

# **UNIVERSITY OF GHANA**

## **ANTECEDENTS OF BUILDING TRUST IN E-COMMERCE WEBSITES: EVIDENCE FROM GHANA**

**BY**

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**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA,  
LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENTS  
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## DECLARATION

I do hereby declare that this work is the result of my own research and has not been presented by anyone for any academic award in this or any other university. All references used in the work have been fully acknowledged. I bear sole responsibility for any shortcomings.

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## **DEDICATION**

I dedicate this thesis to my family who has always supported the idea of furthering my education.

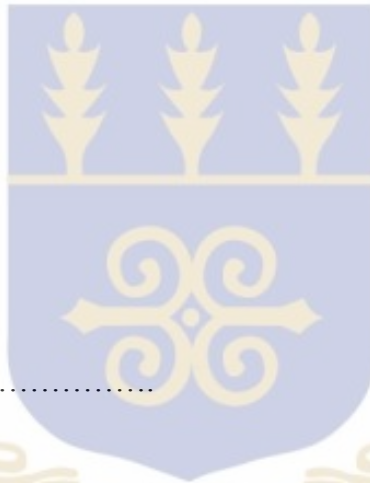
I say thank you for your patience.



### CERTIFICATION

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## ABSTRACT

One of the underlying factors that need to be taken seriously when using the internet to transact business is trust. The lack of face to face interaction in e-commerce trade leads to lack of trust which is hindering e-commerce. This research seeks to investigate how Ghanaian e-commerce firms institute trust in their websites and how that influences consumer trust.

Past research on trust in e-commerce have been considering only one side of trust at a time, that is, either at the consumer side or organizational side. Other studies on trust have shown that empirical results on trust are far from univocal implying possible effects of different trustworthiness cues on the development of trust in online transactions according to different contexts. This study seeks to expand past knowledge by studying trust from both stakeholders. This study investigated the antecedent of trust using a comprehensive model which enables the holistic understanding of trust from both the organizational and consumer side from a developing country perspective.

Following the objective of this study, the Technological, Organizational, and Environmental framework was conceptualized. Based on the realism paradigm, the study adopted mixed-methods approach. Using in-depth interviews the qualitative approach was used to answer the research question: which mechanisms Ghanaian e-commerce firms use to institute trust? On the other hand, the quantitative approach used surveys to answer the research question: which mechanisms influence Ghanaian e-commerce consumers trust using variables identified from the literature review.

The findings of this study indicated that the e-commerce firms were using recommender systems and social presence applications (technological antecedents) to institute trust. They were also instituting trust using policies, third party alliance, offline presence, and product

guarantee/warranty (organizational antecedents). The quantitative results showed that the factors influencing trust in Ghanaian e-commerce firms are Perceived Risk, Familiarity, Perceived Reputation, Ease of Finding, Ease of Understanding, and Disposition to trust.

The study recommended that e-commerce websites reduce consumers' perceived risk by decreasing their perceived environmental risks; and also unfamiliar and small e-commerce firms can liaise with already established brand names in order to win the trust of prospective consumers thereby increasing sales. Future research should focus on identifying elements that contributes to consumers' perceived environmental risks and how to mitigate them. Further studies can also consider the impact of these factors on trust with respect to gender differences. More specifically, by assessing the factors that influence online males' trust and those that influence online females' trust.

## CHAPTER 1

### INTRODUCTION

#### 1.1 Research Background

Globalization and the emergence of information technology have changed the face of conducting business. Today, many businesses have sort to rely on IT to provide the services that their customers need (Ngai & Wat, 2002; Oliveira & Martins, 2011). With the advent of the internet, businesses are putting in efforts and measures to exploit the benefits that the internet brings with it. As such, businesses have to align their strategies to information systems in order to fully exploit the benefits. One of such is the selling of goods and services online known as e-commerce (Chen & Dhillon, 2003).

Many businesses today narrowly define electronic commerce as the use of the internet to market and sell goods and services (Fruhling & Digm, 2000). A broader explanation of e-commerce as posited by Wong and Lam (1999) as cited in Suliman and Al-Hawamdeh (2002) to include any form of commercial transactions of goods and services of any kind, conducted over computer networks, whether they are open or closed networks.

The benefits of e-commerce to a firm are numerous. The overall goal of why a firm will be interested in e-commerce is the ability to increase profits because it can increase sales and decrease costs. These are because of the opportunities that could be exploited. Moreover, firms adapting e-commerce have the ability to easily customize according to a customer's preference (Schneider, 2011) which some studies have proven to encourage trust and eventually leading to an increase in purchase intentions (Lim, Lee, Hur, & Koh, 2009; Weisberg, Te'eni, & Arman, 2011).

Comparably, the number of people who shop online has increased tremendously over the past couple of years. Forrester has forecasted that by 2017, Europeans will spend more than €191 billion online on retail products, and online retail growth will continue to outpace offline growth. Moreover, Forrester predicts that e-commerce will grow at a compound annual growth rate of 9 percent between 2012 and 2017 (Gill & Widger, 2013). This remarkable projection foretells the expansion and spending that will take place in selling goods and services online. The current projections are farfetched as compared to estimations made in 1996 which accounted for between \$500 and \$600 million and about \$13 billion in the year 2000 (Gefen, 2000).

E-commerce makes use of websites as the means of contact through which people can shop online. Websites are the first contact by both prospective consumers and consumers. The absence of direct contact requires consumers to have trust in the e-vendor for the successful completion of a transaction. Moreover, the open architecture of the internet makes the credibility of the transaction parties' involved doubtful (Krauter & Kaluscha, 2003; Du & Ma, 2011). This is where parties need to employ trust in order to stay in business. Trust in e-commerce has therefore gained the interest of researchers across various disciplines (Kofouris & Hampton-Sosa- 2004; Gefen, Benbasat, & Pavlou, 2008; Brengman & Karimov, 2012). It has become the objective of managers of e-commerce firms to design websites and electronic networks that will gain consumers trust; hence, the need to understand the factors that influence online trust so that they can efficiently allot their resources to "trust development and management activities" (Shankar, Urban, & Sultan, 2002).

Several researchers have posited that trust is a prerequisite for any booming e-commerce (Jarvenpaa, Knoll, & Leidner, 1998; Gefen & Straub, 2004; Kim, Ferrin, & Rao, 2008). Some studies espoused that lack of trust in e-commerce can discourage consumers from adopting e-commerce (Bhattacharjee, 2002; McKnight, Choudhoury, & Kacmar, 2002). A study by Kim, Xu,

and Gupta (2012) revealed that perceived trust has a direct effect on purchase intentions for both potential and repeat customers of an online store as compared to price. Moreover, Lin's (2007) study demonstrated that trust was the strongest effect of customer satisfaction in relation to website design, interactivity, informative, security, responsiveness and empathy. It is therefore incumbent on e-commerce vendors especially those that are small and new to know which mechanisms influence the trust of their consumers so as to take advantage of that.

## **1.2 Research Problem**

One of the underlying factors that need to be taken seriously when using the internet to transact business is trust. Teo and Liu (2007), argue that trust decreases the uncertainty that are involved in any social and economic interaction, hence plays a crucial role. Consequently, for e-commerce to be successful, trust needs to be taken seriously. In lieu of this, many researchers have taken a keen interest in the issue of trust in online transactions (Gefen, 2000; Krauter & Kaluscha, 2003). Trust is essential in e-commerce because of lack of face-to-face interaction between buyers and sellers. It is therefore important for parties that are involved in the transaction to develop a trustworthy relationship which can help sustain trust in the business (Teo & Liu, 2007).

Some researchers have proposed models that could help build and foster trust in online business environments (Chiravuri & Nazareth, 2001; Head & Hassanein, 2002; Kim *et al.*, 2008; Du & Ma, 2011). Some of these proposed models have been developed to detect the trustworthiness of users and to detect whether a particular transaction is deemed feasible (Du & Ma, 2011). For instance, the trust based model developed by Kim *et al.* (2008) helps the consumer in making decisions on e-commerce websites. The study further revealed that trust, perceived risk, and perceived benefits may directly influence a consumer's purchasing intentions and decisions. Some studies have examined the gender differences in the effectiveness of online trust building information cues and

argued that trust building information cues are likely to be more influential on female shoppers' perceived trustworthiness of online merchants than they are for male shoppers (Murphy & Tocher, 2011).

Some empirical support can be found for many antecedents of trust, but the results are far from univocal. For instance, while some studies have proven that strong privacy statements is likely to convey a high perception of trustworthiness of an e-commerce website (Lauer & Deng, 2007), others argue that users do not even bother to read or consult them before disclosing their personal data during transactions (Vu *et al.*, 2007). Scholars call for more, and particularly more systematic, research attention for the antecedents of trust in electronic services (Beldad, Jong, & Steehouder, 2010). Reasons for this disparity could be cultural since some studies have shown that culture has an impact on e-commerce (Heeks, Molla, Boateng, & Hinson, 2011; Cyr, 2013). For instance, consumers from individualistic cultures are more likely to trust e-vendors than consumers from collectivistic cultures (Sun, 2010; Park *et al.*, 2012). It is, therefore, justified to assert that the possible effects of different trustworthiness cues on the development of trust in online transactions according to different contexts are issues that merit further investigation (Beldad *et al.*, 2010).

More so, a host of the studies on e-commerce trust focused mainly on the Western countries where connectivity and technological infrastructure is high (Unhelkar, 2003), but it has been argued that foreign e-commerce firms are most likely to fail where they do not understand the local norms and culture within the community of their operations (Shi, Ling, & Chen, 2013). One cannot argue without empirical evidence that what is happening in the developed world is the same as is happening in the developing world such as Ghana. Comparably studies from a developing country's perspective are limited and there is a call for research in this regard (Chowdhury, 2003); hence, a study in a developing country such as Ghana will generate new insights. Xie (2012) posits

that the digital gap of e-commerce adoption among countries is at a widening pace, and more studies such as this one will benefit developing countries in taking full advantage of the benefits with e-commerce.

Furthermore, most of the studies have been considering only one side of trust at a time i.e. either the consumer side or the organizational side. There is the need to examine the determinants of trust from both stakeholders (Shankar, Urban, & Sultan, 2002). Connolly and Bannista (2008) affirmed the need to investigate the factors that influence trust in online shopping at a general level. According to Beldad *et al.* (2010), only a handful of studies have used a comprehensive model in predicting the factors that contribute to the development of Internet users' trust. This indicates that most of the studies were not looking at trust holistically. In order for us to have a holistic understanding, we need to understand the interactions between both parties, plus the environment. As at now arguably no study has done that, and so this study shows the way forward.

### **1.3 Research Purpose**

The purpose of this research is to investigate how Ghanaian e-commerce firms institute trust in their websites and how that influences consumer trust.

### **1.4 Research Objectives**

Based on the purpose of this study the following objectives have been outlined:

1. To determine the trust mechanisms Ghanaian e-commerce firms institute in their websites.
2. To determine the factors that influence consumers' trust in Ghanaian e-commerce websites.

### **1.5 Research Questions**

With respect to the identified objectives for this study, the following research questions will be answered:

1. What trust mechanisms do Ghanaian e-commerce firms institute in their websites?
2. What are the factors influencing consumer trust in Ghanaian e-commerce websites?

## 1.6 Chapter Outline

The study is organized as follows:

**Chapter One:** This chapter covers the introductory part of the study, which includes the background to the study, the research problem, research objectives, and the research questions.

**Chapter Two:** This chapter is devoted to the literature review which involves a discussion of past research work on e-commerce. Inclusive in this chapter is a review of studies on trust and its antecedents; and it is important on an e-commerce website. Theoretical and conceptual issues discussed in past literature are drawn from and built upon.

**Chapter Three:** Based on the review in Chapter two, Chapter three discusses the theoretical framework of this study providing the hypotheses tested.

**Chapter Four:** This chapter takes into account the methodology for the study. This includes the research paradigm, research method, data collection method, sample size, population, etc.

**Chapter Five:** This chapter provides an overview of e-commerce in Ghana as well as a brief background of the case firms.

**Chapter Six:** This chapter analyzed the qualitative data collected. A thematic analysis was used and a discussion of the findings presented.

**Chapter Seven:** In this chapter, the data collected were analyzed using appropriate multivariate techniques and a discussion on the findings; (thus interpretation of the data) were provided and linked to existing literature.

**Chapter Eight:** This is the concluding chapter and it presents the conclusions and recommendations and limitations of the study. It also, addresses the implication of these to practice, policy, and research. Areas recommended for future studies are also highlighted.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

As identified from the previous chapter, trust is a prerequisite for any booming e-commerce. This chapter reviews literature on e-commerce trust research. According to Webster and Watson (2002), a review of literature is essential for any academic work in that it lays the foundation for the advancement of knowledge, thereby facilitating the development of theory as well as identifying areas where further research is needed. This review is therefore being undertaken to uncover areas concerning e-commerce trust that requires further research.

#### 2.2 Framing E-commerce Trust Research

Advancement in internet technology has paved the way for organisations to conduct various businesses online that are notably recognized by both practitioners and researchers as e-commerce. The adoption of e-commerce by an organization is known to help in the maximization of profits (Chan, Lee, Dillion, & Chang, 2001; Schneider, 2011). This is because of the opportunities that can be exploited. For instance, a small firm can easily send promotional message country wide to its customers through advertisement. Also, through e-commerce many potential customers can easily be reached where they are geographically scattered (Schneider, 2011). This is because of the ability of the web to create a virtual community. Hence, e-commerce removes the geographical barriers that traditional brick and mortar firms face (Turban, King, Mckay, Marshall, Lee, & Viehland, 2008).

Furthermore, e-commerce provides buyers with the opportunities to have access to wider range of choices than traditional commerce, because of the easy access to different products and services from varied sellers (Chan *et al.*, 2001, Turban *et al.*, 2008; Schneider, 2011). In addition, customers can easily evaluate their products and services efficiently at all times. More

so, e-commerce provides the fastest channel to deliver most digital products such as music, video files, images, and software among others (Chan *et al.*, 2001; Turban *et al.*, 2008; Schneider, 2011). Buyers will not have to wait for the goods to be delivered physically to them before they start enjoying their purchases.

Developing countries can take advantage of these benefits by adopting e-commerce in order for them to compete and survive in the global market. To do this, trust has been discovered to be one of the primary reasons deterring consumers from purchasing online (Ibrahim, Noor, & Mehad, 2009). As a result, most scholars are concerned about improving trust in e-commerce. This current study will review existing literature of e-commerce trust to reveal current trends within research so as to identify future as well as present gaps that need to be addressed.

### **2.3 E-commerce Defined**

Commerce is simply the buying and selling of goods and services. For instance, one can walk into a shop, select an item, and make payment. To be able to meet the demand of the customers, the shop owner needs to carry out certain business function or processes such as managing the supply chain, providing logistic support, handling payments, etc. However, with the advent of information, communication, and technology these commercial transactions can be carried out electronically. This means transactions can now occur without any form of physical contact or involvement of paper work. This form of transaction has become known as electronic commerce (e-commerce).

E-commerce is the sale of goods and services through the use of an electronic platform particularly the internet. Andam (2003) defines e-commerce as “the use of electronic communications and digital information processing technology in business transactions to create, transform, and redefine relationships for value creation between or among organizations, and between organizations and individuals” It also includes other activities such

as business trading with other businesses and internal processes that companies use to support their buying, selling, hiring, and planning, among others (Schneider, 2011). One major difference between traditional commerce or physical commerce and e-commerce is the means of transaction. With the traditional commerce, transactions involve physical contact with humans and usually take place in a market place such as store. For instance, to purchase a book, one will have to physically go to a bookshop. But within a pure e-commerce system, a transaction from the search for the book to its payment occurs electronically. However, both sometimes can complement each other. For example one can order a book and make payments through electronic means but the book is sent through physical means (Turban *et al.*, 2008).

E-commerce is however more suitable to some products than others and in some cases, e-commerce may not be used, especially for the sale of perishable goods. E-commerce is more suitable for the sale of standard goods, digital goods, low-value goods, and simple services where as traditional commerce is more suitable for nonstandard goods, perishable goods, expensive goods and extremely low value goods (Schneider & Perry, 2000 as cited in Chan *et al.*, 2001). Complex products such as cars and nonstandard services are better served by integrating e-commerce and traditional commerce (Chan *et al.*, 2001).

The backbone of e-commerce is Information and Communication Technology (ICT). E-commerce relies on the internet using applications such as shopping carts, email, instant messaging, Web services, UDDI, FTP, and electronic data interchange, just to mention a few. Technological innovation along with the advent of ICT has revolutionized the way organizations conduct business. Electronic communication as a result of advancement in a wide range of digital technologies has also facilitated the adoption of e-commerce by many organizations (Chaffey, 2009). Some of these technologies are internet communications through websites, wireless, satellites, and mobiles (Chaffey, 2009). As a result, there is improved productivity of businesses, improved customer participation, as well as the

enablement of mass customization, apart from the reduction in costs. These developments particularly in the internet and web based technologies have gradually narrowed the distinctions between traditional markets and the global electronic marketplace such as business capital size, among others.

Chan *et al.* (2001) envisaged e-commerce to be of a wider scope which can be divided into different categories. According to authors, the most popular is Internet commerce which refers to business transactions over the internet, often, the transactions are carried out on the web system hence sometimes called web-based electronic business. Another broad categorization is to separate it into business focused or customer focused e-commerce.

#### **2.4 Concept of Trust**

Various disciplines such as accounting, marketing, management, psychology, sociology and information systems have studied trust in different ways (Shankar, Urban, & Sultan, 2002; Salo & Karjaluo, 2007; Beldad, Jong, & Steehouder, 2010). Trust is therefore diverse in nature and quite difficult to define because it manifests itself in many different forms. According to Wang and Emurian (2005), the multiple definitions of trust are due to two reasons: firstly, because trust is an abstract concept and often used interchangeably with other concepts such as reliability, credibility, or confidence; and secondly, trust is a multifaceted concept that incorporates cognitive, emotional, and behavioral dimensions.

Trust is defined by Mayer, Davis, and Schoorman (1995) as “willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party”. There are many definitions for trust but two issues cut across them. Firstly, trust deals with risk and uncertainty and secondly trust is about accepting vulnerability (Mayer *et al.*, 1995; Rousseau, Sitkin, & Camerer, 1998).

Trust in information systems generally involves people's trust in the information systems (Kong & Hung, 2006; Salo & Karjaluoto, 2007). Trust is not created between persons or between people and organizations only but also between people and computing systems as well; sometimes between people and the shopping agents (Lee & Turban, 2001).

Two types of trust can be identified, namely, direct trust and third party trust (Koufaris & Hampton-Sosa, 2004). Direct trust is trust existing between two parties and developed by themselves. Third party trust on the other hand, is two parties who trust each other as a result of them trusting a third party. This type of trust is important because two unfamiliar parties are most likely to engage in online transactions.

#### **2.4.1 Trust and Trustworthiness**

Many authors often confuse the term trust and trustworthiness and often interchange their uses (Papadopoulou & Martakos, 2008). Pennanen, Tiainen, and Luomala (2007) evinced that trust refers to "the trustors'- specific concept which refers to trustors' psychological state of mind while trustworthiness refers to trustees' characteristics". A similar view is espoused by Tsiakis and Sthephanides (2005) in that "trust is the act of a trustor while trustworthiness is a characteristic of someone or something that is the object of trust". So we can conclude that while trustworthiness emanates from the trustee (e-vendor), trust emanates from the trustor (e-customer).

Various criteria are used to assess the trust worthiness of partners. They include, but are not limited to, the ability or competence (Casalo, Flavian, & Guinaliu, 2007; Gefen *et al.*, 2008; Brengman & Karimov, 2012), benevolence (Casalo *et al.*, 2007; Gefen *et al.*, 2008; Brengman & Karimov, 2012), integrity or honesty (Casalo *et al.*, 2007; Gefen *et al.*, 2008; Brengman & Karimov, 2012). Gefen *et al.* (2008) calls them the dimensions of trustworthiness and are noted

to influence behavioral outcomes in different ways. For instance, while ability primarily affects the intentions to inquire, integrity does affect the intentions to purchase (Gefen & Heart, 2006).

Ability is related to skills and competencies of the trustee in a specific context. Integrity involves the laid down rules, procedures and principles adhered by the trustee and also accepted by the trustor. Benevolence relates to the the trustees empathy as well as goodwill towards the trustor (Gefen *et al.*, 2008).

#### **2.4.2 Characteristics of Trust**

According to Wang and Emurian (2005), four characteristics of trust have been observed and accepted by researchers studying trust. According to authors, online trust shares similar characteristics with those of offline trust; but there are some important distinctions which are unique to the online environment and these distinction can be a starting point for seeking a deeper understanding of the nature of trust in an online context.

**Trustor and trustee** - Two parties must exist in a trusting relationship thus a trusting party (trustor) and a party to be trusted (trustee). The two parties may consist of persons, organizations, and/or products, which involves the evaluation of each party's actions. Trust develops as the trustee is able to act in the best interest of the trustor. Whereas in the offline situation, the trustor and the trustee are filled by many different entities; in the online trust, the trustor is typically a consumer making transactions through an e-commerce website, and the trustee is the e-commerce website or the company owing the website.

**Vulnerability** - Trust makes one susceptible to vulnerability. Trust is needed in situations where there is uncertainty and risk. However, the trustors avail themselves to be vulnerable to the risk of losing something essential by trusting their trustee that they will not be exploited. With online trust, merchants can behave in an unpredictable manner because of the complex

nature and high anonymity associated with e-commerce. Consumers are therefore at more risk in the online environment than the offline environment.

**Produced actions** - Risk-taking are often the product of trust. However the produced action which may be tangible or intangible depends on the situation. For instance, a person lends his or her money to a friend because the friend is trusted to pay back the money later; a couple gets married because the parties trust each other to be loyal in the relationship (Wang & Emurian, 2005). Two specific actions are expected from the consumer in an online situation: making purchases online from the merchant as well as giving out personal information and widow shopping at the merchant's website. Consumers must believe they have more to gain than to lose in order for them to engage in these activities.

**Subjective matter** - Trust is subjective in nature. There is a relationship between trust and individual differences as well as situational factors, thus trust is viewed differently within various contexts and magnitude towards different trustees. Apart from online trust being subjective, people also hold different attitudes towards machines and technology.

### **2.4.3 Ecommerce and Trust**

Trust being an important factor in many social interactions involves uncertainty and dependency. Online transactions and exchange relationships are characterized by uncertainty, anonymity, inadequate control, and potential opportunism making risk and trust crucial elements in electronic commerce (Belanger, Hiller, & Smith, 2002; Krauter & Kaluscha, 2003). Consumers as well as buyers face numerous risks and uncertainties during online transactions which might reduce their intention to purchase in e-commerce (Pavlou, 2003). Consumers for instance, cannot personally inspect products or services and do not know what the retailer will do with the personal information that is collected during the transaction process.

Moreover, there is a little assurance that the consumer will receive exactly what was ordered in terms of quantity, quality, and specifications. Consumers therefore seek to reduce the uncertainty and complexity of transaction and relationships in electronic markets by applying “mental shortcuts” (Krauter & Kaluscha, 2003). One such mental short cut is trust, which is the mechanism adopted by humans to reduce the complexity that is normally associated with electronic transactions, especially, in situations when people have to cope with uncertainty (Luhmann, 1989 as cited by Krauter & Kaluscha, 2003). Trust therefore has a significant influence on consumer purchases in web-based environment (Lee, Kim, Rhee, & Trimi, 2006).

One of the most cited reasons that deter consumers from purchasing from Internet vendors is lack of trust (Lee & Turban, 2001). The academic as well as practitioner community are increasingly recognizing the importance of initiating, building, and maintaining trust between buyers and sellers as key facilitators of successful e-commerce (Krauter & Kaluscha, 2003; Beldad, Jong, & Steehouder, 2010). Trusting someone means there are situations of uncertainty in which there is also an element of perceived risk (Kim, Ferrin, & Rao, 2008). On the flip side of the coin, trust will not be needed if actions could be undertaken without complete uncertainty and no risk. According to Krauter & Kaluscha (2003), the reason why trust is needed in e-commerce is because in the virtual environment, the degree of uncertainty is higher than traditional commerce. This is because e-commerce operates using the internet which brings about several risks due to the open technological infrastructure of the internet.

Trust is created between persons, between people and organizations and also between people and computing systems (sometimes between people and the shopping agents) (Lee & Turban, 2001). The technology (internet) used during online transactions is itself an object of trust (Lee & Turban, 2001). A study by Mcknight *et al.* (2002); suggests that three factors are influential to the development of trust relationship between e-vendors and the consumers; the web site quality; the goodwill of the company; and how safe the online trading environment is.

In e-commerce, consumers trust in e-vendors is the e-vendor being authentic and reliable to the online customer as well as being able to meet the expectations of the customer (Mayayise & Osunmakinde, 2014). A similar view by Mcknight and Chervany (2002), states that trust in e-commerce can depend on the e-vendor (interpersonal trust), the web transaction environment (institutional trust), and the end-user's own trust (dispositional trust). Likewise, Kim and Prabhar (2000) hold the view that initial trust in the web merchant and the electronic channel by the customer is essential during the first stages of taking part in e-commerce. Shankar *et al.* (2002) viewed trust in e-commerce from a privacy standpoint as the expectation by customers that the online business will keep their personal information safe. In a nutshell, trust in information systems is concerned about security issues of the online consumer, thus, the consumer trusting that it is safe to conduct transactions online.

#### **2.4.4 Antecedents of Trust**

Researchers studying trust often argue in the direction of one of the following: knowledge based trust; institutional based trust; calculative-based trust, cognition based trust; and personality-based trust.

**Knowledge based trust** refers to the trustors' knowledge concerning the other party he/she is dealing with which enables him/her to envisage the behaviour of the party involved (Gefen *et al.*, 2003). Scholars who study trust from this angle stress the importance of familiarity. Accordingly, familiarity will reduce uncertainty through an increased understanding of what is happening in the presence (Gefen *et al.*, 2003). Gefen (2000) claimed that familiarity in e-commerce relates to how a consumer comprehends a web site's procedures which include when and how information can be entered. In view of this, some studies empirically tested the role of familiarity in e-commerce and found that familiarity of using a web site along with the e-vendor significantly enhances trust (Gefen, 2000).

**Institution based trust** refers to the individual's perceptions of the institutional environment (McKnight *et al.*, 2002; Pennanen *et al.*, 2007). It involves both structural assurances and situational normality (Mcknight, Cummings, & Chervany, 1998; Gefen *et al.*, 2003). The structural assurance refers to the things that exist within the organization that communicates a sense of trustworthiness to the online consumer such as electronic seals, privacy policies etc. In the case of situational normality anytime an online consumer detects something unusual on the online system, the consumer, to a large extent loses trust. In other words, for the online consumer to gain trust, the online system should be normal; that is, appropriate for doing business (Pennington *et al.*, 2003). On the other hand, where the web site has a suspicious interface and is not in accordance with what online consumers expect then consumers are less likely to trust the e-vendor (Gefen *et al.*, 2003).

**Calculative-based trust** is another way scholars have studied trust, and involves the calculative process which embroils economic principles (Gefen *et al.*, 2003). Some online consumers trust e-commerce websites with the inspiration of calculations (Benedicktus, 2011). In this form of transaction, where two unknown people randomly meet, each party calculates the risks and benefits involved. Where the online consumer finds out that there is not much to lose, then he/she is likely to engage in the transaction. In view of this, trust is built from the realization that the other party has nothing to gain from not being trustworthy (Gefen *et al.*, 2003). Hence, scholars of this paradigm assume that while other people may not be necessarily good, they are “rational, calculative, and act in their own best self- interest” and as such will not engage in any form of transaction they are likely to hurt themselves in (Gefen *et al.*, 2003).

**Cognitive-based trust:** Some researchers studied trust from the angle of cognitive based trust by examining how trust is built based on first impressions instead of relying on personal interactions and experience (Meyerson, Weick, & Kramer, 1996 as cited in Gefen *et al.*, 2003).

This can be based on either categorization or illusion of control. Categorization refers to people placing trust in others who share similar traits and hence access trust based on second hand information as well as stereotypes (Gefen *et al.*, 2003). Illusion of control describes how trust beliefs can be overinflated in the absence of significant first-hand information. However, to gain some control, individuals will assess the trustworthiness of persons by paying attention to cues that portray the person's trustworthiness.

**Personality trust/ Disposition to trust**, also known as **propensity to trust**, is the tendency to believe in others and as a result to trust them. Disposition to trust is defined as “the extent to which one displays a consistent tendency to be willing to depend on others in general across a broad spectrum of situations and persons” (McKnight & Chervany 2001; Gefen *et al.*, 2003). Cheung and Lee (2001) espoused that the propensity to trust is “a stable within-party factor” which is likely to affect one's trust. Gefen *et al.* (2003) claimed that these beliefs are “trust credit” given to others before a more rational interpretation can be provided by experience.

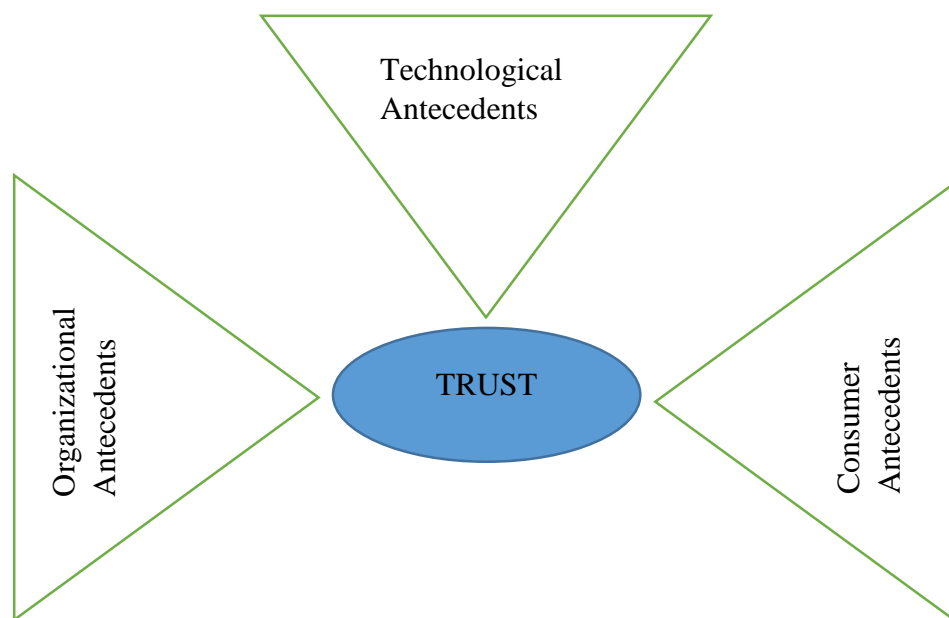
## **2.5 Mapping E-commerce Trust Research: Issues and Evidence**

This section of the study reviews literature pertinent to e-commerce trust research. The most dominant issues are discussed here. Researchers have categorized various studies in e-commerce in general into an assortment of themes. For instance, Nagai and Wat (2002) in their review categorized e-commerce studies into applications, technological issue, support, and implementation among others. According to the authors, application issues discussed in e-commerce involve, inter-organizational systems, electronic payment systems, and auctions. Technological issues also include security, technological components, and support systems. Support and implementation issues include (but are not limited to) corporate strategy and public policy such taxation, legal issues, privacy, fraud and trust (Nagai & Wat, 2002).

A more recent review by Beldad *et al.* (2010) with regard to online trust categorized the studies in this domain into customer/client based antecedents, web-based antecedents, and

company/organization-based antecedents. This study however adopted a slightly different categorization by broadly categorizing e-commerce trust literature into three antecedents: technological (which is quiet similar to web-based antecedents); organizational antecedents; and customer/consumer antecedents. In this light the subsequent sections discuss existing literature based on these categorizations.

**Figure 2.1: Antecedents of Trust**



**Source: Author's construction**

## **2.6 Technological Antecedents to Trust**

Patton and Jøsang (2004) in their paper established a wide range of technologies and strategies for developing trustworthiness which are capable of assisting consumers in assessing the level of trust that they should place on e-commerce transactions. Among these technologies are reputation systems (Resnick & Zeckhauser, 2001; Patton & Jøsang, 2004; Jøsang *et al.*, 2007); trust symbols (Cook & Luo, 2003; Chien-Ta Ho & Oh, 2009), and social presence tools (Li &

Chen, 2009; Karimov & Brengman, 2011). These technologies, together with how they influence trust, are further discussed below:

### **2.6.1 Reputation System**

One mechanism used to induce trust on e-commerce website is the reputation system. A reputation system is a collection, distribution and aggregation of feedback about participants' past behaviour (Resnick *et al.*, 2000). The idea behind this mechanism is to allow parties to rate each other after a transaction; and based on the results, a trust score can be derived which can help other parties who want to engage in a transaction with the rated parties to decide whether or not to continue with the transaction. The purpose of a reputation system is to sanction poor service providers and, hence acts as sanctioning body; a reason why they are sometimes called collaborative sanctioning (CS) (Jøsang *et al.*, 2007). E-bay's successful transactions can be credited to its reputation system called the feedback forum. The buyer and the seller have the opportunity to rate each other using a scale of 1, 0, or -1 as well as leave comments such as "good transaction", "recommend", among others (Resnick & Zeckhauser, 2001). Feedback points are then attached to the screen names of participants, which must be pseudonyms (Resnick & Zeckhauser, 2001). Other sites using reputation systems like eBay's include Yahoo, Amazon, and Auction with only variations in their rating scales (Resnick & Zeckhauser, 2001). Resnick *et al.* (2000), delineated three properties a reputation system should have in order to operate well:

- Entities must be long-lived such as to inspire an expectation of future interaction;
- Feedback on current interactions must be captured and distributed; and
- The feedback must serve as a guide in trust decisions.

### **2.6.2 Recommender Systems**

Recommender systems are another mechanism used to foster trustworthiness on e-commerce websites. With the advent of the internet, there are many sellers as well as many generic

products available with different prices, quality, and specifications; and the buyer is therefore presented with many products to choose from. Recommender systems are the solution to this information overload (Xiao & Benbasat, 2007). This system is used by e-commerce sites to suggest products to their customers, thereby providing a personalized web experiences for their customers so as to gain their loyalty and increase their switching cost (Schafer *et al.*, 1999; Choi *et al.*, 2011). The recommended products can be based on the top overall sellers on a site; based on an analysis of the past buying behavior of the customer in order to predict a future buying behavior; or based on the demographics of the customer (Schafer *et al.*, 1999). Recommender systems also provide buyers with relevant product recommendations, thereby reducing their search cost as well as increasing cross-selling for sellers (Choi *et al.*, 2011). According to Schafer *et al.* (1999), recommender systems enhance e-commerce in three ways:

- It can help visitor to a website find products to buy;
- It can improve cross-selling by suggesting additional products for the customers to purchase; and
- It improves customer loyalty by creating a value added relationship between the site and the customer.

There are two ways in which recommender systems can produce a list of recommendations: collaborative filtering/ social filtering and content based filtering. With the collaborative filtering, customers' purchasing habits or preferences are collected in the system and recommendations are made to other users based on similarity in overall purchasing patterns. Content-based recommender systems on the other hand, use some discrete feature of an item to recommend additional items with similar features. A study by Senecal and Nantel (2004) contended that consumers are significantly influenced by online recommender systems during online product choices.

### 2.6.3 Trust Symbols

Trust symbols are one of the ways e-commerce firms can exhibit trustworthiness. For instance, organizations use e-security seal programs to address the uncertainty of consumers using an e-commerce website (Cook & Luo, 2003; Chien-Ta Ho & Oh, 2009). According to Kavor *et al.* (2000), consumers are significantly influenced by e-security seals to make transactions online. Hence the perception of risk on the side of the consumer is reduced because of the presence of e-seals (Chien-Ta Ho & Oh, 2009).

E-seals are symbols, signals or logos that are used to represent and assure credibility as well as to build and maintain trust to fortify the confidence of consumers and are often set up by third parties (Kimmery & McCord, 2002; Yoon, 2002). According to Chien-Ta *et al.* (2009), various studies see online e-security seals as “third party assurances, trust relievers, third party organisation endoresment, web seals, web assurances, or third party privacy or security seals”.

Consumers’ fear will continually grow if there are no visible trustworthy standards for consumers to distinguish the legitimacy and credibility of electronic vendors (Kimmery & McCord, 2002; Odom *et al.*, 2002). Most e-seal programs require e-vendors to attain some standard that are in compliance with the relevant third party’s rules and regulations. Consumers can check the legitimacy and honesty of the e-vendor to lessen any distrust by simply clicking on the security seal logo, which will provide a hyperlink to the endorsing third party’s web site.

Furthermore, information can be obtained by consumers concerning the regulations or policies relating to the e-security seals as well as the expiry date on the use of the e-security seal by the e-vendor.

Three general classification of e-seals were made by Kimmery and McCord (2002). They are:

- Process - E-seals that assures that the vendor has agreed to comply with the regulation and rules of the third party with regard to how internal business processes will be conducted (e.g. BBB online and BizRate);
- Technology - These are e-seals that signify that a third party uses technologies to enable secured and safeguard transactions; and
- Privacy - E-security seals that assures that the vendor adheres to privacy regulations (e.g. TRUSTe and BBB online).

#### **2.6.4 Social Presence Applications**

More recently, the development of social networking sites has brought a new breed of e-commerce paradigm known as social commerce (Kim & Park, 2013). This has called for attention of researchers in this area. S-commerce uses social networking sites, social interaction and user contributions in order to facilitate the buying and selling of goods and services (Kim & Park, 2013).

Physical presence which is not available in online transaction can be complimented with the use of social media applications such as corporate blogs, Facebook, and Twitter, to create that feeling of social presence (Karimov & Brengman, 2011). Transmission of a sense of direct or indirect social presence through the web interface can trigger a customers' trust beliefs which can in turn increase online transactions (Gefen & Straub, 2004).

One form of social presence application often used by firms is blogs. There are different variations of blogs. Lee *et al.* (2006) defined a blog as a virtual community that manages its content in an interactive format which is published by an organization or individual to attain some specific goals. Multimedia resources, pictures, text based-blog entries may be contained in a blogosphere (Li & Chen, 2009). Such virtual communities can be used to expand and

maintain a network of relations, entertainment and for social exchanges (Lievens & Mahr, 2010).

Corporate blogs are being used by online vendors to communicate to their customers as well as to give customer support (Karimov & Brengman, 2011). For instance, blogs have been set up by Dell Inc. to answer questions and solve issues for its customers. By so doing they shift part of its product support to its virtual community (Spaulding, 2010). Blogs therefore enables users to share their feelings, experiences, and emotions; hence the transference of trust through the mutual bonds created (Nambisan & Baron, 2007).

## **2.7 Organizational Antecedents to Trust**

This section of the study reviews literature concerning how organizations can exhibit trustworthiness. Among these strategies are third- party alliance (Beldad, Jong, & Steehouder, 2010; Hu, Wu, Wu, & Zhang, 2010), use of policies (Lauer & Deng, 2007); size of the organization (Lu *et al.*, 2006; Kim & Park, 2013), offline presence and assurance of guarantees. How these affect trustworthiness is discussed below.

### **2.7.1 Third Parties/ Intermediaries**

Another way e-commerce sites can enhance trustworthiness and increase consumers' confidence to make purchases online is involving third parties or intermediaries (Pavlou *et al.*, 2003). Third party trust refers to a situation in which two parties who have not previously established a personal relationship covertly trust each other because they share a common relationship with a third party they trust and that third party vouches for the trustworthiness of the two parties. According to Durkan *et al.* (2003), online vendors can use well-known brand names in the "physical world" to stimulate trust on their web sites. The use of a brand name will increase online consumers' confidence to transact business online without fear of giving out personal information knowing that the other party can be trusted to keep the information

safe since lack of trust is known to deter consumers from making purchases online. The use of the brand name is important because, unlike the traditional commerce, there is a lack of physical presence; therefore, there are high uncertainties. Hence, the use of a brand name will compensate for the lack of contact and act as a reassurance for the quality of goods or services among other things when online consumers conduct business with an unfamiliar e-vendor and small online firms as well. Online vendors display trusted logos on their web sites to communicate to potential consumers that they can be trusted because of the involvement of a third party (a known brand). Online vendors will then need to comply with the third party's standard, use a certified technology, or agree to be bound in some way by the third party's procedures (Kimery & MacCord, 2002). A company associating itself with a known brand name can develop their reputation in time, which has been identified to be one of the factors encouraging online consumers to participate in e-commerce (Mcknight *et al.*, 2002).

The involvement of third parties in bolstering online trust is in consonance with studies that have proven that trust can be transferred (Doney *et al.*, 1998 as cited in Kimery & MacCord, 2002; Shek *et al.*, 2003; Beldad *et al.*, 2010). More simply, if A trusts B and B trusts C, then rationally speaking, A trust C. However, A needs to feel that B is able to judge well and may not lie about his judgment (Kimery & MacCord, 2002). Third parties can perform valuable services such as protecting the interest of the parties involved in the transaction. E-commerce sites display third party assurances such as e-seals on their website to signify the involvement of a trusted third party.

### **2.7.2 Policies**

E-commerce websites also use policy assurance models as a form of mechanism to assure online customers of their trustworthiness. They use policy statements such as the privacy policy statement that attempts to declare how responsible the e-vendor is in ensuring that online consumers' personal information is protected. The policy statements are mostly previewed at

the bottom of the home page of the web site with a link to the detailed policy. The benefit of using a policy assurance model is that, most web sites use it and hence many users are familiar with such assurance models.

The disadvantage of it is that, people often do not get time to read them because of how long they are (Mayayise & Osunmakinde, 2014). Furthermore, people do not have requisite information about where to report breaches of these policy assurances (Mayayise & Osunmakinde, 2014). A survey by Lauer and Deng (2007) shows that strong privacy policies of a company's website are likely to convey a high perception of trustworthiness of the company.

Another study also maintained that the mere presence of a privacy policy is enough to convince internet users that an online organization can be trusted and hence, users' personal data would be respected and protected (Pan & Zinkhan, 2006). This is however in contrast with some studies which say users do not even bother to read or consult them before disclosing their personal data during transactions (Vu *et al.*, 2007).

### **2.7.3 Firm Size**

The size of an organization has been noted to connote trust of consumers. Lu, Deng, and Yu (2006) established that consumers are more likely to have confidence in organizations with large market shares because they expect little risk or damages in their transactions. Furthermore, since a firm with a large market share may have invested a lot in its reputation, consumers feel that the firm will be better able and willingly to compensate them in the case where problems arise in the transactions (Jarvenpaa, Tractinsky, & Vitale, 2000).

Further studies have explained that large firms are more likely to gain consumers' trust (Pavlou, 2003; Koufaris & Hampton-Sosa, 2004). A more recent study provided empirical evidence that there is a positive relationship between size and trust (Kim & Park, 2013).

#### **2.7.4 Offline Presence**

For e-commerce firms to exhibit trustworthiness, they need to communicate to consumers that they exist behind their websites (Meziane & Kasiran, 2008). The companies therefore need to provide information such as the company's physical existence (address and telephone numbers) and information concerning their registration number as well as the registration body (Meziane & Kasiran, 2008). By so doing, the consumers are able to verify the firm's validity and hence trust the firm.

#### **2.7.5 Assurance of Guarantees/Warranties**

Some studies have acknowledged that e-commerce firms can exhibit trustworthiness by assuring their customers through guarantees and warranties (Meziane & Kasiran, 2008). This can lower consumers' perceived risk because the consumer is now given total control regarding the results of the transaction hence if they are not satisfied they can return the product without any loss (Meziane & Kasiran, 2008). Pennanen *et al.* (2007) also hold the view that consumers use different warranties to reduce perceived risk.

### **2.8 Consumer/Customer Based Antecedents**

This section reviews mechanisms that are said to influence individuals' trust in e-commerce.

#### **2.8.1 Perceived Risk**

Online transactions are characterized by issues that affect the purchasing intentions of consumers. These issues include (but are not limited to) security, privacy, and risk perception. The online environment, unlike the traditional market, involves uncertainty because the e-vendors are not personally known and the products cannot be touched among others (Teo & Liu, 2007). Therefore consumers have the fear of conducting transaction online because of the risk of being exploited.

Mayer *et al.* (1995) defined trust as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party”. From this definition one is ready to place his/her self in a risky situation where there is the probable occurrence of negative consequences (Pennanen *et al.*, 2007).

Furthermore, Mayer *et al.* (1995, p.726) defined risk perception as “the trustor’s belief about likelihoods of gains and losses out-side of considerations that involve the relationships with the particular trustee”. This definition further elaborates that risk is associated with trust. Hence, perceived risks have an important role in building trust online because the need for trust arises only in a risky situation (Pennanen *et al.*, 2007). According to Chen and Barnes (2007), web sites could increase consumers’ online trust by decreasing perceived environmental risks or by raising security. Most online consumers still consider online purchasing as a risky activity because unqualified web site infrastructures fail to provide a secure and private transaction environment. McKnight *et al.* (1998) stated that if the perceived risk is high then trusting intention is likely to be weak. Pennanen *et al.* (2007) argued that perceived risks forces consumers to evaluate the trustworthiness of e-vendors which lead to building trust. This is in line with Antony, Lin, and Xu’s (2006) findings, which state that consumers perceived risks influence his or her decisions to engage in online transactions.

### **2.8.2 Familiarity**

One of the most identified factors influencing the successful proliferation of e-commerce is peoples trust in e-vendors (Koufaris & Hampton-Sosa, 2004). Trust is essential in many social interactions that involve uncertainty and risk. Some authors have recognized the role familiarity plays as antecedents of trust (Gefen, 2000). Through familiarity people tend to subjectively reduce uncertainty and simplify their relationship with others. Familiarity is the understanding of the current actions of people or of objects within their surroundings (Gefen, 2000). It is often

based on experience, interactions and also includes questions such as what, why, where and when others do what they do. Studies by Gefen (2000), posits that trust and familiarity influence e-commerce. According to him familiarity with the e-vendor and its procedures will influence two different aspects of e-commerce, namely, inquiry and purchase. In other words, familiarity will either lead to the inquiry about a product/service or the purchase of product/service. In effect, e-vendors are trusted by customers that they are familiar with. Hence, existing trust models could be extended by adding familiarity since it has an influence on trust (Gefen, 2000). This argument is also supported by Gefen and Struab (2004), in that, in the absence of adequate regulation or customs on the internet, people tend to rely on familiarity as the main mechanism to reduce uncertainty. Other empirical studies provide support that familiarity has a positive effect on trust (El Said & Galal-Edeen, 2009; ElSaid & Hone, 2005; Bhattacharjee, 2002).

### **2.8.3 Perceived Reputation**

A company's perceived reputation has been found to influence online consumers trust. Indeed, some studies have repeatedly been done on the effect of store's reputation on consumer trust (Koufaris & Hampton-Sosa, 2004; Metzger, 2006; Chen & Barnes, 2007; El Said & Galal-Edeen, 2009; Utz, Kerkhof, & Bos, 2012). A study by Koufaris and Hampton-Sosa (2004) indicated that perceived company reputation along with other variables had a significant effect on initial trust. A similar view was espoused by Chen and Barnes (2007). According to the authors perceived good reputation is one of the important antecedents of online initial trust. Metzger (2006) also contended that company reputation influences trust, even more than privacy and security assurances. An existence of a positive store reputation results in an open and trusted relationship between clients and organizations and negative reputation will result in the opposite (Beldad *et al.*, 2010). Online customers without a previous experience with an e-vendor rely on the reputation of that vendor to assess its trustworthiness (Teo & Liu, 2007).

Reputation of a company may be available through aggregations of consumers' review and feedback on the company's web site (Resnick *et al.*, 2000; Jøsang *et al.*, 2007), and word of mouth comments from other customers (Kuan & Bock, 2007).

#### **2.8.4 Perceived System Trust**

This type of trust building mechanism falls under institutional-based trust. System trust involves two main types of impersonal structures, namely, situational normality and structural assurances (Salo & Karjaluoto, 2007). Structural assurances are enabling trust features which make the trustor feel safe on the online environment such as laws, regulations, policies, and guarantees among others; whereas situational normality is where situations appear normal and hence reduces uncertainty in the transaction (Pennington, Wilcox, & Grover, 2003). Thus in the context of e-commerce, a consumer perceives the situation as normal if a vendors website appears normal and their role as well as that of the vendor appears appropriate and conducive to the success of the transaction (Pennington *et al.*, 2003). According to Kim and Benbasat (2010), trust assurances can help communicate the online merchant's ability, integrity and benevolence. McKnight *et al.* (1998) espoused that system trust can be effective in initial trust formation between unknown parties. According to Pennington *et al.* (2003), the three types of trust mechanisms that encourage system trust in internet transactions are seals, ratings, and guarantees. However, empirical evidence concerning the effects of assurance seals is mixed. Some studies argue that consumers do not pay much attention to assurance seals and hence are not effective trust mechanisms (Kimery & MacCord, 2002; Vu *et al.*, 2007). Other studies, on the other hand, have established that the mere presence of assurance seals increases trust and purchase intentions as well (Pan & Zinkhan, 2006; Lauer & Deng, 2007).

#### **2.8.5 Disposition to Trust**

Disposition to trust (also known as propensity to trust) is the individual's inherent characteristic to trust or not to trust a person. It influences trust directly as well as indirectly through trusting

beliefs (Mayer *et al.*, 1995). Mcknight and Choudhury (2002, p.339) defined disposition to trust as “the extent to which a person displays a tendency to be willing to depend on others across a broad spectrum of situations”. It involves two sub-constructs: “faith in humanity” which shoulders that one other people are well meaning, upright, and dependable; and “trusting stance” which means that, irrespective of what one believes about peoples’ attributes, one assumes there can be better results when you deal with people as though they mean no harm and can be reliable (Mcknight & Choudhury, 2002). Stated differently, “trusting stance”, means giving people the benefit of the doubt until they are proven wrong. Individuals who trust easily are regarded as high trustors and those who don’t trust easily are low trustors. Some studies have recognized the role disposition to trust plays in e-commerce websites. For instance, Gefen (2000) discovered that, in interacting with an e-vendor, disposition to trust is a key determinant of trust. In a related study, McKnight, Kacmar, and Choudhury (2004) found out that one’s trust in a website is affected by the person’s disposition to trust. Similarly, this claim is supported by Gefen and Straub (2004). However, Utz *et al.* (2010) posits that dispositional trust could also play a moderating role based on two arguments: first, high trusters consider a positive cue as sufficient to trust; while low trusters need more than a positive cue to trust (Utz *et al.*, 2010).

### **2.8.6 Information Quality**

Kim, Ferrin, and Rao (2008, p. 449) referred to information quality as “consumer's general perception of the accuracy and completeness of website information as it relates to products and transactions”. According to Kim *et al.* (2008), information on web sites varies in terms of accuracy and reliability and are sometimes misleading. This makes it difficult to tell how frequently the information on websites is updated and that the facts have been crisscrossed (Kim *et al.*, 2008). A website that presents quality information is more likely to convey confidence to buyers that the vendor is reliable, and therefore will perceive the e-vendor as

trustworthy (Kim *et al.*, 2008). On the other hand, online consumers are particularly attentive to the quality of information on a website because the quality of information enables them to make good purchasing decisions since access to high quality information is essential for decision makers (Miranda & Saunders, 2003).

Moreover, high quality information enables the alleviation of uncertainty and risk regarding the transaction because information that is accurate, current, and relevant would provide what is needed to conduct the transaction in a controlled manner. Chen and Dibb's (2010) findings state that, product information quality along with other factors such as usability, security, and privacy assurances have a significant and positive impact on online consumers' trust. Likewise, Kim *et al.* (2008) posit that information quality among other variables is a strong predictors of trust; hence, e-commerce vendors should pay particular attention to these factors in order to boost purchasing intentions. Peng, Fan, and Hsu (2004) established that one important factor influencing user attitudes toward sites is the organization of information. Similarly, a study by Chen, Rungruengsamrit, Rajkumar, and Yen (2013) showed that information quality significantly affects both user satisfaction and attitude toward the site. Hasan and Abuelrub (2011) also hold the view that content quality (information quality) can significantly influence customer attitudes and interaction with e-commerce.

### **2.8.7 Ease of Understanding and Ease of Finding**

Ease of understanding and ease of finding are two distinct features affecting "usability" (ease of use). According to Kumar, Mukerji, Butt and Persaud (2007), the degree to which users perceive that using the particular system can enable them to perform better is referred to as ease of use. Studies show that ease of use equals ease of understanding and ease of finding (Lederer, Maupin, Sena, & Zhuang, 2000). Li and Li (2011) established that one of the most important principles in e-commerce is usability. Usability studies have largely addressed e-

commerce website design, with a particular focus on ease of use and user-friendliness because websites serve as the interface to the e-commerce system (Huang & Benyoucef, 2013).

Web sites are very essential to the growth of e-commerce and provide access for direct selling activities, supplemental material as well as act as an avenue to disseminate basic company information to customers, and project a corporate image (Loiacono, Watson, & Goodhue, 2007). However, for customers to effectively use a particular website, the website must be easy to understand and information on the website must be easy to locate (easy to find). Stated differently customers must not find it difficult to decipher what is on the website and must be able to navigate through the system. According to Díaz and Koutra (2013), the concept of understanding suggests that websites must be developed such that visitors can understand the goals of the sites; what they can achieve on the site; who sponsors the site; as well as providing timely information to the user.

A website that has the ease of understanding and ease of finding information encourages greater usability. Usability is associated with trust (Flavian, Guinaliu, & Gurrea, 2006). According to Flavian *et al.* (2006), greater usability offers more security to website users and provides them with greater self-confidence which is likely to improve consumer trust in the website. Errors on order processing such as ordering undesired products or problems in the payment for instance are largely generated due to the low level of usability. These errors may increase feelings of distrust and may as well discourage future transactions. However, Lederer *et al.* (2000) suggested ease of understanding may be more important than ease of finding information. This is, however, based on the customers' decision to revisit the website.

**Table 2.1: Studies on the Antecedents of Trust Examined**

<b>Antecedents of Online Trust</b>	<b>Context of Study</b>	<b>TOE Category</b>	<b>Study</b>
Perceived usefulness, perceived security, perceived privacy, perceived good reputation, trust propensity, and willingness to customize	Antecedents to online initial trust	Technological and organizational,	Chen and Barnes (2007)

<b>Antecedents of Online Trust</b>	<b>Context of Study</b>	<b>TOE Category</b>	<b>Study</b>
Reputation systems	Online trust	Technological	Jøsang <i>et al.</i> (2007)
Perceived web reputation; perceived web quality; and perceived institution assurance	Antecedents of trust in website	Technological and organizational	Hsiao, Lin, Wang, Lu, and Yu (2010)
Perceptions of privacy and security protection; information quality; third-party seals; and reputation, familiarity	Antecedents of trust and risk in e-commerce	Technological and organizational	Kim <i>et al.</i> (2008)
Perceived e- retailer reputation; perceived website quality; perceived risk	Examined how two significant trust forming antecedents, reputation and website quality, affect the three dimensions of trust in two different cultures.	Technological, and organizational,	Park, Gunn, and Han (2012)
Consumer reviews; perceived reputation; assurance seals	Compared consumer reviews to perceived reputation and assurance seals to see the best predictor of trustworthiness	Technological and organizational	Utz <i>et al.</i> (2012)
Strong privacy policy	Building online trust	organizational	Lauer and Deng (2007)
Word-of-mouth within social network (perceived reputation); expected sanctioning power; offline trust (offline presence); expected sanctioning power (effectiveness of complaint measures)	Examined the formation of online trust encountered by potential customers of a brick and click retailer	Technological, organizational, and environmental	Kuan and Bock (2007)
Consumer characteristics (disposition to trust, attitude, online experience); website features (usability, functionality); calculus-based trust (company reputation); institution-based trust (situational normality and structural assurances); knowledge based trust	Investigated the determinants of consumer online trust in an online travel site	Technological, and organizational	Chen (2006)
Perceived social presence	Building online trust through social presence	Technological	Cyr, Hassanein, Head, and Ivanov (2007)
Satisfaction with the website, perceived organizational Reputation	Consumers trust in a website	Technological, and organizational	Casalo, Flavian, and Guinaliu, (2007)
Perceived company size; company reputation; perceived willingness to customize; perceived usefulness of website; perceived website ease of use of website; perceived security control; propensity to trust	Investigated how new customers of a web-based company develop initial trust in the company	Technological, and organizational	Koufaris and Hampton-Sosa (2004)

<b>Antecedents of Online Trust</b>	<b>Context of Study</b>	<b>TOE Category</b>	<b>Study</b>
Privacy protection guarantees, security assurances, navigation and presentation, brand strength, advice, order fulfillment, community features, absence of errors, familiarity	Investigated if the drivers and role of online trust are the same for all websites and consumers.	Technological, and organizational	Bart, Shankar, Sultan, and Urban (2005)
Perceived social presence, perceived ease of use propensity to trust and institutional trust	Examined online initial trust formation	Technological, and organizational	Ogonowski, Montandon, Botha, and Reyneke (2014)
Third-party certification; reputation; and return policy	Investigation of the effectiveness of various trust building mechanisms in online shopping	Organizational	Chang, Cheung, and Tang (2013)
Feedback mechanisms, navigation, vendor advice and privacy	Examined how consumers from different generational cohorts develop trust in a website	Technological and organizational	Obal and Kunz (2013)

**Source: Author's construction**

The table 2.1 illustrates the antecedents of trusts and the context in which they were studied. It also shows the categories under which the variables were studied based on the identified classification of literature thus, technological antecedents, organizational antecedents, and customer antecedents.

## **2.9 Conceptual Approaches in E-commerce Trust Research**

This section of the review seeks to highlight the different conceptual approaches used in ecommerce trust research. Heeks and Bailur (2006) identified six kinds of approaches. That is:

1. *Theory based work: use of a clear and an identifiable theory is applied or tested;*
2. *Framework-based work: makes use of a framework for analysis that is derived from a body of theoretical knowledge;*
3. *Model-based work: the use of a model that is presented without reference to any deeper framework of knowledge;*
4. *Category-based work: a presentation of a set of categories, or list of factors such as features to be found on websites;*
5. *Concept-based work: the use of a particular concept; and*

6. *Non-framework-based work: making use of no concrete framework of knowledge.*

The review of literature showed that very few studies have used theories to study the antecedents of trust based on the earlier categorization (technological, organizational and customer/consumer based antecedents). Notwithstanding, these conceptual approaches are briefly discussed below.

## 2.10 Theories/Models in E-commerce Trust Research

Various studies have used different theories to study how trust can be instituted in e-commerce websites. Among such theories are the social exchange theory (Chang *et al.*, 2013), cue Utilization theory/signal theory (Breneman and Karimov, 2012; Hu *et al.*, 2010; Utz *et al.*, 2012), social capital theory (Kuan & Bock, 2007) and social presence theory (Weisberg *et al.*, 2011; Ogonowski *et al.*, 2014). From the literature it was observed that the majority of the studies were model based work, few were theory based, and only a few were category based work. A few of the theories are briefly explained below to build the foundation for choosing a suitable theory for this study. Table 2.2 depicts some E-commerce Trust Studies and their Conceptual Approaches.

**Table 2.2: Some E-commerce Trust Studies and their Conceptual Approaches**

<b>Underpinning Theory and Framework</b>	<b>Study</b>
<b>Cue utilization theory</b>	Breneman and Karimov (2012); Hu <i>et al.</i> (2010)
<b>Signal theory</b>	Utz <i>et al.</i> (2012)
<b>Social exchange theory</b>	Chang <i>et al.</i> (2013); Gefen and Reychav (2014)
<b>Social identity theory</b>	Shi, Ling, and Chen (2013)
<b>Social presence theory</b>	Ogonowski <i>et al.</i> (2014); Weisberg <i>et al.</i> (2011)
<b>Social capital theory</b>	Kuan and Bock (2007)
<b>Model based studies</b>	
<b>Model</b>	<b>Study</b>

<b>Affect trust infusion model</b>	Lowry, Twyman, Pickard, and Jenkins (2014)
<b>Consumer decision model</b>	Chau, Hu, Lee, and Au (2007)
<b>Trust model (moderating role of experience)</b>	Kim <i>et al.</i> (2012)

**Source: Author's Construction**

### **2.10.1 The Cue Utilization Theory**

The cue utilization theory (CUT) suggests that a product may exhibit certain cues which may be intrinsic or extrinsic signals to consumers denoting its quality (Olson & Jacoby, 1973 as cited in Hu, Wu, Wu, & Zhang, 2010). Intrinsic cues are product inherent characteristics that cannot be changed without tempering with the physical properties of the product. On the other hand, extrinsic features are product related properties but are not part of the physical product such as brand name, price, and packaging (Hu *et al.* 2010). Extrinsic cues are often dominated by the intrinsic cue (Purohit & Srivastava, 2001 as cited in Hu *et al.* 2010). However, in the absence of intrinsic cues, consumers are more likely to rely on extrinsic cues to assess the quality of a product (Miyazaki, Grewal, & Goodstein, 2005 as cited in Hu *et al.* 2010). This theory has been adopted and used to study consumer's behavior concerning online shopping.

Hu *et al.* (2010) assert that, online consumers who visit an e-commerce web site for the first time are more likely to evaluate the e-vendor's trustworthiness based on both intrinsic and extrinsic cues that are present on the web site. For instance, the extrinsic features may be from the vendor's cues based on the brands of products it exhibits. However, in e-commerce consumers are inhibited in assessing intrinsic cues which can be done through their senses because of lack of physical proximity (Hu *et al.*, 2010; Brengman & Karimov, 2010). As a result, they rely more on extrinsic cues to assess trustworthiness (Hu *et al.*, 2010). These extrinsic cues include, brand image, third party endorsement, customer reviews, and embedded social presence (Karimov, Brengman, & Van Hove, 2011). Hu *et al.* (2010) used the Cue Utilization Theory to study the trustworthiness of web seals.

This theory may not be adopted for this study because it concentrates on some elements of technological antecedents. For instance, Hu *et al.* (2010) used it to study web assurance seals, privacy assurance, and security assurance or transaction integrity on initial trust.

### **2.10.2 Social Presence Theory**

Short *et al.* (1976; as cited in Ogonowski *et al.*, 2014) was the first to operationally pen the definition of social presence. According to the authors, it is a medium comprising of a personal, social, or human element. Gefen and Straub (2004) on the other hand viewed it as the human elements of a website that is perceived to be personal, sensitive, and sociable which is more applicable to e-commerce. The social presence theory predicts that task performance will increase if the task matches the social presence of the selected medium (Weisberg *et al.*, 2011). According to Weisberg *et al.* (2011), some people may find it difficult to develop trust when they cannot easily communicate in a personal, sensitive and social manner.

Furthermore, consumers feel it is easier to hide information from them when social presence is low (Weisberg *et al.*, 2011). Based on this premise, Weisberg *et al.* (2011) studied consumers' intention to purchase on the internet with much attention on social presence and trust. The result showed that higher social presence directly enhances intention to purchase as well as also promoting trust. The theory fall short for this study since the theory concentrates on social presence only which is also part of the technological antecedents to trust.

### **2.10.3 The Social Identity Theory**

How social context affects interpersonal and intergroup relations and behaviors can be demonstrated with the social identity theory. Social identity bases its arguments on the membership of a social group together with the emotional significance attached to that membership (Tajfel, 1974 as cited in Tscherning, 2011). The social identity theory states that people categorize themselves and others as in-groups and out-groups. In-group refers to a social

group where an individual deems himself or herself as part because of a shared common purpose and a feelings of close relationship with members. There are two types of in-groups: specific in-groups and generalized in-groups. Specific in-group refers to common bonds which are mainly based on attachments among members such as family members, friends, and relatives. On the other hand, generalized in-groups are based on larger direct attachments to groups such as race, religion, and age groups.

According to the social identity theory, three in-grouping strategies could be used to build trust. These are institutional-identity, common-identity, and common-bond identity. The institutional identity strategy uses societal or cultural elements to stir consumers' institutional identity to build trust. Common-identity strategy uses elements based on large group memberships such as race and age to build consumers trust through direct attachment to the group identity. Finally, common bond identity refers to elements based on direct relationships such as family, relatives, and friends. In view of these, Shi, Ling, and Chen (2013), explored how foreign internet stores could employ social grouping and ties to build initial trust. This theory is also not be adopted for this study since it pays much attention to the trust transference process hence alliance with third-parties to induce trust.

#### **2.10.4 Selection of Theory**

From the literature, it was observed that there was no one theory that attempts to bring these antecedents together (technological, organizational, and consumer antecedents). Accordingly, a holistic theory was needed in order to have a holistic understanding of trust. Hence, in relation to the objectives of this study, the Technological, Organizational, Environmental (TOE) framework was adopted. The TOE framework was developed by Tornatzky and Fleischer (1990) and has a solid theoretical basis, consistent empirical support and the potential of application to IS innovation domains (Oliveira & Martins, 2011).

The theory originally consisted of three aspects of an enterprise's context that influence the process by which it adopts and implements a technological innovation, namely: technological context; organizational context; and environmental context. However, specific factors identified within the three contexts may vary across different studies (Oliveira & Martins, 2011). This is because of its parsimonious nature, allowing the various constructs to be predefined. Hence, the TOE framework is a more suitable theory for this study. The next chapter elaborates more on this theory and how it was conceptualized.

## 2.11 Methodological Approaches

The selected articles were also reviewed in terms of their methodology in order to unearth the most used approach in e-commerce trust research. In classifying the articles according to the methodological approach, the classification scheme was based on qualitative approach, quantitative approach, mixed methods and no method. From the review, it was identified that the majority of the literature reviewed used the quantitative approach (Connolly & Barnista, 2008; Grandón, Nasco, & Mykytyn, 2011), with few using the qualitative approach and a few using mixed methods (Ou & Sia, 2009; Sun, 2010; Shi *et al.*, 2013). There were however, a considerable number that did not use any predefined method (Berthon & Campbell, 2007; Al rawabdeh *et al.*, 2012).

**Table 2.3: Methodological Approaches and Country of Study in E-Commerce Trust Literature**

Study	Methodology	Analytic technique/ country	Hypothesized determinants of online trust	Statistically significant results
<b>Chen and Barnes (2007)</b>	Experimental survey where participants were asked to visit an unfamiliar website for the first time	Stepwise regression analysis and correlation analysis with SPSS v12  <b>Taiwan</b>	Perceived usefulness, perceived ease of use, perceived security, enjoyment of technology, company size, perceived privacy, perceived good reputation, trust propensity, and willingness to customize	Perceived usefulness, perceived security, perceived privacy, perceived good reputation, trust

				propensity, and willingness to customize
<b>Hsiao et al. (2010)</b>	An online survey with 1,219 respondents	structural equation modelling (SEM) with Amos 7.0	Perceived web reputation, perceived web quality and perceived institution assurance	perceived web reputation, perceived web quality and perceived institution assurance
		<b>Taiwan</b>		
<b>Park et al. (2012)</b>	Cross-cultural differences in trust formation and implications for perceived risk	MANCOVA and SEM	Perceived e- retailer reputation, perceived website quality, perceived risk	Perceived e- retailer reputation, perceived website quality, perceived risk
		<b>USA and Korea</b>		
<b>Utz, et al. (2012)</b>	Experiment 1- 100 respondents Experiment 2- 131 respondents	Regression analysis	Consumer reviews, perceived reputation, assurance seals disposition to trust	Consumer reviews, disposition to trust
<b>Lauer and Deng (2007)</b>	Online survey in which participants were presented with a case of being asked to supply personal information to an online organization	Structural equation modelling using LISREL	Strong privacy policy	Strong privacy policy
<b>Kuan and Bock (2007)</b>	Survey using 246 real customers within the offline physical stores of a brick and click retailer	Partial least squares	Word-of-mouth within social network (perceived reputation), expected sanctioning power, offline trust (offline presence), expected sanctioning power (effectiveness of complaint measures)	Word-of-mouth within social network (perceived reputation), expected sanctioning power, offline trust (offline presence), expected sanctioning power (effectiveness of complaint measures)
<b>Chen (2006)</b>	Experiential online survey with 300 respondents asked to complete transactions on	Stepwise multiple regression analysis	Consumer characteristics (disposition to trust, attitude, online experience); website	Website features (usability, functionality);

	a travel website	(USA)	features (usability, functionality); calculus-based trust (company reputation); institution-based trust (situational normality and structural assurances); knowledge-based trust	calculus-based trust (company reputation)
<b>Cyr et al. (2007)</b>	Experiential survey with 185 students asked to browse an e-service website for buying concert tickets	Structural equation modelling using LISREL	Perceived social presence	Perceived social presence
<b>Casalo et al. (2007)</b>	Online survey with 335 respondents asked to analyze websites that they have visited before and to evaluate them in terms of levels of trust, satisfaction in and perceived reputation of the website	Confirmatory factor analysis with EQS 5.7	Satisfaction with the website, perceived organizational reputation	Satisfaction with the website, perceived organizational reputation
<b>Bart et al. (2005)</b>	Survey with 6831 respondents asked to examine a particular website (websites selected for the study represented different categories). The objective of the study was to identify the determinants of trust in different types of websites (e.g., e-tailer, financial, travel).	Multi-group SEM analysis	Privacy protection guarantees, security assurances, navigation and presentation, brand strength, advice, order fulfillment, community features, absence of errors, familiarity	Some of the hypothesized constructs are statistically significant predictors of trust in some website categories (navigation and presentation are statistically significant in predicting trust in an e-retailer. However, absence of errors is a significant predictor of trust in all types of websites Website features (usability, functionality);

				calculus-based trust (company reputation)
<b>Ogonows ki et al. (2014)</b>	Online survey consisting of 80 respondents	Partial least squares based on structural equation modelling)	Perceived social presence, perceived ease of use propensity to trust and institutional trust, perceived usefulness, enjoyment	Perceived social presence, perceived ease of use propensity to trust and institutional trust
<b>Chang et al. (2013)</b>			Third-party certification, reputation, and return policy	Third-party certification, reputation, and return policy
<b>Obal and Kunz, (2013)</b>	An experimental study testing the effects of these four drivers on the online trust of 197 Millennials and 201 Baby Boomers	ANOVA	Feedback mechanisms, navigation, vendor advice and privacy	Feedback mechanisms, navigation, vendor advice and privacy
<b>Teo and Liu (2007)</b>	Online survey using a hypothetical purchasing scenario for the context of the survey with 544 respondents from the USA, 1381 from Singapore, and 988 from China	Multiple group confirmatory factor analysis using AMOS 4	Company reputation; perceived company size; level of multichannel integration; system assurance of an organization; propensity to trust	Company reputation; system assurance; propensity to trust
<b>Kim et al. (2008)</b>	468 undergraduate students participated for extra credit. The participants were asked to visit at least any two B to C retailer Websites to comparison shop for an item of their choice	Partial Least Squares	Cognitive based (perceived privacy protection, perceived security protection, information quality) and affect based (third- party seals, and reputation) Experience based (familiarity) and Personality oriented (Consumer disposition to trust)	All cognitive based trust and affect based trust antecedents except third party seals had strong positive effects on consumer trust. All of the cognition-based and affect-based antecedents except information

quality had negative effects on a consumer's perceived risk.

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### MIXED METHOD STUDIES IN E-COMMERCE TRUST LITERATURE

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<b>Shi et al. (2013)</b>	Interviewed 10 internet shoppers to choose the most representative and applicable strategies for the survey	Wilcoxon signed-rank test	Common-bond strategy, common identity strategy, and institutional-identity strategy	Common-bond strategies are more effective to bridge the in-group and out-group gap to build trust than common-identity strategies
	63 students participated in the survey. (study investigated the effectiveness of various in-grouping strategies That foreign e-commerce firms can employ to building initial trust)	<b>China</b>		
<b>Ou and Sia (2009)</b>	Confirmation of list of website design factors through interviews with a consumer panel		Technical functionality, situational normality, problem solving orientation, information quality, enjoyment perception, knowledge and skills provided, willingness to customize, overall appearance, perceived usefulness, ease of use, consumer control, consumer feedback mechanism, third party recognition, perceived completion success	Hygiene attributes (technical functionality, situational normality, problem solving orientation, information quality), Motivating attributes (enjoyment perception, knowledge and skills provided, willingness to customize), Bivalent attributes (overall appearance, perceived usefulness, ease of use, structural assurance),

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Insignificant attributes (consumer control, consumer feedback mechanism, third party recognition, perceived completion success) study suggests that trust and distrust are two distinct and separate constructs.

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#### QUALITATIVE STUDIES IN E-COMMERCE TRUST LITERATURE

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Study	Methodology	Significant results/ country
<b>Pennanen et al. (2007)</b>	Two steps: the first was a brief questionnaire measuring potential informants' values From this, 30 informants were recruited for interviews. (To gain understanding of the role of the consumer's values in building e-trust)	E-trust building is different based on individuals' personal values.  <b>Finland</b>
<b>Shah et al. (2013)</b>	Face-to-face semi-structured interviews consisting of open ended questions. 9 participants were interviewed.	Trusted /branded websites, secured websites, websites with clearly stated data protection/privacy policies makes people more comfortable in online shopping and decreases their data privacy concern.
<b>Boulianne and Cho (2009)</b>	Case study approach on the selection, implementation, and abandonment of webTrust seal.	Web trust may be explained by several theoretical frameworks thus, the managerial accounting perspective, organizational slack theory, innovation theory, and institutional theory.

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### **2.11.1 Geographic Distribution**

In reviewing the selected literature for this study it was identified that the majority of the studies were conducted in developed countries such as the United States of America (Hu *et al.*, 2010; Li *et al.*, 2011; Midha, 2012); Canada (Boulianne & Cho, 2009; Toufaily *et al.*, 2013); The Netherlands (Beldad *et al.*, 2010), Belgium (Bregman & Karimov, 2012); The United Kingdom (Bryce & Fraser, 2014; Chen & Barnes; Meziane & Kasiran, 2008), Finland (Pennanen *et al.*, 2007; Pennanen *et al.*, 2011); Spain (Munoz-Leiva *et al.*, 2010; Vila & Kuster, 2011), and Ireland (Connolly & Barnnista. 2008) and only a few from developing countries such as Egypt (El Said & Galal-Edeen, 2009).

### **2.12 Research Gaps and Future Research Directions**

This section of the review is to identify the research trend and to provide the available gaps that still need addressing based on the review of literature on e-commerce trust. Available gaps on issues, conceptual approach, and methodological approach are provided.

#### **2.12.1 Gaps in Issues**

From the review, it was observed that most of the studies examined trust from only one stakeholder, thus, either from the customer perspective or from that of the vendor. However, since it is customers who trust and e-vendors exhibit trustworthiness, their views may differ. Hence, there is a call for further studies that will examine trust from both stakeholders. This is in line with an earlier study by Shanker *et al.* (2002) for further research from this perspective. Connolly and Bannista (2008) maintained the need to investigate the factors that influence trust in online shopping at a general level. Likewise, Beldad *et al.* (2010) call for more attention to the holistic view of trust. This study will respond to this call.

Moreover, empirical results on the antecedents of trust are far from univocal (Beldad *et al.*, 2010). Culture could be one reason for this disparity. Further studies have shown that

consumers from individualistic cultures are more likely to trust e-vendors than consumers from collectivistic cultures (Sun, 2010; Park *et al.*, 2012). There is the need to study trustworthiness cues on the development of trust according to different contexts. Furthermore, a study from a developing country perspective would generate interesting insights.

The use of social networking services to boost trust and purchase intentions is one of the contemporary issues in e-commerce trust literature (Lu *et al.*, 2010; Shi *et al.*, 2013). Lu *et al.* (2010) studied how virtual communities affect buyers' behaviour. They suggested that since the trust of buyers and sellers may be different, the outcomes may also differ. Future research may investigate how virtual communities affect a seller's behaviour.

### **2.12.2 Gaps in Conceptual Approach**

Based on the review different conceptual approaches have been studied in e-commerce trust literature. Although a greater proportion of the studies used models with only a few using theories, it has been argued that models do not provide strong theoretical grounding compared to theories and frameworks (Heeks & Bailur, 2007). Therefore, further research is needed that will use theories in order to provide a strong grounding. Also, only a few studies have developed a comprehensive model to understand the antecedents of trust (Beldad *et al.*, 2010). There is a call for further research in this regard.

Gradon *et al.* (2011) called for an additional combination of theories (such as TAM+TRA) to explain e-commerce adoption in order to confirm which combination of theories better explain the adoption of e-commerce among managers/owners of SMEs. Moreover, studies should investigate whether the antecedents to adoption intentions change over time (Gradon *et al.*, 2011).

Furthermore, trust is characterised by uncertainty as well as making one susceptible to risk. Conceptual frameworks should therefore include the risk construct in their model. According

to Beldad *et al.* (2010), studies on trust in e-commerce have not paid much attention to the influence of risk perception on trust formation, therefore, a model that has the risk perception incorporated with the aim of determining online trust determinants would result in a more exhaustive theoretical framework of online trust. Beatty *et al.* (2011) recommended that all studies of online trust should include risk as an element of their conceptual models. This study therefore considered the perception of risk in the model.

### **2.12.3 Gaps in Methodological Approach**

From the review, much of the studies used the quantitative approach and it was argued that even though this approach helps in generalization, it does not provide in-depth knowledge. The use of the qualitative approach helps to provide in-depth knowledge. A considerable number of studies did not follow any defined methodology. In the case of mixed methods, only a few were identified. Mixed or multiple methods, according to literature, provides in-depth knowledge about a given phenomenon. Venkatesh, Brown, and Bala (2013) posited that since both qualitative and quantitative research methods may not guarantee the needed richness in data collection, the appropriate form should be the mixed method approach. In lieu of this and since this study is contributing to the field of IS as motivated by previous recommendations, a mixed method approach is adopted in undertaking this study. We further advocate for more use of mixed methods in Information systems research.

### **2.13 Summary**

To sum up, this chapter commenced with the definition of e-commerce, trust, and its related concepts. The review of literature showed that there are three broad categories of antecedents of trust, thus, technological antecedents, organizational antecedents, and customer/consumer antecedents. Studies and issues concerning these three categorization were duly discussed. The conceptual approaches in e-commerce literature were also identified and discussed. With respect to this, future gaps based on the issues, conceptual approaches, and methodology were

provided. From the literature, it was observed that there was no one theory that attempts to bring these antecedents together (technological, organizational, and consumer antecedents). More so, most of the studies were quantitative based with only a few that were qualitative. It will be good to adopt a mixed approach since trust will be studied from both the side of the firm and the consumer. Hence, the qualitative approach will be used to study how firms institute trust in their websites, and the quantitative approach will be used to study the factors influencing individuals' trust. Furthermore, most of the studies focused on developed nations with a few on developing nations. However, due to cultural difference, different results may be obtained in developing nations. Trust must therefore be developed in different ways because of the impact of culture on e-commerce. Hence, a study in a developing country such as Ghana will be insightful. Therefore, this study will address the gaps identified from the literature review. The next chapter discusses the theoretical basis upon which this study was conducted.

## CHAPTER 3

### THEORETICAL FRAMEWORK

#### 3.1 Introduction

Previous chapters of this study looked at the introduction as well as the research problem that needs to be addressed. This study further discussed various literatures concerning this area. This chapter presents a theoretical framework upon which we will build the current study on using the objectives of this study thus, which trust mechanisms are instituted in Ghanaian e-commerce websites and how those mechanisms influences Ghanaian e-commerce consumers. To this end a holistic theory was needed. Hence, this study conceptualized the TOE in order to help gain more insight. Furthermore, the TOE is parsimonious in that it does not predefined what constitute the technological, organizational, and environmental context. Hence, this study using the TOE will conceptualize what goes into each context using the variables identified in the previous chapter notably institute trust and influence trust

#### 3.2 The TOE Framework in Information Systems

The TOE framework was originally introduced by Tornatzky and Fleizcher (1990). The theory presents three categories of a firm's context that influence its decisions (Baker, 2012). The theory describes how the context of a firm influences the adoption and implmetation of innovations. The three elements as presented in the theory include technological context, the organizational context and the environmetal context.

The TOE framework was developed as a theory to study how firms adopt to IT innovations. The TOE was adopted to provide an analytical framework that could be used by researchers and practitioners to study the adoption and assimilation of diverse kinds of IT innovations (Oliveira & Martins, 2011).

Extant studies over the years used the TOE framework to study organizations' adoption of particular technologies. For instance, Mishra, Konana, and Barua (2007) in their study used the TOE framework to describe the adoption of inter-organizational systems. Further, in the context of electronic business, Zhu, Kraemer, and Xu (2003) deployed the use of the TOE to study the adoption of electronic business at the firm level. Again, there has been studies that used the TOE framework in an e-commerce perspective. For instance, Ghobakhloo, Arias-Aranda, and Benitez-Amado (2011) used the theory to investigate the factors that affect the adoption of e-commerce within small and medium-sized enterprises. Empirical studies testing the TOE have adopted quite different factors for the technological, organisational, and environmental contexts, hence making the framework highly adaptable because of the freedom to vary the factors or measures for each new research context (Baker, 2011).

Table 3.1 below illustrates some studies that have been done in Information Systems and how they adopted the TOE as their framework as well as the topic area where the study was conducted.

**Table 3.1: The Studies That Use the TOE Framework**

<b>Author</b>	<b>Technological context factors</b>	<b>Organizational context factors</b>	<b>Environmental context factors</b>	<b>Domain</b>
Liu (2008)	Support from technology; human capital; potential support from technology.	Management level for information; firm size.	User satisfaction; e-commerce security.	E-commerce
Teo, Ranganathan, and Dhaliwal (2006)	Unresolved technical issues; lack of IT expertise and infrastructure; lack of interoperability.	Difficulties in organizational change; problems in project management; lack of top management support; lack of e-commerce strategy; difficulties in cost-benefit assessment.	Unresolved legal issues; fear and uncertainty.	E-commerce

<b>Author</b>	<b>Technological context factors</b>	<b>Organizational context factors</b>	<b>Environmental context factors</b>	<b>Domain</b>
Oliveira and Martins (2010)	Technology readiness; technology integration; security applications.	Perceived benefits of electronic correspondence; IT training programs; access to the IT system of the firm; internet and e-mail norms.	web site competitive pressure	E-business
Zhu, Dong, Xu, and Kraemer (2006)	Technology readiness; technology integration.	Firm size; global scopes; trading globalization; managerial obstacles.	Competition intensity; regulatory environment.	E-Business
Lee, Wang, Lim, and Peng (2009)	Organizational IT competence; KMS characteristics (compatibility, relative advantage, and complexity).	Top management commitment; hierarchical organizational structure.	With external vendors; among internal employees.	KMS
Oliveira and Martins (2009)	Technology readiness; technology integration; security applications.	Perceived benefits of electronic correspondence; IT training programs; access to the IT system of the firm; internet and e-mail norms.	Internet competitive pressure; web site competitive pressure; e-commerce competitive pressure.	E-commerce Web site

### 3.3 The TOE Framework

This section of the review is based on the work of Tornatzky and Fleizcher (1990) as originally propounded. The TOE framework is categorized into three main dimensions: technological; organizational or firm; and environmental contexts (Peixin & Wei, 2012). The theory was first developed to study the adoption of technological innovations. In the study of adopting IS innovation, it is recommended to use the TOE framework since it inculcates variables that define the adoption of a technological innovation into an organization (Venkatesh & Bala, 2012) and is also regarded as a general theory of diffusion.

### **3.3.1 Technological Context**

Tornatzky and Fleizcher (1990) opined that the technological context of adopting an innovative technology are both the internal and external technologies that are significant to the organization. Baker (2012) in a similar view explained that these technologies are not only limited to those that are already used by the firm but also those technologies that are obtainable in the marketplace however currently being used for its production purposes. These technologies embrace equipment as well as processes involved in undertaking of a task.

Tornatzky and Fleizcher (1990) further elaborated that technology is “a knowledge-embedded tool” and “is a mixture of social/ behavioral elements and physical elements”. Similarly, it is important for human beings to understand a particular technological tool before they can be able to use it. Consequently, they can teach others from the experiences they have acquired in using that particular technology. In this case there is an attitudinal change or behavioral change in using a peculiar technological tool which further leads the individual adapting to the use of the technology (Baker, 2012).

### **3.3.2 Organizational Context**

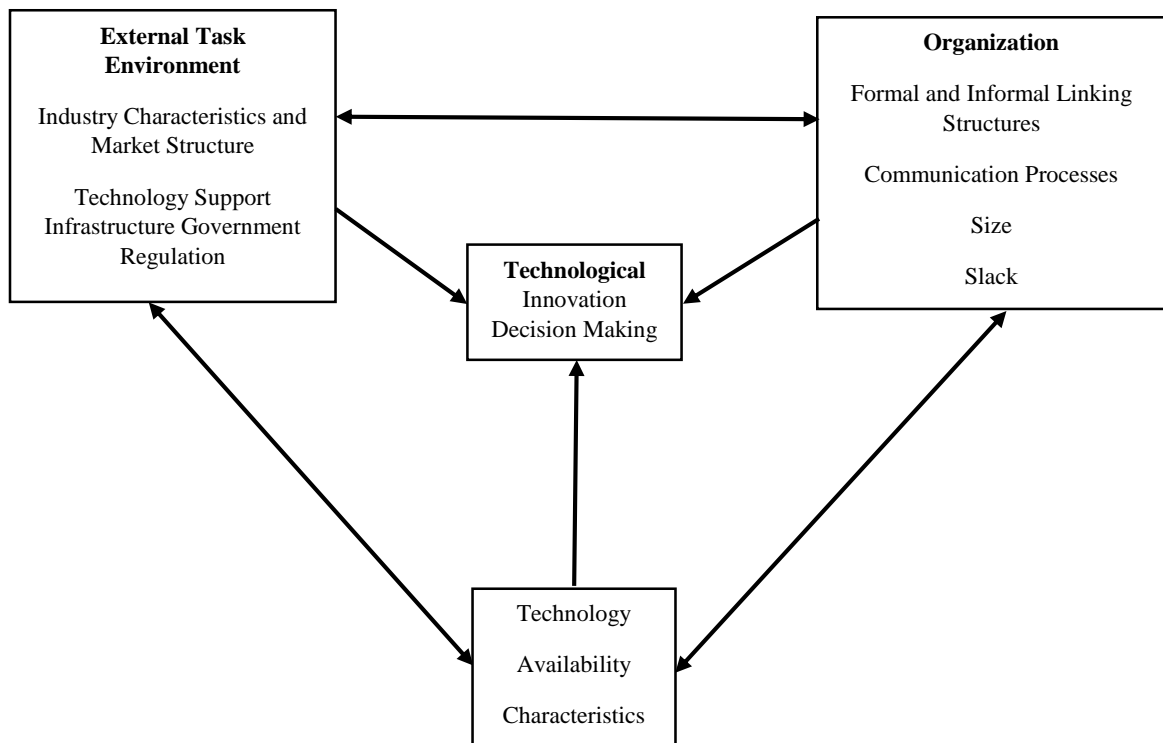
Aside from the technology context the second category that influences adoption of technological innovation is the organizational context. This context depicts the size and scope, and managerial structure of an organization and its internal resources (Pan & Jang, 2008; Oliveira & Martins, 2011). In addition to description of the constituents of the organizational context are also the linking structures that exist between employees as well as intra-organizational processes (Baker, 2012). Similarly, Arpaci, Yardimci, Ozkan, and Turetken (2012) included the extent of centralization of the firm, formalization, and the quality of its human resources.

Managing an e-commerce website means the managing organization has to take responsibility for the site. Management involves gathering, processing, and storing large amounts of

information pertaining to the customer. It is the hope of customers that their information will be kept safe. For a good security practice there are generally three requirements that are necessary to enhancing a secured e-commerce infrastructure. These include confidentiality, integrity, and authentication. It is model developed to guide policies regarding security in an organization. Confidentiality involves the procedures that provide limitations to the way information in an organization can be accessed while integrity is the assurance customers have that the information they are provided with is trustworthy. Availability provides a guarantee that the information that customers need will be readily available for their use (Gibilisco, 2013).

### **3.3.3 Environmental Context**

Firms normally operate in an environment. In this environment there could be competitors who operate in the same industry or dealings with the government (Tornatzky and Fleischer 1990 as cited in Oliveira & Martins, 2011). Bose and Luo (2011) further posited that the environment also combines the market structure and its characteristics.

**Figure 3.1: The TOE Framework**

Source: Adapted from Tornatzky and Fleischer (1990)

### 3.4 Theoretical Framework

With reference to the objectives of this study, the review of literature showed that there are technological, organisational and consumer/customer antecedents of trust in e-commerce. It was also discovered that some of these mechanisms influence consumer trust. This study will therefore conceptualise the TOE framework by including consumer trust mechanisms. The constructs in the theory are further explained by juxtaposing the concepts to trust in e-commerce. This framework is further elaborated below.

#### 3.4.1 Technological Context

This study operationalized the technological context of the TOE to mean the technologies that are available to an ecommerce firm that are capable of exhibiting trustworthiness. As noted earlier in the previous chapter, some of the technologies used to exhibit trustworthiness are recommender systems, reputation system, and technologies used to create social presence (Li

& Chen, 2009; Karimov & Brengman, 2011; Kim & Park, 2013). Other technologies used to create trustworthiness are trust symbols such as digital seals.

These technologies have the propensity to guarantee trust on e-commerce websites. For instance, past experiences of users who use an e-commerce website would determine whether or not they will use the website in the near future. Trust in information systems generally involves people's trust in the system. Lee and Turban (2001) argued that a particular technology used during online transaction is itself an object of trust. In this event, studies have shown that recommender systems when adopted by online firms are capable of influencing trust (Xiao & Benbasat, 2007; Choi, Lee, & Kim, 2011). Similarly, reputation systems can be used by firms to induce trust since this technology allows parties to rate each other after a transaction which consequently enables trust scores to be generated to help other customers decide whether to engage in transaction with a firm or not; thereby acting as a sanction to poor service providers (Resnick *et al.*, 2000; Jøsang *et al.*, 2007). In a similar fashion, online firms can institute online trust by simply exhibiting trust symbols on their websites. By displaying these trust symbols on their websites, it communicates to customers that they are in compliance with standards that have been established by the third-party organisations endorsing the online firm (Cook & Luo, 2003; Chien-Ta Ho & Oh 2009). This communicates trust to online consumers.

### **3.4.2 Organizational Context**

Within this context, the organisational elements are the mechanism available for an e-commerce organisation to influence trust. They include the options the organisations can undertake and the scope of the organisation. The mechanisms that are available to an organisation to induce trust includes policies (Lauer & Deng, 2007; Mayayise & Osunmakinde, 2014), third party alliance (Pavlou *et al.*, 2003; Durkan, Durkin, & Gillen, 2003; Beldad *et al.*, 2010) and firm size (Pavlou, 2003; Koufaris & Hampton-Sosa, 2004; Kim & Park, 2013) as

identified from literature. Some studies have shown that information concerning policies such as privacy statements, warranty, assurance statements and its related statements that are displayed and made available to customers are mostly likely to induce trust (Mayayise & Osunmakinde, 2014). Likewise, third-party alliance which is often based on paradigm that trust can be transferred have been supported by various studies to induce trust (Pavlou *et al.*, 2003; Durkan *et al.*, 2003; Beldad *et al.*, 2010). Studies affirm that for online trust to be communicated, there is the need for the firm to show that they exist behind their websites (Meziane & Kasiran, 2008), hence for them to have an offline presence.

More so, online firms can induce online trust by assuring product guarantees and warranties (Pennanen *et al.*, 2007; Meziane & Kasiran, 2008). Based on this argument, it has been established that an online firm can use the above mentioned mechanisms to induce online trust. However, firm size which was identified in literature as a factor to induce trust, was not included. This is because, the size of an internet shop cannot really be determined; unless the offline size is carried on to the online. Therefore firm size was dropped and would not be included in the variables. Furthermore, a few reliable variables give more meaningful solutions than a large number of less reliable variables (Tabachnick & Fidell, 2007).

### **3.4.3 Consumer Trust Mechanisms**

These are trust mechanisms that have an influence on the customer directly. Different literature has named various mechanisms that influence customers to trust e-commerce websites (El Said & Galal-Edeen, 2009; Kim & Benbasat, 2010; Beldad *et al.*, 2010; Utz *et al.*, 2012;). These mechanisms have been duly discussed in the previous chapter of this study. From the review, mechanisms that influence customers trust include: perceived reputation; disposition to trust; information quality; ease of understanding; ease of finding; perceived system trust and familiarity with the e-commerce system. The following hypothesis have therefore been formulated.

### **3.4.3.1 Perceived Reputation**

Empirical studies on perceived reputation of e-commerce firms indicate that customers trust are influence by how they perceive an e-commerce firm (Koufaris & Hampton-Sosa, 2004; Metzger, 2006; Chen & Barnes, 2007; El Said & Galal-Edeen, 2009; Utz *et al.*, 2012). Perceived reputation is more likely to influence customer's initial trust (Koufaris & Hampton-Sosa, 2004; Chen & Barnes, 2007). In some cases, studies have contended that company reputation influences individual's trust compared to privacy and security assurances (Metzger, 2006). Conclusively, a positive organization's reputation is more likely to result in a trusted relationship whilst a negative reputation is more likely to cause the opposite (Beldad *et al.*, 2010). Based on these a hypothesis is established below.

***H1: A store's reputation will positively influence online consumers' trust***

### **3.4.3.2 Perceived System Trust**

As established earlier in the previous chapter, system trust consists of situational normality and structural assurances (Salo & Karjaluoto, 2007). Trust features which make a customer trust e-commerce sites and hence trustworthy are known as structural assurances (Pennington, Wilcox, & Grover, 2003). They include regulations, policies, laws, and guarantees. Situational normality on the other hand refers to the context where the e-commerce environment appears normal (Pennington *et al.*, 2003). Hence, one is not scared of engaging in a transaction. Research has shown that system trust influences consumer trust in that it communicates the online vendor's ability, integrity and benevolence (Kim & Benbasat, 2010). In this study, system trust is seen as an institutional-based trust and therefore heuristic cues such as assurance seals, ratings, and guarantees are expected to influence trust of online consumers. Below is the proposed hypothesis.

***H2: Consumers' perceived system trust will directly influence their trust in the online shop***

### **3.4.3.3 Disposition/Propensity to trust**

Consumers' trust is also influenced by their disposition to trust (Mayer *et al.*, 1995). This is people's faith in humanity that suggest that generally people are upright and dependable; and this includes having a trusting stance that states that some people assume that they may get better results provided they deal with people as if they are harmless (Mcknight & Choudhury, 2002). It can either influence trust directly or indirectly through other trusting beliefs (Mayer *et al.*, 1995). In effect some studies have shown how disposition affects trust directly (Gefen & Straub, 2004) and some have studied how it influences some trusting beliefs (Utz *et al.*, 2010) hence a moderating role. In view of this, Wang and Benbasat (2007), contended that based on cues and information provided by a trustee, the propensity to trust has the ability to either magnify or reduce trust. This study included the disposition to trust but has, however, adopted the direct effect that it has on trust. This study therefore posits the hypothesis below.

***H3: Disposition to trust has a direct influence on online consumers' trust***

### **3.4.3.4 Perceived Information Quality**

Information quality is the perception of a customer's accuracy and completeness of the website's information (Kim, 2008 p.449). This has been proven to influence the trust of customers using e-commerce websites (Kim *et al.*, 2008; Abbasi, Bigham, & Sarencheha, 2011). A customer's clear understanding of the information alleviates any confusion or ambiguity in the information. Extant research has shown that high quality information is likely to mitigate feelings of uncertainty and risk in online transactions since these transactions could be conducted in a controlled manner because of the availability of accurate, current and relevant information (Chen & Dibb, 2010). Other studies have shown that information quality has an effect on both satisfaction and attitude towards a site (Chen *et al.*, 2013) and when one is satisfied with a website then that person is likely to trust that e-vendor. Based on this argument the hypothesis below was constructed.

***H4: Information quality will influence online consumers' trust***

**3.4.3.5 Familiarity**

Familiarity is a knowledge based antecedent of trust. It involves the trustor's knowledge with regard to the party involved in the transaction as well as the environment within which the transaction is taking place (Gefen, 2000). Fairly acquired knowledge about the customer's transactions reduces uncertainty which is inevitable in e-commerce, and consequently gives the customer some degree of trust to be able to complete online transactions. Hence, e-commerce customers are more likely to trust familiar online vendors as compared to unfamiliar ones. Gefen (2000) espoused that trust models should include familiarity since it has been found to significantly influence trust. In a similar vein, Gefen and Struab (2004) contended that customers may often rely on familiarity in the situation where there are inadequate regulations on the internet to protect them. A study by El Said and Hone (2005); found that familiarity has a positive influence on trust. Likewise, El Said and Galal-Edeen (2009), supported the notion that familiarity has a positive effect on trust. Other studies have also confirmed that familiarity has a positive influence on trust (Bhattacharjee, 2002). Hence, the following hypothesis is established below.

***H5: familiarity will influence online consumers' trust***

**3.4.3.6 Perceived Risk**

One mechanism preventing consumers from conducting transactions online is customer's perceived risk due to the uncertainties in the online environment. Some studies have established that consumers tend to evaluate e-vendors trustworthiness by the level of perceived risks (Antony, Lin, & Xu, 2006; Pennanen *et al.*, 2007). This is because the e-commerce environment is characterized by uncertainty and risk since transaction occurs between unknown parties over the internet. From definition of trust given by Mayer *et al.* (1995) (see

chapter two), one is making himself or herself susceptible to risk which is inevitable within the e-commerce environment. It can therefore be concluded that there is an association between risk and trust. Pennanen *et al.* (2007) affirmed that it is only in risky situations that trust is adopted. In a similar fashion, Antony *et al.* (2006), contended that online consumers decisions to engage in online transactions are influenced in their perceived risks. Pennanen *et al.* (2007) included perceived risks as an antecedent of e-trust. Furthermore, Beldad *et al.* (2010) called for the inclusion of the risk perception on trust formation of which much attention have not been paid to since this will lead to a more exhaustive theoretical framework of online trust. According to Kim *et al.* (2008), consumers will be reluctant to purchase online when the sense of risk is overwhelming. We therefore suggest that, since consumers are rational, they will be calculative in their transaction online; thus where the risk is unbearable they will not engage in the transaction. The opposite is true. In this context, perceived risk is seen to affect trust, hence perceived risk will have an effect on the usage of e-commerce website. Hence, the hypothesis below was formulated.

***H6: Perceived risk is negatively associated with online consumers' trust***

#### **3.4.3.7 Perceived Ease of Understanding and Ease of Finding**

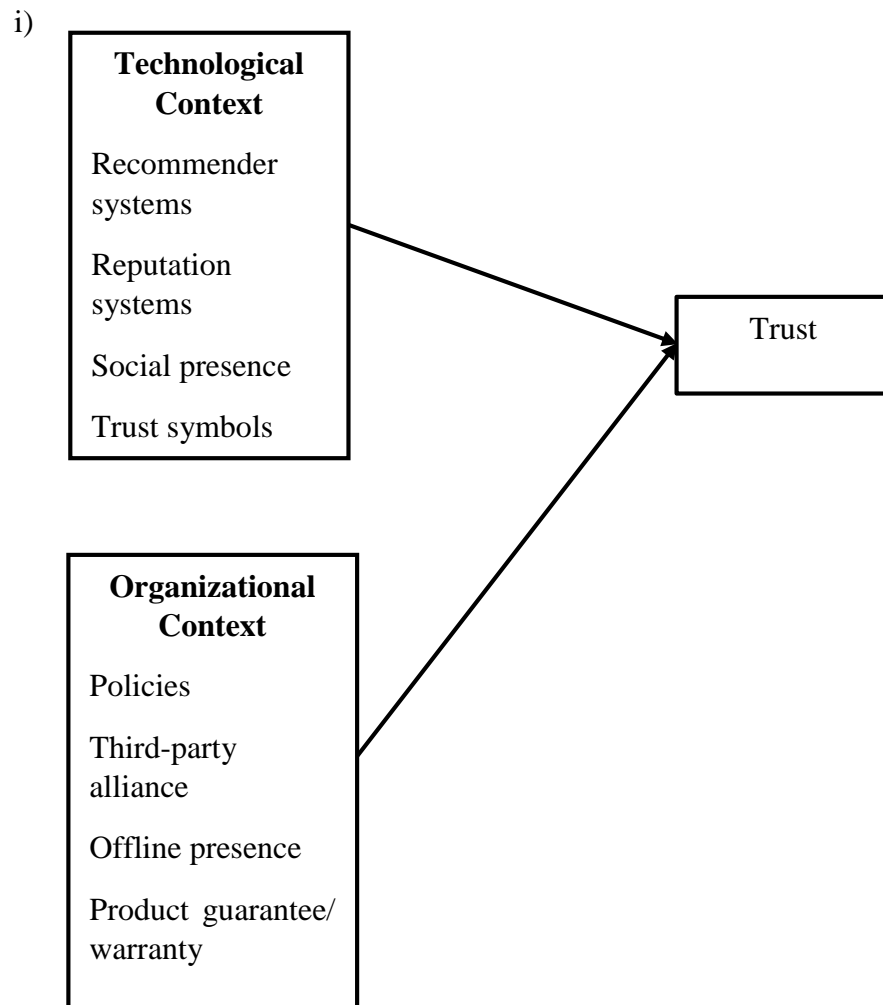
The design of e-commerce websites should stress the ease of use and user friendliness since websites are the interface to the e-commerce system (Huang & Benyoucef, 2013). Ease of use of a website involves of understanding and Ease of finding (Lederer *et al.*, 2000). For customers to effectively use a particular website, the information on the website must be easy to understand as well as easy to find. A website whose information is easy to understand and find encourages its use which in turns enhances trust (Flavian *et al.*, 2006). This is because greater usability of a website boosts the confidence of the user which improves consumer trust while errors resulting from the use of the website (such as ordering undesired products or problems

with the payment) leads to low usability of the website and hence the increase in feelings of distrust (Flavian *et al.*, 2006). The following hypothesis is therefore formulated.

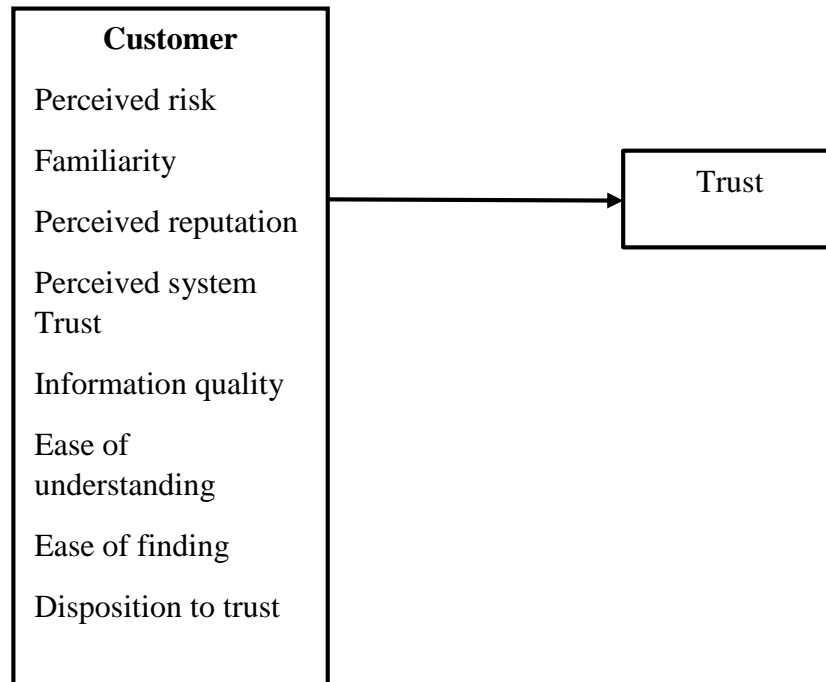
***H7: Perceived ease of understanding will influence online consumer trust***

***H8: Perceived ease of finding will influence online consumer trust***

**Figure 3.2: Conceptual Framework of Trust in E-commerce**



ii)



### 3.5 Measuring the Constructs

The proposed model will be measured using a mixed method approach thus the use of both quantitative and qualitative approaches. The technological and organizational context will be examined using the qualitative approach since it presents the various mechanisms that are available for a firm to institute trust based on the reviewed literature. The consumer/customer trust mechanism will be explored using the quantitative approach per the established hypotheses.

### 3.6 Summary

The inception of this chapter began with the discussion of the TOE framework and the conceptual framework per the deduced hypotheses which were routed from the literature. The

TOE framework was selected because of its parsimonious nature, allowing the various constructs to be predefined. In lieu of this, the review of literature showed that there are technological and organizational ways of instituting trust; and some of these elements are perceived by e-commerce consumers to influence their trust. Hypotheses were therefore formulated based on empirical confirmation from previous studies. This conceptual framework will enable us to answer the objectives that were established in the beginning of this study; which trust mechanisms are instituted by Ghanaian e-commerce firms; and which trust mechanisms influence Ghanaian e-commerce consumers.

## **CHAPTER 4**

### **METHODOLOGY**

#### **4.1 Introduction**

The previous chapter discussed the TOE framework as the theory for this study. The discussions led to the creation of a research framework to guide empirical testing of the concepts in the framework. This chapter presents how the study was conducted at various levels in order to fulfil the objectives set for the study. This part therefore discusses the methodology which deals with the research paradigm, techniques for data collection, processing, and analysis. In order to investigate trust in Ghanaian e-commerce websites, different approaches and techniques were used in the collection and analysis of both qualitative and quantitative data.

#### **4.2 Paradigm and Methodology of the Research**

This study was guided by the realist paradigm. Rossman and Rollis (2003), define paradigm as “shared understanding of reality.” Healy and Perry (2000) posit that realism as a paradigm provides a researcher with both constructivist and positivist perspectives. Realism asserts that there is a significant variation between what is real and what people perceive as reality (Bisman, 2002). Realism as a framework employs both qualitative and quantitative methodologies (Healy & Perry, 2000). According to Cresswell and Clark (2007), the use of a mixed method as a means of data collection enables the researcher to undertake both quantitative and qualitative studies sequentially. The qualitative methodology is based on interviews (indepth), participant observations and case studies while the quantitative methodology is based on the admission of questionnaires as a form of data collection (Perry, Alizadeh, & Riege, 1997; Bisman, 2002). Realism allows a researcher to choose an approach that is considered appropriate with regard to the study (Krauss, 2005). Using a mixed methodology allows the researcher to validate hypothesis

as well as conceptual models and also enables the researcher to gain an indepth understanding of the findings (Newman *et al.*, 2003). Moreover, the qualitative study can help the researcher to better explain unexpected results that the quantitaive study may reveal (Maxwell & Loomis, 2003).

This study used the realist paradigm because it employs both the qualitative and quantitative approach which is essential in achieving the objective of this study: which trust mechanism are instituted in Ghanaian e-commerce websites; and which trust mechanism influences Ghanaian ecommerce consumers trust. The first objective can better be achieved using a qualitative approach because of the provison of an indepth understanding of this methodology. The second objective is better explained using the quantitative method which will use surveys to understand which of the identified trust mechanisms significantly influence the e-commerce consumers. Table 4.1 illustrates the ontological, epistemological, and methodological view of realism as juxtaposed in this study.

**Table 4.1: Research Paradigm**

<b>Philosophical assumptions</b>	<b>Realism</b>	<b>Application of realism in the study</b>
<b>Ontology</b>	It claims that there is an objective reality.	Even though it may seem that trust is a subjective reality, the study brings to light that there is an objective reality of trust.
<b>Epistemology</b>	The knowledge of the reality is always distorted by our human subjectivity.	The study goes beyond our human subjectivity of what constitutes trust in the use of a Ghanaian e-commerce website to identify the objective antecedent of trust in the use of Ghanaian e-commerce websites.
<b>Methodology</b>	It involves the use of both qualitative and quantitative approaches in a study. A researcher chooses the methodology appropriate for the study.	This study adopted both qualitative and quantitative approaches to study the antecedents of trust in Ghanaian e-commerce websites

### **4.3 Qualitative Study**

As indicated earlier, the qualitative aspect of this study enabled the research objective of exploring the trust mechanisms that e-commerce firms institute in their websites to be answered. Following this approach the case study was deemed appropriate. According to Yin (1994, p.13) the case study method is “an empirical enquiry that investigates a contemporary phenomenon within its real life context especially when the boundaries between phenomenon and context are not clearly evident”. With reference to the second objective of this study (which trust mechanisms are used by Ghanaian e-commerce firms to institute trust) cannot be studied outside the organization and does not need to be manipulated but rather studied in its original context. Hence, the case study is deemed appropriate when questions such as “how” and “why” concerning a contemporary set of events are posed (Yin, 1994).

#### **4.3.1 Selecting the Case Firms**

The research population comprises e-commerce firms operating in Ghana. Within the selected firms, website developers of the e-commerce company and some executive departments that may provide relevant information to this study were interviewed. Hence, a number of e-commerce firms were contacted through formal letters provided by the Department of Operations and Management Information System (OMIS), personal visits, emails, website contact forms, and phone calls.

However, only two firms showed interest in participating in the study. These firms are Tisu.com and Zoobashop.com. These firms agreed to participate if only the results of the study were communicated back to them so they can know how best they can influence consumer trust.

#### **4.3.2 Development of Interview Questions**

Interviews were used as the data collection method. Both open-ended and close-ended questions were written down as a guide prior to the interview. This was done in order to avoid deviating

from the subject matter during the interview. In developing the interview guide the following issues were considered:

**Time** - two hours of conversation is a limit for most people. Besides, the respondents to be interviewed gave a time limit within which the interview should last since they need to resume work. In scheduling the interviews the average time dedicated for the interview was 1hour-30 minutes.

**Types of questions** - the questions were formulated to satisfy the objective of this study which was guided by the adopted framework of this study. Clarity of the questions was ensured so that they could easily be understood. See appendix A(i) for interview guideline.

#### **4.3.3 Data Collection Procedure**

Data was collected through the use of interviews. The interviews took place in the convenience of the interviewees' offices. In the case of zoobashop.com, the following people were interviewed: the general manager, the head of IT, a sales officer, and sales manager. First, there was a general interview with the sales manager and the head of IT to enable gain more insight into zoobashop.com operations. After, there was a lengthier and more detailed interview with the general manager.

At tisu.com there was one group interview with five people namely, an IT officer, the sales manager, a data analyst, a website designer/ developer and sales officer. There were other subsequent interviews which were one on one with the head of IT and the general manager.

In all a total of ten people were interviewed. Some studies tend to use respondents around this number (Shin, Chung, Oh, & Lee, 2013; Shi, Ling, & Chen, 2013). At this point, saturation had occurred. Saturation is the point where no major concepts are emerging.

The researcher conducted the various interviews with an interview guide prepared on the subject matter. There was, however, some fluidity in the questioning to allow more insight to be gained on the subject matter and to allow follow-up questions. Permission was sought from interview respondents so that a voice recording device could be used to capture all responses whilst writing down verbatim notes.

In addition to the interviews some artefacts observation were carried out where necessary. This involved a steady scrutiny of the various websites of the case firms. In some cases, their website was tested by completing transactions.

#### **4.3.4 Timeline for the Interview**

In general the collection of data for the qualitative study began on 26<sup>th</sup> May 2014 and was completed on 16<sup>th</sup> June 2014. Within this time frame, data was gathered from both case firms, namely Tisu.com and Zoobashop.com.

#### **4.3.5 Ethics for the Interview**

Some ethics were also adhered to during the interview. The case firms were given introductory letters from the departments of Operations and Management Information Systems (OMIS). The consent of interviewees was also sought before they were recorded and where they wished to speak off the recorder, they were allowed to do so.

#### **4.4 Analysis Technique**

The qualitative data was analyzed using thematic analysis. This is a qualitative research technique where the researcher makes notes and sorts the data into various categories according to identified themes (Miles & Huberman, 1994). The recorded interviews were transcribed, sorted, and classified according to the major themes of the questionnaire in a systematic and interactive manner. Clarifications were sought from the respondents on nagging issues after the transcription. The data was further categorized according to major themes that answered the research objectives which were guided by the TOE framework making it easy for comparison between the two case firms.

The study also did a cross case analysis to reveal the differences and similarities in the two case firms (Zooba.com and Tisu.com). Yin (1994), espoused that case studies give better explanation to “what” and “how” questions. In the case of this study the qualitative approach will enable us know which trust mechanism that Ghanaian e-commerce firms use to institute trust. Undertaking a cross case study helped the study to better generate explanation and comparisons as well as unearthing the differences and similarities between the two case firms (Miles & Huberman, 1994).

#### **4.5 Summary**

The purpose of this chapter was to provide detailed information concerning the research method used in this study. With regard to the research objectives, the study adopted the realist paradigm of conducting research. In lieu of this, the study used the mixed method approach which involves both the quantitative and qualitative approaches. On one hand, quantitative research is an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers and analysed with statistical procedures in order to determine whether the predictive generalizations of the theory hold true (Creswell, 1994). The approach is based on the premise

that, reality is objective and therefore can be measured using questionnaires (Creswell, 1994). On the other hand, qualitative research involves broadly stated questions about human experiences and realities, studied through sustained contact with people in their natural environments, generating rich, descriptive data that helps in understanding their experiences and attitudes (Rees, 1996). The choice of a mixed method was to enable the researcher the flexibility to examine the trust mechanisms instituted by Ghanaian e-commerce firms and to determine which of the trust mechanism influences consumer trust. How both method were used (from the collection of data to the analysis of the data) has been duly provided. The next section provides the context under which the study was conducted.

#### **4.6 Quantitative Study**

As mentioned earlier, a part of the objective was answered using a quantitative approach. Hence, in validating the hypotheses and the conceptual model, this study adopted a survey as an appropriate method. According to Creswell (2009), a “survey provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of the population”. Hair, Black, Babin, and Anderson (2010) also contend that it is appropriate to use surveys where the cause of a phenomenon is being studied. With reference to the objective of this study the “cause of the phenomenon” under study here is what influences consumers’ trust.

##### **4.6.1 Sampling Frame for the Survey**

As part of the objective of this research is to determine what trust mechanism influence Ghanaian e-commerce consumers, the sampling frame was based on internet users only. Some studies have established that access to the internet is an indicator for online shopping (Dutton, Gennaro, & Hargrave, 2005). The sampling frame was guided by the following since studies have proven that they are susceptible to have access to the internet hence most likely to engage in online shopping:

**The age of consumers:** A number of studies have established the ages that depict the majority of internet users are 18-44 years.

**Educational background-** Studies have shown that students form the majority of internet users hence are more probable likely to conduct transactions online.

#### **4.6.2 Sample Size for the Online Survey**

A sample is a small part of something intended as the representative of a whole. Sampling is that part of statistical practice concerned with the selection of an unbiased or random sub-set of individual observations within a population of individuals intended to yield some knowledge about the population of concern, especially for the purposes of making predictions based on the sample frame. The sample size for the survey was 307.

#### **4.6.3 Sampling Technique**

This study adopted a purposive sampling technique in the administration of the questionnaire, thus only people who engage in e-commerce transactions were included. The purposive sampling technique also known as judgment sampling is “the deliberate choice of an informant due to the qualities the informant possesses” (Tongco, 2007). Tongco (2007) argued that the inherent bias of this type of sampling has contributed to its efficiency; enabling it to stay robust even when tested against random probability sampling and can also be employed with both qualitative and quantitative techniques. Since, part of the objective of this study is to look at the mechanisms that influence Ghanaian e-commerce consumers, it was found necessary to collect information from some online consumers who may have at least made purchases from e-commerce websites.

#### 4.6.4 Development of Questionnaire

The questionnaires for the survey were designed based on the research model on the hypotheses established from the literature review in order to answer the research questions. To achieve this, each respondent was posed with a series of questions and asked to respond to it using the Likert Scale ranging from, 1 to 5 where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree. The table 4.2 below illustrates the hypotheses, constructs, and the number of questions under each construct. See appendix A(ii) for the complete list of questions.

**Table 4.2: Construct Measured in Questionnaire**

<b>Construct</b>	<b>No. of questions</b>
<b>Familiarity</b>	5
<b>Perceived reputation</b>	7
<b>System trust</b>	4
<b>Perceived risk</b>	5
<b>Information quality</b>	8
<b>Ease of understanding</b>	5
<b>Ease of finding</b>	5
<b>Disposition to trust</b>	5

The table 4.2 shows the constructs that were measured in the questionnaire. It also shows the number of questions that were asked under each construct.

#### 4.6.5 Pilot Test

The questionnaire was pilot tested after seeking the opinion of two IS researchers in Department of Operations and Management Information Systems who are knowledgeable within this field. This was done to ensure that the format, scale, and questions were appropriately constructed and clear according to the research objectives. Ambiguous and unclear questions were revised. Time

spent in filling a questionnaire was also considered since spending too much time in filling out questionnaire may irritate respondents.

Thirty (30) of the questionnaires were pretested between which positive feedbacks were received although some changes regarding the layout were effected for the proper survey. An average of five to nine minutes was spent in the completion of a questionnaire.

#### **4.6.6 Data Collection Procedure**

Data for the study was carefully collected in a systematic manner with the use of questionnaires. The researcher engaged the services of three assistants who were trained on the purpose of the study and how to deal with respondents on various responses in filling out the questionnaire. The assistants together with the researcher collected the data in the various clusters they selected. Any nuanced issue that arose was cleared and the respondents were aided in filling the questionnaire.

#### **4.6.7 Response Rate**

A total of 500 questionnaires were issued out of which 360 were received because some respondents opted to fill it later. However, efforts to recover the remaining proved futile. After close scrutiny 307 were considered for the analysis because 53 of the questionnaires returned were not acceptable for processing since they were defective. The sample size was good for data analysis since 72% of the administered questionnaires were retrieved (Malhotra & Birks, 2007) Questionnaires that were partially completed and those that were found to be filled by unauthorized persons (people outside the target group) as well as those that showed a lack of understanding of the questions were excluded from the analysis. The responses were edited at the end of each data collection to ensure some level of accuracy of the responses.

#### **4.6.8 Timeline for the Questionnaire**

The data collection started on 26<sup>th</sup> May 2014 and ended on 8<sup>th</sup> September 2014. A period of a week was given to see if some further questionnaires were to be returned.

#### **4.6.9 Data Analysis Instrument**

The data analysis instrument used was the statistical package for the social sciences (SPSS). This packaged enabled the detection of the associations and relationships that existed between subjects and variables (Vila & Kuster, 2011). The survey data was coded and entered in SPSS version 20.0, analysed and the outcome was presented in tables. Each of their contributions were measured accordingly to and each of the factors identified within the constructs in the research model.

#### **4.6.10 Analysis Technique**

Various levels of statistical analysis were achieved in the handling of the collected data. Firstly, the data was checked for errors, since mistakes can easily be made when entering the data. Errors can have a significant effects on the results. Observing Pallant's (2011) procedural way of checking for errors and data cleaning; scores of variables that were out of range were checked and corrected in the data file. Also, missing data were cross-checked and appropriately dealt with.

Secondly, the descriptive analysis was undertaken, which involved the characteristics of the sample such as the mean, standard deviation, range of scores, skewness and kurtosis; also any violation of assumptions underlying the chosen statistical technique was addressed.

This study used multivariate analysis technique. The techniques included, exploratory factor analysis which groups data into a conceptual factors in order to evaluate the construct validity for mechanisms known to influence consumer trust identified from the literature review (i.e. perceived risk, perceived reputation, perceived system trust, perceived information quality, familiarity,

perceived ease of understanding and ease of finding). Exploratory factor analysis checks for internal consistencies among the variables was used since the relationship between variables may be affected by their underlying factors due to some variables sharing a common cause (Hair *et al.*, 2010).

Multiple regression was done in order to validate the hypotheses that are established in the previous chapter (Malhotra & Birks, 2007). In relation to this study, trust is the only dependent variable while the independent variables are perceived risk, perceived reputation, perceived system trust, perceived information quality, familiarity, perceived ease of understanding, and ease of finding. Hence, this statistical technique can help understand how the dependent variable is better predicted by the stated independent variables.

#### **4.6.11 Ethics for the Survey Analysis (Observed Ethics)**

In the conduction of this research particular ethics were observed. Ethics are the codes and standard that you must abide by in the course of the research (Fisher, 2010). There is the need to protect research respondents from any harm that may arise (Creswell, 2009; Fisher, 2010). In lieu of this, permission was sought from the Department of Operations and Management Information Systems (OMIS). To ensure the protection of respondents, their names were not collected in the survey. Furthermore, respondents' concerns were also sought before the data was collected. The respondents were also assured with a writing on top of the questionnaire that the collected data was for academic purposes only. All these were duly adhered to by the researcher.

## **CHAPTER 5**

### **CONTEXT OF STUDY**

#### **5.1 Introduction**

The previous chapter discussed the methodological issues with regard to this study; focusing on the appropriate research paradigm and its associated principles that needs to be abided by in terms of the research design and data collection methods. As indicated earlier, the study is about determining the antecedents of trust on Ghanaian e-commerce websites. The purpose of this chapter is to provide an overview of e-commerce in Ghana as well as a brief background of the chosen case e-commerce firms.

#### **5.2 Internet Penetration in Ghana**

Ghana was amongst the first countries in Africa to achieve internet connectivity. In the year 2000, there were 30000 internet users in Ghana, which constituted 0.2% of the population at the time (internet world stats). By 2009, the number of internet users had increased to 4.2% of the population.

At the end of 2014, internet usage had increased to 14,254,407 users, representing 40.7% of total population with a steady growth rate of about 9% (NCA, 2015). Mobile phone usage and improved technological infrastructure were the main drivers of this growth in internet penetration.

In 2012, 6.4% of the internet users were on Facebook. The growth of social media as a means of communication also contributed to an increase in internet penetration in Ghana. In 2013, mobile internet penetration increased by 2.1%. This put overall internet penetration in Ghana over 40%, which is well above the African average of 19%.

Over 40% of Ghanaians depend on the internet for one thing or another. According to Calandro (2012), 2.75% of households in Ghana were connected to the internet whilst over 60% of Ghanaians owned a mobile most of which had internet access. Most Ghanaians had access to the internet via mobile than those with household connections. The steady increase in penetration has also been accompanied by increased broadband speeds, in 2013; the average broadband download speed in Ghana was 6.43mps, very far below global average, but one of the highest in Africa.

Internet penetration is expected to continue to rise because of the increasing relevance of the internet to Ghanaians for the use in commerce, entertainment, information, and communication

### **5.3 Overview of E-commerce in Ghana**

According to Ghana's Minister for Communication it is expected that internet usage will expand, especially with the increased capacity for the deployment of 4th Generation applications due to the massive investment by government in broadband infrastructure (Fleisher, 2013). In anticipation of this, the Government of Ghana (GoG) in partnership with the internet community is supporting the development of critical internet infrastructure by arranging for the supply of three additional switches for Internet Exchange Points and a Root Name Server. This is to improve internet traffic, reduce its costs, promote local content development, and, above all, reinforce its security to make it secure and safe for users (Myjoyonline, 2013).

In promoting electronic commerce in Ghana, the GoG had, on its own, commenced the introduction of a set of e-services for web content management, e-forms and document work flow; and had developed online payments (on a pilot basis) as a shared service for 10 ministries, departments and agencies (MDAs), namely: the Passport Office, Driver and Vehicle Licensing Authority (DVLA); Food and Drugs Authority (FDA); Ghana Tourist Authority (GTA); Criminal Investigations Department (CID) of the Ghana Police Service; Births and Deaths Registry; Accra

Metropolitan Assembly; National Identification Authority (NIA); National Communications Authority (NCA) and the Minerals Commission (Fleisher, 2013). To encourage the adoption of e-commerce the first ever Ghana e-commerce Expo was opened in Accra on 29<sup>th</sup> and 30<sup>th</sup> August 2013. The Expo exhibited the information and communication technology tools which can be used to enhance business transactions according to Dr. Omane-Boamah the e-commerce Expo is a welcome development in the promotion of ICT for the nation's development, in that, it brings out the valued responses to the numerous initiatives that Government is putting in place to transform the economy and country from an agrarian raw-material-dominated production-base into a forward-looking, information and knowledge-based society that holds the key to eventual prosperity (Myjoyonline, 2013).

To complement the campaign for e-commerce adoption in Ghana e-payment platforms are being developed. During the Ghana e-commerce expo, Ghana's Minister for Communication commented that a pilot e-payments/e-commerce platform had been developed as a shared service for 12 selected MDAs and the initial tests on functionality had been positive while the Controller and Accountants General's Department had been approached to initiate procedures for the opening of pool accounts for the processing of Visa and e-transact payments (Fleisher, 2013). Furthermore, the Ghana E-Payment Platform (GEPP) had also been developed as a feature-rich processing solution to be integrated with government's National e-Services Portal (e-Services.gov.gh).

Aside from the government's effort in promoting e-commerce, there are other private companies that have used e-commerce platforms to sell products and services to people in and out of Ghana. Some of these include Tonaton.com, Tisu.com, and Zoobashop.com. Subsequent sections of this chapter elaborate on the various e-commerce websites used as the case studies for this research.

#### **5.4 Tisu.com.gh**

Tisu.com is a local website that gives daily deals and discounts for the finest goods and services within Accra and its environs. Tisu.com is owned by Ringier Ghana. Ringier AG is a Swiss multimedia organization with over 175 years of history which has offices in 13 countries around the world. Their head office is located in Zurich. Some of the countries where their offices are located include Germany, Hungary, Romania, Serbia, Slovakia, Czech Republic, China, Vietnam, Kenya, Nigeria, and Ghana.

It provides customers an uncomplicated and exciting means of getting massive discounts and at the same time discovering the latest places within Accra. The website is updated every day with unbeatable prices and valuable local experiences on entertainment, electronics, spas, restaurants, and travel.

Tisu.com features a single offer to drive hundreds and thousands of customers to a business on a daily basis. It uses the creativity and experience of its business developers to help design an offer tailored to meet the needs of businesses. Businesses that advertise on the website are not charged anything. However, a commission is taken on every deal they are able to sell. This makes Tisu.com risk free. When a business is featured on a particular day, thousands of their subscribers receive deals in their inboxes, read about the business, and buy the deal with a few easy clicks. Tisu.com uses a principle of collective buying which requires a minimum number of buyers or the deal is off. The minimum is achieved when their savvy customers use social media tools like Facebook, email, twitter, and SMS to spread information about deals. As a result featured businesses gain exposure and trend. Checks are sent to the featured businesses a day after the deals are closed and they are provided with easy to use tools to help them track customers as they redeem their deals.

### 5.5 Zoobashop.com

Zoobashop.com is another online retail store in Ghana which strives to deliver the best value deals on a wide variety of products. Products on sale are categorized into computers & electronics; mobile phones; home decor and appliances; fashion; food and drinks; baby, kids and toys; books, movies and games; and health and beauty. They try to make the search for products free from hassle on their website. One will just have to type the product they are searching for into a search box and various kinds of that product along with varying prices will be displayed in the window.

In order to provide customers a wide range of products to choose from, Zoobashop.com has also partnered with some of the world's most outstanding brands including Apple, Blackberry, Colgate, Samsung, and Beko.

Furthermore, Zoobashop.com also allows various payment options which include debit and credit cards (Visa and MasterCard branded ATM cards), cash on delivery among others. They also deliver to the doorstep of customers by providing various delivery options.

Customers can browse the extensive range of products in their online store, and when they find the products they are interested in, they go through the following simple steps:

- Click Add to Cart so that they can put the items they want in their shopping cart.
- Pay for their order conveniently by credit or debit card, by bank deposit, via mobile money or even pay on delivery.
- The orders are delivered to the homes or offices of customers.

Businesses whose products are listed on Zoobashop.com grow their customer base instantly because they get access to thousands of customers who visit the website. Marketing of items are

done through social and traditional media platforms such as Facebook, WhatsApp, radio, and newspaper among others. There are no recurring fees, which means once an agreement is signed, businesses do not incur additional charges for listing new products or any transactional fees. For a business to be listed on Zoobashop.com, it must be legally registered in Ghana and must be able to guarantee stable and reliable supply of items.

## **5.6 Summary**

This chapter presents the nature of ecommerce as well as internet experiences in the country of study namely Ghana. It further presented the two case firms that were used in the study. The various products and services offered by these firms were duly discussed. This chapter was done in order to give more insights into the context under which the study took place. The next chapter presents the qualitative study and hence the case study.

## CHAPTER 6

### QUALITATIVE RESEARCH FINDINGS

#### 6.1 Introduction

The previous chapter discussed the context of the research study. This chapter presents the background of the two case study firms and follows with a vivid discussion of the findings. The main purpose of this chapter as well as this research approach is to help build up the answer to one of the research objectives that seek to investigate the trust mechanism Ghanaian e-commerce firms institute in their websites. In view of this, top management of both case study firms were interviewed. The subsequent sections of this chapter present the cases and their findings.

#### 6.2 Case Findings

One of the main objective of this study was to determine the mechanisms through which Ghanaian e-commerce firms build trust. To get answers to this question, two e-commerce firms were visited and their managers along with their head of IT were interviewed. The study used thematic analysis in determining the mechanisms through which Ghanaian e-commerce firms build trust (Braun & Clarke, 2006). An iterative review process of the coding and themes was then undertaken to ensure the accuracy and consistency of the analysis. Illustrative quotations to support the analysis and results were also identified during this process. Finally, the findings of the case study were linked to existing studies and the conceptual framework of this study.

#### 6.3 The Case of Zoobashop.com

##### 6.3.1 Zoobashop.com E-commerce Services

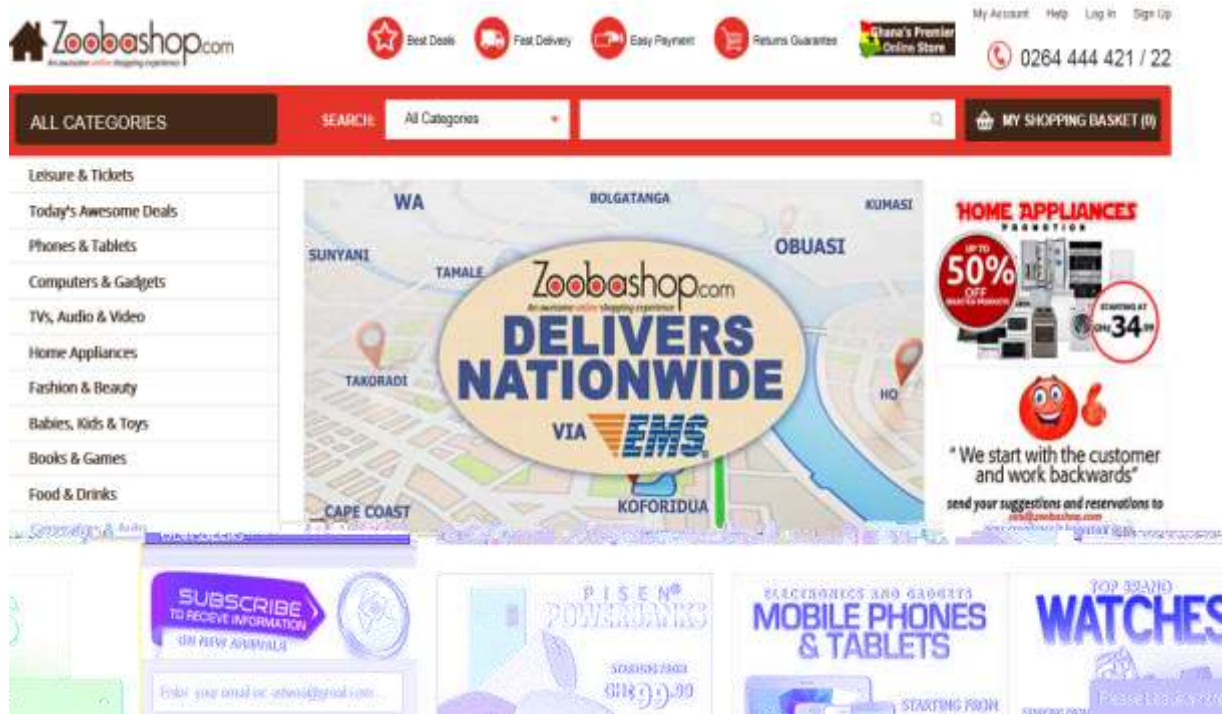
Zoobashop, a 100% Ghanaian owned pioneering online retailer is the kind of new, resolute, exploratory venture that people love to be inquisitive about. Established in December 2013, it is opportunely riding the wave of a new government initiative to incorporate the country into the

digital age (local entrepreneurs have set rolling 4G LTE technologies, since past two years, after obtaining exclusive certifications to set out the innovative technology for high-speed data for mobile phones and data terminals).

The Founder & CEO of zoobashop.com an online retail store. Albert Biga is a technology activist and ICT Business entrepreneur. He has over 18 years of professional training spanning software design & implementation & business process automation. Zoobashop came into being when he wanted to be different from the already existing e-commerce trade hubs in Ghana, hence the idea Zoobashop. There is the market place and there is the online retail trade. The marketplace is like eBay or Tonaton.com, where basically a technology company puts up a platform that allows people to do the business but are, themselves, not directly involved in it. The retail model, however, is just like a brick-and-mortar store; transacting directly with customers and suppliers directly like the Kingsway or A-Life of old. The difference is, Zoobashop is online.”

Zoobashop actually has two ultramodern warehouses within its purpose-built Head Office building, where they hold stock of items, take online orders, and deliver their services from. With the aim of becoming the leading e-commerce brand in West Africa, Zoobashop.com has aligned themselves with some of the world’s exclusive brands, including Apple, Blackberry, Samsung, Colgate, Paco Rabane, and Beko to offer shoppers over 3000 products to choose from. Products and services range from computers and electronics, mobile phones and tablets, world-class wines and spirits, to merchandise for babies and toddlers and fashion accessories for women.

**Figure 6.1: Screenshot of Homepage of Zoobashop.com**



Source: Zoobashop.com website

### 6.3.2 Importance of Trust

The importance of trust to zoobashop.com cannot be over emphasized. Zoobashop.com believes that their customer base can grow only when they win the trust of both their customers and prospective online consumers.

Mr. Aguda, one of the interviewees is the general manager of Zoobashop.com. He holds a degree in Business Administration. The general manager expressed:

*“...hmm, trust is when both your customers and prospective buyers believe in your ability to deliver to them exactly what they need without any exploitation. And it is very important because, when your customers believe in you, the more they buy from you. For instance, first timers begin making small purchases to test us, after they start making bigger purchases”.*

### **6.3.3 Reputation and Assurance of Guarantees /Warranties as Trust Mechanism**

There was a clear observation that zooba.com is intending to create a good reputation. In doing this, they have adopted some strategies, namely, a warranty and goods-returns policy. According to the sales manager of zooba.com, items covered by warranties can be returned within a specified period if any problem is noticed. Zoobashop.com always makes sure to honor warranties. He expressed that:

*“We have negotiations with manufacturers to honor warranties. Under warranty we either replace or fix an item for you based on our own discretion.”*

The company also practices a goods-returns policy. That is, a customer can return a paid item after he or she is no more interested in the product for his money, however, some terms and conditions apply. Goods sold can be returned within two weeks of purchase provided it is in a good condition. In cases where the customer wants to return the item after two weeks it is possible, but the customer will have to pay a twenty-five percent (25%) restocking fee.

*“Even after seven days and the product returned are in good conditions we will take 25% restocking fee and then we take the item from you. For instance, if you buy an item for GH100 and you return it within two weeks; we take the item from you and give you back your money which is GH75. And we communicate it clearly for customers to understand. Besides, every item we sell includes a printed warranty form which explains all these terms and conditions”.*

### **6.3.4 Recommender Systems**

The company recommends products to customers based on previous purchasing history. This is done through subscription of emails or periodic newsletters. The intention behind recommending products is to provide customized information to customers in order to influence their trust. The

newsletters sent periodically contain information on prices of products as well as new products in stock. The head of IT shared:

*“Sometimes people don’t even know they want a product until you recommend something for them based on something they just bought or in the past. For example, we recommend various phone accessories when somebody buys a phone.”*

**Figure 6.2: Screenshot of Zoobashop.com Recommender System**



**Source: Zoobashop.com website**

### **6.3.5 Social Presence**

The company has subscribed to social media application such as Facebook.com, Twitter, and Google Plus to create a social presence. This allows them to constantly interact with their customers. New products are sometimes displayed on their Facebook page and Twitter account. People have the chance to like the pages or make comments. The general manager explained:

*“This provides some form of feedback to us about what people think of our product. We take their comments seriously because this is a network where everybody knows somebody; so any bad name and our business is down.”*

**Figure 6.3: Screenshot of Social Presence Applications by Zoobashop.com**



**Source: Zoobashop.com website**

### **6.3.6 Policies**

Zoobashop.com assures its customers of keeping their information safe through a privacy policy they display on the website. It is made available for everyone who visits the web site to read it. This assures the customers that their personal information is safe. The general manager of Zoobashop.com opined:

*“We tell our customers that information is safe with us and that we don’t have any motive to peddle their information because our reputation is more valuable to us”.*

To ensure that this privacy policy is enforced, the company has an in house policy that requires staff to keep information concerning customers safe. Staff can release information only with the concern of the customer. The general manager shared:

*“We do our best in-house for the staff to understand that whatever information you take from a customer is supposed to be private and as a matter of policy we don’t share information without*

*the concern of the person. So strict policy is what we enforce in-house as one way to ensure privacy policy. The other one is we demonstrate our trustworthiness”.*

In terms of the security of consumers from hackers, and spoofing among others, Zoobashop.com uses modern technologies to encrypt sensitive information in order to prevent unauthorized access. One such technology they used is the secured socket layer (SSL). Their database holding this sensitive information has been outsourced to a company outside the country. The head of IT claimed:

*“Our database is hosted outside the country and the providers give us assurances that our data is secured with them. These are well known industry players so when they tell us something, we take their word for it”.*

**Figure 6.4: Screen Shot of Privacy Policy of Zoobashop.com**

## **Privacy Policy**

Thank you for accessing the Zoobashop.com website ("Site"). We respect your privacy and want to protect your personal information. To learn more, please read this Privacy Policy. This Privacy Policy explains how we collect, use and (under certain conditions) disclose your personal information. This Privacy Policy also explains the steps we have taken to secure your personal information. Finally, this Privacy Policy explains your options regarding the collection, use and disclosure of your personal information. By visiting the Site directly or through another site, you accept the practices described in this Policy. Data protection is a matter of trust and your privacy is important to us. We shall therefore only use your name and other information which relates to you in the manner set out in this Privacy Policy. We will only collect information where it is necessary for us to do so and we will only collect information if it is relevant to our dealings with you. We will only keep your information for as long as we are either required to by law or as is relevant for the purposes for which it was collected. You can visit the Site and browse without having to provide personal details. During your visit to the Site you remain anonymous and at no time can we identify you

**Source: Zoobashop.com website**

### 6.3.7 Third parties/Intermediaries

Zooba.com is also in partnership with some financial institutions to enable flexible payment options. Some of these institutions are banks such as UT bank, Stanbic Bank, Visa, Pay pal, and iwallet just to mention a few. These institutions serve as avenues for flexible payment options, they influence the trust people have that they are dealing with a genuine e-commerce site. This is because institutions undertake their own investigation before allowing an entity to use them as an avenue for payment for transactions. The sales manager explained that:

*“We have liaised with some of the banks and they have given us POS terminals when you buy from us using VISA we do the deductions. So if you buy from us and you want to use your VISA card, you can just select VISA card at payment options...I don’t know if you have heard about iwallet? We use them as well as a payment gateway”.*

**Figure 6.5: Third Party Alliance by Zoobashop.com**



**Source: Zoobashop.com website**

### 6.3.8 Offline Presence

Zoobashop.com tries to win the trust of people by making themselves visible to the general public even though they are operating online. They do this through radio, newspaper, television adverts, and Stars. They also have cars and trucks that they use for delivery of items bought. The sales manager of zoobashop.com expressed:

*“We make ourselves visible because people think we are just some back room operators. When people come and they see our warehouses and offices, it builds their trust. It is also obvious that we have invested in this our delivery fleet, so when you see our trucks, cars, pickups, bikes and all those things, it gives you some level of comfort and that anybody who has invested in this with so much money in operations is serious”.*

Furthermore, the company uses a sales ambassador who is a star in the Ghanaian movie industry to influence the trust of people. The sales ambassador’s picture is placed on a bill board using zoobashop.com. There is also TV, radio, and newspaper adverts on the sales ambassador promoting zoobashop.com. According to zoobashop.com stars serve as role models to the majority of people and therefore are influenced by them. Using persons as sales ambassadors enables them to gain acceptance. The sales manager further explained:

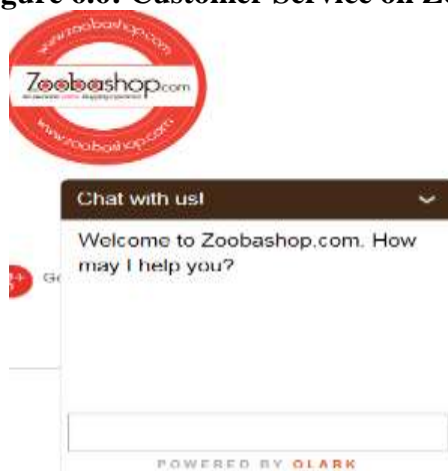
*“That is why we even have an ambassador John Dumelo to gain acceptance. Using such a person means all the ladies are covered. All the females will listen to what he says”.*

Additionally, the company has an office which is accessible to the general public. The head office of the company is located in Dzorwulu and is opened to anyone for enquiries. Moreover, the company has set up a customer service for its customers. The customer service can be reached

either directly through the website or a phone number provided on the website. The general manager shared:

*“We have a customer service which is reachable 24/7 to address customers’ concerns”.*

**Figure 6.6: Customer Service on Zoobashop.com**



**Source: Zoobashop.com website**

### **6.3.9 Information Accuracy**

Zooba.com is also keen on ensuring that information displayed on their website is accurate. In doing this, they constantly check through the database to review products information. According to the head of IT:

*“We own the information so it’s up to us to ensure that whatever we put on our website is accurate. We have a full team who on a constant basis are checking through the database, in terms of pricing and descriptions to ensure accuracy”.*

### **6.3.10 Challenges**

Zooba.com being relatively new in the system faces some challenges. One challenge is incomplete orders by customers. Some customers make orders until the point of payment and delivery and will just back out of the deal. A sales officer shared:

*“Some lead you on to the last minute and then they say they are not going to buy again. We had instances where our dispatch drivers get to the point of delivery and the customer won’t pick up his phone. A number of painful occasions, dispatch drivers come back without delivering the good because the customer refused to pick up. Only for the customer to call back that he is still waiting for the goods”.*

Another challenge facing zooba.com is an instance where one of their bikes got stolen. The sales manager shared this sentimentally:

*“We also experienced one incidence where one of our bikes was stolen from the premises. We insure against these things but have difficulty in claims of insurance in this country. The motor bike has been two months since it was stolen yet we still haven’t received any claim.*

He went ahead to narrate a similar incidence that happened to a sister company. He claimed

*“This didn’t happen to us but it did to a sister company so we are using it as a precaution. Somebody placed an order, a very small item, the dispatch rider got there, called the person and the person asked him to come upstairs, which was an uncompleted building. The rider went upstairs and started calling the customer but the customer’s phone was off, he came back down stairs and realized that his motor bike had been stolen”.*

Another challenge is that these forms of transactions have not been fully accepted since people don’t really trust them. He opined that:

*“Generally, the acceptance is a gradual process. It is not really main stream now people are still hesitating and are not sure but the awareness is being made. People test with small items and when they gain the trust they place larger orders. It is not very rosy but we are on the right path”.*

## **6.4 The Case of Tisu.com**

### **6.4.1 Tisu.com E-commerce Services**

Ringier Ghana is the parent company of Tisu.com.gh. Ringier AG is a Swiss multimedia organization with offices in 13 countries around the world. Ringier AG is a family-owned Swiss media company with over 175 years of history. It is the largest media corporation in Switzerland. With its head office based out of Zurich, Ringier AG has expanded in the last two decades to include offices in Germany, Hungary, Romania, Serbia, Slovakia, Czech Republic, China, Vietnam, Kenya, Nigeria and Ghana. Ringier Ghana, established was 2011 to be the hub serving the West African expansion bringing quality digital products to the sub-region. Ringier Ghana have established three portfolios namely, Tisu.com, pulse.com and allsports.com.

Tisu.com.gh is an online e-commerce trade hub established in July 2013 with the objective of bringing brands and services to Ghana's underserved consumers. In a market with low supermarket penetration, Tisu.com.gh has become the source for quality deals and brands. Tisu.com.gh which currently serves Accra, plans to expand into other regions over the coming months. Products and services range from Restaurants reservations, computers and electronics, mobile phones and tablets, wines and spirits, to range of accessories for babies and toddlers and fashion accessories for men and women, etc.

Tisu.com is a local website that gives daily deals and discounts for the finest goods and services within Accra and its environs. It provides customers an uncomplicated and exciting means of getting massive discounts and at the same time discovering the latest places within Accra. The website is updated every day with unbeatable prices and valuable local experiences on entertainment, electronics, spas, restaurants, and travel. Businesses that advertise on the website

are not charged anything. However, a commission is taken on every deal they are able to sell.

Tisu.com uses a principle of collective buying which requires a minimum number of buyers.

An approach to Ringier Ghana to interview them about Tisu.com, I was directed to see Mr. Nicholas Abanga and Milade. Mr. Abanga was expected to give me answers related to the daily running of Tisu.com while Milade was supposed to give answers involving the technical aspects of Tisu.com Mr. Nicholas Abanga is the sales manager of Ringier Ghana. He possesses a degree in Political Science and Religion. Milade is the head of IT department and holds a degree in Information Technology. In addition, there were interview sections with an IT officer, a data analyst, a website designer/ developer and sales officer.

**Figure 6.7: Screenshot of Tisu.com Homepage**



**Source: Tisu.com website**

### 6.4.2 Importance of Trust

Findings from the interview with Tisu.com indicated that trust was important to them. According to them, without trust, hardly will a website be used to complete transactions. The sales manager explained:

*“Trust is fulfilling the demand of the customer. It is important because without the trust of your consumers, your website will hardly be used as a medium to purchase products since your customers can’t be sure of what they are buying. Moreover, you are aware about the rate of ‘Sakawa’ (internet fraud) in this country so you see it’s a challenge”.*

### 6.4.3 Reputation

To build a good reputation, Tisu.com associates themselves with already established brand. With electronics they have associated their name with established brands such as Samsung, Apple, Blackberry, Colgate, and Beko among others. They believed that these brands have earned their reputation already. Hence, by association with these brands people will know they are genuine thereby influencing the people’s trust towards them. The sales manager of Tisu.com explained

*“We associate ourselves with the big people, the acclaimed brand, so we don’t even get issues where a product will be returned because it not genuine. It is rare. So people tend to trust that we offering them genuine products”.*

Also, in building a good reputation, they offer free delivery of goods. However, it is only within the areas of Accra and Tema. People who buy from other regions and cities pay for their own delivery through a medium of their choice. The sales manager recollected:

*“Somebody ordered pizza from Kumasi and asked us to send it through Antrax Airline.”*

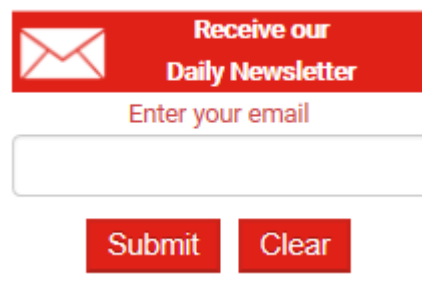
The company however, did not have any reputation system in place on the company's website. This would have enabled customers to rate Tisu.com after transactions. The ratings of these past customers would then be available to other prospective customers for decision making; that is, whether or not to engage in transactions with Tisu.com.

#### 6.4.4 Recommender Systems

Tisu.com also recommends products to their customers. The company believes that when they recommend products to their customers, the customers will trust their judgments and make purchases. The company does this by sending customized emails to their customers based on their previous purchasing history. Customers can also subscribe to newsletters which are sent periodically concerning new products, promotions, and reduced products. The head of IT shared:

*"We recommend products by emails. You can also subscribe to our newsletters' which contains new products, promotions, or sometimes reduced prices of some products".*

**Figure 6.8: Screenshot of Tisu.com Recommender System**



The image shows a web form for signing up for a newsletter. At the top, there is a red rectangular button with a white envelope icon on the left and the text "Receive our Daily Newsletter" in white. Below this button, the text "Enter your email" is displayed in a light red color. Underneath the text is a white rectangular input field with a thin grey border. At the bottom of the form, there are two red rectangular buttons: "Submit" on the left and "Clear" on the right, both in white text.

**Source: Tisu.com website**

#### 6.4.5 Social Presence

Tisu.com also relies on social presence to influence the trust of both their customers and potential customers. According to Tisu.com, they use social media applications to create that social presence

by interacting with its customers. The company has a Facebook page and Twitter account to maintain these interactions. Products are sometimes displayed on these social applications and customers have the chance to like the product or make comments on the product.

According to Tisu.com, social presence enables you to see comments of people which can change people's perception about you especially when people make positive comments about you.

*“If you do some small research, you find out this is true. You find out that say, if you have ten websites with 8 being fake and 2 being genuine, chances are that, they don't have a good social presence and scanty contact details. But, the ones that really stand out, you will know they are serious”*; the head of IT educates.

#### **6.4.6 Policies**

Tisu.com assures its customer base of how safe their information is with them. They have a comprehensive privacy policy stating what they do with collected data and assure customers that their data will not be given to a third- party without their concern. The head of IT confirmed:

*“We cannot clearly demonstrate but we can assure that we follow industry accepted ways and regulatory bodies actually monitor what we do”*.

By ensuring the security of a customer's personal information, they avoid the collection of information from users (just what they need). Most of the time what they need is the customer's name and e-mail address. According to head of IT of Tisu.com, instead of finding best practices and to try and encrypt the data, they avoid its collection so that they don't have any issues with its management. They also use the SSL to encrypt data that is entered on their web site before it even enters their database. He intimates

*“We try to minimize data collection but the ones we collect we encrypt and protect as much as possible”.*

#### **6.4.7 Third Parties/ Intermediaries**

In demonstrating how genuine they are on their website, they exhibit their affiliation with M-power which is an e-payment gateway. M-power is an internationally verified payment gateway. According to sales manager, affiliation with M-power does not raise any questions about credibility.

*“It is all about affiliation in business. You need to affiliate with the right partners”.*

Tisu.com also uses third-parties for their payment gates. The payment gateways used include Airtel money, Tigo cash, MTN mobile money, and M-power which involves VISA, debit card, etc. It sometimes breaks the flow of the website, like usability of the website but it is really safer because you are dealing with two organizations.

*“You need to make sure you pay through a third-party. Like what we do here we use m-power, you go through them, and then you come back to the website. But when you trust them, then you can trust us as well. Fake websites will ask you to put your credit card details on the websites”.*

**Figure 6.9: Third Party Alliance by Tisu.com**

**Source: Tisu.com website**

#### **6.4.8 Offline Presence**

Tisu.com tries to influence the trust of people by having an offline presence. The company does this through marketing campaigns, that is, mainly through newspaper, TV and the radio adverts. According to the manager of Tisu.com, people tend to trust you when you publicly make yourself known. The sales manager explained:

*“Hardly will a fraudulent company waste money on advertisements or to publicly avail itself”.*

The company makes itself visible through allowing people into their offices to see what they really do. They try as much as possible to offer real satisfactory services so that, the customers can relay the information to others. An IT officer chipped in:

*“It will be really good if local regulatory bodies start issuing seals of approval that can be displayed on the website. But, we don’t have that. So we make people aware of our business and aware of the people we serve”.*

#### **6.4.9 Assurance of Guarantee/Warranties**

The company gives guarantee on products that are sold based on conditions.

Customers who are not satisfied with a product can return the product within seven days of purchase for a replacement. The general manager explained:

*“We put your satisfaction and security first. Therefore, you will be glad to know that we take time to carefully select the businesses we feature on Tisu.com and test the products we offer to ensure you have the best possible experience and enjoy quality time”.*

Furthermore, the company has set up the buyer protection to refund a customer’s money when a problem occurs during the transaction and hence the customer does not wish to continue with the transaction.

*“If you have bought anything on Tisu.com and something does get in the way of you receiving the experience you paid for, we have set up the Buyer Protection to ensure the issues are resolved or your money is fully refunded”.* The general manager educates.

**Figure 6.10: Screenshot of Tisu.com Guarantee**



**Source: Tisu.com website**

#### **6.4.10 Information Accuracy**

Tisu.com ensures accuracy of information by keeping strict track of their merchants who are currently over five hundred (500) people in number. They have a database where they keep information on their merchants. This involves the names of the merchants, the product(s)/service(s), their telephone number, their place of location and the dues they are required to pay. No individual can post products on their platform without them passing through the necessary checks. The head of IT explained:

*“What you do if you want to come to our platform is to call us. We will send somebody to come talk to you. The person will take your details, your products then passes quality control before we allow you on our platform”*

Tisu.com has also made it a part of them to avoid customers coming into contact with the merchants. Hence, a customer team has been set aside to help customers with problem they have as a result of the purchases they make. The sales manager stated:

*“So if you buy a product that is damaged or something, you bring it to us and will change it.”*

#### **6.4.11 Challenges**

Tisu.com like Zoobashop.com also faces a number of challenges.

Initially when Tisu.com was started, they were getting complains about ease of use of the website because one will need to go through a lot of process to complete an order, however, this has been simplified. The problem customers face now is how to use a payment system. The website designer/developer opined that:

*“The complaint we receive these days is how they can use the payment systems but we take them through the process and then educate them.”*

Most people did not understand the nature of the business Tisu.com operates. The data analyst of tisu.com reported:

*“The market doesn't really understand the nature of our business. Getting somebody to buy from you with discounts and commissions is really difficult; so we are still in the education phase”*

Also, the fact that most of the items are not produced in Ghana leaves the cedi at the mercy of the dollar. Prices can change quickly even after orders have been made, causing an unstable display of prices on their web-site.

Furthermore, because of the poor street addresses in Ghana, locating delivery points of customers is very challenging especially with places where the names of street are either not available or not known. This causes dispatch riders to sometimes return without delivering a product because a customer was not located.

Moreover, people find it difficult to trust Tisu.com because of the prevalent rate of internet fraud in Ghana. And, also because of how cheap their products are. A sales officer shared:

*“If your products are cheap, it means it fake. So what some people do is to buy the cheapest thing on the platform to test the waters and when he builds the trust, the person becomes your e-customer”*

## 6.5 Similarities/Differences in the Cases

In this section of the case study analysis, data collected from the two e-commerce organizations is crossed analyzed. Cross case analysis means, analyzing data from the selected cases to look out for similarities and differences in order to draw conclusions. The table below illustrates the similarities and differences in the cases.

**Table 6.1: Similarities / Differences with Case Studies**

<b>Organization/ Identified themes</b>	<b>Zoobashop.com</b>	<b>Tisu.com</b>
<b>Reputation</b>	Gives Guarantees	Association with already established brands.
	Free delivery Pictures taken are close representation of what is being sold	Free delivery Excellent provision of services

<b>Recommender Systems</b>	Products are recommended through subscribed e-mails and periodic newsletters	Products are recommended through subscribed e-mails and periodic newsletters.
<b>Social Presence Application</b>	Social Presence through Facebook, Google plus, and Twitter	Social Presence through Facebook and Twitter
<b>Offline Presence</b>	Makes our office reachable Our customer care is available 24/7 Label our cars and trucks so it is visible to the general public Use an established icon for sales ambassador	Our office is open to our customers Customer care
<b>Product Guarantee/Warranty</b>	Honoring of warranties Goods return policy	Honoring of warranties/warranties
<b>Policy</b>	Displays privacy policy online	Displays privacy policy online
	Liaise with authorized payment gateways	
<b>Information Quality</b>	Constant review of database	Strict track of merchants information
	Take and exhibit close/clear photos to give a true representation of items	
	Constant review of database	
<b>Third-Party Alliance</b>	Partnership with payment gateways	Partnership with payment gateways
<b>Ensuring Security</b>	Use of modern encryption technology Outsourcing of database	Use of encryption
	Strict in-house policy governing the use of customers data	Avoid collection of customers information
<b>Ease of Use of Website</b>	No complaints from customers	Initially there were complaints but resolved now
	Request for assistance by customers	Request for assistance by customers
	Some customers prefer to place orders through the phone	
<b>Trust and its Impact</b>	Ability to deliver to customers	Fulfilling the demands of customers
	Small purchases from the beginning until trust is formed	Small purchases from the beginning until trust is formed

From table 6.1, it is evident that the two case firms are careful in building a good reputation. While zoobashop.com is using product guarantees and displayed pictures of close representation of the products to build a good reputation, tisu.com associates itself with established brands and excellent

provision of services to builds its reputation. However, they both adopted the strategy of free delivery as well in building a good reputation. Both case firms were also using recommender systems through subscribed emails and periodic newsletter. In terms of offline presence, zoobashop.com and tisu.com make their offices reachable at all times and provide a customer service which is available 24/7. In addition, zoobashop.com makes a point to label their vehicles and use established icons as sale ambassador.

The two case firms were also honoring product warranties/guarantees with zoobashop.com going a step further to honor a good's returns policy. The case firms were also instituting trust through displayed privacy policy and third-party alliance with payment gateways.

## **6.6 Discussion of Case Findings**

The previous section presented the case findings of the study based on identified themes guided by the theoretical framework. This section discusses the findings of the case in relation to other related studies.

### **6.6.1 The Importance of Trust**

It was identified from the case study that trust was essential in e-commerce transactions. This is why some customers seem to test the system by making little orders and as their expectations are met, they now make purchases that are more substantial. This is consistent with other studies that have acknowledged the importance of trust in e-commerce (El Said & Galal-Edeen, 2009; Kim & Benbasat, 2010; Al rawabdeh, Zeglat, & Alzawahreh, 2012). These two firms were aware of the impact of trust to their operations. However, their understanding of trust was limited. In both cases, their definition of trust only meant the ability of meeting customer demands but the definition of trust goes way beyond that. Trustworthiness of e-commerce firms are a set of beliefs regarding the ability, integrity, and benevolence of an online merchant (Kim & Benbasat, 2010). If a customer

perceives an e-vendor's ability, benevolence, and integrity to be sufficient, the customer will develop trust (an intention to accept vulnerability) toward the e-vendor (Kim *et al.*, 2008). Understanding what trust is and what it involves will enable e-vendors to take the right steps in enhancing their trustworthiness which will increase their customer base.

*Lesson 1: Trust is essential for e-commerce transaction*

### **6.6.2 Reputation of Firm**

Reputation as seen in earlier studies are known to be an antecedent of trust especially in the case of online initial trust (Yoon, 2002; Koufaris & Hampton-Sosa, 2004; Chen & Barnes, 2007). It has been established that a company with a positive reputation responds to consumers' concerns about products or services (Pennington *et al.*, 2003). From both case studies, the two e-commerce firms were seen to be concerned about building their reputations. They were doing it through free delivery and association with already established product brands such as Samsung, Beko, and LG, among others which are avenues of building a good reputation. According to Durkan *et al.* (2003), online vendors can use well-known brand names in the "physical world" to stimulate trust on their web sites. The use of a brand name will increase online consumers' confidence to transact business online without fear of giving personal information knowing that the other party can be trusted confirming what Tisu.com and Zoobashop.com are doing to past studies.

More recently, reputation systems are now being incorporated in the design of websites to encourage trust (Jøsang *et al.*, 2007). However, this system was not used by either of the e-commerce organizations. The idea behind a reputation system is to enable the online vendor to be rated after a transaction. Based on the results (trust score), other parties who want to engage in a transaction with the rated parties can decide whether or not to engage in the transaction.

*Lesson Two: Perceived good reputation encourages trust*

### **6.6.3 Social Presence**

Physical presence which is not available with online transactions can be complimented with the use of social media applications such as corporate blogs, Facebook, and Twitter, to create a feeling of social presence (Karimov & Brengman, 2011). Transmission of a sense of direct or indirect social presence through the web interface can trigger a customer's trust belief which can in turn increase online transactions (Gefen & Straub, 2004). Studies have proven that the use of social networking applications enhances purchasing intentions on e-commerce websites (Lu *et al.*, 2010; Shi, Ling, & Chen, 2013). Studies of this paradigm base their argument on the theory that trust is transferable.

Both the case organizations employed the use of social networking applications such as Facebook and Twitter to create a social presence in order to boost trust. This confirms the new breed of e-commerce paradigm emerging, known as social commerce which involves the use of social networking sites, social interaction and user contributions to facilitate the buying and selling of goods and services online (Kim & Park, 2013). According to Shi *et al.* (2013), social networks can be used as a form of leverage to mold the attitudes of out-group entities into in group entities through the creation of a more social similarity with customers. Hence, there is a closer psychological distance between the buyers and the sellers.

*Lesson Three: Intense online social presence is crucial to building trust on e-commerce web sites.*

### **6.6.4 Third-Party Alliance/Intermediaries**

Another way e-commerce sites can enhance trustworthiness and increase consumers' confidence to make purchases online is, involving third parties or intermediaries (Pavlou *et al.*, 2003). The

involvement of third parties in bolstering online trust is in consonance with studies that have proven that trust can be transferred (Doney, Cannon, & Mullen, 1998 as cited in Kimery & MacCord, 2002; Shek, Sia, & Lim, 2003; Beldad *et al.*, 2010). More simply, if A trusts B and B trusts C, then rationally speaking, A will trust C. However, A needs to feel that B is able to judge well and may not lie about his judgment (Kimery & MacCord, 2002). Third parties can perform valuable services such as protecting the interest of the parties involved in the transaction. Online vendors display trusted logos on their web sites to communicate to potential consumers that they can be trusted because of the involvement of a third party. Online vendors will then need to comply with the third party's standard, use a certified technology, or agree to be bound in some way by the third party's procedures (Kimery & MacCord, 2002).

Both of the two e-commerce organization used in the case study, involved third-parties, and used them as payment gateways. These payment gateways are organizations that are already trusted by some customers that use them. Some of these payment gateways are well established telecom companies offering payment gateways to both companies and individuals. These are Airtel money, Tigo cash, and MTN mobile money. M-power which involves VISA and debit cards is an internationally verified payment gateway being used by both firms. See Appendix B for some of the third-parties displayed on the websites.

***Lesson Four: The use of third-parties influences trust***

#### **6.6.5 Policies**

A survey by Lauer and Deng (2007) shows that strong a privacy policy on a company's website is likely to convey a high perception of trustworthiness. Pan and Zinkhan (2006) also maintained that the mere presence of a privacy policy is enough to convince internet users that an online organization can be trusted and hence, users' personal data would be respected and protected.

This is in consonance with the case organizations used in this study. They both assured customers about the safety of personal details using a privacy policy displayed on their website. The use of policy statements such as the privacy policy statement attempts to declare how responsible the e-vendor is in ensuring that online consumers' personal information is protected. The policy statements are mostly previewed at the bottom of the home page of the web site with a link to the detailed policy. The benefit of using a policy assurance model is that, most web sites use it and hence, many users are familiar with such assurance models. However, some studies argue that people do not have the requisite information about where to report breaches of these policy assurances (Mayayise & Osunmakinde, 2014). A similar study espoused that users do not even bother to read or consult them before disclosing their personal data during transactions (Vu, *et al.*, 2007). This contention is supported by this study because, from the quantitative study, the perceived system trust was found not to be statistically significant. One way of encouraging a system of trust is through policies, which was included in this study.

*Lesson Five: Assuring customers protecting their personal details encourages trust*

#### **6.6.6 Offline Presence**

It was also discovered from the case study that the organizations were using offline presence to gain the trust of consumers. They were doing this through radio advertisement, newspaper and the use of celebrities for their television adverts as well as bill-board adverts. Apart from the various forms of adverts, both companies make their offices reachable to any customer who wants to be physically present; customer care is available 24/7; and their cars and trucks are labelled so they are visible to the general public. This findings is in line with other studies that established that e-commerce firms need to communicate to consumers that they exist behind their websites (Meziane & Kasiran, 2008). According to Meziane and Kasiran (2008), companies need to provide

information such as the company's physical existence (address and telephone numbers) and information concerning their registration number as well as the registration body. Consumers are therefore able to verify the firm's validity and hence trust the firm.

*Lesson Six: Offline presence is essential in influencing online trust.*

### **6.6.7 Recommender Systems**

Another insightful findings from the case firms was the use of recommender systems by the case organizations. Recommender systems relief online consumers of "internet fatigue" which is one of the most cited frustrations of online shopping (Dabholkar & Sheng, 2012). This is due to the fact that consumers are faced with the dilemma between the need for more information on the one hand and the frustration of too much information on the hand. In the case of the two e-commerce firms, products were recommended to consumers. For instance, both [tisu.com](http://tisu.com) and [zoobashop.com](http://zoobashop.com) were recommending products to their online consumers through emails and subscribed newsletters. Consumers turned to be influenced by recommender systems during online transaction (Senecal & Nantel, 2004).

## **6.7 Revisiting the Framework**

In an attempt to answer the objective of this study which seeks to investigate the trust mechanisms Ghanaian e-commerce firms institute in their websites, the findings of the case study were linked to the framework. As identified earlier from the review of literature there are technological and organizational mechanisms to institute trust. In lieu of this, the TOE framework was conceptualized. Under the technological context the following variables were identified: Recommender systems; Reputation system; Social Presence applications; and Trust symbols. However, results from the case studies showed that Ghanaian e-commerce firms were using recommender systems and social presence applications.

Recommender systems were used by both firms to institute trust even though their approaches were slightly different. For instance, zoobashop.com uses "user dialogue recommendation agent" in helping to provide recommended products by asking the customer a broad range of questions such as product specifications, brand preferences, and acceptable prices. Studies have shown that consumers' participation in using a recommender system has positive effect on trust (Dabholkar & Sheng, 2012). Additionally, zoobashop.com provides consumers the avenue of rating products (ranging from 1 star to 5 star) online after purchases thereby enabling interaction between consumers and items which would be used for recommendation for similar consumers. More specifically, zoobashop.com uses collaborative filtering which analyses usage data across users so as to find well matched user-item pairs. Tisu.com on the other hand adopts the approach were consumers like or dislikes a product after purchases. In addition to this, tisu.com uses content filtering to recommend products to consumers. For instance, after purchases, customers are presented with a list of other products based on the first purchases. Similar to both firms, products are recommended through subscribed emails and newsletters.

Social presence applications were also used by both firms to institute trust. This compliments the lack of face to face interaction in online shopping (Karimov & Brengman, 2011). To boost trust both zoobashop.com and tisu.com adopted social presence application such as Facebook and Twitter. However, zoobashop.com used Google Plus as an additional social presence application. Studies have established that social presence through the web interface positively influence trust in online shopping (Lu *et al.*, 2010; Shi *et al.*, 2013).

With the organizational context, the following variables were identified: policies; third-party alliance; offline presence; and product guarantee/ warranty. From the case studies, all the identified variables under the organizational context were being used by the firms to institute trust.

The case firms were both instituting trust through the use of policies by assuring online consumers of their privacy. Privacy policies convey high perception of trustworthiness (Lauer & Deng, 2007). Both zoobashop.com and tisu.com displayed the privacy policy on their website.

Also both case firms understood fairly well the importance of involving third-parties in order to institute consumer trust. Again, both zoobashop.com and tisu.com were doing these by liaising with accredited payment gateways. Therefore consumers are assured of the credibility of the companies and hence influence their trust by alleviating the fear of uncertainty and risk. Often fraudulent companies do not use accredited payment gateways. The payment gateways used by tisu.com involved M-power, Airtel money, and MTN mobile money. Other hand, zoobashop.com used UT bank, Stanbic bank, Visa, Pay Pal, and iwallet as their payment gateways. These findings are in line with other studies that alliance with well-known brands influence online trust (Lowry *et al.*, 2008).

Zoobashop.com and tisu.com also exhibits their trustworthiness through offline presence. Both firms do this through, news paper, television, and radio adverts. Their office is also opened to consumers at all times. Unlike tisu.com, zoobashop.com goes further to use an established icon as sales ambassador and ensures that all their vehicles are labeled. This instills a sense of credibility in online consumers. This is in consonance with earlier findings in that it essential for online firms to communicate their existence to consumers (Meziane & Kasiran, 2008).

Finally, the zoobashop.com and tisu.com were exhibiting their trustworthiness through product guarantees and warranties. However, zoobashop.com also practice a good returns policy of which consumers can return a product within two weeks of purchase at a twenty-five percent restocking fee. This assures consumers that the products sold are genuine and that they have the chance to return the product in case of any defects on the products. Moreover, granting product guarantees

makes the consumer feel is in control and hence the online vendor will not act opportunistically (Pavlou, Liang, & Xue, 2007). It is therefore essential that e-vendors devote much attention to product warranties/guarantees and good returns policy since this measures significantly influence online consumers trust (Grabner-Krauter & Kaluscha, 2003).

Table 6.2 illustrates the framework that guided this study qualitatively. It shows the identified variables in literature and the ones that are being instituted by e-commerce firms in Ghana.

**Table 6.2: Trust Mechanisms Instituted by Case Study Firms**

<b>Framework</b>	<b>Identified Variables</b>	<b>Trust Mechanisms Instituted by Case Study Firms</b>
<b>Technological context</b>	Recommender systems	Recommender systems
	Reputation system	Social presence
	Social presence	
	Trust symbols	
<b>Organization context</b>	Policies	Policies
	Third-party alliance	Third-party alliance
	Offline presence	Offline presence
	Product guarantee/ warranty	Product guarantee/ warranty

## **6.8 Summary**

This chapter presents the qualitative analyses as well as its findings. This analysis was carried out in order to answer one of the research questions outlined in the beginning of the study. To this end, the qualitative study investigated the trust mechanisms Ghanaian e-commerce firms institute on their websites. From the literature, there were technological antecedents and organizational antecedents available to an e-commerce firm. The technological antecedents included recommender systems, reputation systems, social presence, and trust symbols. It was realized that

they were using recommender systems, social presence, and trust symbols. The organizational antecedents identified included policies, third party alliance, offline presence and product guarantee and warranties. From the case studies out of the identified organizational antecedents, Ghanaian e-commerce firms were using policies, third party alliance, offline presence, and product guarantee/warranty. However, it was also identified that they were using very clear and vivid pictures of displayed items to induce trust as well; this aspect was not addressed in the literature. The next chapter presents the quantitative study and its results.

## CHAPTER 7

### QUANTITATIVE RESEARCH FINDINGS

#### 7.1 Introduction

This chapter discusses data analyses of the quantitative study. It begins with the analysis of the quantitative study where, the response rate, data cleaning procedure, questionnaire reliability, and demographic statistics, are presented. The quantitative data is also analyzed using multiple regression after a series of tests proved that this approach can be used. This was done to answer part of the objective of this study: to investigate the factors that influence consumers trust in Ghanaian e-commerce websites.

#### 7.2 Response Rate

In an attempt to avoid data incongruence, errors were checked and corrected on each of the variables scores that were out of the accepted range as reasoned by Pallant (2011). In effect a total of 307 questionnaires were used in the analysis after data screening and cleaning.

#### 7.3 Demographic Profile of Respondents

This section discusses the demographic profile of the sampled respondents who took part in the study. They have been profiled according to their gender, age, educational qualification, and attitude towards the internet. This information is summarized in Table 7.1 below.

**Table 7.1: Frequency Table of Demographic Variables**

<b>Category</b>	<b>Variables</b>	<b><i>f</i></b>	<b>Percentage</b>
<b><i>Gender</i></b>	Male	178	58
	Female	129	42
	Total	307	
<b><i>Age</i></b>	<18	20	6.5
	18-24	174	56.7
	25-30	97	31.6
	31-35	8	2.6
	36-40	8	2.6
	Total	307	
<b><i>Education</i></b>	High School	50	16.3
	Bachelor's Degree	152	49.5
	Master's Degree	99	32.2
	Professional	6	2.0
	Total	307	

Results from the table above show the demographic data of the sampled respondent. There were 178 males signifying 58% and 129 females signifying 42% of the total number of respondents.

The majority of the respondents were within the age group of 18-24 with 174 respondents (56.7%); and 97 were within the age group of 25-30 with 31%. 20 respondents were less than 18 with 6.5%, and 8 respondents were each within the age groups of 31-35 and 36-40 both with a percentage of 2.6%.

In terms of educational level of the respondents as of the time of study, most of them were studying for their bachelor's degree making 49.5% (n=152) of the total number of respondents, masters students were 32.2% (n=99); 16.3% (n=50) were Senior High School students; whereas professional students were 2% (n=6).

The general attitude of respondents on using the internet to shop was also assessed. Table 7.2 provides the information pertaining to attitude.

**Table 7.2: Consumers' Attitude Toward Using The Internet To Shop**

	What is your attitude on using the internet to shop			Total
	Positive	Negative	No opinion	
Male	121	10	47	178
<b>Gender</b>				
Female	59	32	38	129
<b>Total</b>	180	42	85	307

Table 7.2 indicates a cross tabulation of respondents attitude toward using the internet to shop revealing that 180 respondents had a positive attitude towards using the internet to shop made up of 121 males and 59 females. There were 42 respondents having a negative attitude towards using the internet shop made up of 10 males and 32 females. 85 respondents said they had no opinion (neutral) consisting of 47 males and 38 females.

**Table 7.3: How Often Respondents Shop Using the Internet**

	How often do you shop on the internet				Total
	One to two times a month	One to two times a year	More than two times a month	More than two times a year	
Male	44	92	20	22	178
<b>Gender</b>					
Female	40	71	18	0	129
<b>Total</b>	84	163	38	22	307

In terms of how often respondents shop online, a scale of one to two times a month, one two times a year, more than two times a month, and more than two times year was used. The results indicated that a total of 84 respondents shopped online one to two times a month (44 males and 40 females); 163 shop online one to times a year (92 males and 71 females); 38 shop online more than two times a month (20 males and 18 females); and 22 shop online more than two times a year (all being males).

## 7.4 Exploratory Factor Analysis

Costello and Osborne (2005) claim that few components will most of the time account for variations in a variable. Hence, the need to use a data reduction method such as factor analysis to detect relationships among the variables measuring the factors identified from the literature review. The researcher therefore adopted the principal components method of extraction which begins by finding a linear combination of components that accounts for as much variation in the original variables as possible. It then finds another component that accounts for as much of the remaining variation as possible and is uncorrelated with the previous component, continuing in this way until there are as many components as original variables.

There are three steps in conducting exploratory factor (Hair *et al.*, 2006; Ho, 2006). These include the following:

- i. Assumptions - thus checking the data to ensure that they can be analyzed with exploratory factor analysis (EFA). This involves univariate analysis tests such as normality tests, descriptive statistics, and inter-correlation tests.
- ii. Extraction - thus, selecting the number of derived factors from the survey data. This is conducted with a common factor analysis, scree test, and eigen values.
- iii. Interpretation - thus, naming the extracted factors. This was done by comparing the EFA's results with both the questionnaire and the conceptual model.

### 7.4.1 Univariate Analysis Tests

#### 7.4.1.1 Normality Tests

One theoretical assumption of EFA is that the data should be normally distributed for accuracy in the research findings (Brace, Kemp, & Snelgar, 2006). Hair, Black, Babin, Anderson, and Tatham (2006) established that, there are two ways of conducting a normality test namely, graphical and

statistical analyses. Using graphical representation means a symmetrical, bell-shaped curve, which has the greatest frequency of scores in the middle with smaller frequencies towards the extremes. The skewness provides symmetry of the distribution. Kurtosis on the other hand, provides information concerning the “peakedness” of the distribution. Statistically, the values of skewness and kurtosis should fall between -2 and +2 for normality however, for large sample above 200. However, larger samples are likely to deviate from this results (Hair *et al.*, 2010). More so with reasonably large samples, skewness will not “make a substantive difference in the analysis’ and the risk of underestimation of variance which can result from kurtosis is also reduced (Tabachnick & Fidell 2007, p. 80)”. Another statistical test that can be used to assess normality is Kolmogorov-Smirnov and Shapiro- Wilk tests (Hair *et al.*, 2006) which can be carried out in SPSS. With the Kolmogorov test, a value closer to 0 signifies data approaching normality while with the Shapiro-Wilk test, a value closer to 1 represents data becoming normally distributed. Normality is rejected when a significance value of less than 0.05 is indicated. The results from the statistical normality tests indicated that the survey data is not normally distributed. However, this does not mean that the data cannot be analyzed with EFA since this test is sensitive with large sample size. This is because standard errors of skewness and kurtosis decrease with an increased sample size (Tabachnick & Fidell, 2001). Appendix C shows the results of the normality test.

#### **7.4.1.2 Descriptive Statistics**

Appendix D displays the mean standard deviations, skewness, and kurtosis of the various variables used and these indicate the extent to which the respondents disagreed or agreed with the statements in the questionnaire. The mean results of the variables indicate how each statement performed from the 307 respondents’ points of view. From the table the highest mean was 3.67 belonging to EF1 (It is easy to search for information on product) whilst the lowest was 2.47 for item (I generally

trust other people). From Appendix D it is clear that the values of standard errors for skewness and kurtosis are small. This is because the sample size is large (307) reducing the standard errors for skewness and kurtosis and providing a reason why the data did not pass the statistical normality tests.

Based on Appendix D, the maximum absolute values of skewness (1.134) and kurtosis (1.876) belong to item SA2. Since skewness is less than 2 and kurtosis is less than 7, no data remedy was needed (Fabrigar, Wegener, MacCallum, & Strahan, 1999). In addition, some level of multicollinearity of data is acceptable when the objective of research is to establish relationships between factors rather than the significance of the factors themselves (Hair *et al.*, 2006). This further indicated that the survey data can be analyzed with EFA.

#### **7.4.1.3 Inter-correlation Tests**

Another theoretical assumption of EFA is that the data should have some degree of intercorelation (Brace, Kemp, & Snelgar, 2006). This is because, without intercorelation, it will not be possible to extract from the data, conceptual factors and use EFA to analyze the data (Hair, Black, Babin, Anderson, & Tatham, 2006). Two statistical techniques including Kaiser-Meyer-Olkin's measure of sampling adequacy (KMO) and the Bartlett's test of sphericity can be performed (Ho, 2006).

The variables measuring the dependent construct in this study (namely, familiarity, perceived reputation, perceived risk, system trust, disposition to trust, ease of finding, ease of understanding, usefulness, ease of use, information quality, trust and intention to use) were all factor analyzed. Prior to the extraction of factors, the Bartlett test of Sphericity (Approx. Chi-square= 4693.678, df. 666, sig. 0.000) and the KMO measure of sampling adequacy (Value of .710) confirmed that there was a significant correlation among the variables to warrant the application of exploratory factor analysis. The table below displays the results of the KMO test.

**Table 7.4: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		<b>.710</b>
Bartlett's Test of Sphericity		
	Approx. Chi-Square	4693.678
	Df	666
	Sig.	.000

### 7.4.2 Extraction of Factors

The initial explorations showed that forty-eight (48) variables were factor analyzed in order to enable the identification of the key variables with regard to respondents views on each of the factors as well as to identify the relationship between different latent variables and the smallest possible number of variables that better measures the constructs, thereby simplifying the proposed framework. Explanations from inter-correlated variable were also observed.

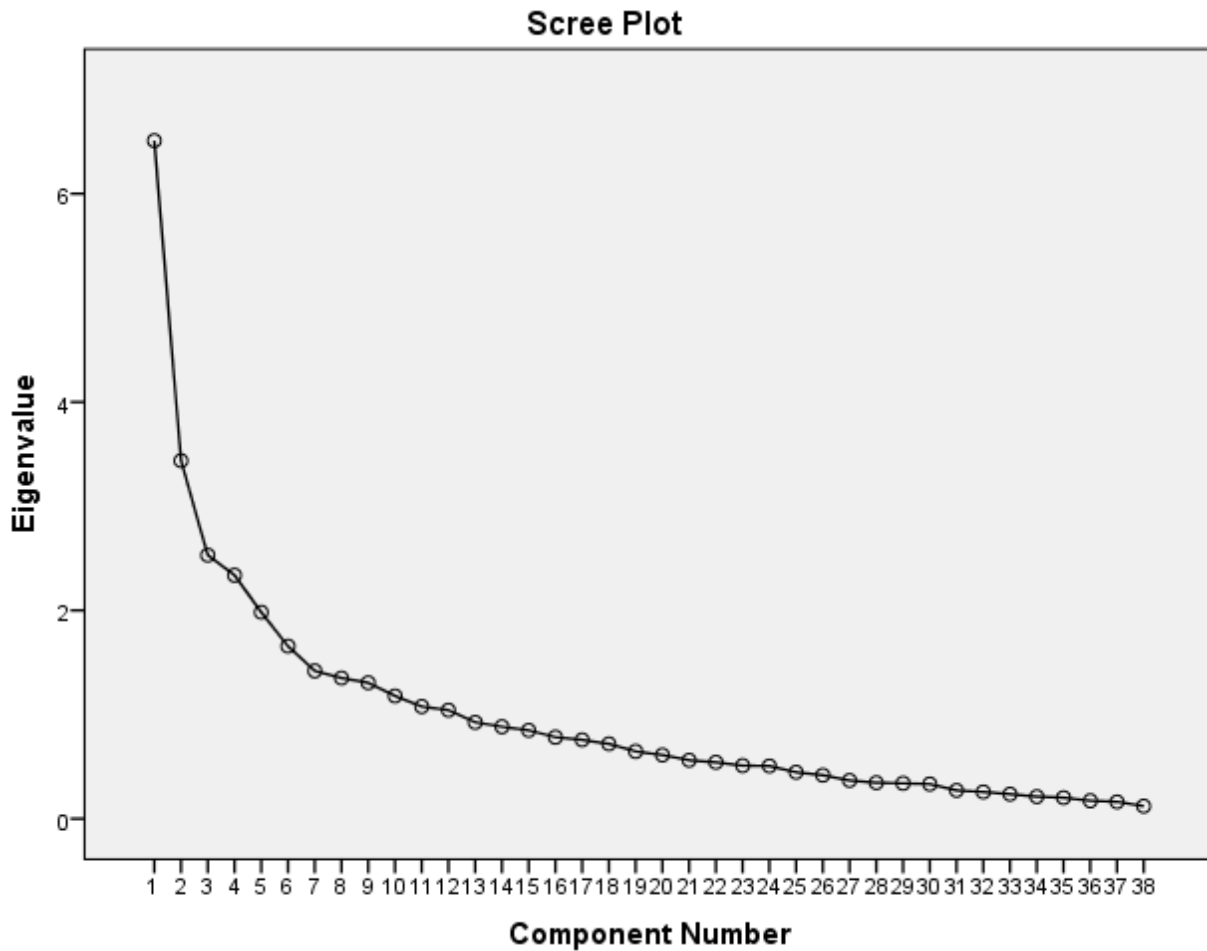
#### 7.4.2.1 Eigen Values

One indicator used to distinguish between important factors from possible extracted factors in EFA is eigenvalues. A threshold of eigen values greater than 1 is often desired to select a factor (Conway & Huffcutt, 2003). Hence, eigen values greater than 1 were retained since they were important to this analysis and those less than were discarded. In view of this, twelve factors are important to this research because they have eigen values higher than 1. These selected factors explain 68.7% of the total variance. Even though most researchers use eigen values greater than 1, it cannot be solely relied upon. It can either lead a researcher to over factoring or under factoring (Fabrigar, Wegener, MacCallum, & Strahan, 1999). Therefore the Scree test was also performed.

### 7.4.2.2 The Scree Test

To help solve the problem of over factoring or under factoring Cattell (1996) suggested the use of the scree test. This is done by simply plotting the eigen values onto a graph. This shows the gain of eigen values for each extracted factor. A cluster of the extracted factors that do not account for substantial explanation to the conceptual model has a relatively straight line in shape and as such could be discarded. Figure 7.1 illustrates the scree test of the study.

**Figure 7.1: Scree Plot**



### 7.4.2.3 Varimax Rotation of Variables

The Varimax extraction rotation method was used. The forty-eight (48) independent variables were rotated. The result revealed that thirty-two (32) variables loaded perfectly onto the eleven (11)

factor components (familiarity, perceived reputation, perceived risk, perceived system trust, disposition to trust, ease of finding, and ease of understanding). Out of the 32 variables, the first component had 5 items all of which were related to disposition to trust; the second component also had 5 items all of which were related to familiarity; the third component had 4 items of which 1 item was related to ease of understanding and 3 items related to ease of finding, the fourth had 3 items with all being to related trust. The fifth component had 4 items of which 1 was related to ease of finding, 1 item related to perceived risk, and 2 items related to store's perceived reputation. The sixth had 3 items with all being related to perceive risk; the seventh, had 4 items all of which related to information quality. The eighth component had 2 items both relating to ease of understanding. The ninth component had 2 items with 1 item relating to perceived system trust and the other relating to information quality. The tenth component also had two items both of which related to perceived system trust. The eleventh component had only one item relating to information quality. The results of the Varimax rotation are displayed in Table 7.5 below.

**Table 7.5: Rotated Component Matrix**

Rotated Component Matrix <sup>a</sup>											
	Component										
	1	2	3	4	5	6	7	8	9	10	11
DIS4:I feel that people are generally reliable	.792										
DIS3:I generally have faith in humanity	.755										
DIS2:I tend to count upon other people	.720										
DIS1:I generally trust other people	.709										
DIS5:I generally trust other people unless they give me reason not to	.602										
FAM2:I am familiar with buying products on the Internet		.808									
FAM3:I am familiar with Ghanaian e-commerce web sites		.757									
FAM4:I am familiar with the processes of purchasing products on the Internet		.752									
FAM5:I am familiar with inquiring about products ratings on Ghanaian e-commerce web sites		.684									
FAM1:I am familiar with searching for products on the Internet		.677									
EUS1:It requires the fewest steps possible to accomplish what I want to do with it			.775								
EF4:It is user friendly			.769								
EF2:I can easily find information on related products of interest			.720								
EF1:It is easy to search for information on products			.628								
TR2:I trust Ghanaian e-commerce web sites				.826							
TR3:I believe that Ghanaian e-commerce web sites are trustworthy				.810							
TR1:I trust that my personal information entered on Ghanaian e-commerce websites are protected				.743							
EF5:I don't notice any inconsistencies as I use it					.673						
PRIS5:Generally, purchasing from e-commerce websites involves a lot of risk					.635						

PR2:Has a good reputation in the market					.621						
PR1:This e-commerce vendor is well known					.618						
PRIS2: There is a high probability of losing a great deal by purchasing online from this e-commerce vendor.						.849					
PRIS3:There is great uncertainty associated with purchasing online from this e-commerce vendor						.821					
PRIS4:Overall, I would label the option of purchasing online from this e-commerce vendor as something <u>negative</u>						.630					
IQ4:The web site is confusing							.763				
IQ3:The web site is cumbersome							.746				
IQ5:The web site is irritating							.703				
IQ2:The web site is messy							.684				
EUS3:I can recover from mistakes quickly and easily								.728			
EUS5:I can use it successfully every time								.658			
ST5:I believe my information is safe with this e-vendor									.772		
IQ7:The web site is intelligent									.738		
ST1:The e-commerce website assures me of having enough safeguards to make me feel comfortable using it to transact business										.667	
ST3:I feel that the e-vendor act's in my best interest										.660	
IQ8:The website provides reliable information											.610
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.											
a. Rotation converged in 10 iterations.											

### 7.4.3 Reliability and Re-Specification of Factors

Malhotra and Birks (2007) referred to reliability as the extent to which measurement reproduces consistent results particularly if the process of measurement is to be repeated. A similar view espoused by Pallant (2011), suggested that the scales used for analysis should be checked for reliability to ensure items that make up the scale "hang together" (i.e. internal consistency). The Cronbach's alpha coefficient is one of the common indicators for checking internal consistency and this was employed in the study to check the reliability of the scales used in the survey. Ideally the Cronbach's alpha coefficient should be greater than 0.7 for managerial decisions; however, a threshold of 0.6 is accepted in exploratory research (Pallant, 2011; Hair *et al.*, 2010).

The results of the FA were compared with the proposed model and the results of the eigenvalues and scree test. The proposed model argues that there are eight factors influencing e-commerce consumer trust (Perceived Risk, Familiarity, Perceived Reputation, Information quality, Ease of finding, Ease of Understanding, perceived System Trust, and Disposition to Trust). In contrast, the eigenvalues show there should be ten (10) factors. However, the scree test does not exhibit any clear results (the number of factors is between 6 and 12). Since, the results of the ten extracted factors from SPSS version 20 reports that the ten factors explain 58.1 percent of the total variance in the survey data, it was theoretically sensible to retain these factors as compared to the proposed model.

Based on a conceptual fitness, the 32 independent variables were re-specified into nine factors. The first component matrix has 5 items relating to disposition to trust factors; the second component has 5 items relating to familiarity factors; the third component has 4 items relating to perceived risk factors; the fourth component has 6 items relating to information quality factors; the fifth component has 4 items relating to ease of finding factors; the sixth component has 2 items

relating to perceived reputation factors, the seventh component has 3 item relating to system trust factors; and the eighth component has 3 items relating to ease of understanding factors. However, only factors that met the minimum value of 0.6 as postulated by Hair *et al.* (2010) were retained.

Furthermore, using the Cronbach's coefficient alpha the internal reliabilities of the factor components were analyzed. Moreover, the value of the variables that were loaded onto the factors were tested and item to total correlation was set above 0.3 (Parasuraman, Zeithaml, & Berry, 1998).

Eventually, 32 of the original 48 variables became valid for exploratory factor analysis. Below is a table showing the re-specified variables.

**Table 7.6: Factor Components of Independent Variables**

<b>Factor Components</b>	<b>Loadings</b>	<b>No. of Items</b>	<b>Cronbach's Alpha</b>
<b>Factor 1</b>		<b>5</b>	<b>.811</b>
DIS1: I generally trust other people	.709		
DIS2: I tend to count upon other people	.720		
DIS3: I generally have faith in humanity	.755		
DIS4: I feel that people are generally reliable	.792		
DIS5: I generally trust other people unless they give me reason not to	.602		
<b>Factor 2</b>		<b>5</b>	<b>.823</b>
FAM1: I am familiar with searching for products on the Internet	.677		
FAM2: I am familiar with buying products on the Internet	.808		
FAM3: I am familiar with Ghanaian e-commerce web sites	.757		
FAM4: I am familiar with the processes of purchasing products on the Internet	.752		
FAM5: I am familiar with inquiring about products ratings on Ghanaian e-commerce web sites	.684		
<b>Factor 3</b>		<b>4</b>	<b>.715</b>
PRIS2: There is a high probability of losing a great deal by purchasing online from this e-commerce vendor.	.849		
PRIS3: There is great uncertainty associated with purchasing online from this e-commerce vendor	.821		

Factor Components	Loadings	No. of Items	Cronbach's Alpha
PRIS4 :Overall, I would label the option of purchasing online from this e-commerce vendor as something negative	.630		
PRIS5 :Generally, purchasing from e-commerce websites involves a lot of risk	.635		
<b>Factor 4</b>		<b>6</b>	<b>.768</b>
IQ2:The web site is messy	.684		
IQ3:The web site is cumbersome	.746		
IQ4:The web site is confusing	.763		
IQ5:The web site is irritating	.703		
IQ7:The web site is intelligent	.738		
IQ8:The website provides reliable information	.610		
<b>Factor 5</b>			
EF1: It is easy to search for information on products	.628		
EF2: I can easily find information on related products of interest	.720	<b>4</b>	<b>.720</b>
EF4: It is user friendly	.769		
EF5: I don't notice any inconsistencies as I use it	.673		
<b>Factor 6</b>	.681	<b>2</b>	<b>.712</b>
PR1: This e-commerce vendor is well known	.621		
PR2: Has a good reputation in the market	.618		
<b>Factor 7</b>		<b>3</b>	<b>.743</b>
ST1: The e-commerce website assures me of having enough safeguards to make me feel comfortable using it to transact business	.667		
ST3: I feel that the e-vendor act's in my best interest	.660		
ST5: I believe my information is safe with this e-vendor	.772		
<b>Factor 8</b>		<b>3</b>	<b>.755</b>
EUS1: It requires the fewest steps possible to accomplish what I want to do with it	.775		
EUS3: I can recover from mistakes quickly and easily	.728		
EUS5: I can use it successfully every time	.658		

#### 7.4.4 Reliability of the Dependent Variable

The reliability of the scales used for the dependent variable was also assessed and found to be appropriate. With regards to the dependent variable (trust), all the variables loaded perfectly. This is an indication that the statements used for the dependent variables form a complete structure in consumer trust. All the three variables had high loadings and loaded perfectly on the dependent variable. Moreover, there was a good Cronbach's alpha of .851. The results have been summarized in Table 7.7.

**Table 7.7: Reliability of the Dependent Variable**

<b>Variables</b>	<b>Loadings</b>	<b>Cronbach's alpha</b>
<b>TRUST</b>		<b>.851</b>
TR1: I trust that my personal information entered on Ghanaian e-commerce websites are protected	.830	
TR2: I trust Ghanaian e-commerce web sites	.893	
TR3: I believe that Ghanaian e-commerce web sites are trustworthy	.901	

From the above table, it is evident that all the variables have high loadings and are loaded perfectly on the dependent variable with a very good Cronbach's alpha of .851 indicating that the statements used for the dependent variables provided a reliable scale for consumers trust.

Based on the Cronbach's alpha coefficient results, it is clear that all the scales for the independent variables as well as that of the dependent variable exceeded the conventional acceptable 0.6, and thus proved to be adequate for multiple regression analysis. The subsequence section provides the results of the multiple regression.

## 7.5 Multiple Regression Analysis

Multiple regression analyses was performed in order to test and validate the stated hypotheses of the study after the variables were checked for any violations of assumptions underlying the use of this statistical technique. Multiple regression was used because it can test the predictive power of a set of variables and to assess the relative contribution of each individual variable (Pallant, 2011). More specifically a standard multiple regression was performed as according to Pallant (2011), this approach is best when we want to know how a set of variable are better explained by the variance of a dependent variable.

In this accord, perceived risk, familiarity, perceived reputation, perceived system trust, disposition to trust, information quality, ease of understanding, and ease of finding were used as independent variables and regressed on trust as the dependent variable. This satisfied H1 to H8. The results of this regression are shown in Table below.

**Table 7.8: Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.789 <sup>a</sup>	.622	.612	.4198

Table 7.8 above illustrates the model summary; from it was found that the correlation coefficient is 0.789. This indicates that there is a strong correlation among the various constructs. In other words, the relationships between the constructs are very close and have the ability to explain the dependent variables. Also, the Adjusted R Square value is 0.622, meaning that 62.2% of the variance in trust can be predicted by perceived risk, familiarity, perceived reputation, perceived system trust, information quality, ease of understanding, ease of finding, and disposition to trust.

As a whole, the regression does a good job of modelling consumers' trust since more than half the variation in consumer trust is explained by the model. Table 7.9 presents the summary of the Analysis of Variance (ANOVA).

**Table 7.9: ANOVA Table**

Model		Sum of Squares	df	Mean Square	F	P-value
1	Regression	86.245	8	10.781	61.186	.000 <sup>a</sup>
	Residual	52.504	298	.1762		
	Total	138.749	306			

From the above ANOVA table, the F-value of the table was found to be significant, with the P-Value < 0.05. This means that the combination of the independent variables can significantly predict the dependent variable.

**Table 7.10: Summary of Results**

	S.E	$\beta$	T	Sig.
Perceived reputation	.103	.307	5.257	.000
Perceived system Trust	.067	.003	.049	.961
Information quality	.064	.065	1.135	.257
Disposition to trust	.067	.174	3.077	.002
Familiarity	.063	.111	1.996	.047
Perceived risk	.061	-.126	-2.473	.014
Ease of understanding	.039	.406	8.871	.000
Ease of finding	.041	.453	9.897	.000

Table 7.10 shows the summary of the results indicating the various factors (Perceived Risk, Familiarity, Perceived Reputation, Information quality, Ease of finding, Ease of Understanding, System Trust, and Disposition to trust). Their standard error, beta-values, t-statistics, and significance level are indicated.

### 7.5.1 The Regression Equation Model

$TR = K - .126PRISK + .111FAM + .307PR + .307IQ + .453EF + .406EUS + .003ST + .174DIS + e$ , where

TR = Trust

PRIS= Perceived risk

FAM = Familiarity

PR= Perceived reputation

IQ = Information quality

EF= Ease of finding

EUS= Ease of understanding

ST=System trust

DIS = Disposition to trust

K = Regression constant

e = error

This implies that the model can be used to predict Ghanaian consumers' trust in using ecommerce websites in Ghana once the beta values/scores of Familiarity, Disposition to trust, Perceived reputation, Perceived risk, Information quality, Ease of finding, Ease of understanding, System Trust are known.

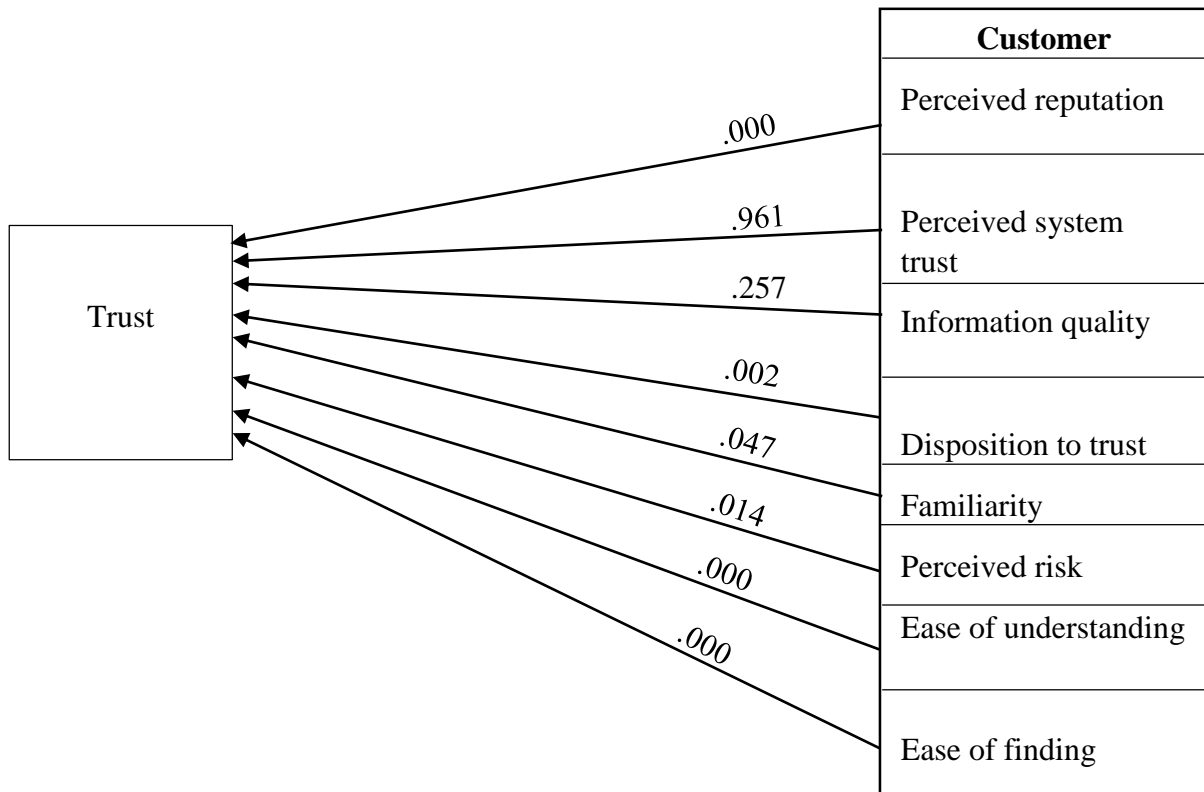
### 7.5.2 Model Evaluation

The results indicate that there is a strong and significant reliability between variables used for the model to represent trust and its drivers ( $F = 21.086$ , Prob.  $F$ -stats  $< 0.05$ ). Some research scholars have argued that the model reaches statistical significance if the Sig  $< .05$  (Hair *et al.*, 2010). In this study the Sig = .000 of the  $F$ -statistics depicts that the model is statistically significant. The R-Square value in the model summary depicts the degree of variance in the dependent variables

which is explained by the model (including the independent variables). From the Table 7.10, it can be found that R Square value = 0.622; which indicates a considerably strong relationship between the dependent and independent variables of the regression model. Stated differently, the independent variables can explain ecommerce consumers' trust at a level of 62.2% of the sample population.

Also, from the regression analysis output, ease of finding was found to have the greatest influence on trust ( $\beta = 0.453$ ,  $t=9.897$ ,  $p=0.000$ ,  $< 0.05$ ). This means that Ghanaian ecommerce consumers consider from the ease of finding information provided on the website whether to trust the website. The next strongest contributor to trust is ease of understanding ( $\beta = .406$ ,  $t= 8.871$ ,  $p=0.000$ ,  $< 0.05$ ), implying that the ecommerce consumers are likely to trust a particular website when they understand the information and use of the website better.

The third factor influencing consumers trust is perceived reputation ( $\beta = 0.307$ ,  $t=5.257$ ,  $p=0.000$ ,  $< 0.05$ ). This shows the extent to which the reputation of an ecommerce vendor can influence consumers trust. The next factor which followed suit is the factor disposition to trust ( $\beta=0.174$ ,  $t=3.077$ ,  $p=0.002$ ,  $< 0.05$ ). The fifth factor influencing consumers trust is perceived risk ( $\beta=0.126$ ,  $t=-2.473$ ,  $p=0.014$ ,  $< 0.05$ ). Finally, the familiarity with the system was the last factor influencing consumers trust in Ghana ( $\beta = 0.111$ ,  $t= 1.996$ ,  $p=0.047$ ,  $< 0.05$ ). However, information quality and perceived system trust were found to be statistically insignificant.

**Figure 7.2: Model Evaluation**

### 7.5.3 Examination of Hypotheses

Hypothesis one (H1) states that a perceived reputation will positively influence trust. Drawing from the table above, the  $\beta$  coefficient of perceived reputation is .307 with a p-value of 0.000. Since the p-value of 0.000 is less than the alpha level of 0.5 ( $p < 0.05$ ), it implies that, reputation does have a positive and significant relationship with trust. Therefore, the hypothesis that, “perceived reputation will positively influence trust” was accepted since there was enough evidence to support it. Hence we conclude that, the kind of reputation built by a company in the eyes of its customers, does have a direct influence on the trust level of the customers.

Hypothesis two (H2) states that “perceived system trust will directly influence trust”. From table 7.10, it is observed that the  $\beta$  coefficient of system trust is .003 with a p-value of .961. Since the

p-value is greater than the alpha level of 0.5 ( $p > 0.05$ ) the hypothesis is therefore not significant at this level, hence a rejection of this hypothesis.

Investigating hypothesis three (H3) revealed the  $\beta$  coefficient of disposition to trust to be .174 and the p value to be .002. Therefore, the hypothesis that “disposition to trust has a direct effect on trust” was accepted since there was enough evidence to support it.

Hypothesis four (H4) states that “information quality will influence trust”. The results showed that the  $\beta$  coefficient was .065 with a p value .257. Since the p value is greater than the significance level of 0.05, the hypothesis was rejected.

Hypothesis five (5) states that “familiarity will influence trust”. With reference to table 7.10 the  $\beta$  coefficient of familiarity is .111 with a p value of .047. Since the p value is less than the significance level of 0.05, the hypothesis is supported.

Hypothesis six (H6) states that “perceived risk is negatively associated with trust”. From the model in Table 7.1 above, the  $\beta$  coefficient of perceived risk when regressed on trust is -.126 at a significant level of .014. The negative means there is an inverse relationship between perceived risk and trust. In other words, the higher the risk the less likely one will engage in e-commerce transaction, the opposite is true.

In examining both H7 and H8, ease of understanding and ease of finding were regressed on trust respectively. Ease of understanding had a  $\beta$  coefficient of .406 with a p value of .000 and ease of finding had a  $\beta$  coefficient of .453 with a p value at .000. Both were statistically significant and hence a strong support for both hypothesis which states that Perceived Ease of understanding will influence trust and ease of finding will influence trust for both H7 and H8 respectively.

## 7.6 Discussion of Results

An evaluation of each of the model indicates that there are some consistencies between the current study and previous research works. The first hypothesis investigated the negative association of perceived risk to trust. The hypothesis was supported since enough evidence was found to be statistically significant. This confirms earlier studies (Antony *et al.*, 2006; Pennanen *et al.*, 2007; Kim *et al.*, 2008; Beldad *et al.*, 2010). Perceived risks influences customers to evaluate the trustworthiness of e-vendors which leads to building trust (Pennanen *et al.*, 2007). A study by Teo and Liu (2007) revealed that online transactions are characterized by issues that affect the purchasing intentions of consumers and these issues include security, privacy and risk perception. The fear of conducting transaction online does exist among people who shop online and this is due to the risk of being exploited and also due to the fact that, the e-vendors are not known personally and also the products cannot be touched.

The results from the regression also showed support for the hypothesis that familiarity has a positive influence on trust to be statistically significant. Familiarity according to Gefen (2000), is understanding the current actions of people or of objects within their surroundings. The result is consistent with other empirical studies (Bhattacharjee, 2002; ElSaid & Hone, 2005; El Said & Galal-Edeen, 2009). Hence, it can be reasoned that one's familiarity with e-commerce websites as well as the system has a positive influence on trust.

Also, earlier studies have contended that perceived reputation has a significant effect on initial trust (Koufaris & Hampton-Sosa, 2004; Chen & Barnes, 2007). This hypothesis was tested and the results showed support for the model. This result is therefore in line with other studies. Hence we conclude that, the kind of reputation built by a company in the eyes of its customers, does have a direct influence on the trust level of the customers.

An investigation in to hypothesis two (H2) that states system trust will directly influence trust was not found to be statistically significant. This is however, in contradictions to other studies (McKnight *et al.*, 1998; Pennington *et al.*, 2003;). Pennington *et al.* (2003), identified three types of trust mechanisms that encourage system trust namely seals, ratings, and guarantees. In the case of the e-commerce firms used in the survey, guarantees and privacy policies were being used. However, studies have also proven that users do not even bother to read or consult them before disclosing their personal data during transactions (Vu *et al.*, 2007). Because of how long they are, people often do not get time to read them. This could be why it was not supported in this study.

Disposition to trust is one of the identified antecedents of trust that was hypothesized in this study. As explained earlier, disposition to trust is the individual's inherent characteristic to trust or not to trust a person. It may either affect trust directly or indirectly through trusting beliefs (Mayer *et al.*, 1995). The results of the hypothesis show enough support of the model. This is consistent with other studies (Gefen & Straub, 2004; Utz *et al.*, 2010), in that, disposition to trust has a positive effect on trust. We therefore conclude that disposition to trust has a significant influence on trust on Ghanaian e-commerce websites.

The model also included information quality which was hypothesized to affect usefulness. Information on a website may not always be accurate and reliable and may sometimes be misleading (Kim *et al.*, 2008). Information quality therefore affects the intention to use a website. This claim was however rejected since the p value from the results of the hypothesis was greater than the significance level. The results contradict other studies (Miranda & Saunders, 2003; Chen & Dibb 2010; Chen *et al.*, 2013).

H7 and H8 were both statistically significant, thus, ease of understanding and ease of finding will affect trust respectively. This results are in line with other studies (Lederer *et al.*, 2000; Li & Li,

2011). There is no doubt that the hypothesis was supported since websites serve as the interface to the e-commerce system, a particular focus on ease of use and user-friendliness will have a positive effect on intention to use (Huang & Benyoucef, 2013).

**Table 7.11 Summary of Hypotheses and Results**

<b>Hypothesis</b>	<b>Relationship</b>	<b>P</b>	<b><math>\beta</math></b>	<b>Result</b>
H <sub>1</sub>	Store's reputation → trust	.000	.307	Significant
H <sub>2</sub>	Perceived System trust → trust	.961	.003	Not Significant
H <sub>3</sub>	Disposition to trust → trust	.257	.174	Significant
H <sub>4</sub>	Information quality → trust	.002	.065	Not Significant
H <sub>5</sub>	familiarity → trust	.047	.111	Significant
H <sub>6</sub>	Perceived risk → trust	.014	-.126	Significant
H <sub>7</sub>	Ease of understanding → trust	.000	.406	Significant
H <sub>8</sub>	Ease of finding → trust	.000	.453	Significant

### 7.7 Linking Qualitative Findings to the Quantitative Findings

This section links the findings from the qualitative study to the findings of the quantitative study.

As mentioned earlier, the qualitative study examined trusts mechanisms Ghanaian e-commerce firms institute in their websites and the quantitative study examined the factors that influence consumers trust in Ghanaian e-commerce websites. The use of mixed will provide in-depth knowledge on the given phenomenon (Venkatech, Brown, & Bala, 2013) since both qualitative and quantitative research methods may not guarantee the needed richness in data collection. On the one hand, though the use of the qualitative approach helps to provide in-depth knowledge it

cannot be generalized. On the other hand, though this approach helps in generalization, it does not provide in-depth knowledge. The use of the mixed methods will complement each other.

From a holistic point, there are three categories of antecedents to trust, thus, technological antecedents, organizational antecedents and consumer/ customer antecedents. Technological antecedents involve technologies that online firms can use to exhibit their trustworthiness which involves reputation systems (Patton & Josang, 2004; Josang *et al.*, 2007), trust symbols (Cook & Luo, 2003; Chien-Ta Ho & Oh, 2009), social presence tools/applications (Li & Chen, 2009; Karimov & Brengman, 2011) and recommender systems (Xiao & Benbasat, 2007; Choi *et al.*, 2011).

Findings from the qualitative study showed that the online firms were concern about their reputation and as such were keen on building a good one. However, unlike most websites from developed nations that use reputation system which allows both parties (seller and buyer) to rate each other, the Ghanaian e-commerce firms built their reputation by associating with already established brands, free delivery, and provision of excellent services. Nevertheless, studies have shown that association with already established brands transmit a sense of trustworthiness of an online firm (Durkan *et al.* 2003). Findings from the quantitative study shows that consumers trust is influenced by the perceived reputation of the online firm. In essence perceived reputation has a significant effect on consumers trust (Chen & Barnes, 2007). Both the qualitative and quantitative study has complimented each other in depicting the essence of a firm's reputation.

### **Lesson 1: A firm's reputation influences consumer trust.**

The review of literature also showed that e-commerce firms can exhibit their trustworthiness through the display of trust symbols on their website by reducing the uncertainty consumers feel

in using an e-commerce website (Cook & Luo, 2003; Chien-Ta Ho & Oh, 2009). Findings of the qualitative study showed that the online firms were not using trust symbols. Similarly, results from the quantitative study did not find support for perceived system trust.

The e-commerce firms also institute trust through social presence application and recommender systems. Social presence is essential in online transaction because of lack of face-to-face interaction. With social presence consumers trust are boosted because they are able to have access to a forum where they can discuss issues bothering them. Consumers can therefore share their feelings, experiences, emotions which leads to the tranference of trust through mutual bonds (Nambisan & Baron, 2007) Moreso, they are able to interact with online vendors to address any challenge. In some cases, certain firms shift their product support to its virtual community (Spaulding, 2010). The advantage is that this facilitates ease of undertsanding and ease of finding information on websites since consumers can consult various social application platforms when challenges in using the website occurs. It is therefore not surprisng that the quantitative study found support for ease of undertsanding and ease of finding as mechanisms influencing consumer trust. Likewise recommender systems relief online consumers of “internet fatigue” where there is either too much information or very scanty information. Recommender systems also facilitate ease of finding information on the website. Again, the qualitative study and the quantitative study complimented each other.

**Lesson Two: Social presence applications and recommender systems facilitate ease of understanding and ease of finding which in turns leads to trust.**

Organizational antecedents involves how organization use strategies such as third- party alliance (Beldad *et al.*, 2010; Hu *et al.*, 2010), use of policies (Lauer & Deng, 2007), offline presence and assurance of guarantees to institute consumer trust.

Findings of the case study showed that the online firms were using third-party alliance by liaising with accredited payment gateway so as to gain the trust of consumers. The online firms were also instituting trust through the display of privacy policy on their websites that assures consumers about how safe their personal details are. Furthermore, the firms communicated their offline presence by ensuring that they visible to the general public in all aspect. These communicate the trustworthiness of the firms which instills a sense of trust in online consumers by alleviating the risk these consumers face during e-commerce transactions. Likewise, the quantitative study found support for the perceived risk. This is in line with others studies that state that perceived risk has a negative effect on trust (Antony *et al.*, 2006; Pennanen *et al.*, 2007; Beldad *et al.*, 2010). The qualitative and the quantitative study complimented each other.

**Lesson Three: Third-party alliance, policies, offline presence, and assurance of guarantees reduce consumers' perceived risk which leads to trust.**

## **7.8 Summary**

This chapter discussed quantitative analyses as well as the findings of the study. This analysis was carried out in order to answer the research questions outlined in the beginning of the study. The quantitative data were analyzed to investigate the mechanisms influencing the trust of Ghanaian e-commerce consumers. Both exploratory and regression analysis were performed. Eight hypotheses comprising perceived risk, familiarity, perceived reputation, perceived system trust, disposition to trust, information quality, ease of understanding, and ease of finding were formulated out of which two hypotheses (perceived system trust and information quality) were not supported. However, the other six hypotheses were supported indicating that the main mechanisms influencing the trust of Ghanaian consumers are perceived risk, familiarity, perceived reputation,

disposition to trust, ease of understanding, and ease of finding. The next chapter presents the summary, conclusion, and recommendation of the study.

## CHAPTER 8

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 8.1 Summary

Trust has been identified as a prerequisite for e-commerce. The removal of physical space by e-commerce makes it necessary to establish trust between buyer and seller. It is therefore essential to identify the antecedents of consumers trust. However, even though there are some empirical studies on the antecedents of trust, the results are far from univocal. Furthermore, studies have shown that culture has an impact on e-commerce (Heeks, Molla, Boateng, & Hinson, 2011). For instance, consumers from individualistic cultures are more likely to trust e-vendors than consumers from collectivistic cultures (Sun, 2010; Park *et al.*, 2012). However, most of these studies were conducted in developed countries. A study in a developing country such as Ghana may generate new insights since it is justifiable to assert that the possible effects of different trustworthiness cues on the development of trust in online transactions according to different contexts (Beldad *et al.*, 2010). Moreover, most of the studies examined trust from only one stake holder at a time, thus, either from the customer perspective or from that of the e-vendor. However, since its customers who trust and e-vendors exhibit trustworthiness, their views may differ. In order for us to have a holistic understanding, we need to understand the interactions between both parties. This study therefore investigated the antecedents of trust in Ghanaian e-commerce websites considering both the customers and the e-vendor as stakeholders. In lieu of this, the following objectives were formulated:

1. To investigate the trust mechanisms Ghanaian e-commerce firms institute in their websites.
2. To investigate the factors that influences consumers' trust in Ghanaian e-commerce websites.

In the quest to answer the above objectives, the study reviewed literature on e-commerce trust ranging from 2007 to 2014 across a wide range of peer reviewed journals with concentration on IS journals. A review of e-commerce trust literature shows that there are three main categories of antecedents to trust, technological antecedents; organizational antecedents; and customer/consumer antecedents.

From the literature, it was observed that there was no one theory that attempts to bring these antecedents together. Hence, the study adopted the TOE framework which was conceptualized into technological antecedents, organizational antecedents and consumer/client based antecedents to study the antecedents of trust in Ghanaian e-commerce websites. The TOE framework was selected because of its parsimonious nature, allowing the various constructs to be predefined. All these antecedents were identified from past studies in the literature review.

With respect to achieving the objectives of this study, the study adopted a mixed method approach. The quantitative approach used surveys to answer the research question which mechanisms influence Ghanaian e-commerce consumers trust using variables identified from the literature review. The qualitative approach was used to answer the research question as to ‘which mechanisms Ghanaian e-commerce firms use to institute trust’. The survey used a purposive sampling technique including only respondents that shop on Ghanaian e-commerce websites. A total of 307 respondents were then sampled for the study. The data collected was analyzed using SPSS version 20 performing both descriptive and regression analysis. The case study was on two Ghanaian e-commerce firms being Tisu.com and Zoobashop.com after letters were sent to a total of five e-commerce firms (OLX.com, Tonaton.com, and Kaymu.com). The others refused to be interviewed.

Results from the quantitative study indicated that, Perceived Risk, Familiarity, Perceived Reputation, Ease of finding, Ease of Understanding, and Disposition to trust were found to be statistically significant. Two hypotheses on perceived system trust and information quality were not found to be statistically significant indicating that, the main mechanisms influencing the trust of Ghanaian consumers are perceived risk, familiarity, perceived reputation, disposition to trust, ease of understanding, and ease of finding.

From the case study it was identified that, the two Ghanaian e-commerce organizations were both instituting trust on their websites technologically and organizationally. Technologically, they were using recommender systems and social presence applications to exhibit their trustworthiness. Organizationally, they were using policies, third party alliance, offline presence, and product guarantee/warranty to exhibit their trustworthiness.

## **8.2 Conclusions**

Based on the analysis of the findings in the preceding chapter, this study draws a number of conclusions. First, perceived risk has a significant effect on trust. To this end e-commerce websites could increase consumers' online trust by decreasing perceived environmental risks or by enhancing security. Consumers' perceived risk is very important as illustrated in the case study. It is therefore not surprising that first timers begin making small purchases to test the e-vendors before making bigger purchases. Starting with smaller purchases means the risk is limited; however, if their perceived risk is reduced, they are likely to start making bigger purchases right away.

Since it was identified that perceived reputation was one of the factors influencing customers trust and other studies support this, it is recommended for especially unfamiliar and small e-commerce firms that they liaise with already established brand names in order to win the trust of prospective

customers. From the case study, the e-commerce firms are liaising with banks and telecommunication companies and taking advantage of some of their services offered such as such as Tigo Cash; Airtel money, and VISA as payment gateways. This influences a consumer trust since payment is made through these accredited organizations who have already gained the trust of many.

The study has also shown that consumers trust is influenced with ease of finding and ease of understanding. It is essential for consumers to understand the information on the website as well as it being easy to find information concerning products. A website that has the ease of understanding and ease of finding information encourages greater usability thereby influencing the trust of consumers.

### **8.3 Implication to Research, Policy and Practice**

The study has made significant contributions to research, practice, and policy. The subsequent section discusses these implications.

#### **8.3.1 Implication to Research**

For research, this study contributes a theoretically based and empirically tested research to explain how Ghanaian e-commerce firms institute trust in their websites and how that influences consumers' trust. The study contributed to theory by providing a comprehensive framework to study the factors influencing trust in e-commerce. Only few studies have used a comprehensive model in predicting the factors that contribute to the development of consumer's trust in e-commerce (Beldad *et al.*, 2010). None of these studies to the best knowledge of the researcher used the TOE framework. Moreover, the study included the "risk perception" in the framework which has not received much attention (Beldad *et al.*, 2010, Beatty *et al.* 2011). This study went

further to give a holistic understanding of the antecedents of trust from both the consumer's side and the organizational side which little attention has been paid to.

This study was also conducted in a developing country which is lacking in literature of this nature thereby it gives insights about the antecedents of trust from a developing country perspective. As a whole, this study adds up to the empirical studies on the antecedents of trust exhibiting the contextual differences in trustworthiness cues on the development of trust.

### **8.3.2 Implication to Practice**

For practice, managers of e-commerce firms with a solid understanding of the factors influencing trust can transform their websites into trusted sites. The findings of this study will be useful to many small-scale and unfamiliar online retailers on ways to build trust that are addressed specifically below.

E-commerce firms should reduce consumers' perceived risks by providing detailed privacy policies assuring consumers confidentiality of their information. Moreover they should not ask consumers to provide information that is irrelevant to the completion of their transactions. Asking for irrelevant information during transactions will raise suspicions of the consumers thereby deterring them from completing the transaction.

The study also guides e-commerce firms to professionally design high quality interface that are easy to use and easy to find information on the products. Ease of use and ease of finding information will influence online trust as it boosts consumers' confidence. Hence, such things such as unnecessary pop-ups and installation of soft-wares before use should be avoided.

Furthermore, the study also points to e-commerce firms to include information on guarantee/warranty and goods return policy on their websites. For a firm to take advantage of the

implications of this research, the information should state how transactions involving guarantee/warranty and return of goods are to be carried out. This will influence consumers trust by reducing any uncertainty that the consumer might feel.

The study also points to ecommerce firms that even though they are operating online they need to have a physical office to alleviate the fears of consumers. An offline presence assures the consumers that they can physically come to the office in case of any problems.

### **8.3.3 Implications to Policy**

For policy, a better understanding would be gained by policymakers as to what to consider in creating legislation that affects instituting trust on e-commerce websites based on best practices that will be unearthed.

More specifically, this study points out to policy makers the need for regulatory bodies to construct seals of approval that will be given to genuine websites. The seal of approval will act as a trust symbol that e-commerce firms would earn based on performance. A seal of approval on a web site should have a link that connects to the regulatory body's website which could be clicked by the consumer.

### **8.4 Limitations and Future Research Directions**

This study is not without limitations. Firstly, the study used students as the main sample size since the adoption of students as a survey sample are typically considered more applicable to online consumers (Njite & Parsa, 2005; Chen & Barnes, 2007). However, the student sample is unlikely to represent the wider population. Also, trust was noted to be a very broad concept as such the study was limited to only consumer trust in e-commerce and nothing beyond.

Future research should focus on identifying elements that contribute to consumers' perceived environmental risks and how to mitigate them. Future research can look at the factors that influence online trust with respect to gender differences. Specifically, further studies can focus on assessing the factors that influence online males' trust and those that influence online females' trust. Also e-commerce vendors are gradually using social networking to attract out-group entities into in-groups by creating social similarities between the customers (Shi *et al.*, 2013). By so doing, the psychological distance between buyers and sellers is removed. Future research should consider the impact that social networking has on trust in Ghanaian e-commerce websites.

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## APPENDICES

### Appendix A

#### (i)- Interview Guide

#### INTERVIEW GUIDE

#### ANTECEDENTS OF BUILDING TRUST IN E-COMMERCE WEBSITES: EVIDENCE FROM GHANA

##### Introduction

I am Kenneth Leslie Gyapong, a student of the University of Ghana Business School reading Mphil in Management Information Systems. I am conducting a study on antecedents of building trust in e-commerce websites.

##### Purpose of Interview

The purpose of the study is to contribute to the debate on the antecedents of building trust in e-commerce websites. This interview is subject to your willingness to participate and you may excuse yourself from participating at any time. However, you are assured that any data collected is for academic purposes only and will be treated confidentially. You not obligated to answer all the questions

The interview will cover the following areas.

##### Background of interviewee

1. What is your name?
2. What is your position in this organization?
3. Background information about the company.

##### Trust

4. What is your understanding of trust and how important is it to your business?
5. How do you assure consumers that you really exist?
6. What mechanism did you put in place to ensure trust?

##### Technological Context

7. What process are you using to build a good reputation?
8. Do you recommend products to your customers?
9. Do you use social network applications in communicating your presence?
10. Do you have special symbols such as electronic seals on your website to communicate to potential consumers that you are genuine?
11. Do you get complaints about the difficulty of use of the website?

**Organizational Context**

12. How do you assure your consumers about the safety of their personal information?
13. Do you liaise with other institutions to communicate your trustworthiness?
14. Do you give guarantees or warranties on your product?

**Other Questions**

15. How do you ensure the security of your consumers?
16. How do you keep track of the sellers who post their products online and ensure that the products are safely delivered to the customers to avoid customers from getting scammed since it's your reputation that is at stake?
17. How do you ensure that information concerning products is accurate and genuine?
18. Have you ever experienced any system failure?
19. What were some of the challenges faced?
20. How did you address or manage some of these challenges?
21. What are your future plans?

Thank you for your time.

## Appendix A

### (ii) Research Questionnaire



## UNIVERSITY OF GHANA BUSINESS SCHOOL

### DEPARTMENT OF MANAGEMENT INFORMATION SYSTEMS

**Dear Respondent,**

The bearer of this questionnaire is a student of the University of Ghana Business School pursuing **MPhil MIS**. He is conducting a survey on “**ANTECEDENTS OF BUILDING TRUST IN E-COMMERCE WEBSITES: EVIDENCE FROM GHANA**”. Please kindly respond to the following questions for the student. Your responses will be duly appreciated and treated with utmost confidentiality.

*NB: Electronic commerce draws on various technologies to trade in products or services conducted through computer networks such as the Internet.*

Please tick  where appropriate.

#### Section A: Demographic characteristics

##### 1. Age

- |                                |                                |                                |  |
|--------------------------------|--------------------------------|--------------------------------|--|
| <input type="checkbox"/> <18   | <input type="checkbox"/> 18-24 | <input type="checkbox"/> 25-30 |  |
| <input type="checkbox"/>       |                                |                                |  |
| <input type="checkbox"/> 31-35 | <input type="checkbox"/> 36-40 | <input type="checkbox"/> >50+  |  |
| <input type="checkbox"/>       |                                |                                |  |

##### 2. Sex

- Male  Female

##### 3. Educational Level

- |  |  |
|--|--|
| <input type="checkbox"/> High School         | <input type="checkbox"/> Bachelor's Degree |
| <input type="checkbox"/> Master's Degree     | <input type="checkbox"/> PHD               |
| <input type="checkbox"/> Professional Degree |  |

Others please specify.....

##### 4. How often do you shop on the internet?

- |   |                          |
|---|--------------------------|
| a. One to two times a month <input type="checkbox"/>    | b. One to two times a    |
| year <input type="checkbox"/>                           |                          |
| c. More than two times a month <input type="checkbox"/> | d. More than two times a |
| year <input type="checkbox"/>                           |                          |

##### 5. What is your attitude to using the internet to shop?

- a. Positive       b. Negative       c. No opinion

**6. Which of the following Ghanaian e-commerce websites have you used before?**

**[Multiple Responses Are Allowed]**

- a. Tonaton.com
- b. Kaymu.com
- c. OLX.com
- d. Tisu.com
- e. Zooba.com

Others, Please specify

.....

**7. Among the e-commerce web sites listed blow, which one would you consider to be the best?**

- a. Tonaton.com
- b. Kaymu.com
- c. OLX.com
- d. Tisu.com
- e. Zooba.com
- f. None

**7b.If none above, why?**

.....

.....

.....

**Section B: The following questions seek to ascertain respondent’s perception of e-commerce trading.**

8. Please show how you agree or disagree with the following statements

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

<b>Familiarity</b>	1	2	3	4	5
Fam1: I am familiar with searching for products on the Internet					
Fam2: I am familiar with buying products on the Internet					
Fam3: I am familiar with Ghanaian e-commerce web sites					
Fam4: I am familiar with the processes of purchasing products on the Internet					
Fam5: I am familiar with inquiring about products ratings on Ghanaian e-commerce web sites					

9. Please show how you agree or disagree with the following statements

<b>Trust</b>	1	2	3	4	5
Tr1: I trust that my personal information entered on Ghanaian e-commerce websites is protected.					
Tr2: I trust Ghanaian e-commerce web sites					
Tr3: I believe that Ghanaian e-commerce web sites are trustworthy					

10. Please show how you agree or disagree with the following statements

<b>Disposition to Trust</b>	1	2	3	4	5
Dis1: I generally trust other people					
Dis2: I tend to count upon other people					
Dis3: I generally have faith in humanity					
Dis4: I feel that people are generally reliable					
Dis5: I generally trust other people unless they give me reason not to					

***NB: The following questions are based on your best/one e-commerce site you trade on.***

11. Please show how you agree or disagree with the following statements

<b>Perceived Reputation</b>	1	2	3	4	5
PR1: This e-commerce vendor is well known					
PR2: Has a good reputation in the market					
PR3: Has a bad reputation (reverse coded)					
PR4: Has a reputation for being honest					
PR5: Has a reputation for being fair					
PR6: Has a reputation for being consumer-oriented					
PR7: I am familiar with the name of this website					

12. Please show how you agree or disagree with the following statements

<b>Perceived risk (PRISK)</b>	1	2	3	4	5
PRIS1: I believe that the risk of purchasing online from this e-commerce vendor is very high.					
PRIS2: There is a high probability of losing a great deal by purchasing online from this e-commerce vendor.					
PRIS3: There is great uncertainty associated with purchasing online from this e-commerce vendor					
PRIS4: Overall, I would label the option of purchasing online from this e-commerce vendor as something negative					
PRIS5: Generally, purchasing from e-commerce websites involves a lot of risk					

13. Please show how you agree or disagree with the following statements

<b>Information Quality</b>	1	2	3	4	5
IQ1: The web site gives me correct information about the items I want to buy					
IQ2: The web site is messy					
IQ3: The web site is cumbersome					
IQ4: The web site is confusing					
IQ5: The web site is irritating					
IQ6: The website provides up-to-date information about products I need					
IQ7: The web site is intelligent					
IQ8: The website provides reliable information					

14. Please show how you agree or disagree with the following statements

<b>Ease of Understanding</b>	1	2	3	4	5
EUS 1: It requires the fewest steps possible to accomplish what I want to do with it.					
EUS 2: I can use it without written instructions					
EUS 3: I can recover from mistakes quickly and easily					
EUS 4: It is flexible					
EUS 5: I can use it successfully every time					

15. Please show how you agree or disagree with the following statements

<b>Ease of Finding</b>	1	2	3	4	5
EF1: It is easy to search for information on product					
EF2: I can easily information on related products of interest					
EF3: Both occasional and regular users can easily search for information					
EF4: It is user friendly					
EF5: I don't notice any inconsistencies as I use it					

16. Please show how you agree or disagree with the following statements

<b>System Trust (Situational Normality and Structural Assurances)</b>	1	2	3	4	5
ST1: The e-commerce website assures me of having enough safeguards to make me feel comfortable using it to transact business.					
ST2: I feel assured that legal and technological structures adequately protect me from problems on the Internet.					
ST3: I feel that the e-vendor act's in my best interest					

ST4: I consider the provision of a privacy policy before making purchases online					
ST5: I believe my information is safe with this e-vendor					

17. Please show how you agree or disagree with the following statements

<b>Challenges</b>	1	2	3	4	5
The website is often not available for me to use					
The website is too complex					
The information the website provides is not up-to-date					
The website takes too long to respond					
Some of the products the website sells are not genuine					

Thank you

**Appendix B- Displayed third-party payment gateways used by the case websites.**

i) Tisu.com

WHAT IS **tisu?** HOW IT WORKS?

**QUESTIONS?**  
028 4003000  
Toll Free Vodafone only  
0800-10118  
Monday - Friday  
7am - 8pm  
We are here to help!

**FREE DELIVERY**  
in ACCRA & TEMA.  
Monday - Friday

**TISU GUARANTEE**  
Best quality products.

**SECURE SITE**  
All your data is encrypted,  
so you don't need to worry!

**PAYMENT OPTIONS**

CASH MTN Mobile Money power VISA  
MasterCard VISA Electron GTBank Stanbic Bank

Source: Tisu's website

ii)

Zoobashop.com

**Zoobashop.com**  
 About Us  
 How It Works  
 Sell on Zoobashop  
 Press  
 Privacy Policy  
 Terms and Conditions

**Customer Service**  
 Contact Us  
 FAQ  
 Returns Policy  
 Payment Options  
 Delivery Options  
 Pickup Points

**Payment Options**

Enter your email address below to subscribe to our Newsletter; receive updates of new arrivals, discounts etc.



Source: Zoobashop.com

### Appendix C- Normality Test

	Tests of Normality					
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
FAM1	.284	307	.000	.846	307	.000
FAM2	.230	307	.000	.894	307	.000
FAM3	.234	307	.000	.889	307	.000
FAM4	.221	307	.000	.892	307	.000
FAM5	.213	307	.000	.905	307	.000
TR1	.178	307	.000	.893	307	.000
TR2	.207	307	.000	.902	307	.000
TR3	.232	307	.000	.898	307	.000
DIS1:	.188	307	.000	.896	307	.000
DIS2:	.194	307	.000	.897	307	.000
DIS3:	.189	307	.000	.904	307	.000
DIS4	.189	307	.000	.899	307	.000
DIS5	.214	307	.000	.896	307	.000
PR1	.228	307	.000	.885	307	.000
PR2	.216	307	.000	.891	307	.000
PR3	.184	307	.000	.913	307	.000
PR4	.201	307	.000	.903	307	.000
PR5	.233	307	.000	.857	307	.000

PR6	.238	307	.000	.867	307	.000
PR7	.251	307	.000	.876	307	.000
PRIS1	.184	307	.000	.904	307	.000
PRIS2:	.215	307	.000	.903	307	.000
PRIS3:	.199	306	.000	.908	306	.000
PRIS4	.181	307	.000	.914	307	.000
PRIS5:	.201	307	.000	.897	307	.000
IQ1	.194	307	.000	.898	307	.000
IQ2	.188	307	.000	.911	307	.000
IQ3	.181	307	.000	.906	307	.000
IQ4	.201	307	.000	.902	307	.000
IQ5	.192	307	.000	.909	307	.000
IQ6	.226	307	.000	.891	307	.000
IQ7	.207	307	.000	.903	307	.000
IQ8	.263	307	.000	.862	307	.000
EF1	.329	307	.000	.826	307	.000
EF2	.299	307	.000	.856	307	.000
EF3	.259	307	.000	.874	307	.000
EF4	.300	307	.000	.857	307	.000
EF5	.196	307	.000	.900	307	.000
EUS1	.230	307	.000	.894	307	.000
EUS2	.223	307	.000	.897	307	.000
EUS3	.194	306	.000	.901	306	.000
EUS4	.250	307	.000	.890	307	.000
EUS5	.237	307	.000	.897	307	.000
ST1	.196	307	.000	.908	307	.000
ST2	.253	307	.000	.481	307	.000
ST3	.196	307	.000	.908	307	.000
ST4	.209	307	.000	.892	307	.000
ST5	.316	307	.000	.815	307	.000

---

a. Lilliefors Significance Correction

## Appendix D- Descriptive Statistics

## Descriptive Statistics

Item	N	Mini	Max	Mean		Std. Deviation	Skewness		Kurtosis	
	Stat	Stat	Stat	Stat	S.E	Stat	Stat	S.E	Stat	S.E
FAM1	307	1	5	3.65	.068	1.185	-.855	.139	-.088	.277
FAM2	307	1	5	3.40	.068	1.188	-.470	.139	-.651	.277
FAM3	307	1	5	3.51	.066	1.159	-.521	.139	-.547	.277
FAM4	307	1	5	3.34	.071	1.245	-.443	.139	-.776	.277
FAM5	307	1	5	3.16	.069	1.202	-.237	.139	-.931	.277
TR1:	307	1	5	2.79	.074	1.293	-.004	.139	-1.103	.277
TR2	307	1	5	2.80	.064	1.124	-.137	.139	-.824	.277
TR3	307	1	5	2.82	.064	1.123	-.123	.139	-.656	.277
DIS1	307	1	5	2.47	.063	1.103	.396	.139	-.467	.277
DIS2	307	1	5	2.48	.063	1.106	.419	.139	-.441	.277
DIS3	307	1	5	2.67	.065	1.143	.042	.139	-.880	.277
DIS4	307	1	5	2.51	.065	1.144	.349	.139	-.682	.277
DIS5	307	1	5	3.05	.071	1.244	-.253	.139	-1.015	.277
PR1	307	1	5	3.12	.066	1.159	-.446	.139	-.722	.277
PR2	307	1	5	3.25	.060	1.044	-.482	.139	-.246	.277
PR3	307	1	5	2.78	.062	1.080	.106	.139	-.585	.277
PR4	307	1	5	3.24	.057	.999	-.294	.139	-.333	.277
PR5	307	1	5	3.23	.056	.981	-.708	.139	.105	.277
PR6	307	1	5	3.43	.049	.865	-.488	.139	.446	.277
PR7	307	1	5	3.48	.061	1.064	-.673	.139	.026	.277
PRIS1	307	1	5	3.23	.068	1.194	-.332	.139	-.679	.277
PRIS2.	307	1	5	3.32	.065	1.142	-.378	.139	-.624	.277
PRIS3	307	1	5	3.24	.064	1.115	-.316	.139	-.575	.277
PRIS4	307	1	5	2.95	.066	1.157	.128	.139	-.713	.277
PRIS5	307	1	5	3.23	.054	.940	-.239	.139	-.203	.277
IQ1	307	1	5	3.40	.063	1.096	-.433	.139	-.285	.277
IQ2	307	1	5	2.86	.059	1.038	.167	.139	-.470	.277
IQ3	307	1	5	2.95	.059	1.031	-.016	.139	-.739	.277
IQ4	307	1	5	2.79	.055	.965	.216	.139	-.239	.277
IQ5	307	1	5	2.78	.060	1.046	.230	.139	-.500	.277
IQ6	307	1	5	3.37	.060	1.057	-.520	.139	-.174	.277
IQ7:	307	1	5	3.23	.057	.990	-.206	.139	-.197	.277
IQ8	307	1	5	3.46	.062	1.085	-.768	.139	.108	.277
EF1	307	1	5	3.67	.052	.903	-.908	.139	.779	.277
EF2	307	1	5	3.64	.050	.876	-.517	.139	-.152	.277

EF3	307	1	5	3.34	.057	.991	-.600	.139	-.113	.277
EF4	307	1	5	3.59	.054	.940	-.699	.139	.190	.277
EF5	307	1	5	2.96	.060	1.053	-.175	.139	-.812	.277
EUS1	307	1	5	3.36	.055	.967	-.370	.139	-.258	.277
EUS2	307	1	5	3.25	.063	1.110	-.430	.139	-.527	.277
EUS3	307	1	5	3.13	.055	.968	-.177	.139	-.480	.277
EUS4	307	1	5	3.37	.058	1.010	-.363	.139	-.551	.277
EUS5	307	1	5	3.43	.061	1.074	-.406	.139	-.542	.277
SA1	307	1	5	3.01	.064	1.117	-.153	.139	-.846	.277
SA2	307	1	22	3.14	.104	1.815	7.318	.139	74.907	.277
SA3	307	1	5	3.10	.059	1.033	-.228	.139	-.455	.277
SA4	307	1	5	3.24	.058	1.011	-.448	.139	-.172	.277
SA5	307	1	5	3.66	.051	.887	-1.034	.139	1.497	.277
Valid N (listwise)	307									