afterwards, the responses were analyzed. Due to the unique nature of the process, it was not possible to re-interview the interviewees. The outcomes must be considered as a means of assessing the acknowledgment of the ethical code. Furthermore, when attempting to explain the possible causes of stress, some factors might be missed. These omissions, however, should not affect the importance of the interviewee's reaction to specific moral code items.

There was a wide array of responses. In spite of the fact that questions depended on a particular law, moral rules, or previously identified issues, there were only two questions to which everybody responded consistently. The diverse pattern of answers indicates free responses from interviewees. It does not create an impression that the respondents felt compelled to give the socially acceptable answer. Additionally, the casual and friendly atmosphere created by the interviewer helped considerably in getting personal answers to those sensitive questions.

### **5.6.2 Ethics**

Ethics plays a critical role. This questionnaire has a set of five questions that are very sensitive in relation to the rules or laws. However, this research design offers little possibility of measuring behavior on the level of concern. Hence the interviewees were asked questions concerning their observance of laws through the moral standards that they felt are acceptable in e-commerce industries. The following table shows the responses of the respondents on their actions and the stress actions, as compared to stress indicators. (See Table 34).

*Table 34: Answers with stress indicators*

	Stressed response	No stress	Total
Follow rules	17%	63%	75%
Break rules	2%	23%	25%

In spite of the fact that the interviewees show appropriate responses, that they abide by the standards, in a total of 75 percent; almost 25 percent of these reactions displayed stress. Of the respondents who expressed that they did not follow the rules or guidelines, just 8 percent showed signs of stress. One may deduce that those who do what they want (do not follow the rules) may be more at ease than those who follow, or at least claim to following, the specified guidelines.

Pragmatically, it is valuable to assess the particular responses from a stress perspective. In this examination, responses to questions that indicated no stress must be fully trusted. For instance, approximately 50 percent of the interviewees would take listings at inflated values and about half would not. Even though there may be some feelings about this type of unethical behavior, those that would do it had no compunction. Technically, if an interviewee felt the behavior was wrong and proceeded anyway, stress patterns would be evident.

Further, participants were asked about their opinions or the attitudes of their leaders towards unethical behaviors, and the actions they and their leaders took while attracted by profit brought about by using immoral activities. An evaluation of the stressed questions provides insight into the interaction of feeling and behavior by the participants dealing daily with e-commerce trading either with or without electronic commerce.

It may not be of serious consequence that the respondents in this study followed or violated the law or the ethical guidelines. What is important is in the code itself. The professional moral code is designed to be a “compliance law.” A code such as this includes detailed rules to govern professional conduct. If following the rules causes personal grief or if

breaking the rules does not draw management's attention, problems are present. This is the main reason why there are so many economic crimes and corruption. In this research, 40% of the interviewees who claimed to follow the ethical code gave questionable or stressed responses, which indicates, to a certain extent, that rules were broken during daily dealings. This implies that these individuals either broke the code or were uncomfortable with it.

At that same time, just 8% of those that conceded to violating code showed stress. It is the duty of those who formulate codes of ethics to ensure acceptance of the covenant of the law. It is not enough to set the rules, laws or regulations and expect everyone to follow blindly.

This research reveals a problem that transcends all ethical codes. It is insufficient for a set of rules to be designed and then thrust upon a group of working individuals. If there are guide lines in an ethical code that are not being accepted, yet are important concepts to be followed, then, these ideas must be promoted. If the values of ethical constructs are not readily visible, then their values and benefits need to be promoted to the users of the code. Ethical codes are for the benefit of the people and the company.

#### *Ethical issues related to technological factors in e-commerce trading companies*

Technological factors that are related to e-commerce trading companies were analyzed as follows:

#### **Question one:**

Are the commodities used in e-commerce easy to describe?

The question had three options;-

- a) Yes
- b) No
- c) No idea or not sure

The respondents showed that 63% mainly chose option b (NO), 10% opted for option a (YES) while 27% said they had no idea on it.

**Question two:**

What are the technical deficiencies that can cause unethical incidents?

The question had five options

- a) Electronic payment system
- b) Cookies
- c) Web spoofing
- d) Cheating
- e) Network Suppliers

The results from the respondents were very varied with most respondents selecting all the five answers. This shows that e-commerce in e-commerce trading was not well established. Hence stakeholders need to develop full applications that can be used throughout the industry. There are also many problems in e-commerce that might not have been included here (also).

**Question three:**

Which party is not untrustworthy in the e-commerce trading chain?

The question had three options:

- a) Buyer
- b) Supplier
- c) Middle Agent

27% of the participants believed that the purchaser was the untrustworthy party, while 13% didn't trust the supplier, and 60% put their doubt on the middle agent.

**Question 4:**

Is it possible to establish a model, by which unethical factors could be entirely eliminated in e-commerce?

The question had three options:

- a) Possible
- b) Possible, but it would take a long time
- c) Impossible

Unexpectedly, 37% of the interviewees chose “c,” which implies no potential outcomes by any stretch of the imagination. 46% of the respondents put their confidence in the potential, but expressed it would take a long time. Only 17% believed it was possible.

After answering the questions the interviewees offered the following suggestions.

The leadership of an organization should set strict guidelines on ethical code and behavior, and encourage the whole group including themselves to follow and stick to the rules. It is important to define a mission of keeping an ethical code and make it clear to everybody involved; The free discussion of ethical issues within the organization should be encouraged; it is important to build a good atmosphere within an organization to promote moral behavior;

By training or education, the concept of ethics could be further strengthened and improved; Outside of the organization, it is suggested that a kind of association should be established to make uniform rules and regulation so that each organization within the industry would follow and adhere to them. This would help to avoid and limit unethical practices through technological innovation;

Proper and adequate laws against unethical practices and behavior in e-commerce behavior should be established as soon as possible. The government should function as the primary factor to interdict any immoral concept and practice in electronic commerce trading.

### 5.6.3 Corporate Governance and e-Commerce

**Question 1.** Does e-commerce necessarily amend the roles and responsibilities of organizational directors?

62% of the respondents indicated that electronic commerce demanded the need to adopt new technologies the responsibility for which is under the oversight of the board of trustees, and they also explained that the need for risk management and assessment about e-commerce practices were additional responsibilities of the board. This, risk management and assessment, they said was practiced to preserve value in the e-transactions.

**Question 2.** Does e-commerce necessarily amend the roles and responsibilities of organizational stakeholders?

A majority of respondents (76%) believed that with the interconnectivity between the organization and its stakeholders a lot of the e-commerce risk related issues encountered in the organization had a high potential of contagion effect on its stakeholders. There was, therefore, a need on the part of stakeholders to ensure compliance of their IT systems with those of the organization so as to avoid service disruption and reduce risk related to e-commerce such as fraud, security and so on. Indeed Brown and Nasuti (2005) suggested the application of a balanced scorecard conduct IT risk assessment.

**Question 3.** In what ways does your organization's e-commerce stakeholder influence corporate governance practices and outcomes at your organization?

An issue noted by 27% of the respondents was that of investors who were concerned about e-commerce security which could threaten the viability of the organization through cost increases due to cybercrime activity. To this end, the risk committee has become a mandatory requirement in the board committee systems of the organization, and its operations and achievements are disclosed periodically in the company's financial reports.

**Question 1.** In your view what are the challenges or factors that hinder full compliance by your organization with Zimbabwe's corporate governance code?

Challenges according to interviewees included the misinterpretations and misunderstanding of the code by leadership leading to failure to enforce it. Contributions by respondents included outrageous opinions such as the need to make the corporate governance code legally enforceable with, in some cases prison terms being suggested. Some however opined that while prison terms were too harsh corporate codes of conduct could be intertwined with the corporate governance code with company disciplinary measures being sufficient to deal with most of the cases.

**Question 2.** In your view, what strategies can be used to strengthen corporate governance practices at your organization through e-commerce?

Respondents mostly indicated the failure to deliver services through the malpractices of third parties in cyberspace. A number noted the need to include an end to end encryption and the introduction of a biometric system. However, they also pointed out that such strategies would require cooperation from various stakeholders, especially the customers, regarding embracing and acquiring applicable facilities such as gadgets with the requisite software. These policies are not welcome to stakeholders, such as the government which, in an endeavor to enhance state security, is intent upon intercepting all information passing through cyberspace. The government believes that encryption, for example, will make crime detection impossible and this is in agreement with concerns by Johnson DG (1977)

**Question 3.** Is there anything you wish to say about the impact of e-commerce on corporate governance practices at your organization?

E-commerce is the emerging and fast becoming the dominant business transaction practice according to most respondents in the banking sector and its clients. They explained that it is envisaged that cost reduction in service delivery will be achieved and that this benefit can also be passed on to customers. In the retail sector, there was concern over reliability and sustainability of e-transactions as foreign currency for imports could not be secured easily from the resulting interbank e-transactions, and the RBZ, as the surrogate currency, nor could the bond note be employed for stock replenishment that is mainly imported. This could be the elements of trust, perceived quality, and security as indicated by Kabango and Asa (2006); Glasser and Haeubermann (2007) and Duh et.al (2012).

## **5.7 Summary**

This chapter looked at the quantitative results starting with the reliability and validity of the instruments, then the test of normality, to show whether the data was normally distributed or not. The chapter also looked at the correlations of the variables with the investors. This section was concerned with determining the regression relationship. This entailed establishing the connection between the independent variables, and the dependent variable, overall satisfaction, and determined that there was a significant relationship between overall satisfaction and trade and government as well as investors. The other stakeholder relationships were not statistically significant in the relationship with the dependent variable. The chapter finally looked at the results from the interviews with the interested parties.

The next chapter contains the final discussion.

## **CHAPTER 6**

### **DISCUSSION OF FINDINGS**

#### **6.0 Introduction**

This chapter seeks to provide an analysis of the extent to which the research managed to address the intended objectives. These included the identification of the stakeholders in e-commerce trading and understand their importance, influence, and behavior, the elicitation of the impact of e-commerce on corporate governance, the identification of the reasons for the impact of e-commerce on corporate governance, suggesting a solution to curbing any negative consequences and establishing a solution for the proper corporate governance and ethics of e-Commerce.

#### **6.1 Stakeholder influence**

##### **6.1.1 Stakeholder influence variables**

Multi-stakeholder participation was identified as a key base upon which e-commerce relies in non-governmental organizations such as ICANN and IETF. Inter-governmental stakeholders include ITU and Regional Internet Registries (RIR), and Forum is regarded as one of the other governance entities. The study involved interviews as well as questionnaires for hypothesis testing.

The answers to the interview questions, with regards to ethics within the e-commerce environment, indicated that rules were being broken on a daily basis although the research revealed that there was a need to properly train e-commerce participants on the various elements and constructs of ethical codes instead of just giving participants a sheet of rules to read. This notion was supported by the mostly negative response to whether e-commerce products were easy to describe with regards to ethical issues. So it could be that moral codes were violated out of ignorance of them in relation to electronic commerce platforms. Electronic payment, system cookies, web spoofing, cheating, and network suppliers were identified almost equally as areas with technical deficiencies which could spawn unethical conducts.

The argument above could be an indication of the infancy of e-commerce in the country. Trust and security were major problems in electronic commerce, and the middleman was mostly blamed for unethical conduct followed by the buyer. It is significant that only 17% of respondents believed that it was possible to end unethical behavior in e-commerce. Regarding corporate governance, it was also pointed out that directors and stakeholders needed to adopt new responsibilities to reduce the negative impact of e-commerce on corporate governance. These included coordinated risk management practices in the cyberspace involving the organization and its stakeholders.

### **6.1.2 Implementation of E-Commerce Technologies**

The discussion below considers the status of implementation of electronic trade technologies in various sectors of the industry.

Internal e-mail and the Internet, worldwide web sites, and Internet access are widespread in all the main industry segments. Nearly everybody uses internal e-mail. Most corporates have given employees access to websites. In 2 years, respondents from Manufacturing and Distribution businesses favored implementation of Intranet, Extranet, and EDI technologies. Financial institutions expected to have installed Electronic Data Interchange (EDI), Extranet, and IVR Systems, and Computers & Communications were planning EDI implementations.

### **6.1.3 Functions Performed electronically vs. Transaction Volumes**

The Internet was preferred, more than other electronic means, with almost half the respondents using it for information-based uses and news. Fewer than half of the participants were able to provide information on the number of transactions going through their digital channels. Of these, almost half said that some sales in their businesses are zero. Hence, more than half of the corporates surveyed are not able to deduce the number of transactions going through digital channels, and quite a number do use these channels.

### **6.1.4 Governance**

The sponsors within an organization decide on the scope and level of success of an electronic trade project. This part reveals that information technology departments are taking the lead on e-commerce projects within their corporates. The executive board helps

in the form of board approvals and intervention to ensure that the necessary enterprise re-engineering takes place to ensure that digital commerce is integrated with business processes. It is important to ensure that these projects deliver on promises.

Respondents had been asked which part of the organization became the fundamental sponsor of present or future electronic commerce initiatives. In almost two-thirds of the corporates, it was the Executive Committee. It was observed that the info tech department champions, develops, and maintains these projects in a majority of the organizations.

### **6.1.5 Vital Capabilities of Maintaining Security of E-Commerce Transactions**

The participants were asked to put on a scale the importance of functions in maintaining and establishing the level of confidence required for employing e-commerce technologies. It is key to point out that all the capabilities received very high ratings (a minimum of 67 percent of respondents say that a particular feature is crucial/very essential/critical). The highest ratings were given to Through-The-System Tests & Audits and Network Access Controls.

### **6.1.6 Trading partners**

At least 30 percent of participants had more than 5 percent of their business associates trading using electronic means, and roughly half of these participants had more than 50 of their trading partners selling electronically.

### **6.1.7 Extent of cybercrime**

The Reserve Bank of Zimbabwe (RBZ) produced a report on cyber-crime in Zimbabwe and internationally. According to the Reserve Bank report, illicit proceeds from cyber-crime in Zimbabwe in 2015 were estimated to be at US\$1.8 billion. The report furthermore states that proceeds from cybercrime internationally are expected to be at 3.5 percent of gross domestic product, globally or an unbelievable US \$1 trillion. The cost of cybercrime to the United Kingdom alone was valued at £27 billion. The proliferation of cyber-crime has resulted in governments across the globe investing in cybersecurity and in increasing international cooperation initiatives to fight cyber-crime.

Hence there is a need for cybersecurity controls to be put in place by regional governments to mitigate the growth of cybercrime. It should be noted with much concern that the

Zimbabwe Cybercrime Bill is yet to be finalized and promulgated into law. Corporates cannot win the cybercrime war without government interventions.

Cybersecurity is an important component of a company's IT governance framework, it requires that corporates put in place IT risk management measures to protect or safeguard IT systems and hardware. Cybersecurity policy is an indispensable element of the IT governance framework strategy in a company.

To mitigate operational IT risks i.e. malware protection (i.e. virus, worm, etc.) the policy must include internal checks. These controls are access to IT systems (PIN), firewalls, storage and access to hardware, restriction on the use of personally owned devices on company network by employees i.e. personal laptops, external drives/USB sticks, controls over the use of company computers at home, etc.

Disposal procedures used for hardware at the end of its life, for example staff sales, donations, auctions, etc. should not be done randomly. Controls should be in place on methods to deal with computer equipment once it is offline. Sanitization of hardware procedures before disposal should be put in place for data protection to mitigate hacking. Computer hardware should not be disposed of before data which was stored in it has been removed, to prevent piracy.

### **6.1.8 Awareness**

Management should make sure that the IT governance framework is given to employees and that there is a company-wide awareness drive directed to all staff on the importance of cybersecurity.

All IT users should be aware of the operational risks inherent in IT systems and the role that individual employees have to manage the risks. On the other hand, the board should ensure that, apart from creating in-house awareness, management is also aware of international best practices governing IT governance, local/international laws and in particular cybersecurity.

There are some protocols and international best practices that deal with cybersecurity. Companies should access these on the internet for information. Ultimately the board has

full responsibility for ensuring that the firm has a robust IT governance framework which enhances efficiency and competitiveness and safeguards assets, thereby enabling the company to create value for the shareholders who have invested in it and meet objectives.

On introspection of the reviewed company's code of conduct and ethics, a typical code of conduct on confidentiality from one of the e-commerce trading companies provided the following.

It is a policy of the organization to straightforwardly and genuinely give information to those who have a legitimate interest in its operations. The organization may give broad information on its activities by way of an assortment of publications and through continuing working relations with financial analysts, news media, and others in addition to formal reports to reports to the public and shareholders and regulatory authorities required by statute. The degree, timing, and form of such public disclosure are matters for senior management. Apart from concern for the privacy of the workers, the corporate also operates in a competitive business environment. Hence, it would be inappropriate for the organization to disclose information, which if published, might impair its effectiveness and competitiveness.

## **6.2 Summary**

This chapter discussed the findings. The corporate governance impact of e-commerce platforms emerging from the questionnaire statistics elicits the need to improve investor relations so that electronic commerce platforms can be leveraged. The leveraging will assist shareholder meetings by providing material information from operations as provided by the other corporate governance practices such as financial practices, board performance measurement and the enhancement of resources for generation of organizational resources that are in the positive. Customer relationship management needs to improve in the e-commerce environment. There is also a compelling need to manage customer activity and behaviour in the interest of risk management.

The next chapter looks at the conclusions and recommendations.

## **CHAPTER 7**

### **CONCLUSION**

#### **7.0 Introduction**

This section provides a conclusion to the study by first presenting a summary of the research findings. It ends by identifying areas of further research.

#### **7.1 Research Questions and Objectives Revisited**

The main research question from chapter one was:-

What is the impact of e-commerce on corporate governance and ethics?

This gave the sub research questions which emanated from the main research question.

The sub-questions were:

- i. What is the influence of key stakeholders on e-commerce
- ii. What is the benefit of key stakeholders to e-commerce
- iii. What are the appropriate corporate governance practices that can be adopted to adapt to the e-commerce domain?

#### **7.2 Research Objectives**

Guided by the research questions the primary purpose of the study was to ascertain the positive and negative impact of e-commerce practices of large companies on corporate governance and ethics with regards to key stakeholders.

The secondary objectives which then follow from the primary purpose were

- i) To determine the stakeholders in e-commerce trading
- ii) To understand stakeholder importance, influence, and behaviour
- iii) To bring out (identify) the impact of e-commerce on corporate governance

In this study, the stakeholders in e-commerce trading were identified clearly from the literature. These were the Government as trade, Customers, Employees, Suppliers, and

Investors. These stakeholders constituted the conceptual framework. The stakeholder importance, influence and behavior were tested and the results showed that in e-commerce there are weak customer relations. In regard to employees, the results showed that general interaction with clients was good, but that certain employees need training. As far as suppliers are concerned, suppliers are of the general opinion that there are adequate controls to monitor the activities of customers and that the duties to monitor customer behaviour on e-commerce platforms are appropriately segregated. The government as trade, also believes that there are adequate controls to monitor activities of users on electronic platforms, though this is apparently not influenced by regulatory frameworks which may imply that such checks are stricter than required by regulatory authorities. This position appears to support the positive impact of regulatory frameworks on the corporate governance of e-business. IT risk management is a definite necessity. Lastly, in regard to investors, organizations do not have effective e-commerce platforms that would positively affect material information disclosure about their operations. This affects the investors who want to expand their business or start a new business.

Finally, the last objective of identifying the impact of e-commerce on corporate governance and ethics showed that if government as trade decreased their perceptions by one unit the overall satisfaction would fall by 141% but if investors' perceptions of e-commerce platforms increased by one unit the overall satisfaction would increase by 172%.

$$\text{Overall satisfaction} = 2.813 - 1.408(\text{GTRD}) + 1.729(\text{INV})$$

Where GTRD - Government as Trade

INV- Investors

2.813 is a constant.

### **7.3 Contributions of the research**

At present E-Commerce is the double-edged sword that yields both negative and positive impacts on corporate governance. It is, therefore, pertinent that organizational and stakeholder boards should aim to reduce the adverse impacts through coordinated training

on ethics and risk management to enhance mutual benefit for the entities. This research contributes to the knowledge value in e-commerce by identifying the roles government as trade, customers, employees, investors and suppliers play in corporate governance and e-commerce. Aspects of concern from these five stakeholder properties must be clearly understood so that e-commerce has a positive impact on corporate governance and ethics.

#### **7.4 Limitations of the Study**

There are limitations to this study. Not all stakeholder groups were identified, and these include political groups, communities and trade associations as defined by Donaldson and Preston (1995) in figure 2 and because of this the study cannot provide a fully comprehensive picture.

A cross-sectional time-frame was employed which involves collecting data in the short time window that the research took. IT and e-commerce are rapidly evolving technological phenomena and a longitudinal period over medium and long-term periods of say two and five years respectively, would have revealed trends in the perceptions and behaviour of respondents to yield more comprehensive responses. Obviously, for academic research at the level of a master's degree, this is not possible.

The macroeconomic environment prevailing in the country in this case Zimbabwe could also be a limitation to the study. This is a limitation because in some sectors some retail transaction volumes are affected by the shortage of foreign currency following the introduction of the bond note, a surrogate currency, after the anchor currency the United States dollar became scarce. The results cannot, therefore, be extrapolated to an environment where this position improves or further deteriorates, as the bond note is said to be temporary. So in addition to the facts stated in the previous paragraph, it should be pointed out that this is another limitation which compounds the problem.

#### **7.5 Areas of Further Research**

E-Commerce, like any phenomenon in the sociocultural domain, is a complex subject since it involves human beings to an enormous extent. To this end, therefore, it is important to point out that the relationships that bear on this concept regarding (the relationship with)

corporate governance, are numerous. If they could all be captured and the various hypotheses were stated on the proposed conceptual framework, followed by a testing of these hypotheses in the pursuit of further clarity on this study, a fuller understanding could be obtained. There is the need to establish a causality between e-commerce and corporate governance as part of this work.

## **7.6 Recommendations**

E-Commerce holds the key to more efficient business transactions. However, this global phenomenon is still in its infancy in the country of Zimbabwe, and some ethical dilemmas need to be resolved, together with their corporate governance counterparts. Boards need to ensure there is enough training on the constructs of ethical conduct and how ethics impact product and service delivery for profit maximization by organizations. Organizations need to engage all the key stakeholders who are involved in their e-commerce business and coordinate the process of risk management and other ethical and governance issues.

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## APPENDICES

### Appendix A: Questionnaire

#### SECTION A: DEMOGRAPHIC INFORMATION

1. Sex (*tick the appropriate*)

Female	<input type="checkbox"/>
Male	<input type="checkbox"/>

2. Age (*tick the appropriate*)

18-25 Years	<input type="checkbox"/>
26-35 Years	<input type="checkbox"/>
36-45 Years	<input type="checkbox"/>
46-55Years	<input type="checkbox"/>
>55Years	<input type="checkbox"/>

3. Level of education (*tick the appropriate*)

O level	<input type="checkbox"/>
A level	<input type="checkbox"/>

Certificate	
Diploma	
Undergraduate degree	
Postgraduate degree	

4. Level in the company (*Please tick one box only corresponding to your answer*)

Middle-level Management (functional head)	
Technician/Engineer	
Sales/Business/Marketing officer	

5. How long have you been working for this company? (*Please tick one box only corresponding to your answer*)

Years	TICK
0 to 2	
3 to 4	
5 to 6	
7 to 8	
9 and above	

## Section B

### Customers

Kindly answer the following questions based on a LIKERT scale of 1 to 5 (*1= strongly agree, 2= agree, 3= somewhat agree/not sure; 4= disagree and 5= strongly disagree*)

	1	2	3	4	5
--	---	---	---	---	---

Transactions conducted online are secure					
There is a system to handle consumer's complaints regarding e-commerce					
Systems which handle consumer's complaints regarding e-commerce are effective					
Credit card numbers are protected in online purchase transactions					
e-commerce traders cooperate and work towards developing agreements to solve the disputes due to misconducts					
We enhance consumer value by working hard and adapting the latest technology					
e-commerce trader's business activities are transparent					
Computer technology erodes personal privacy					
Security of online transactions has an impact on how e-commerce business would convince people to do business					

### **Employees**

	1	2	3	4	5
Our organization employs fair business, advertising, and marketing practices					
We make full online disclosures on information about our goods and services					
We make full online disclosures on information about the business transactions					
We provide education and awareness to our clients about our products and services					

We provide education and awareness to our clients on online transacting					
Our organization develops technology to protect and empower consumers					
We resolve disputes which may arise from e-commerce customers amicably					
There are controls in place to monitor the activities of customers					
Duties are segregated to monitor the behavior of customers					

**Suppliers**

	1	2	3	4	5
There are controls in place to monitor the activities of customers					
Duties are segregated to monitor the behavior of customers					
e-commerce authorization policies at our organization guide our online operations					

**D. Trade Associations and Government**

	1	2	3	4	5
There is adequate control of the e-commerce trading environment					
Management should use a balanced scorecard to conduct IT risk assessment					
There are controls in place to monitor the activities of users of electronic platforms					

e-commerce platforms are controlled by regulatory frameworks					
Regulatory frameworks in e-business positively affect corporate governance issues					
There are effective frameworks which protect consumers in an online environment					

**E. Investors**

	1	2	3	4	5
e-commerce positively affects the financial practices of e-commerce traders					
organizations have effective e-commerce platforms which positively affect disclosure of material information from operations					
There is lack of trust in e-commerce control mechanisms					
e-commerce negatively affects the general meeting practices of shareholders					
e-business activities enhance measurement of board performances					
e-business activities enhance measurement of board performances					
e-commerce activities enhance the responsibility of using resources to engage in activities designed to increase organizational profits					
e-commerce transactions are adequately recorded and accounted for					

Thank you for your time and participation

## **Appendix B: Interview Guide**

### **Interview Questions**

*I would like to inform you (participants) that your responses will be transcribed on scripts. The information obtained will be treated in absolute confidentiality and will be used only for purpose of this study.*

- 1) Does e-commerce necessarily amend roles and responsibilities of organizational directors? [Y] / [N]

If so, how?

- 2) Does e-commerce necessarily amend roles and responsibilities of organizational stakeholders? [Y] / [N]

If so, in what ways?

- 3) Can you please identify your organization's e-commerce stakeholders?

- 4) In what ways do your organization e-commerce stakeholders influence corporate governance practices and outcomes at your organization?

- 5) How does e-commerce affect corporate disclosure?

If so, can you name them, and describe how they work?

6) Are there any e-commerce internal monitoring mechanisms of compliance with guidelines provided by Zimbabwe's corporate governance code? [Y] / [N]

If yes, can you state them?

7) In your opinion, are the monitoring techniques effective in making sure of compliance? [Y] / [N]

In what ways are the monitoring techniques (in) effective in making sure of compliance?

8) In your opinion do internet based platforms provide useful information about the company performance?

Is there any impact of e-business on compensation of directors? Yes [ ] No [ ]

If so how?

9) Do e-commerce activities comply with guidelines on Zimbabwe's corporate governance code? Yes [ ] No [ ]

10) Please, can you state and describe the ways in which e-commerce activities at your organization comply with guidelines on Zimbabwe's corporate governance code?

11) In what ways do e-commerce activities at your organization affect ethical practices and performance?

12) Do you observe laws, moral standard and accepted industry rules of behavior?

13) What are the attitudes or opinions of their leaders towards unethical behaviors?

14) What actions do employees and management take while attracted by profit brought about with immoral activities?

15) Are commodities used in e-commerce easy to describe? a) Yes

- b) No
- c) No Idea

16) What technical deficiencies can cause unethical incidents?

- a) Electronic payment system
- b) Cookies
- c) Web spoofing
- d) Cheating
- e) Network suppliers

17) Which party is not untrustworthy in the e-commerce trading chain? a)

Buyer

- b) Supplier
- c) Middle Agent

18) Is it possible to establish a model, by which unethical factors could be entirely dismissed in e-commerce?

- a) Possible
- b) Possible, but takes a long time
- c) Impossible

19) In your view, what are the challenges or factors hinder full compliance by your organization with Zimbabwe's corporate governance code?

20) In your view, what strategies can be used to strengthen corporate governance practices at your organization through e-commerce?

21) Is there anything you wish to say about the impact of e-commerce on corporate governance practices at your organization?

### Appendix C: Cronbach Alpha Reliability Tests

#### Customers

##### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.782	.723	9

#### Employees

##### Reliability Statistics

Cronbach's Alpha <sup>a</sup>	Cronbach's Alpha Based on Standardized Items <sup>a</sup>	N of Items
.8512	.828	9

#### Suppliers

##### Reliability Statistics

Cronbach's Alpha <sup>a</sup>	Cronbach's Alpha Based on Standardized Items <sup>a</sup>	N of Items
.803	.871	3

#### Trade Associations and Government

##### Reliability Statistics

Cronbach's Alpha <sup>a</sup>	Cronbach's Alpha Based on Standardized Items <sup>a</sup>	N of Items
.785	.745	6

#### Investors

##### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
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### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.782	.723	9
.775	.735	8

## Appendix D: Frequencies

### Frequency Table

#### Sex

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	21	60.0	60.0	60.0
Female	14	40.0	40.0	100.0
Total	35	100.0	100.0	

#### Age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-25	3	8.6	8.6	8.6
26-35	13	37.1	37.1	45.7
36-45	15	42.9	42.9	88.6
46-55	4	11.4	11.4	100.0
Total	35	100.0	100.0	

#### Level of education

	Frequency	Percent	Valid Percent	Cumulative Percent
O level	2	5.7	5.7	5.7
Diploma	8	22.9	22.9	28.6
Valid Undergrad Degree	20	57.1	57.1	85.7
Postgraduate Degree	5	14.3	14.3	100.0
Total	35	100.0	100.0	

**Level in the company**

	Frequency	Percent	Valid Percent	Cumulative Percent
Middle level Management (functional head)	10	28.6	28.6	28.6
Valid Technician/Engineer	14	40.0	40.0	68.6
Sales/Business/Marketing officer	11	31.4	31.4	100.0
Total	35	100.0	100.0	

**How long have you been working for this company?**

	Frequency	Percent	Valid Percent	Cumulative Percent
0-2 Years	6	17.1	17.1	17.1
3-4 Years	4	11.4	11.4	28.6
Valid 5-6 Years	2	5.7	5.7	34.3
7-8 Years	4	11.4	11.4	45.7
> 8 Years	19	54.3	54.3	100.0
Total	35	100.0	100.0	

**How long has your company been operating in the Internet/Telecoms industry?**

	Frequency	Percent	Valid Percent	Cumulative Percent
0-2 Years	1	2.9	2.9	2.9
Valid > 8 years	34	97.1	97.1	100.0
Total	35	100.0	100.0	

## Appendix E: Descriptives

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Transactions conducted online are secure	35	1.00	5.00	3.8286	1.27154	-1.025	.398	.098	.778
There is a system to handle consumer's complaints regarding e-commerce	35	1.00	5.00	2.1143	.99325	2.052	.398	4.573	.778
Systems which handle consumer's complaints regarding e-commerce are effective	35	1.00	5.00	2.2571	1.06668	1.145	.398	1.044	.778
Credit card numbers are protected in online purchase transactions	35	1.00	5.00	4.0286	.98476	-1.432	.398	2.159	.778
e-commerce traders cooperate and work towards developing agreements to solve the disputes due to misconducts	35	1.00	5.00	3.6286	1.05957	-1.067	.398	.678	.778

We enhance consumer value by working hard and adapting the latest technology	35	1.00	4.00	1.7143	.75035	1.420	.398	3.177	.778
E-commerce trader's business activities are transparent.	35	1.00	5.00	3.3143	.99325	.073	.398	-.187	.778
Computer technology erodes personal privacy	35	3.00	4.00	3.2286	.42604	1.351	.398	-.188	.778
Security of online transactions has an impact on how e-commerce business would convince people to do business.	35	2.00	5.00	2.6857	.96319	1.111	.398	-.023	.778
Our organization employs fair business, advertising, and marketing practices	35	1.00	5.00	3.0571	.72529	-.088	.398	2.029	.778
We make full online disclosures on information about our goods and services	35	1.00	5.00	3.5429	1.14642	-.981	.398	.207	.778
We make full online disclosures on information about the business transactions	35	2.00	5.00	3.8000	.86772	-.733	.398	.214	.778
We provide education and awareness to our clients about our products and services	35	2.00	5.00	3.9714	.66358	-.610	.398	1.471	.778
We provide education and awareness to our clients on online transacting	35	2.00	5.00	4.2857	.98731	-1.207	.398	.338	.778
Our organization develops technology to protect and empower consumers	35	2.00	4.00	2.9714	.56806	-.010	.398	.403	.778
We resolve disputes which may arise from ecommerce customers amicably	35	2.00	4.00	2.9714	.51368	-.053	.398	1.217	.778

There are controls in place to monitor the activities of customers	35	1.00	5.00	1.9429	1.05560	1.074	.398	.744	.778
Duties are segregated to monitor the behavior of customers	35	1.00	3.00	1.4000	.60391	1.258	.398	.671	.778
There are controls in place to monitor the activities of customers	35	2.00	4.00	2.3143	.52979	1.451	.398	1.308	.778
Duties are segregated to monitor the behavior of customers	35	2.00	4.00	2.9714	.51368	-.053	.398	1.217	.778
e-commerce authorization policies at our organization guide our online operations	35	2.00	4.00	3.0286	.38239	.320	.398	4.776	.778
There is adequate control of the e-commerce trading environment	35	2.00	5.00	3.8286	.85700	-.842	.398	.484	.778
Management should use a balanced score card to conduct IT risk assessment.	35	2.00	5.00	4.0000	.76696	-.830	.398	1.178	.778
There are controls in place to monitor the activities of users of electronic platforms	35	2.00	5.00	4.2286	.94202	-1.161	.398	.588	.778
e-commerce platforms are controlled by regulatory frameworks	35	1.00	4.00	2.1143	.93215	.917	.398	.285	.778
Regulatory frameworks in e-business positively affect corporate governance issues.	35	2.00	5.00	3.2000	.75926	.924	.398	1.138	.778
There are effective frameworks which protect consumers in an online environment	35	3.00	5.00	4.2286	.54695	.116	.398	-.084	.778
e-commerce positively affects the financial practices of ecommerce traders	35	2.00	5.00	4.1143	.75815	-1.056	.398	1.943	.778

organizations have effective e-commerce platforms which positively affect disclosure of material information from operations	35	1.00	5.00	2.0000	1.11144	.954	.398	.166	.778
There is lack of trust in e-commerce control mechanisms	35	3.00	5.00	4.1714	.51368	.278	.398	.526	.778
e-commerce negatively affects the general meeting practices of shareholders	35	3.00	5.00	4.1714	.61767	-.112	.398	-.327	.778
e-business activities enhance measurement of board performances	35	3.00	5.00	4.2000	.53137	.200	.398	.181	.778
e-business activities enhance measurement of board performances	35	2.00	5.00	3.9429	1.02736	-.743	.398	-.468	.778
e-commerce activities enhance the responsibility of using resources to engage in activities designed to increase organizational profits	35	1.00	5.00	4.0000	1.00000	-1.497	.398	2.963	.778
e-commerce transactions are adequately recorded and accounted for	35	1.00	5.00	3.5714	1.31251	-.454	.398	-1.122	.778
Valid N (listwise)	35								

## Appendix F: Test of normality

Tests of Normality<sup>b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s,t,u,v</sup>

	Investors	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Customers	32	.292	3	.	.923	3	.463
	33	.418	4	.	.673	4	.005
	34	.209	5	.200*	.928	5	.584
Employees	32	.385	3	.	.750	3	.000
	33	.298	4	.	.849	4	.224
	34	.330	5	.079	.735	5	.021
Suppliers	33	.307	4	.	.729	4	.024
	34	.367	5	.026	.684	5	.006
Trade_As_Gouvernement	32	.292	3	.	.923	3	.463
	33	.288	4	.	.887	4	.369
	34	.372	5	.022	.828	5	.135

Test of normality check that sig level are greater than 0.05

## Appendix G: Correlations

### Correlations

#### Descriptive Statistics

	Mean	Std. Deviation	N
Investors	32.5882	2.95928	17
Trade_As_Gouvernement	21.6000	1.63059	35

#### Correlations

		Investors	Trade_As_Gouvernement
Investors	Pearson Correlation	1	.563*
	Sig. (2-tailed)		.019
	N	17	17
Trade_As_Gouvernement	Pearson Correlation	.563*	1
	Sig. (2-tailed)	.019	
	N	17	35

\*. Correlation is significant at the 0.05 level (2-tailed).

### Correlations

#### Descriptive Statistics

	Mean	Std. Deviation	N
Investors	32.5882	2.95928	17
Suppliers	8.3143	.75815	35

## Correlations

### Correlations

		Investors	Suppliers
Investors	Pearson Correlation	1	.297
	Sig. (2-tailed)		.247
	N	17	17
Suppliers	Pearson Correlation	.297	1
	Sig. (2-tailed)	.247	
	N	17	35

### Descriptive Statistics

	Mean	Std. Deviation	N
Investors	32.5882	2.95928	17
Employees	27.9429	1.37076	35

### Correlations

		Investors	Employees
Investors	Pearson Correlation	1	.277
	Sig. (2-tailed)		.283
	N	17	17
Employees	Pearson Correlation	.277	1
	Sig. (2-tailed)	.283	
	N	17	35

## Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
Customers	28.1714	8.76989	35
Investors	32.5882	2.95928	17

		Customers	Investors
Customers	Pearson Correlation	1	-.034
	Sig. (2-tailed)		.898
	N	35	17
Investors	Pearson Correlation	-.034	1
	Sig. (2-tailed)	.898	
	N	17	17

### Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Sex * Customers	35	100.0%	0	0.0%	35	100.0%
Sex * Employees	35	100.0%	0	0.0%	35	100.0%
Sex * Suppliers	35	100.0%	0	0.0%	35	100.0%
Sex * Investors	35	100.0%	0	0.0%	35	100.0%
Sex *	35	100.0%	0	0.0%	35	100.0%
Trade_As_Gouvernement	35	100.0%	0	0.0%	35	100.0%
Age * Customers	35	100.0%	0	0.0%	35	100.0%
Age * Employees	35	100.0%	0	0.0%	35	100.0%
Age * Suppliers	35	100.0%	0	0.0%	35	100.0%
Age * Investors	35	100.0%	0	0.0%	35	100.0%
Age *	35	100.0%	0	0.0%	35	100.0%
Trade_As_Gouvernement	35	100.0%	0	0.0%	35	100.0%
Level of education * Customers	35	100.0%	0	0.0%	35	100.0%
Level of education * Employees	35	100.0%	0	0.0%	35	100.0%
Level of education * Suppliers	35	100.0%	0	0.0%	35	100.0%
Level of education * Investors	35	100.0%	0	0.0%	35	100.0%
Level of education * Trade_As_Gouvernement	35	100.0%	0	0.0%	35	100.0%
Level in the company * Customers	35	100.0%	0	0.0%	35	100.0%
Level in the company * Employees	35	100.0%	0	0.0%	35	100.0%

Level in the company * Suppliers	35	100.0%	0	0.0%	35	100.0%
Level in the company * Investors	35	100.0%	0	0.0%	35	100.0%
Level in the company * Trade_As_Gouvernement	35	100.0%	0	0.0%	35	100.0%
How long have you been working for this company? * Customers	35	100.0%	0	0.0%	35	100.0%
How long have you been working for this company? * Employees	35	100.0%	0	0.0%	35	100.0%
How long have you been working for this company? * Suppliers	35	100.0%	0	0.0%	35	100.0%
How long have you been working for this company? * Investors	35	100.0%	0	0.0%	35	100.0%
How long have you been working for this company? * Trade_As_Gouvernement	35	100.0%	0	0.0%	35	100.0%
How long has your company been operating in the Internet/Telecoms industry? * Customers	35	100.0%	0	0.0%	35	100.0%
How long has your company been operating in the Internet/Telecoms industry? * Employees	35	100.0%	0	0.0%	35	100.0%
How long has your company been operating in the Internet/Telecoms industry? * Suppliers	35	100.0%	0	0.0%	35	100.0%
How long has your company been operating in the Internet/Telecoms industry? * Investors	35	100.0%	0	0.0%	35	100.0%

How long has your company been operating in the Internet/Telecoms industry? * Trade_As_Government	35	100.0%	0	0.0%	35	100.0%
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## Crosstabs

### Sex \* Customers

#### Crosstab

Count

		Customers										Total	
		2.44	2.56	2.67	2.78	2.89	3.00	3.11	3.22	3.33	3.44		3.67
Sex	Male	1	1	1	2	4	2	2	3	1	3	1	21
	Female	1	2	1	3	1	2	2	1	1	0	0	14
Total		2	3	2	5	5	4	4	4	2	3	1	35

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	6.181 <sup>a</sup>	10	.800
Likelihood Ratio	7.651	10	.663
Linear-by-Linear Association	2.696	1	.101
N of Valid Instances	35		

a. 22 cells (100.0%) have expected count less than 5. The minimum expected count is .40.

### Symmetric Measures

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval	Pearson's R	-.282	.147	-1.686	.101 <sup>c</sup>
Ordinal by Ordinal	Spearman Correlation	-.273	.155	-1.630	.113 <sup>c</sup>
N of Valid Cases		35			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

### Sex \* Employees

#### Crosstab

Count

		Employees						Total
		2.78	2.89	3.00	3.11	3.22	3.33	
Sex	Male	1	2	5	4	5	4	21
	Female	0	1	7	2	2	2	14
Total		1	3	12	6	7	6	35

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	3.006 <sup>a</sup>	5	.699
Likelihood Ratio	3.339	5	.648
Linear-by-Linear Association	.307	1	.580
N of Valid Cases	35		

a. 11 cells (91.7%) have expected count less than 5. The minimum expected count is .40.

### Symmetric Measures

	Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval Pearson's R	-.095	.165	-.548	.587 <sup>c</sup>
Ordinal by Ordinal Spearman Correlation	-.116	.167	-.671	.507 <sup>c</sup>
N of Valid Cases	35			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

### Sex \* Suppliers

#### Crosstab

Count

		Suppliers			Total
		2.33	2.67	3.00	
Sex	Male	6	7	8	21
	Female	0	5	9	14
Total		6	12	17	35

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	5.200 <sup>a</sup>	2	.074
Likelihood Ratio	7.302	2	.026
Linear-by-Linear Association	4.383	1	.036
N of Valid Instances	35		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 2.40.

### Symmetric Measures

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval	Pearson's R	.359	.127	2.210	.034 <sup>c</sup>
Ordinal by Ordinal	Spearman Correlation	.337	.143	2.056	.048 <sup>c</sup>
N of Valid Cases		35			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

### Sex \* Investors

#### Crosstab

Count

		Investors											Total	
		3.00	3.25	3.38	3.50	3.63	3.75	3.88	4.00	4.13	4.25	4.50		4.63
Sex	Male	0	4	1	4	0	2	1	2	4	2	0	1	21
	Female	1	1	0	4	1	2	0	1	0	3	1	0	14
Total		1	5	1	8	1	4	1	3	4	5	1	1	35

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	11.389 <sup>a</sup>	11	.411
Likelihood Ratio	14.922	11	.186
Linear-by-Linear Association	.021	1	.884
N of Valid Instances	35		

a. 24 cells (100.0%) have expected count less than 5. The minimum expected count is .40.

#### Symmetric Measures

	Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval Pearson's R	-.025	.170	-.144	.886 <sup>c</sup>
Ordinal by Ordinal Spearman Correlation	.012	.172	.067	.947 <sup>c</sup>
N of Valid Cases	35			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

### Sex \* Trade\_As\_Gouvernement

#### Crosstab

Count

		Trade_As_Gouvernement						Total
		3.17	3.33	3.50	3.67	4.00	4.33	
Sex	Male	2	5	3	9	0	2	21
	Female	1	1	2	8	2	0	14
Total		3	6	5	17	2	2	35

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	6.103 <sup>a</sup>	5	.296
Likelihood Ratio	7.647	5	.177
Linear-by-Linear Association	.303	1	.582
N of Valid Instances	35		

a. 10 cells (83.3%) have expected count less than 5. The minimum expected count is .80.

### Symmetric Measures

	Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval Pearson's R	.094	.164	.544	.590 <sup>c</sup>
Ordinal by Ordinal Spearman Correlation	.182	.162	1.063	.296 <sup>c</sup>
N of Valid Cases	35			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

### Age \* Customers

#### Crosstab

Count

	Customers											Total
	2.44	2.56	2.67	2.78	2.89	3.00	3.11	3.22	3.33	3.44	3.67	
Age 18-25	1	0	0	0	0	1	1	0	0	0	0	3
26-35	1	1	1	2	0	1	2	2	1	2	0	13
36-45	0	2	1	1	4	2	1	2	0	1	1	15
46-55	0	0	0	2	1	0	0	0	1	0	0	4
Total	2	3	2	5	5	4	4	4	2	3	1	35

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	27.101 <sup>a</sup>	30	.618
Likelihood Ratio	29.572	30	.488
Linear-by-Linear Association	.023	1	.879
N of Valid Instances	35		

a. 44 cells (100.0%) have expected count less than 5. The minimum expected count is .09.

### Symmetric Measures

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval	Pearson's R	.026	.159	.150	.882 <sup>c</sup>
Ordinal by Ordinal	Spearman Correlation	-.023	.172	-.133	.895 <sup>c</sup>
N of Valid Cases		35			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

### Age \* Employees

#### Crosstab

Count

		Employees						Total
		2.78	2.89	3.00	3.11	3.22	3.33	
Age	18-25	0	1	1	0	1	0	3
	26-35	0	1	5	3	1	3	13
	36-45	1	1	4	2	4	3	15
	46-55	0	0	2	1	1	0	4
Total		1	3	12	6	7	6	35

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	8.732 <sup>a</sup>	15	.891
Likelihood Ratio	10.383	15	.795
Linear-by-Linear Association	.108	1	.742
N of Valid Instances	35		

a. 23 cells (95.8%) have expected count less than 5. The minimum expected count is .09.

### Symmetric Measures

	Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval Pearson's R	.056	.152	.325	.747 <sup>c</sup>
Ordinal by Ordinal Spearman Correlation	.067	.161	.388	.700 <sup>c</sup>
N of Valid Cases	35			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

### Age \* Suppliers

#### Crosstab

Count

	Suppliers			Total
	2.33	2.67	3.00	
Age 18-25	1	1	1	3
Age 26-35	0	3	10	13
Age 36-45	3	6	6	15
Age 46-55	2	2	0	4
Total	6	12	17	35

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	10.650 <sup>a</sup>	6	.100
Likelihood Ratio	13.576	6	.035
Linear-by-Linear Association	4.091	1	.043
N of Valid Instances	35		

a. 9 cells (75.0%) have expected count less than 5. The minimum expected count is .51.

### Symmetric Measures

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval	Pearson's R	-.347	.178	-2.125	.041 <sup>c</sup>
Ordinal by Ordinal	Spearman Correlation	-.383	.165	-2.378	.023 <sup>c</sup>
N of Valid Cases		35			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

### Age \* Investors

#### Crosstab

Count

		Investors											Total	
		3.00	3.25	3.38	3.50	3.63	3.75	3.88	4.00	4.13	4.25	4.50		4.63
Age	18-25	0	1	0	0	0	0	0	0	1	0	0	1	3
	26-35	0	3	0	4	0	0	0	2	1	2	1	0	13
	36-45	1	1	1	3	1	2	1	1	1	3	0	0	15
	46-55	0	0	0	1	0	2	0	0	1	0	0	0	4
Total		1	5	1	8	1	4	1	3	4	5	1	1	35

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	33.607 <sup>a</sup>	33	.438
Likelihood Ratio	30.986	33	.568
Linear-by-Linear Association	.361	1	.548
N of Valid Instances	35		

a. 48 cells (100.0%) have expected count less than 5. The minimum expected count is .09.

### Symmetric Measures

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval	Pearson's R	-.103	.176	-.595	.556 <sup>c</sup>
Ordinal by Ordinal	Spearman Correlation	-.036	.178	-.209	.836 <sup>c</sup>
N of Valid Cases		35			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

### Age \* Trade\_As\_Gouvernement

#### Crosstab

Count

		Trade_As_Gouvernement						Total
		3.17	3.33	3.50	3.67	4.00	4.33	
Age	18-25	0	0	0	2	0	1	3
	26-35	0	1	3	7	2	0	13
	36-45	2	4	2	6	0	1	15
	46-55	1	1	0	2	0	0	4
Total		3	6	5	17	2	2	35

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	15.760 <sup>a</sup>	15	.398
Likelihood Ratio	17.489	15	.290
Linear-by-Linear Association	5.399	1	.020
N of Valid Instances		35	

a. 22 cells (91.7%) have expected count less than 5. The minimum expected count is .17.

### Symmetric Measures

	Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval Pearson's R	-.398	.151	-2.496	.018 <sup>c</sup>
Ordinal by Ordinal Spearman Correlation	-.395	.140	-2.473	.019 <sup>c</sup>
N of Valid Cases	35			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

### Level of education \* Employees

#### Crosstab

Count

		Employees						Total
		2.78	2.89	3.00	3.11	3.22	3.33	
Level of education	O level	0	0	2	0	0	0	2
	Diploma	1	1	2	2	1	1	8
	Undergrad Degree	0	1	6	4	4	5	20
	Postgraduate Degree	0	1	2	0	2	0	5
Total		1	3	12	6	7	6	35

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Chi-Square (Pearson)	12.854 <sup>a</sup>	15	.614
Likelihood Ratio	14.072	15	.520
Linear-by-Linear Association	1.125	1	.289
N of Valid Instances	35		

a. 23 cells (95.8%) have expected count less than 5. The minimum expected count is .06.

### Symmetric Measures

	Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval Pearson's R	.182	.111	1.063	.296 <sup>c</sup>
Ordinal by Ordinal Spearman Correlation	.133	.170	.769	.447 <sup>c</sup>
N of Valid Cases	35			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

## Appendix H: Regression

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Investors, Suppliers, Trade_As_Gouvernement, Employees, Customers <sup>b</sup>		Enter

a. Dependent Variable: Overall Satisfaction

b. All requested variables entered.

### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.716 <sub>a</sub>	.512	.428	.77704	.512	6.087	5	29	.001

a. Predictors: (Constant), Investors, Suppliers, Trade\_As\_Gouvernement, Employees, Customers

b. Dependent Variable: Overall Satisfaction

### ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
-------	----------------	----	-------------	---	------

1	Regression	18.376	5	3.675	6.087	.001 <sup>b</sup>
	Residual	17.510	29	.604		
	Total	35.886	34			

a. Dependent Variable: Overall Satisfaction

b. Predictors: (Constant), Investors, Suppliers, Trade\_As\_Gouvernement, Employees, Customers

#### Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
	(Constant)	2.813	4.263				.660
Customers	-.373	.545	-.112	-.684	.499	-1.488	.742
Employees	.123	1.058	.018	.116	.908	-2.041	2.286
1 Suppliers	.045	.617	.011	.073	.943	-1.218	1.307
Trade_As_Gouvernement	-1.408	.579	-.372	2.431	.021	-2.593	-.223
Investors	1.729	.420	.695	4.120	.000	.871	2.586

a. Dependent Variable: Overall Satisfaction

#### Coefficient Correlations<sup>a</sup>

Model		Investors	Suppliers	Trade_As_Gouvernement	Employees	Customers
1 ns	Investors	1.000	.189	-.272	-.551	.351
	Suppliers	.189	1.000	-.262	-.185	.385
	Trade_As_Gouvernement	-.272	-.262	1.000	.209	.185

	Employees	-.551	-.185	.209	1.000	-.248
	Customers	.351	.385	.185	-.248	1.000
	Investors	.176	.049	-.066	-.245	.080
	Suppliers	.049	.381	-.094	-.121	.130
Covarianc es	Trade_As_Governe ment	-.066	-.094	.336	.128	.058
	Employees	-.245	-.121	.128	1.119	-.143
	Customers	.080	.130	.058	-.143	.297

a. Dependent Variable: Overall Satisfaction

#### Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.4704	5.0117	3.6571	.73516	35
Residual	-1.94952	1.33970	.00000	.71763	35
Std. Predicted Value	-1.614	1.843	.000	1.000	35
Std. Residual	-2.509	1.724	.000	.924	35

a. Dependent Variable: Overall Satisfaction

## Appendix I: Snap shot of Raw Data

q1	q2	q3	q4	q5	q6	q11	q12	q13	q14	q15	q16	q17	q18	q19	q21	q22	q23	q24	q25	q26	q27	q28	q29	q31	q32	q33	q41	q42	q43	q44	q45	q46	q51	q52	q53	q54	q55	q56	q57	q58	Customers	Employees	Suppliers	Trade As	Government	Investors	PPE
2	2	5	1	3	5	5	3	2	4	4	2	5	3	2	3	4	4	4	2	3	3	2	2	2	3	3	4	4	5	2	3	4	4	1	4	4	4	2	3	4	30	27	8	22	26	25102	
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2	2	5	2	3	5	3	2	1	5	2	1	3	3	3	3	2	5	5	2	3	3	1	2	4	3	5	3	3	4	4	5	5	3	4	5	5	4	1	5	23	27	9	24	32	34686		
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1	3	6	2	5	5	3	2	4	2	1	2	3	4	5	3	2	3	4	5	4	4	3	1	2	2	3	2	2	4	2	5	5	2	4	4	3	5	3	5	5	26	29	7	20	31	42955	
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2	3	1	3	5	5	4	2	2	1	4	2	3	4	4	3	1	3	2	5	2	3	5	3	2	3	3	2	4	5	2	3	3	1	3	3	3	5	1	5	26	27	8	19	24	24952		

## Appendix J: Ethical clearance



### UNISA COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY'S (CSET) RESEARCH AND ETHICS COMMITTEE

13 March 2017

Ref #: 071/MLR/2016/CSET\_SOC  
Name: Memory Leocadia Rukasha  
Student #: 43556752

Dear Memory Leocadia Rukasha

**Decision: Ethics approval for three years  
(Humans involved involved)**

**RECEIVED**

2017-03-14

**Researcher:** Memory Leocadia Rukasha  
4208 Mkoba 17, Gweru, Zimbabwe  
memoryrukasha@gmail.com, +263 772 716 252

OFFICE OF THE EXECUTIVE DEAN  
College of Science, Engineering  
and Technology

**Supervisor (s):** Professor F. Bankole  
bankofo@unisa.ac.za, +27 11 670 9476

**Proposal: The impact of E-commerce on Corporate Governance and Ethics**

**Qualification:** MSc in Computer Science

Thank you for the application for research ethics clearance by the Unisa College of Science, Engineering and Technology's (CSET) Research and Ethics Committee for the above mentioned research. Ethics approval is granted for a period of three years from 13 March 2017 to 13 March 2020.

1. The researcher will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Unisa College of Science, Engineering and Technology's (CSET) Research and Ethics Committee. An amended application could



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be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.

3. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.
4. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
5. Permission to conduct this research should be obtained from Total Zimbabwe, Kenac computers (IBM/Lenovo dealer), Venturecom Technologies (HP Partner), CSA (Dell Partner) prior to commencing field work. Approval letters should be submitted to the SoC Research Ethics Committee.

**Note:**

*The reference number 071/MLR/2016/CSET\_SOC should be clearly indicated on all forms of communication with the intended research participants, as well as with the Unisa College of Science, Engineering and Technology's (CSET) Research and Ethics Committee*

Yours sincerely

*Adde da Veiga*

Dr. A Da Veiga

Chair: Ethics Sub-Committee School of Computing, CSET

*[Signature]*

Prof I. Osunmakinde

Director: School of Computing, CSET

*[Signature]*

Prof B. Mamba

Executive Dean: College of Science, Engineering and Technology (CSET)

Approved - decision template – updated Aug 2016

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