FACTORS INFLUENCING ONLINE PURCHASING INTENTION AMONG COLLEGE STUDENTS IN NAIROBI CITY

BY

BIKOKWAH NABWANAH AINEAH

UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

SUMMER 2016
FACTORS INFLUENCING ONLINE PURCHASING INTENTION AMONG COLLEGE STUDENTS IN NAIROBI CITY

BY

BIKOKWAH NABWANAH AINEAH

A Research Project Report Submitted to the Chandaria School of Business in Partial Fulfillment of the Requirement for the Degree of Masters in Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

SUMMER 2016
STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University in Nairobi for academic credit.

Signed: ___________________________ Date: _____________________

Bikokwah Aineah (ID 638888)

This project has been presented for examination with my approval as the appointed supervisor.

Signed: ___________________________ Date: _____________________

Dr. Joseph Ngugi

Signed: ___________________________ Date: _____________________

Dean, Chandaria School of Business
COPYRIGHT

© Copyright by Bikokwah N Aineah

All rights reserved. No part of this project may be produced or transmitted in any form or by any means, electronic, mechanical, including photocopying, recording, or any information storage without prior written permission of the author.
ACKNOWLEDGEMENT

I acknowledge my supervisor for the guidance and wise advice during the development of this thesis. I am grateful to my friends and family for their support.

Lastly, I thank the Almighty God for His guidance and providence which enabled me to undertake this project which was challenging in terms of time and resources.
DEDICATION

I dedicate this project to my family and friends.
# TABLE OF CONTENTS

STUDENT’S DECLARATION .................................................................................. iii

COPYRIGHT ........................................................................................................ iv

ACKNOWLEDGEMENT ...................................................................................... v

TABLE OF CONTENTS ..................................................................................... vii

LIST OF FIGURES ............................................................................................ x

LIST OF TABLES ................................................................................................ xi

ABSTRACT .......................................................................................................... xii

CHAPTER ONE .................................................................................................... 1

1.0 INTRODUCTION .......................................................................................... 1

1.1 Background of the Problem ......................................................................... 1

1.2 Statement of the Problem ........................................................................... 4

1.3 Purpose of the Study .................................................................................. 6

1.4 Research Questions .................................................................................... 6

1.5 Significance of the Study ........................................................................... 6

1.6 Scope of the Study ..................................................................................... 7

1.7 Definition of Terms ................................................................................... 7

1.8 Chapter Summary ...................................................................................... 8

CHAPTER TWO ................................................................................................... 9

2.0 LITERATURE REVIEW ............................................................................... 9

2.1 Introduction ............................................................................................... 9
2.1 Perceived Usefulness (PU) and the Intention to Purchase Online ..........9
2.2 Perceived Ease of Use (PEOU) and the Intention to Purchase Online .......12
2.3 Perceived Transaction Security (TS) and the Intention to Purchase Online .15
2.4 Chapter Summary..................................................................................19

CHAPTER THREE ..........................................................................................20
3.0 RESEARCH METHODOLOGY ....................................................................20
3.1 Introduction ..............................................................................................20
3.2 Research Design.......................................................................................20
3.3 Population and Sampling Design..............................................................20
3.4 Data Collection Methods........................................................................22
3.5 Research Procedures ..............................................................................22
3.6 Data Analysis Methods...........................................................................22
3.7 Chapter Summary....................................................................................23

CHAPTER FOUR ..............................................................................................24
4.0 DATA ANALYSIS, FINDINGS AND DISCUSSION ................................24
4.1 Introduction ..............................................................................................24
4.2 Response Rate .........................................................................................24
4.3 General and Demographic Information....................................................24
4.4 Descriptive Analysis of Study Variables ..................................................27

CHAPTER FIVE ..............................................................................................40
5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS ..............41
5.1 Introduction .................................................................................................................41
5.2 Summary .......................................................................................................................41
5.3 Discussion .....................................................................................................................43
5.4 Conclusions ................................................................................................................49
5.5 Recommendations ......................................................................................................51

REFERENCES ..................................................................................................................54

APPENDICES ..................................................................................................................58

Appendix A: Questionnaire ..............................................................................................58
LIST OF FIGURES

Figure 4.1: Response Rate ........................................ Error! Bookmark not defined.
Figure 4.2: Gender of Respondents .............................. Error! Bookmark not defined.
Figure 4.3: Age of the Respondents ............................. Error! Bookmark not defined.
Figure 4.4: Level attained ........................................... Error! Bookmark not defined.
LIST OF TABLES

Table 4.2: Behaviour Intention Reliability. .................................................................27

Table 4.3: Behaviour Intention to Shop Online .......................................................28

Table 4.4: Transaction Security while Shopping Online Reliability .......................29

Table 4.5: Transaction Security while Shopping Online .........................................30

Table 4.6: Perceived Usefulness while Shopping Online Reliability .......................32

Table 4.7: Perceived Usefulness while Shopping Online .........................................33

Table 4.8: Perceived Ease of Use while Shopping Online Reliability .....................34

Table 4.9: Perceived Ease of Use while Shopping Online .......................................35

Table 4.10: Correlation ..........................................................................................37

Table 4.11: Regression ..........................................................................................37

Table 4.12: ANOVA\(^a\) .........................................................................................38

Table 4.13: Coefficients\(^a\) .................................................................................. Error! Bookmark not defined.
ABSTRACT

Technology evolves at a very fast pace, sometimes faster than the users can accept and adopt it. With the rapid evolution of technology, online shopping has also evolved. This platform poses as a viable substitute for the traditional brick and mortar set up. But as mentioned above the uptake of online shopping has not been as fast as the evolution of the platform.

The purpose of this study was to determine the factors that influence online purchase intention among college students in Nairobi. The study sought to answer the following questions: how does Perceived Usefulness (PU) influence the intention to purchase online among college students in Nairobi; how does Perceived Ease of Use (PEoU) influence the intention to purchase online among college students in Nairobi; how does Transactional (TS) Security influence the intention to purchase online among college students in Nairobi.

A quantitative study was carried out with 120 respondents that included students from the University of Nairobi. A model based on the Technology Acceptance Model was used and the findings assessed by descriptive statistics and regression analysis. The findings reveal that Perceived Ease of Use (PEoU), Perceived Usefulness (PU) and Transactional Security (TS) are determinants of online purchase intention among college students in Nairobi. The model analysis of regression showed that there is a strong positive relationship between intention to purchase online and Transactional Security, Perceived Usefulness and Perceived Ease of Use. The factors shared a 68% variation of intention to shop online. Perceived Usefulness was the most important variable followed by Perceived Ease of Use and lastly by Transactional Security.

Based on the findings of the study the following recommendations were made: more online shops should be set up to increase competition, this in turn will increase Perceived Ease of Use. Those online shopping platforms already in the Kenyan market should always be on the creative edge to continue being useful to the consumer; online shops should be user friendly and very easy to use; shopping sites should not ask for excessive information from the customers, this creates a sense of insecurity in the consumer and hardens the shopping process; the government should
formulate and enact policies that look into protecting end users as they use online shopping platforms. Further research should be done to establish why most of the students did not find Transactional Security to be more important than perceived Ease of Use (PEoU) and Perceived Usefulness (PU).
CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Problem

Markets all over the world have changed from static and very structured systems for different sectors to integrated markets with a combination of different marketing, route-to-market and communication strategies aimed at enhancing interactions and product uptake by the ever-changing, more empowered and more complicated current consumer (Lee & Lin, 2005). Rapid global growth in electronic commerce (e-commerce) has revolutionized the purchasing behaviour of customers. The current information age has transformed the way companies and suppliers interact with consumers, with the consumer becoming more empowered, and in an era where competition is now more inherent, the consumer has been left both empowered and confused in equal measures, leading to consumers who easily switch from one product to another or from one company to another without any major reason and with no allegiance to any particular company or product (Siew, Khalil & Ameen, 2012).

A study conducted by Wong (2014) in Malaysia indicated that 91% of the Internet users shopped online regularly with over half (54%) of them confessing to shop at least once a month online, and the rest (26%) shopping once a week online. This has forced companies and suppliers of products and services to seek for more interactive and attractive strategies of reaching out to these consumers so as to try and maintain a significant customer base and competitive advantage for as long as possible (Yu & Wu, 2007). Apart from the widely used physical retail shops, retailing has found its way onto the online platform as organizations seek to reach as many clients as possible. With the claim on online space by the retail industry being received with different reactions in different geographical areas, age groups and consumer segments. The adoption has been gradual in some areas and rapid in others (Shadkam, Kavianpour, Honarbakhsh & Hooi, 2013). In China for example, a country with over 420 million internet users, the adoption has been quite rapid; making it the highest per country usage in the world (Gong, Stump, & Maddox, 2013).
Past research ((Lee & Lin, 2005; Wong, 2014; Shadkam. Kavianpour, Honarbakhsh & Hooi, 2013) has shown that increased internet usage has a positive impact on online shopping but is not a guarantee of adoption of online shopping or conversion into actual purchases. There are several other factors that influence the adoption of online shopping apart from internet usage. For instance, in the Chinese case, only 78 million out of the 420 million internet users do their shopping online (Gong, Stump, & Maddox, 2013) which clearly points out to other factors at play in the adoption of online shopping in the Chinese market. Some of other suggested factors included cultural preference of face to face interaction as far as trade is concerned among the Chinese people (Gong, Stump, & Maddox, 2013).

Kenya has a population of 45 million people out of whom 21 million (47%) are frequent internet users (Kenya National Bureau of Statistics, 2014). However, this number is increasing at a rate of 300 people per month as compared to the numbers in the year 2009 when there were less than four million internet users in the country (Internet World Statistics, 2014). The rate at which use of internet has grown is quite impressive which gives indication of continued adoption of online shopping among Kenyans. Five major determinants of consumer online behaviour have been identified by Gong et al (2003) as: Consumer characteristics including: demographics, motivation, trust, perceived risk and customer attitude; product characteristics including the type of the product being sold and its offering price; Intermediate characteristics like the brand of the products being sold and the brand of the online retailer, the quality of the service provided, control measures put in place for consumer privacy and security control (Gong, Stump, & Maddox, 2013); Environmental influences like market uncertainty, exposure and competition; and medium characteristics like ease of use and information quality.

The study by Gong, Stump, and Maddox (2013) focused on consumer characteristics and medium characteristics among Chinese Consumers. It was found that gender did not have an impact on shopping intentions on Chinese consumers; though the study had hypothesized that the male gender will have a higher online shopping intent than the female gender. There exists an inverse relationship between age and the intention to shop online. This means that the younger Chinese population prefers to shop online compared to the elderly ones. The education level and level of income had a positive
influence on the intent to shop online. The higher the levels in any of the two dimensions the higher the intent to shop. Perceived risk did not have any significant influence on the study. Perceived ease of use did not have any influence either, however, perceived ease of usefulness had a positive influence (Gong, Stump, & Maddox, 2013).

The offline shopping experience is characterized by interaction between the consumer and the sellers (Lee & Lin, 2005). This implies that one is able to see and feel the physical attributes of the product before purchase. However, online experience is the opposite in the sense that the buyer only gets to see the images of the product posted on the retailer’s website (Gong, Stump, & Maddox, 2013). This brings in the concept of trust, does the buyer trust that the product the seller will deliver will fit the specifications of the one advertised in the website? So which consumer behaviour and online shopping characteristics will affect purchase intent? It has been shown that: information quality, user interface quality of the website and security perceptions affect purchase intent and online commitment (Agarwal & Prasad, 1999). A website with enough information on its products and services; delivery and return policy; and offers available will sell more than one without this information. A website that is well done exudes the right image to the consumers and inspires trust. This increases the number of purchases on the website. Security perceptions have a negative impact on online purchase intent (Chung-Hoon & Young-Gul, 2003).

If a Kenyan online marketer wanted to target students in college around Nairobi, he will need to consider the factors that affect their online purchase intent. Studies of such nature have been done in China (Gong, Stump, & Maddox, 2013), Hong Kong (Chung-Hoon & Young-Gul, 2003) and in the western and European countries. Not much has been done on this subject in the Kenyan context among the youth. The youth of this nation are quite assertive and in good numbers, to ignore their impact in the online retail market is to lack strategic vision. Research done on this single issue using the same dimensions in different places have yielded different and sometimes contradicting results. For example, the demographic characteristic -gender- had no effect in China (Gong, Stump, & Maddox, 2013) but had an effect in the Indian market (Thamizhvanan & Xavier, 2012). This paints a clear picture as to why this
study may yield surprising and unconventional results that may contradict some assumptions held by the Kenyan online marketer.

The success and profitability of online stores depends majorly on customer loyalty. A study by Mainspring and Bain & Company (2000) showed that a customer should shop for at least four times at an online store before the store can make any profits from that customer. Individual’s intention to use technology is best explained using the widely used Technology Advancement Model (TAM) (Mainstream, Bain, & company, 2000). On an online set up the shopper has to interact with a website to get an interface to interact with the virtual shop online. The website is a form of technology and therefore, the behaviour of the shopper online can as well be defined by the technology acceptance model (Chin, Chang, Cheng, & Fang, 2009). There exists a discrepancy between the use of the website and the online purchasing behaviour, particularly with respect to the intention to repurchase (Thamizhvanan & Xavier, 2012). There is need therefore to extend the technology acceptance model by adding some more online relevant variables if it is to be used to explain the intent to purchase online of a college student. This will definitely improve its explanatory power in the online context (Moon & Kim, 2001).

Online shopping provides both a utilitarian and hedonic value. An assessment of the functional benefits and costs results in task oriented worth which is reflected by the utilitarian value while the hedonic value reflects entertainment and emotional worth being an assessment of the experiential benefits and costs. To enable the TAM to measure purchase intent well it has to be extended to include elements of trust, enjoyment and dimensions of e-quality

1.2 Statement of the Problem

The growth in internet to become one of the most abundant sources for consumer information, consumers’ use of the internet for information search and their choice of channel for the final purchase have made it relevant for research on factors influencing intention to purchase (Kim & Lee, 2004). Online shopping providers have the challenge of advertising their websites among the young consumers since awareness of online presence and retailing activities does not usually translate into
actual sales. Though marketers undertake marketing strategies for their online platforms through mainstream media and other available channels of marketing and at the end of the marketing season such websites are well known to the target consumers, the most such awareness does is to attract these young people to visit the sites offering these online shopping services (Chin, Chang, Cheng, & Fang, 2009). However, the main challenge is how to convert these visits either into one-off or repeat purchases for the products being advertised.

Studies on the determinants of online purchase intent have been done widely in a number of countries revealing the increasing need for online presence by companies so as to catch up with market trends (Laohapensang, 2007) (May So, Wong, & Sculli, 2005) (Morganosky & Cude, 2000) (Chung-Hoon & Young-Gul, 2003). The results in the different countries had very contrasting results showing that the findings of the studies could only be used in the context of the specific countries and hence it is not possible to make generalizations with such results. As mentioned earlier, in China for example, the gender issue did not have a significant impact on the intent to purchase online (Gong, Stump, & Maddox, 2013) while in India it was found that the gender factor had a significant impact, with males having a high intention to shop online than their female counterparts (Thamizhvanan & Xavier, 2012).

Generalizations cannot therefore be made in the Kenyan context based on the studies made in other countries since Kenya has been identified as both unique in the dynamism and characteristics of its consumers as well as the quick adoption of technology and its integration into the livelihoods of the consumers. There is therefore a glaring need to carry out a study that seeks to determine the relationship between different determinants of purchase and intent to purchase online among college students in Nairobi City, acknowledging that young people make up the largest part of internet users in Kenya. This would bridge the knowledge gap existing in Kenyan literature on how the youth behave towards technology-based services and products. The results of the study could also be used to predict how young people, especially college students, would react to the adoption of technology-based services like cashless payment system in the public transport and retail sectors.
1.3 Purpose of the Study

The purpose of this study was to determine the factors that influence online purchase intention among college students in Nairobi.

1.4 Research Questions

The research questions that the research study sought to answer include:

1.4.1 How does perceived usefulness (PU) affect the intention to purchase online among college students in Nairobi?

1.4.2 How does perceived ease of use (PEOU) affect online purchase intention among college students in Nairobi?

1.4.3 What is the influence of transaction security (TS) on online purchase intention among college students in Nairobi?

1.5 Significance of the Study

The findings of this study would be important to a number of stakeholders. These include: Online shoppers, marketers in organizations, Government of Kenya especially the Ministry of Information and future researchers and academicians. The details on how each of these would benefit from this study are discussed below:

1.5.2 Online Shoppers

It is hoped that through the findings of this study, online shoppers would learn the role that each factor has on their intention to purchase online hence guide their future online purchase decisions. The findings of this study are likely to influence more people to adopt or refrain from using online shopping services.

1.5.2 Marketers in organizations

It is hoped that the findings of this study would inform marketers of the factors influencing online purchase intentions hence inform their marketing policy and programs so as to realize full potential of their marketing efforts. It is hoped that the findings of this study would inform them of the key factors influencing online purchase intentions hence influence their budgeting programs on marketing and promotions.
1.5.3 Government of Kenya
It is further hoped that the findings of this study would inform the Government of Kenya agencies especially the Ministry of Information on factors influencing the purchase intention among Kenyans so as to ensure appropriate policies are put in place to promote safe online shopping in Kenya.

1.5.4 Future researchers and Academicians
To academicians and researchers, the findings would contribute new knowledge in the area of online shopping adoption among Kenyans. The study would also act as a source of reference for future scholars besides suggesting areas for further research.

1.6 Scope of the Study
The study focused on the factors affecting the online purchase intent of the college students in Nairobi city Kenya. It used the Technology Acceptance Model (TAM) with the extended constructs of trust, enjoyment and e-quality. The summary of all the constructs used in this extended TAM model included perceived ease of use, perceived usefulness, trust, and E-quality. The study focused on students at Institutions of higher learning within the Nairobi County.

1.7 Definition of Terms

1.7.1 Perceived Ease of Use (PEOU)
The extent to which a person believes that using a new technology would not require physical and mental effort

1.7.2 Perceived Usefulness (PU)
The degree to which a person believes that using a new technology would enhance his performance or productivity (Davis, 1989).

1.7.3 Perceived Trust
Trust includes the online consumer beliefs and expectancies of characteristics of the online seller (McKnight et al, 2002). It is the willingness of consumer to interpretation to the possibility of loss during shopping process (Gefen et al, 2003).
1.7.4 Security perception
This is the degree to which a person believes that the online vendor or website is secure (Salisbury, 2001).

1.7.5 Perceived Risk
It refers to the amount of risk that is perceived by consumer in selecting or making decision in a purchasing process (Liang & Huang, 1998).

1.7.6 Privacy
It is the willingness of consumers to share information via the Internet that allows purchases to be decided (Tariq & Eddaoudi, 2009).

1.8 Chapter Summary

This chapter provided the background of the study in relation to the factors that influence online purchase intention among college students. It has also briefly highlighted a background of the study. Subsequently the statement of the problem has also been stated followed by the purpose of the study and the research questions that the study will seek to answer. The chapter has also discussed the significance and scope of the study. A definition of terms used within the study has also been listed. Chapter two evaluated the literature as presented by other scholars and researchers to help bring out the research gap. It also gave a detailed description of the dependent variables on which the study is based as outlined in the research objectives. Chapter three highlighted the methodology adapted to achieve the study objectives. In particular, it presented the research design, population and sampling design, data collection methods, research procedures, data analysis methods and chapter summary. Chapter four present results and findings where it discusses the findings as established from the field. Chapter five presents the discussion, conclusion and recommendations according to the research variables then gives suggestions for further research.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter looks at past studies that have been undertaken in the field of online shopping with an intention of determining how different factors affect intent to purchase online. It reviews literature on perceived usefulness, perceived ease of use and transactional security and how they affect the intention to purchase online. This way, existing gaps are determined hence providing a rationale for undertaking this study. In the Kenyan context particularly, factors affecting intention to shop online among the urban youth remain under-researched.

2.1 Perceived Usefulness (PU) and the Intention to Purchase Online

Perceived usefulness (PU) of an online shopping platform reveals itself in the following forms: Provision of many product alternatives and fastening the shopping process thus making shopping more effective and less time consuming. The shopper is able to spend the saved time on other productive activities. (Yulihasri, Islam & Daud, 2011). Perceived usefulness (PU) refers to the utility derived by a shopper carrying out an online shopping transaction and/or the degree to which the individual shopper perceives the benefits and advantages of performing the online transaction (Teck, 2002). A study by Ramayah, Aafaqi and Jantan (2003) found perceived usefulness to significantly impact student’s acceptance and usage of courses online in higher education institutions. Yulihasri, Islam and Daud (2011) found that the relative strength of the usefulness was significantly associated to usage.

Internet acceptance has been widely tested using Technology Acceptance Model (TAM) which records perceived ease of use (PEOU) and perceived usefulness (PU) towards the use of internet for shopping online (Renny, Guritno and Siringoringo, 2013). The convergence of technologies and the potential of the internet as a distribution channel have significantly altered the operations of retailers worldwide (Ramayah, Jantan, & Aafacqi, 2003). In order to tap into the benefits of online shopping, firms of all sizes and from all industries have invested in internet
applications and try to establish a net presence among potential online shoppers. People increasingly use the Internet to check out company or product information but do not normally use it for direct purchasing of products. Perceived usefulness of on-line shopping means that the user’s beliefs about whether he or she, when shopping on line, can search for and compare products, get information and a lower price, and thus gain more from the transaction (Broekhuizen & Huisingh, 2007). The notion of perceived usefulness of on-line shopping assumes that it is a goal-oriented activity. Perceived usefulness also can influence the attitude, intention, and actual on-line shopping behavior. When people feel it is useful, they will be more likely to shop on-line (Shang, Chen & Shen, 2004).

According to Kardes (2002), attitude is a factor that determines someone’s behaviour. Attitude refers to someone’s inner feeling that shows whether (s) he likes or dislikes something like a brand or service. Kardes further argues that people can determine their attitude to any object or any issue based on varying information. Different marketing activities developed by marketers relating to important tasks, experience and benefits of a good/service influences consumer attitude (Schiffman & Kanuk, 2007). Attitude influences consumer behaviour intention to act in a certain way in order to obtain, dispose and use a product or service. As defined by Pavlou (2003), online shopping intention refers to a situation when consumers want and intend to do a transaction online. It is an intention by a consumer to make an online transaction and to relate with the web retailer so as to completely enjoy the online shopping experience (Zwass, 1998). Online transaction consists of three steps: to get information, to transfer information and to purchase products (Pavlou, 2003).

Consumer attitude towards an online shop establishment is a result of repeated learning. Attitude that relate to online shopping is formed from the interaction with internet as a communication medium. Attitude can be somebody’s response or affection about an object or someone (Mowen & Minor, 2002). Attitude manifests as a person’s inner feeling that shows whether s/he finds something to be: pleasant or unpleasant, likable or dislikeable, agreeable or disagreeable. Attitude towards an online platform is either positive or negative hinging on the evaluation result of a consumer related with online shopping through the e-commerce channel. Therefore, it is wise and profitable for online retailers to tailor the online experience in such a way.
that inspires a positive attitude and a sense of usefulness in the consumers mind. This will ripple down to profits as most of the consumers will not only shop habitually but also talk about their wonderful experience with other potential shoppers. The place of consumer attitude cannot be downplayed by any serious online retailer; to attract and retain online shoppers, the retailer has to understand their shopping tendencies and how they tick.

Perceived usefulness (PU) has a positive effect on consumer attitude. If the benefit of online shopping is highly perceived, attitude towards online shopping will be positive as well. The time saving and convenience offered by online shopping has seen it become increasingly attractive with penetration of the Internet in the modern times. It reduces the costs which otherwise would have been incurred on searching for the goods, offers a price cheaper than brick-and-mortar stores and is constantly perceived as secure (Foley & Sutton, 1998).

Several studies have been done on the influence of perceived usefulness on online purchase intentions. For instance, Renny, Guritno and Siringoringo (2013) while studying perceived usefulness, ease of use and attitude towards online airline ticket purchase measured perceived usefulness using 5 indicators. These were- being fast (quick), time saving, effort saving, cost reducing, and overall usefulness. The findings showed that the biggest contributor among them in building perceived usefulness was overall usefulness of online transaction, whereas the least was its use in effort saving. These findings implied that respondents believed that purchasing airlines ticket online provided effectiveness, better performance, and productivity which are equivalent to perceived usefulness of TAM (Triandis, 1980).

Another study by Heijden, Verhagen and Creemers (2003) carried out a study on understanding online purchase intentions by looking at the contributions from technology and trust perspectives. The result suggests that perceived risk and perceived ease-of-use are antecedents of attitude towards online purchasing. The effect of perceived risk was strongly negative in both cases, and the effect of perceived ease-of-use was positive in one case. The data did not support a positive effect from trust in the online store and from the perceived usefulness of the website.

As opposed to the study by Renny, Guritno and Siringoringo (2013) who found
usefulness to be positively related with online purchase intentions, this study data did not support a positive effect from trust in the online store and from the perceived usefulness of the website. This raises inconclusive discussion on the role of perceived usefulness on online shopping intentions. This is one of the justifications to conduct this study.

In another study by Juniwati (2014) on the influence of perceived usefulness, ease of use, risk on attitude and intention to shop online, the findings show that PU has a positive and significant influence on attitude toward online shopping but has no significant influence on intention to shop online. PU has positive and significant influence on attitude toward online shopping. These findings are supported by the technology acceptance model (TAM) that perceived usefulness (PU) has direct influence on technology usage. The findings further indicate that PU has no significant influence on students’ intention to shop online. It means that online shopping is actually useful but students do not intend to do it. Statistical results were supported by observation of local culture phenomenon in which the citizens also use their shopping time to develop social relationships.

2.2 Perceived Ease of Use (PEOU) and the Intention to Purchase Online

Customers in all age groups use the Internet as a substitute channel for acquiring goods and services. Several factors influence customers’ intention to use online purchase option. One of these factors is the Perceived Ease of Use (PEOU). According to Juniwati (2014), Perceived Ease of Use (PEOU) refers to the degree to which an individual believes that by using a particular technology would be free of effort. PEOU has strong influence on technology acceptance among individuals such that if one technology is perceived to be easy to use shoppers will make it as new alternative to use in addition to those shopping channels already in existence(Yoon, 2015). As established by Chau (1996) PEOU has indirect effect on attitude intention among shoppers.

This is the degree to which a user expects a new technology to be free of effort. It is the degree of effort a user expects a certain technology to involve while in use. This makes it an internal belief in the user of the effort involved in using a system. This
grants it an aspect of variation from one user to another. One user’s degree of expectation will definitely vary from another’s. Of importance, however, is that an aggregate estimation of this average can be arrived at (Gitau & Nzuki, 2014).

Gitau and Nzuki (2014) define Perceived Ease of Use as the degree to which the user expects the system to be user friendly. For example an online shopping enterprise will definitely have a website. This website serves as the link between the consumer and the seller. At first glance a user may perceive it to be friendly and easy to use but upon engagement discover that it’s not as they thought. Some other times, it might be perceived as difficult to use but upon engagement discover its quite easy (Davis 1989).

It is therefore important to keep in mind the impact of perceived ease of use in studies and practices involving online transactions. In research studies it should be looked into and in the area of practice it should be considered in the designing and programming of online platforms. Chang (2004) established that perceived ease of use is an important determinant in adoption of intranet. Liao et al (2007) established that it is important in the take up of 3G technology. It has been established to be important in the adoption of past technologies as indicated by the following studies; Online banking (Gunting & Ndubis, 2006) (Jahangir & Begum, 2008). Internet commerce (Cho et al, 2007) and M-commerce (Un & Wang, 2005) This makes a factor worth of research when considering factors affecting online shopping.

Technology Acceptance Model (TAM) is an adaptation of the Theory of Reasoned Action (TRA). It was one of the earliest models that were used to assess the acceptance or adoption of computers in the late 1980s (Davis et al, 1989). The model constituted elements like perceived usefulness, perceived ease of use and the user’s intention to use computer technology (even attitude).

The result of the study showed that attitude did not have a significant effect on the acceptance of the computer technology. However, Perceived Ease of Use and Perceived Usefulness were found to have a significant effect on the aforementioned. It was necessary therefore to remove attitude as a determinant in the model though it was originally part of the Theory of Reasoned Action which was used to develop the
Technology Acceptance Model. A new Technology acceptance Model (TAM) was developed as a result with Behaviour, PEOU and PU as the determinants of technology acceptance (Venkotesh & Davis, 2000).

A study was carried out using this new technology acceptance model and it was established that perceived ease of use and perceived usefulness had a significant impact on the acceptance of new technology. A study by Gong et al (2013) found that perceived ease of use is an important determinant of the intention to adopt use a technology. Gitau and Nzuki (2014) noted that perceived ease of use is a very important determinant in any model that wants to study the adoption or intention to use technology. This is because most of the end users are common citizens who are not well versed with new technologies and the complexities thereof. Cleema et al (2015) came up with a model based on TAM and used the model to investigate the factors that affect online shopping in Pakistan. The results revealed that Perceived Ease of Use and Perceived Usefulness are some of the factors that affect online shopping intention.

According to the TAM, perceived ease of use has a dual effect-direct as well as indirect-on consumers’ intention to shop online. The indirect effect on intention occurs through perceived usefulness because the easier a technology is to use, the more useful it can be (Venkatesh, 2000). The more people perceive technology is easy to use, the positive their attitude to the technology will be. It is the same with online shopping; if consumers perceive that it’s easy to access the sites, to learn the procedure, to compare products and prices and to find desired products, the more positive their attitude towards online shopping will be.

Several studies have been conducted on the influence of perceived ease of use on customer purchase intentions in online shopping. For instance, Jiang, Zhilin, and Jun (2013) stated that the convenience dimension of online shopping has been one of the principal motivations behind customers’ inclinations to adopt online shopping. Seiders, Berry, and Gresham (2000) proposed that dimensions of retail shopping convenience include access, search, transaction, and possession, all of which involve concepts of the speed and ease with which consumers can reach or engage a retailer, identify and select products, amend transactions, and obtain desired products. Based
on these considerations, it is hypothesized that perceived convenience in the online environment also affects perceived ease of use.

Shoppers in this day and age have a golden opportunity of increased channels of retailing. They can choose to do this in the traditional set up or online. The online set up involves the use of a website to access the offerings of a retailer. In this case the website is a special type of technology; the factors that affect the acceptance of technology in any other set up can also affect the adoption of online shopping (Liljander, Gillberg, Gummerus, & Van-Riel, 2006). The customer has to interact with the website to get access to information about products, terms and channels of delivery. The website will also provide an interface where the customers can share information about themselves with the online retailer. As such it can be said that a website is a type of technology whose adoption and use depends on the factors that affect technology adoption in general (Lin & Sun, 2009)

2.3 Perceived Transaction Security (TS) and the Intention to Purchase Online

Security concerns are one of the main reasons web users are not purchasing over the Internet. Security is often cited as one of the greatest barriers to internet commerce due to the inherent openness of the web (Zorkadis & Karras, 2000). The lack of security is experienced in several ways such as unauthorized use of corporate network, packet sniffing, data modification, unregistered transactions, eavesdropping, repudiation, and spoofing. Consumers are reluctant to use internet commerce because of privacy and security concerns (Udo, 2001; Grandinetti, 1996). Udo (2001) mentioned that, there is a close relationship between security and privacy. Privacy is the purposive decision by a company to use consumer data in a certain manner or way. However, security is the concern that the consumer data will be accessed and used by third parties like hackers and identity thieves. Salim (2000) mentioned that the future realization will be that hackers need not necessarily be within the organization concerned, there is a broad possibility that some of these are from outside the company and located in unidentified places. Consumer privacy issues are not new or novel, consumers have always been worried about how data about them is used by the institutions that collect this information from them in different forums. The government and most businesses have been put in the spot to explain how they
are currently ensuring that consumer data is secured and used appropriately. Internet users want to see and strongly feel that their privacy is being protected at all costs and at all times. Therefore, the government has to ensure that its citizens who are also online consumers are protected against cyber crimes and risks. This will inspire and entertain the flourishing of online business, Yu and Abdulai (2000).

Based on Heijden et al., 2003 and Ma’ruf, 2006, perceived risk has a very significant negative influence on the attitude towards online shopping. This implies that if the consumers feel that there exists a high risk when they transact online, then they will develop a negative impression towards the online platform. This will definitely result in fewer transactions on the platform. Reduced transactions is not what the marketing strategist wants, therefore, efforts are channelled into the process of ensuring a feeling of security while using the service. Unlike in the brick and mortar set-up, the shopper only sees a product presented on a website, however, upon delivery the product should be confirmed to match the one displayed on the website. This is a higher risk than in the off line situation where one buys a product they have interacted with. There is a possibility that the product that has been ordered online and already paid for is not delivered on time or not delivered at all. The product quality might also be different from the one displayed on the website! These factors constitute the consumers basket of worries and insecurities during an online shopping experience.

Over time many factors have been identified to influence the consumer adoption of e-commerce platforms. Topping this list are security and trust and as such they present in most of the studies already conducted (Grabner Krauter & Faullant, 2008). Yong, Boon, Gowrie, Chin, Nasreen and Tze (2013) conducted an investigation into the factors influencing adoption of internet banking in Malaysia from the adopters’ perspective. In their findings, Perceived Transaction Security was found to be having a significant effect on computer banking adoption. Lee and Eastwood (2003) also found that Perceived Transaction Security and Size of the Provider have significant effect on the adoption of Internet banking. In a study conducted by Awamleh and Fernandez (2006) an examination of the factors influencing the intention to adopt/continue to use Internet banking among users and non-users in non-OECD countries were made, Perceived Security was found to have significant difference between Internet banking users and non-users. Hernandez and Mazzon (2007) found
that Security has a significant correlation with the use of Internet banking. Laforet and Li (2005), shows that Security was found not to differ significantly between online banking adopters and non-adopters. E-commerce security is measured using; confidentiality; authentication, data integrity, non-repudiation; privacy and trust. Internet banking in a lean sense is part of online shopping and therefore some conclusions can be safely applied to online shopping for material products.

Past studies demonstrate that perceived security is an important attribute affecting the rate of e-commerce adoption among customers. Sathye (1999) studied the adoption of internet banking (IB) in Australia and found that security concerns about IB also affected the adoption of online banking. White and Nteli (2004) studied IB in the U.K. and the results illustrate that the security of a bank’s website was seen to be significantly more important than the other attributes, and that security was still the number one issue in consumers’ minds when considering IB. Each and every time someone logs onto the internet their computer is at risk of various threats with the aim of getting their personal details and accessing their money. The first step in ensuring online transaction security is to understand the main threats to a computer when conducting an online shopping transaction.

Dauda, Santhapparaj, Asirvatham and Raman (2007) studied the perceived e-commerce security influence on adoption of e-commerce, and the role of national environmental factors such as attitude, subjective norms, and perceived behavioral control factors towards adoption, and compares these factors with Singapore e-commerce adoption. They found that consumer perceived non repudiation, trust relative advantage Internet experience and transaction needs as the most important factors that affect adoption in Malaysia. The study concludes that organizations were reluctant to use ecommerce as they felt that the transactions conducted electronically were open to hackers and viruses, which were beyond their control.

An important element of Transactional security is trust. The fact that a buyer is prepared psychologically to accept vulnerability based on positive beliefs or expectations that the online platform will deliver as promised. The idea that what they expect will come to them without any alterations or dissapointments. (Gitau & Nzuki 2014). If the online shop is able to meet this expectations, at least just a greater
percentage of them, then the buyers trust will be firmly reinforced. If this was the first time purchase made by the buyer to this particular platform, then future purchases will be easily made. Such a buyer might not need further persuasion unless the shop falls below this expectations in the future. And such a fall be repetative. This helps consumers overcome the fears of uncertainty and risk. (McKnight 2002)

Sadi and Noordin (2011) carried out an exploratory analysis of the factors that heavily influenced Mobile Commerce in Malaysia. The study revealed that trust risk and security had a significant effect on M-commerce adoption. A similar study carried out by Mashagba et al, (2013) also revealed that trust and security had an impact on M-commerce.

Social Influence is another subtle elememnt of Transactional security. According to Lu et al, (2003) social influence is defined as the shoppers belief that it is significant that other people (buyers) also engage in an activity. Buyers will easily adopt a platform that has been suggested and highly recomended by others that they hold in high esteem (Gitau & Nzuki, 2014). A buyer X may develop a sense of security in an online platform and even make significant purchases simply on recomendation from a few trusted individuals. The individuals that give such a recomendation must have in one way or another had a good experience with the platform. On the contrary, if an online platform is known for bad reasons and is thus mistrusted, then most fiorst time buyers may be talked out of the intention by their peers who did not have a good experience with the enterpirise.

As such buyer reviews have an important place in boosting a buyers confidence in a platform. The last minute doubts may be eliminated by the reviews that other buyers have made about the system. An honest analysis by buyers about their experience is very powerful to other prospective buyers. Such reviews should be read by the online enterprises and the issues raised addressed in order to restore confidence where it might be lost.

One of the common e-commerce security threats is related to phishing. Phishing is carried out by e-mail spoofing or instant messaging and it often directs users to enter details at a fake website whose look and feel are almost identical to the legitimate one.
It is a form of social engineering technique used to deceive online shoppers, and exploits the poor usability of current web security technologies. Attempts to deal with the growing number of reported phishing incidents include legislation, user training, public awareness, and technical security measures. A comprehensive education and awareness program should be devised to go hand in hand with other technical countermeasures to minimize the impacts of phishing to the Internet banking sector and regain users trust. A phishing website is a broadly launched social engineering attack that attempts to defraud people of their personal information including credit card number, bank account information, social security number and their personal credentials in order to use these details fraudulently against them. Phishing has a huge negative impact on organizations’ revenues, customer relationships, marketing efforts and overall corporate image.

2.4 Chapter Summary

This chapter reviews the literature by several scholars and researchers based on the set research objectives. It has been established that Perceived Ease of Use, Perceived Usefulness and Transaction Security are important determinants of the adoption of online shopping platforms. Using the Technology Acceptance Model, several scholars were able to establish the significance of these three factors in the acceptance or adoption of several technologies and technological platforms. A user will very well want to experience some usefulness as a result of choosing to use an online platform as compared to shopping in a brick and mortar set up. An online platform should therefore offer some level of utility to the shopper in terms of usefulness. It is important also that the user of an online platform experiences some perceived degree of ease while engaging the platform. This means that there should be some level of Perceived Ease of Use. There should be a feeling of security while shopping online. An online shopping platform should be safe and secure. The Kenyan market is no different from these markets; however, the significance of these factors may vary in notable proportions. The following chapter outlines the research methodology used in this study. It outlines the population and sampling design; data collection methods; research procedures; data analysis methods and offers a conclusive summary on the same.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This section discusses the methodology that was employed in carrying out the study. In this section the research identified the procedures and techniques that were used in the collection, processing and analysis of data. Specifically the following subsections are included: research design, target population, data collection instruments, data collection procedures and finally data analysis.

3.2 Research Design

This research problem was studied through the use of a descriptive research design. Descriptive study is concerned with finding out the what, where and how of a phenomenon. The research design and methodology entails collecting data useful in analysis and coming up with relevant recommendations and conclusions.

Mugenda and Mugenda (1999) noted that a survey research attempts to collect data from members of a population and describes existing phenomena by asking individuals about their perception, attitudes, behaviour or values. Surveys enable collection of data from a sizeable population in a highly economical way. The data obtained is standardized, to allow easy comparison. Moreover, it explores the existing status of two or more variables at a given point in time.

3.3 Population and Sampling Design

3.3.1 Population

According to Ngechu (2004), population is the total collection of elements with common observable characteristics about which some inferences can be made. A large set of observations is referred to as a population while the smaller set is called the sample. The target population comprised of 120 students at the University of Nairobi.
3.3.2 Sample Design

3.3.2.1 Sample Frame

According to Cooper and Schindler (2006), a sampling frame is a list of elements from which the sample is actually drawn and closely related to the population. In this study, the sampling frame was drawn from students in the University of Nairobi. This was used so as to ensure that the sampling frame is current, complete and relevant for the attainment of the study objective. This therefore involved the class lists of students in some classes from the school of education and business in the University of Nairobi.

3.3.2.2 Sampling Technique

The study adopted a probability sampling design since each sampling unit has a known non-zero chance of getting selected in the final sample and results generalized to the target population with a specified margin of error through statistical methods. Stratified random sampling technique was employed to obtain a reasonable sample size of the study and sampling frame was stratified into undergraduate customers and graduate customers. This gave the researcher assurance of representativeness, comparison between strata and a deeper understanding of each stratum as well as their unique characteristics.

3.3.2.3 Sample Size

Out of a target population of about 40,000 students from the university of Nairobi the study employed convenience sampling to obtain a number of respondents. A sample size of 368 was reached based on the Krejcie and Morgan formula and table. However, due to time constraints it was scaled down to 120 participants.

Determining the sample size is a complex task and involves much clarity with regard to the balance between the resources available and number or accuracy of information obtained. Qualitative factors must be considered including nature of the research, expected outcomes, importance of the findings, number of variables to be studied, nature of analysis and resource constraints. Quantitative factors included variability of
the population characters hence a larger sample size due to high variability of the account holders. Tests were conducted at 95% confidence level in estimating the population characteristics; larger sample size was preferred for accurate description of the examination systems.

3.4 Data Collection Methods

This research collected primary data using questionnaires. The questionnaires comprised of both open and closed ended questions in line with the objectives of the study. A five point Likert scale was used for closed ended questions. The questionnaire contained two sections each. The first section sought to establish the respondents’ demographic data while the second section sought to establish the respondents’ opinions on the three variables considered in this study.

3.5 Research Procedures

Out of a target population of about 40,000 students from the University of Nairobi the study employed convenience sampling to obtain a number of respondents. A sample size of 368 was reached based on the Krejcie and Morgan formula and table. However, due to time constraints it was scaled down to 120 participants.

3.6 Data Analysis Methods

Before processing the responses, data preparation was done on the completed questionnaires by editing, coding, entering and cleaning the data. Data collected was analyzed using descriptive statistics. Cross tabulations, chi-square tests and metric measures were used in the analysis. The descriptive statistical tools helped in describing the data and determining the respondents’ degree of agreement with the various statements under each factor. Data analysis was done using Statistical Package for Social Sciences (SPSS) where descriptive statistics and regression analysis were carried out, analysed and tabulated.
3.7 Chapter Summary

This chapter has outlined the research methodology and design. It has given a detailed analysis of the population and the sampling process that was used in collecting the research data. The population sample comprised of 120 students from the University of Nairobi drawn from the graduate and undergraduate categories. Simple Random sampling technique was used in the determination of the sample and the population. This was done to ensure the results are more representative. Primary data was collected from the respondents through the application of a structured questionnaire. Data analysis was done using the statistical Package for Social Sciences, where descriptive statistics including cross tabulations, chi-square tests and metric tests were performed. The next chapter presents the results and findings of the study.
CHAPTER FOUR

4.0 DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the study, data analysis and interpretation. The study’s aim was to determine the factors that influence online purchase intention among college students in Nairobi and was guided by the following research questions: How does perceived usefulness (PU) affect the intention to purchase online among college students in Nairobi? How does perceived ease of use (PEOU) affect online purchase intention among college students in Nairobi? What is the influence of transaction security on online purchase intention among college students in Nairobi?

4.2 Response Rate

The target population comprised of 120 students at the University of Nairobi. Table 4.1 indicates that out of the 120 questionnaires administered, 90 responded, which gave a response rate of 75%. According to Mugenda and Mugenda (2003) the statistically significant response rate for analysis should be at least 50%.

Table 4.1

Response Rate

<table>
<thead>
<tr>
<th>Response rate</th>
<th>Sample size</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned questionnaires</td>
<td>90</td>
<td>75</td>
</tr>
<tr>
<td>Un-returned questionnaires</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

4.3 General and Demographic Information

This section includes the general demographic information. Respondents were asked about their Gender, age and level of college education attained.
4.3.1 Gender.

The study sought to establish the gender of the respondents. The findings were as indicted in Figure 4.1

53% of the respondents were male while 47% were female. The above findings reveal that the respondents were both male and female though majority of the respondents were male.

Figure 4.1 Gender of the respondents.

4.3.2 Age of the Respondents

The study sought to establish the age of the respondents. The findings were as shown in Figure 4.2.

The study established that 48% of the respondents were between 18-24 years of the age, 41% of the respondents were between 25-30 years and 11% were above 30 years of age. This shows that the study included all ages represented in the university although majority of the respondents were between 18-24 years of age. The finding indicates that all the respondents were mature enough to give valid responses on the research study.
4.3.3 Level of Education Attained

The respondents were asked to indicate the highest level of education, the findings were as indicated in Figure 4.3

The findings indicate that majority of the respondents 38% were pursuing their master’s degree, 21% were in third year, 20% were in second year, 16% of the respondents were in fourth year whereas and only 6% of the respondents were in first year. The finding highlights that respondents in masters level were the main respondents, thus they had vast information on the factors influencing online purchasing among college students in Nairobi city.
4.4 Descriptive Analysis of Study Variables

4.4.1 Behaviour Intention to shop online

Scale reliability for Behaviour Intention to shop online construct was assessed by computing a Cronbach’s alpha reliability coefficient. Bernstein (1994) recommended a value of 0.7 and above for the coefficient alpha to infer to the internal consistency of the items. Thus reliability is demonstrated in table 4.2 since the overall Cronbach’s alpha statistic is 0.674 which is approximately 0.7.

Figure 4.3 Level of Education attained
The results of the measurement of Behaviour Intention to shop online are shown in Table 4.3. Emanating from the results, majority (82%) of the respondents were of the intent to use online shopping in the near future. 38% already shop online and majority 60% agreed that shopping online is a good idea.

<table>
<thead>
<tr>
<th>Behaviour Intention to shop online</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use online shopping within the near future</td>
<td>6.5778</td>
<td>3.483</td>
<td>.398</td>
<td>.339</td>
</tr>
<tr>
<td>I already shop online</td>
<td>7.6222</td>
<td>3.024</td>
<td>.201</td>
<td>.574</td>
</tr>
<tr>
<td>Shopping online is a good idea</td>
<td>6.7333</td>
<td>2.849</td>
<td>.438</td>
<td>.228</td>
</tr>
</tbody>
</table>

Overall Cronbach’s Alpha = 0.674

Table 4.3
Behavior Intention to Shop Online

<table>
<thead>
<tr>
<th>Behaviour Intention to shop online</th>
<th>Strongly Disagree (%)</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
<th>Strongly Agree (%)</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use online shopping within the near future.</td>
<td>2</td>
<td>9</td>
<td>7</td>
<td>62</td>
<td>20</td>
<td>3.8889</td>
<td>0.9050</td>
</tr>
<tr>
<td>I already shop online.</td>
<td>22</td>
<td>18</td>
<td>22</td>
<td>29</td>
<td>9</td>
<td>2.8444</td>
<td>1.3061</td>
</tr>
<tr>
<td>Shopping online is a good idea.</td>
<td>4</td>
<td>7</td>
<td>29</td>
<td>31</td>
<td>29</td>
<td>3.7333</td>
<td>1.0893</td>
</tr>
</tbody>
</table>

4.4.2 Transaction Security while Shopping Online

Scale reliability for Transaction security while shopping online construct was assessed by computing a Cronbach’s alpha reliability coefficient. Table 4.4 indicates good internal consistency of the items since the overall Cronbach’s alpha statistic was 0.695 which is approximately 0.7.
**Transaction Security while Shopping Online Reliability**

<table>
<thead>
<tr>
<th>Transaction security while shopping online</th>
<th>Strongly Disagree (%)</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
<th>Strongly Agree (%)</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet shopping sites are trustworthy.</td>
<td>2</td>
<td>20</td>
<td>38</td>
<td>24</td>
<td>16</td>
<td>3.311</td>
<td>1.035</td>
</tr>
<tr>
<td>Internet shopping sites keep their promises and commitments.</td>
<td>0</td>
<td>11</td>
<td>49</td>
<td>38</td>
<td>2</td>
<td>3.311</td>
<td>0.697</td>
</tr>
<tr>
<td>Internet shopping sites keep the customers interest in mind.</td>
<td>9</td>
<td>13</td>
<td>40</td>
<td>29</td>
<td>9</td>
<td>3.156</td>
<td>1.059</td>
</tr>
<tr>
<td>There is one online site that I can trust.</td>
<td>2</td>
<td>27</td>
<td>38</td>
<td>24</td>
<td>9</td>
<td>3.111</td>
<td>0.977</td>
</tr>
</tbody>
</table>

Transaction security while shopping online factor was measured using the Likert scale and the results tabulated in table 4.5. 40% of the respondents agreed that Internet
shopping sites are trustworthy. 40% of the respondents agreed that Internet shopping sites keep their promises and commitments. 38% agreed that Internet shopping sites keep the customers interest in mind and 33% agreed that there exists at least one online site that they can trust.

Table 4.5

Transaction Security while Shopping Online

<table>
<thead>
<tr>
<th>Transaction security while shopping online</th>
<th>strongly Disagree (%)</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
<th>Strongly Agree (%)</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet shopping sites are trustworthy.</td>
<td>2</td>
<td>20</td>
<td>38</td>
<td>24</td>
<td>16</td>
<td>3.311</td>
<td>1.035</td>
</tr>
<tr>
<td>Internet shopping sites keep their promises and commitments</td>
<td>0</td>
<td>11</td>
<td>49</td>
<td>38</td>
<td>2</td>
<td>3.311</td>
<td>0.697</td>
</tr>
<tr>
<td>Internet shopping sites keep the customers interest in mind.</td>
<td>9</td>
<td>13</td>
<td>40</td>
<td>29</td>
<td>9</td>
<td>3.156</td>
<td>1.059</td>
</tr>
<tr>
<td>There is one online site that I can trust.</td>
<td>2</td>
<td>27</td>
<td>38</td>
<td>24</td>
<td>9</td>
<td>3.111</td>
<td>0.977</td>
</tr>
</tbody>
</table>

4.4.3 Perceived Usefulness while shopping online
Scale reliability for Perceived Usefulness while shopping online construct was assessed by computing a Cronbach’s alpha reliability coefficient. Table 4.6 indicates good internal consistency of the items since the overall Cronbach’s alpha statistic was 0.705.

Table 4.6

*Perceived Usefulness while Shopping Online Reliability*

<table>
<thead>
<tr>
<th>Perceived Usefulness while shopping online</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach’s Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using online shopping improves my performance in shopping activities</td>
<td>17.6000</td>
<td>16.153</td>
<td>.184</td>
<td>.738</td>
</tr>
<tr>
<td>Online shopping makes shopping easier</td>
<td>17.3556</td>
<td>13.535</td>
<td>.513</td>
<td>.641</td>
</tr>
<tr>
<td>Online shopping saves more time than actual shopping purchase</td>
<td>17.4000</td>
<td>11.928</td>
<td>.671</td>
<td>.581</td>
</tr>
<tr>
<td>Online shopping improves my quality of shopping experience</td>
<td>17.9333</td>
<td>13.321</td>
<td>.463</td>
<td>.656</td>
</tr>
<tr>
<td>It's cheaper to do shopping online</td>
<td>17.8889</td>
<td>14.931</td>
<td>.304</td>
<td>.707</td>
</tr>
<tr>
<td>I find online shopping sites useful for my shopping activities</td>
<td>17.9333</td>
<td>14.400</td>
<td>.535</td>
<td>.642</td>
</tr>
</tbody>
</table>
Overall Cronbach’s Alpha = 0.705

Perceived Usefulness while shopping online factor was measured using the Likert scale and the results tabulated in table 4.7. The results showed that majority of the respondents (71%) agreed that using online shopping improves their performance in shopping activities. Majority of the respondents (73%) agreed that Online shopping makes shopping easier. 71% of the respondents agreed that online shopping saves more time than actual shopping purchase. 52% of the respondents agreed that online shopping improves their quality of shopping experience. 49 % of the respondents agreed that it’s cheaper to do shopping online and 42% of the respondents agreed that they find online shopping sites useful for their shopping activities.

Table 4.7

Perceived Usefulness while Shopping Online

<table>
<thead>
<tr>
<th>Perceived Usefulness while shopping online</th>
<th>Strongly Agree (%)</th>
<th>Strongly Disagree (%)</th>
<th>Agree (%)</th>
<th>Neutral (%)</th>
<th>Disagree (%)</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using online shopping improves my performance in shopping activities.</td>
<td>7</td>
<td>13</td>
<td>9</td>
<td>53</td>
<td>18</td>
<td>3.622</td>
<td>1.128</td>
</tr>
<tr>
<td>Online shopping makes shopping easier.</td>
<td>4</td>
<td>11</td>
<td>11</td>
<td>40</td>
<td>33</td>
<td>3.867</td>
<td>1.134</td>
</tr>
<tr>
<td>Online shopping saves more time than actual shopping</td>
<td>11</td>
<td>0</td>
<td>18</td>
<td>38</td>
<td>33</td>
<td>3.822</td>
<td>1.223</td>
</tr>
</tbody>
</table>
purchase.

Online shopping improves my quality of shopping experience.

It's cheaper to do shopping online.

I find online shopping sites useful for my shopping activities.

<table>
<thead>
<tr>
<th>Perceived Ease of Use while shopping online</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction with online shops is clear and understandable</td>
<td>20.1778</td>
<td>13.496</td>
<td>.541</td>
<td>.644</td>
</tr>
</tbody>
</table>
Online shopping does not require a lot of mental effort  

It is easy to use online shops  

Online shops are easy to interact with  

I trust online shops  

The quality of service offered is good  

I would advise a friend to shop online

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Variance</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online shopping does not require a lot of mental effort</td>
<td>20.1778</td>
<td>13.406</td>
<td>.464</td>
</tr>
<tr>
<td>It is easy to use online shops</td>
<td>20.1333</td>
<td>14.634</td>
<td>.395</td>
</tr>
<tr>
<td>Online shops are easy to interact with</td>
<td>20.0667</td>
<td>14.310</td>
<td>.445</td>
</tr>
<tr>
<td>I trust online shops</td>
<td>19.9556</td>
<td>14.650</td>
<td>.397</td>
</tr>
<tr>
<td>The quality of service offered is good</td>
<td>19.7333</td>
<td>15.838</td>
<td>.345</td>
</tr>
<tr>
<td>I would advise a friend to shop online</td>
<td>19.7556</td>
<td>14.479</td>
<td>.353</td>
</tr>
</tbody>
</table>

*Overall Cronbach’s Alpha =0.709*

Perceived Ease of Use while shopping online factor was measured using the Likert scale and the results tabulated in table 4.9. The results showed that majority of the respondents (40%) agreed that their interaction with online shops is clear and understandable. 51% of the respondents agreed that online shopping does not require a lot of mental effort. 40% of the respondents agreed that it is easy to use online shops. 49% of the respondents agreed that online shops are easy to interact with. 43% of the respondents trust online shops. 53% of the respondents agreed that the quality of service offered is good. 60% of the respondents agreed that they would advise a friend to shop online.

Table 4.9
### Perceived Ease of Use while Shopping Online

<table>
<thead>
<tr>
<th>Perceived Usefulness while shopping online</th>
<th>Strongly</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
<th>Strongly Agree (%)</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction with online shops is clear and understandable.</td>
<td>4</td>
<td>24</td>
<td>31</td>
<td>31</td>
<td>9</td>
<td>3.156</td>
<td>1.038</td>
</tr>
<tr>
<td>Online shopping does not require a lot of mental effort.</td>
<td>11</td>
<td>20</td>
<td>18</td>
<td>44</td>
<td>7</td>
<td>3.156</td>
<td>1.160</td>
</tr>
<tr>
<td>It is easy to use online shops.</td>
<td>4</td>
<td>20</td>
<td>36</td>
<td>31</td>
<td>9</td>
<td>3.200</td>
<td>1.008</td>
</tr>
<tr>
<td>Online shops are easy to interact with</td>
<td>4</td>
<td>20</td>
<td>27</td>
<td>42</td>
<td>7</td>
<td>3.267</td>
<td>1.003</td>
</tr>
<tr>
<td>I trust online shops.</td>
<td>2</td>
<td>16</td>
<td>40</td>
<td>27</td>
<td>16</td>
<td>3.378</td>
<td>1.001</td>
</tr>
<tr>
<td>The quality of service offered is good.</td>
<td>0</td>
<td>7</td>
<td>40</td>
<td>40</td>
<td>13</td>
<td>3.600</td>
<td>0.804</td>
</tr>
<tr>
<td>I would advise a friend to shop online.</td>
<td>7</td>
<td>9</td>
<td>24</td>
<td>40</td>
<td>20</td>
<td>3.578</td>
<td>1.112</td>
</tr>
</tbody>
</table>

4.5 Inferential Statistics.
Table 4.10 indicates the correlation coefficient between Behaviour Intention and Transaction security, Perceived Usefulness, Perceived Ease of Use. The findings revealed that there is statistically significant positive relationship between Behaviour Intention and Transaction security \((r=0.585, p<0.01)\). There is a strong significant positive relationship between Behaviour Intention and Perceived Usefulness. \((r=-0.784, p<0.01)\). There is a strong significant positive relationship between Behaviour Intention and Perceived Ease of Use. \((r=0.726, p<0.01)\).

Table 4.10

*Correlation*

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Transaction security</th>
<th>Perceived Usefulness</th>
<th>Perceived Ease of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviour Intention</td>
<td>Pearson Correlation</td>
<td>.585**</td>
<td>.784**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>86</td>
<td>86</td>
</tr>
</tbody>
</table>

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

The model analysis of regression is shown in the table 4.11. Regression indicates the strength of the relationship between the independent variables (Transaction security, Perceived Usefulness and Perceived Ease of Use) and the dependent variable (Behaviour Intention). The R square value in this case is 0.680 which clearly suggests that there is a strong relationship between Behaviour Intention and Transaction security, Perceived Usefulness, Perceived Ease of Use. This indicates that the Transaction security, Perceived Usefulness and Perceived Ease of Use share a variation of 68 % of Behaviour Intention.

Table 4.11
Regression

Model Summary\(^b\)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.824(^a)</td>
<td>.680</td>
<td>.668</td>
<td>.54364</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), **Transaction security, Perceived Usefulness, Perceived Ease of Use**

b. Dependent Variable: **Behaviour Intention**

Table 4.12 indicates that the F-test value result was 17.143 with a p-value of (0.000 < 0.05) level of significance. Therefore a significant relationship was present between the independent variables (Transaction security, Perceived Usefulness and Perceived Ease of Use) and the dependent variable (Behaviour Intention). In other words the entire model was a good fit.

Table 4.12

**ANOVA\(^a\)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>51.429</td>
<td>3</td>
<td>17.143</td>
<td>58.006</td>
<td>.000(^b)</td>
</tr>
<tr>
<td>1 Residual</td>
<td>24.234</td>
<td>82</td>
<td>.296</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>75.664</td>
<td>85</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: **Behaviour Intention**

b. Predictors: (Constant), **Transaction security, Perceived Usefulness, Perceived Ease of Use**
The established multiple linear regression equation becomes

$$Adoption = 0.119 + 0.179X_{trans} + 0.485X_{PU} + 0.213X_{PEU} + \text{Error}$$

For the constant, if all the independent variables are held constant then the Behaviour Intention to shop online will be 0.119. The coefficient of the constant is significant since $t$-value=2.014 ($p$-value=0.047<0.05 level of significance) as indicated in table 4.13. The regression coefficient of Transaction security is 0.179 with a $t$-value =2.523 ($p$-value =0.014<0.05 level of significance). This shows that one unit change in Transaction security results in 0.179 unit increase in Behaviour Intention to shop online. The regression coefficient of Perceived Usefulness is 0.485 with a $t$-value =5.224 ($p$-value =0.000<0.05 level of significance). This shows that one unit change in Perceived Usefulness results in 0.485 unit increase in Behaviour Intention to shop online. The regression coefficient of Perceived Ease of Use is 0.213 with a $t$-value =2.305 ($p$-value =0.024<0.05 level of significance). This shows that one unit change in Perceived Ease of Use results in 0.213 unit increase in Behaviour Intention to shop online. The most important independent variable in the regression model is Perceived Usefulness, it has the highest Beta value of (0.508) then followed by Perceived Ease of Use (beta=0.232) and lastly Transaction security (beta =0.193).
This chapter presents the data analysis, findings and a discussion on the same. Data was analysed using regression and results presented. It was found that perceived ease of use, perceived usefulness and transactional security have a significant relationship with the intention to shop online.
5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses the findings of the research, gives conclusions based on these findings and outlines some recommendations for future research and practice on the subject matter. The chapter also gives a summary of the purpose of the study, the study objectives, the research methodology used and the major findings. Further, it discusses the major findings and compares them to the previous study findings as presented in the literature review.

5.2 Summary

The study sought to establish the factors that influence the intention to carry out an online shopping transaction among college students in Nairobi City, Kenya. The study sought to establish the effect of perceived usefulness (PU), perceived ease of use (PEoU) and perceived transaction security (TS) on online purchase intention among college students in Nairobi City. The study also aimed at establishing the link between the aforementioned factors and the intention to purchase or repurchase on an online shopping platform among students in Nairobi city.

A descriptive survey design was adopted for this research based on the nature of the study and the objectives that were set. A probability design sampling technique was used to arrive at a population sample of 120 students drawn from the University of Nairobi. The data collection technique of choice was the questionnaire. Out of the 120 questionnaires distributed among the 120 University of Nairobi students, only 90 of them were returned. This gave the study a response rate of 75% which is statistically sufficient for data analysis. The collected data was analysed using the Statistical Package for Social Sciences (SPSS) and Microsoft excel to generate quantitative reports which were presented in the form of tabulations, percentages, mean and standard deviation. Regressions were carried out on the three factors under investigation and the findings recorded.

Out of three of the variables that were establishing transactional security two of them had a significant relationship with the intention to shop on an online in the near future.
These results on the effect of perceived transaction security (TS) on the intention to purchase online among college students in Nairobi City showed that there is a significant relationship between transactional security when shopping online and the intention to purchase again in the near future. Transactional security had a strong positive correlation with the intention to purchase online or to repurchase.

The study also sought to establish the link between the respondents perceived usefulness (PU) of online shops and the intention to repurchase or continue to utilize online shops. Forty-two percent of the respondents said that if they found an online platform useful to them in terms of shopping activities they will use that platform often in future. Twenty one percent of the respondents were neutral on this matter. However, 37% of the respondents said their intention to purchase from online shops is not affected by their perceived usefulness of the platform.

The chi-square tests showed a value of 38.922 with a degree of freedom of 16 and a significance level of 0.001. This level is below the conventional 0.05 meaning that there exists a significant relationship between the consumers’ perception of an online platform and the intention to purchase on that platform in the near future.

The study had an objective to establish if there exists any significant link between the respondent’s perceived ease of use of online platforms and their intention to take up online shopping as their shopping channel of choice. From the findings in table 4.17; 40% of the respondents felt that if they found an online platform easy to use then they would purchase on that platform more often and even choose the platform as a shopping channel of choice. Thirty six percent of the respondents were neutral on this matter and the remaining 24% felt that they will still use an online platform even though they may experience some difficulty.

The chi-square tests gave a chi-square value of 37.426 with a degree of freedom of 16 and a level of confidence of 0.002. This showed that there exists a significant relationship between the perceived ease of use of online shops and the consumers’ intention to purchase from the platform in the near future.
Perceived Ease of Use while shopping online has a strong influence on intention to use and adopt a technology. If a technology is perceived to be easy to use; shoppers will make it a new alternative in addition to already existing channels (Yoon, 2015)

5.3 Discussion

This section of the chapter discusses the major findings of the study as relates to the effect of PU, PEOU and TS on the intention to buy goods using an online platform among students in Nairobi city. The link between the findings of this study and those of the previous researchers in other places is also clearly established. This ensures a proper comparison between these findings and the preceding research findings.

5.3.1 Behaviour Intention to Shop Online

On the intention to use online shopping within the near future, the respondents agreed with a mean of 3.8889 and a standard deviation of 0.90497 that they intended to use online shopping within the near future. The finding coincides with Shang, Chen and Shen (2004) who reported that when people feel it is useful, they will be more likely to shop on-line in the future. The finding further agrees with Mowe and Minor (2002) who indicated that consumer intention to shop online is influenced by consumer attitude on online shopping.

The respondents were neutral with a mean of 2.8444 and a standard deviation of 1.30609 on whether they already shopped online. The response on whether shopping online was a good idea; the respondents agreed with a mean of 3.7333 and a standard deviation of 1.08927 that shopping online was a good idea. The finding agrees with Foley and Sutton (1998) who highlighted that since online shopping was time saving and convenient it has become increasingly attractive with the penetration of the Internet in the modern times. Online shopping further reduces the costs which otherwise would have been incurred on searching for the goods thus offering cheaper than bargain than the brick-and- mortar store. Using the Likert scale, the results of the measurement of Behaviour Intention to shop online factor are shown in table 4.3.

Emanating from the results, majority (82%) of the respondents were of the intent to use online shopping in the near future. 38% already shop online and majority 60% agreed that shopping online is a good idea.
5.3.2 Perceived Usefulness (PU) while Shopping Online

The degree to which a consumer believes that using a new technology would enhance his performance or productivity while shopping online is called perceived usefulness (Davis, 1989). It was found that if the respondents found an online platform useful in the endeavour to find and buy goods and services quickly and effectively then they will use that channel more often. The brick and mortar set up can be time consuming and ineffective while shopping for some kinds of commodities. The buyer will have to create enough time to look for the commodity in several physical shops usually located in different places. To compare the prices in several shops and settle on the cheaper option can be tedious. The actual transfer of the purchased goods may also be an extra risk and expense in cases where the goods are delicate and the vendor does not offer transportation or delivery services. If an online platform can be able to allow a consumer to carry out all the shopping activities listed above with improved performance with a few clicks of the button then they will be perceived as very useful by the consumers. If the consumer finds the platform useful then they will embrace it as the channel of choice.

The study established that there is a strong significant positive relationship between Behaviour Intention and Perceived Usefulness. \( r=0.784, \ p<0.01 \). A correlation of 0.7 84 implies that the more a consumer perceives an online transaction as useful the more they are likely to shop using the same channel in the future. The regression coefficient of Perceived Usefulness is 0.485 with a t-value =5.224 (p-value=0.000<0.05 level of significance). This shows that one unit change in Perceived Usefulness results in 0.485 unit increase in Behaviour Intention to shop online. This was found to be the most important independent variable in the regression model used in this study; it has the highest Beta value of (0.508) as shown in the regression equation below:

\[ \text{Adoption} = 0.119 + 0.179X_{TS} + 0.485X_{PU} + 0.213X_{PEU} + \text{Error} \]

These findings concur with Triandis (1980) who found that the respondents in the study believed that purchasing airlines ticket online provided effectiveness, better performance, and productivity which are equivalent to perceived usefulness of TAM.
Foley and Sutton (1998) stated that online shopping reduces costs associated with searching for goods, higher prices and the length of time needed that brick-and-mortar store shopping comes with. If the buyer feels that the online platform is useful in the matter of saving up on costs they will be persuaded into the adoption of the platform. Online platforms are found useful by most consumers if they are able to save up on time and cost. Their stock of products should also cover all the preferences of the broad range of customers. This way a buyer will be able to get whichever product they want on the website.

A study by Ramayah, Aafaqi and Jantan (2003) also established that perceived usefulness significantly impacted on the student’s acceptance and usage of courses online in higher education institutions. Perceived usefulness also can influence the attitude, intention, and actual on-line shopping behavior. When people feel it is useful, they will be more likely to shop on-line (Shang, Chen & Shen, 2004).

Several studies have been done on the influence of perceived usefulness on online purchase intentions. For instance, Renny, Guritno and Siringoringo (2013) while studying perceived usefulness, ease of use and attitude towards online airline ticket purchase measured perceived usefulness using 5 indicators. These were- being fast (quick), time saving, effort saving, cost reducing, and overall usefulness. The findings showed that the biggest contributor among them in building perceived usefulness was overall usefulness of online transaction, whereas the least was its use in effort saving. These findings implied that respondents believed that purchasing airlines ticket online provided effectiveness, better performance, and productivity which are equivalent to perceived usefulness of TAM (Triandis, 1980).

5.3.3 Perceived Ease of Use while Shopping Online

Perceived Ease of Use while shopping online factor was measured using the Likert scale and the results tabulated in table 4.9. The results showed that majority of the respondents (40%) agreed that their Interaction with online shops is clear and understandable. 51% of the respondents agreed that online shopping does not require a lot of mental effort. 40% of the respondents agreed that it is easy to use online shops. 49% of the respondents agreed that online shops are easy to interact with. 43%
of the respondents trust online shops. 53% of the respondents agreed that the quality of service offered is good. 60% of the respondents agreed that they would advise a friend to shop online.

The inferential statistics from the study show that Perceived Ease has a strong significant positive relationship with Behaviour Intention of 0.726. (r=0.726, p<0.01). This result is clearly tabulated in table 4.10. It was further found that Transaction Security; Perceived Usefulness and Perceived Ease of Use share a variation of 68 % of Behaviour Intention. This is shown in the regression model summary in table 4.11. The regression coefficient of Perceived Ease of Use is 0.213 with a t-value =2.305 (p-value=0.024<0.05 level of significance) .This shows that one unit change in Perceived Ease of Use results in 0.213 unit increase in Behaviour Intention to shop online. This shown in the linear regression equation below:

\[ \text{Adoption} = 0.119 + 0.179X_{TS} + 0.485X_{PU} + 0.213X_{PEU} + \text{Error} \]

In the order of importance of the independent variables, perceived ease of use was second place a beta of 0.232 closely following Perceived Usefulness with 0.508. According to the TAM, perceived ease of use has a dual effect-direct as well as indirect-on consumers’ intention to shop online. The indirect effect on intention occurs through perceived usefulness because the easier a technology is to use, the more useful it can be (Venkatesh, 2000). The more people perceive technology is easy to use, the positive their attitude to the technology will be. It is the same with online shopping; if consumers perceive that it’s easy to access the sites, to learn the procedure, to compare products and prices and to find desired products, the more positive their attitude towards online shopping will be.

Jiang, Zhilin, and Jun (2013) stated that the convenience dimension of online shopping has been one of the principal motivations behind customers’ inclinations to adopt online shopping. Seiders, Berry, and Gresham (2000) proposed that dimensions of retail shopping convenience include access, search, transaction, and possession, all of which involve concepts of the speed and ease with which consumers can reach or engage a retailer, identify and select products, amend transactions, and obtain desired
products. These findings agree with what has been established in this study; PEOU has an influence on the choice to make an online purchase or re-purchase.

5.4.4 Transaction Security (TS) while Shopping Online

The findings revealed that there is a statistically significant positive relationship between Behaviour Intention and Transaction security ($r=0.585$, $p<0.01$). There is a Pearson’s correlation of 0.585 indicating a positive relationship between Transactional Security and the intention to buy online. The more the buyer feels and finds an online transaction secure the more the likelihood that they will shop online more on the same channel.

From table 4.13, the regression coefficient of Transaction security is 0.179 with a $t$-value $=2.523$ ($p$-value$=0.014<0.05$ level of significance). This shows that one unit change in Transaction security results in 0.179 unit increase in Behaviour Intention to shop online. Transaction security has a beta value of (0.193) making it the least important of the three independent variables that affect the intention to shop online.

Online safety has different angles to it, one of which is the safety of the data provided by the buyer on their location and other demographic details. The consumer wants a certain degree of safety assurance that this information will not be used in any harmful way. That it will be kept in safe hands throughout and used for the purported purposes only. The commodities delivered should also be exactly the same as shown on the pictures on the websites. If for some reason the advertised products are of a higher quality than the actual deliveries then the sense of security and trust in the online retailer will be weakened and so also the repeat purchases. The customer wants to feel that after the payment has been made the goods or products will be delivered in the promised condition and in the stipulated time without any unwarranted delays.

An online strategic marketer should therefore ensure that the perception of the consumer on security transaction as regards his/her online shop is positive and maintained so. This will inspire both initial and repeat purchases. Dauda, Santhapparaj, Asirvatham and Raman (2007) also found that consumers in Malaysia perceived trust, Internet experience and transaction needs as the most important factors that affect adoption of an online platform. Asked on the extent they agreed
with internet shopping sites keeping their promises and commitments, majority of the respondents were neutral.

In a study carried out by Ma’ruf (2006) it was highlighted that the online consumer has a constant concern about risk in relation to the similarity between advertised products and the actual delivered product, product delivery after successful payment and product quality. As concerns the issue of consumer data safety, Yu and Abdulai (2000) found that consumers’ privacy issues were not new and the consumers are always worried about how the government and businesses use their personal data.

Yong, Boon, Gowrie, Chin, Nasreen and Tze (2013) also conducted an investigation into the factors impacting on the adoption of internet banking in Malaysia from the adopters’ perspective. Previous studies had studied these factors from a service provider’s perspective. In their findings, Perceived Transaction Security was found to be having a significant effect on computer banking adoption. This agrees with the Kenyan case presented here in that transaction security has an impact on the choice to make an online purchase and subsequent repurchase. Hernandez and Mazzon (2007) found that Security has a significant correlation with the use of Internet commerce. Internet banking in a lean sense is part of online shopping and therefore some conclusions can be safely applied to online shopping for material products.

Past studies demonstrate that perceived security is an important attribute affecting the rate of e-commerce adoption among customers. Sathye (1999) studied the adoption of internet banking (IB) in Australia and found that security concerns about IB also affected the adoption of online banking. White and Nteli (2004) studied IB in the U.K. and the results illustrate that the security of a bank’s website was seen to be significantly more important than the other attributes, and that security was still the number one issue in consumers’ minds when considering IB. However, in these study Transactional security was found to have the least impact on the intention to shop online out of the three factors considered.

48
5.4 Conclusions

5.4.1 Behavior Intention to shop online

Using the Likert scale, the results of the measurement of Behaviour Intention to shop online factor are shown in table 4.3. Emanating from the results, majority (82%) of the respondents were of the intent to use online shopping in the near future. 38% already shop online and majority 60% agreed that shopping online is a good idea.

Table 4.10 indicates the correlation coefficient between Behaviour Intention and Transaction security, Perceived Usefulness, Perceived Ease of Use. The findings revealed that there is statistically significant positive relationship between Behaviour Intention and Transaction security ($r=0.585$, $p<0.01$). There is a strong significant positive relationship between Behaviour Intention and Perceived Usefulness. ($r=-0.784$, $p<0.01$). There is a strong significant positive relationship between Behaviour Intention and Perceived Ease of Use. ($r=0.726$, $p<0.01$).

The model analysis of regression is shown in the table 4.11. Regression indicates the strength of the relationship between the independent variables (Transaction security, Perceived Usefulness and Perceived Ease of Use) and the dependent variable (Behaviour Intention). The R square value in this case is 0.680 which clearly suggests that there is a strong relationship between Behaviour Intention and Transaction security, Perceived Usefulness, Perceived Ease of Use. This indicates that the Transaction security, Perceived Usefulness and Perceived Ease of Use share a variation of 68 % of Behaviour Intention.

The established multiple linear regression equation was as follows:

$$Adoption = 0.119 + 0.179X_{TS} + 0.485X_{PU} + 0.213X_{PEU} + \text{Error}$$

The constant, if all the independent variables are held constant then the Behaviour Intention to shop online will be 0.119. The coefficient of the constant is significant since t-value=2.014 (p-value=0.047<0.05 level of significance) as indicated in table 4.13.
The regression coefficient of Transaction security is 0.179 with a t-value =2.523 (p-value=0.014<0.05 level of significance). This shows that one unit change in Transaction security results in 0.179 unit increase in Behaviour Intention to shop online. The regression coefficient of Perceived Usefulness is 0.485 with a t-value =5.224 (p-value=0.000<0.05 level of significance). This shows that one unit change in Perceived Usefulness results in 0.485 unit increase in Behaviour Intention to shop online. The regression coefficient of Perceived Ease of Use is 0.213 with a t-value =2.305 (p-value=0.024<0.05 level of significance). This shows that one unit change in Perceived Ease of Use results in 0.213 unit increase in Behaviour Intention to shop online. The most important independent variable in the regression model is Perceived Usefulness, it has the highest Beta value of (0.508) then followed by Perceived Ease of Use (beta=0.232) and lastly Transaction security (beta =0.193).

5.4.2 Perceived Usefulness while Shopping Online

Online shopping improves performance in shopping activities among college students, it makes shopping easier and saves time compared to actual shop purchase. It improves the quality of the shopping experience and it is cheaper. The study therefore concludes that perceived usefulness affected.

This study has established that Perceived Usefulness has a very significant impact on the consumers’ decision to purchase online. A one degree percentage change in the consumers’ perception on the usefulness of an online transaction has a correlating positive 48 percent impact on the choice to buy or make a repeat purchase on a given platform. Of the three factors considered in this study, this had the highest impact on the intention to shop online (in the context of the Kenyan student in Nairobi city) In mathematical terms: one unit change in Perceived Usefulness results in 48.5 unit increase in Behaviour Intention to shop online.

5.4.3 Perceived Ease of Use while Shopping Online

College students in Nairobi city find it easy to use online Platforms and would easily advise their friends and loved ones to do the same. This can be attributed to the substantive adoption of smart phones and internet enabled gadgets by this age group. The internet shops available in the country are also trying their best to ensure that
their offerings are of good quality and the procedures and processes are as simple as possible. As a result the interaction with online shops is clear and understandable. Less mental effort is required so long as one has a good internet connection. This study concluded that PEoU has a significant impact on the consumers’ intention to shop online. A one percent change in the consumers’ perception of the ease of use of an online platform results in a 21 percent increase in the likelihood that the consumer will transact on the said platform. In mathematical terms: One unit change in Perceived Ease of Use results in 0.213 unit increase in Behaviour Intention to shop online.

5.4.4 Transaction Security while shopping Online

Forty percent of the respondents felt that internet sites are trustworthy and keep their promises and commitments. This percentage is below fifty percent of the population and a little bit worrying. Thirty eight percent of the population feels that internet sites keep the customers interests in mind. A whopping 62% feel that online platforms are out for their own interest at the expense of the consumer.

Only 33% percent of the population was having at least one internet site that they could trust. Again, majority of the numbers did not have a single site that they trust. However, transactional security was the factor with the least impact even though Kenyan online shopping platforms were performing poorly on this factor. A percentage change in the consumers’ perception of an online transaction security had a resulting 17.9% likelihood of increasing the consumers’ choice to shop online. In mathematical terms: one unit change in Transactional Security results in 0.179 unit increase in Behaviour Intention to shop online.

5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Perceived Usefulness.

More Kenyans should be enlightened on the use of online shopping sites since they improve the performance of shopping activities, make them easier, saves more time and improves the quality of shopping experience. More online shopping platforms
should be established to increase competition and also improve on the offerings. Existing online shops should ensure that their customers continue to find them useful. They should always be on a creative edge to embrace every available technology and idea to remain useful and relevant to the consumers. Those that might not be registering a high number of repurchases should look into the perceived usefulness of their platform to the end users. For example a platform should offer products that are varied and that most consumers will find useful.

5.5.1.2 Perceived Ease of Use

Online shops should be user friendly and very easy to navigate. The processes and procedures should be easy and understandable. Complicated processes and requirements that are unnecessary should be simplified in the latter and eliminated in the former case. The easier a technology is to use, the more useful it will be. Site access, available procedure, product and price comparison, and navigation should be extremely simplified. Online shops should be perceived to be easy to use and should be in actual sense be easy to use; this has an impact on how many consumers will make purchases on such a site. The Kenyan consumer wants to shop on a platform that is easy to use and will save them a lot hustle.

5.5.1.3 Transactional Security

On transaction security, the study recommends that internet shopping sites should keep their promises and commitments and also customers’ interests in mind since it greatly influences their choice of online shopping. The study also recommends that confidentiality and security of the customers be highly maintained since it boosts their trust in online shopping sites. Shopping sites should not ask for too much information from the consumers. Especially if the consumer may find the information unnecessary to the transaction being carried out.

5.5.2 Recommendations for Further Research

5.5.2.1 Perceived Usefulness

The study recommends that that a similar study be conducted among college students in other cities in the country and also in the East African region and beyond to
establish how perceived ease of use affects the intention to purchase online. This comparison will be useful since most online platforms operate in the east African region. Not just in Kenya.

**5.5.2.2 Perceived Ease of Use**

A study to study the building blocks of the consumers perception of ease of use should be carried out to enable the on line shops to understand how to improve the ease of use of their sites.

**5.5.2.3 Transactional security.**

A great percentage of the population did not find the online sites in Kenya secure. A proportionate percentage did not also feel that on line sites in Kenya are really having their interests at heart. However, this factor was found to be the least in impact on the decision to buy on line in Kenya. A study should be carried out to establish why most of the Kenyans did not find Security more important than ease of use and usefulness.


APPENDICES

Appendix A: Questionnaire

Hello! My name’s Aineah. I am a master’s student of United States International University. I am conducting a research on people’s perception on online shopping. Please spend a few minutes to fill in this questionnaire. All information collected will be used for academic purpose only. Thanks a lot for your help!

PART 1

1. Gender
   
   [ ] Male     [ ] Female

2. Age
   
   [ ] 18-24     [ ] 25-30     [ ] Above 30

3. College/University Attended

4. Level Attained
   
   [ ] First Year     [ ] Second Year     [ ] Third year     [ ] Fourth Year

5. Average Shopping Monthly Expenditure (Kshs)

PART 2

<table>
<thead>
<tr>
<th>Behavior Intention to shop online</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 I intend to use online shopping within the near future</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 I already shop online</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Shopping online is a very good idea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Transaction security while shopping online
<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Internet shopping sites are trustworthy</td>
</tr>
<tr>
<td>5</td>
<td>Internet shopping sites keep their promises and commitments</td>
</tr>
<tr>
<td>6</td>
<td>Internet shopping sites keep the customers interests in mind</td>
</tr>
<tr>
<td>7</td>
<td>There is one online site that I trust</td>
</tr>
</tbody>
</table>

**Perceived Usefulness while shopping online**

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Using online shopping improves my performance in shopping activities</td>
</tr>
<tr>
<td>9</td>
<td>Online shopping makes shopping easier</td>
</tr>
<tr>
<td>10</td>
<td>Online shopping saves more time than actual shop purchase</td>
</tr>
<tr>
<td>11</td>
<td>Online shopping improves my quality of shopping experience</td>
</tr>
<tr>
<td>12</td>
<td>It’s cheaper to do shopping online</td>
</tr>
<tr>
<td>13</td>
<td>I find online shopping sites useful for my shopping activities</td>
</tr>
</tbody>
</table>

**Perceived Ease of Use while shopping online**

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>My interaction with online shops is clear and understandable</td>
</tr>
<tr>
<td>15</td>
<td>Online shopping does not require a lot of mental effort</td>
</tr>
<tr>
<td>16</td>
<td>It is easy to use online shops</td>
</tr>
<tr>
<td>17</td>
<td>Online shops are easy to</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>18</td>
<td>I trust online shops</td>
</tr>
<tr>
<td>19</td>
<td>The quality of service offered is good</td>
</tr>
<tr>
<td>20</td>
<td>I would advice a friend to shop online</td>
</tr>
</tbody>
</table>