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A Study of Consumer Behavior Towards Online Shopping in Kenya: Case of Nairobi County

By

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DECLARATION

This research project report is wholly my work and has not been submitted for any award degree in another university.

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This research project report has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

This project is dedicated to my helpful and supportive family. Thank you for the advice, support and trusting in me during the course of this study.

ABSTRACT

According to a recent UNCTAD report by Fredriksson(2015) that there is a huge potential for growth of e-commerce economies in Kenya but growth rate has been slow from 2012 to 2015 at the report states that growth rate in Kenya from 2012 to 2015 has been at 2% YoY and is expected to grow at that rate till 2018. This growth rate is way below the average when compared to other regions in the world.

The study proposed one main objective which was to assess the behaviours of consumers towards online shopping in Nairobi County, Kenya. The specific objectives included selecting an appropriate framework from previous research studies, collect data and use it to assess the adopted framework. The final specific objective was to make necessary recommendations to the framework based on the results of study. The theoretical framework that informed the research was the Decomposed Theory of Planned Behaviour (DTPB) which was operationalized through a conceptual framework.

The research methodology used in this study was of deductive approach and an explanatory research design. A structured questionnaire was administered in both electronic and paper form to collect data. The sample population size was 384 and the chosen to get the respondents was purposive random sampling method. The data was analyzed using statistical software and the findings presented in frequencies, percentages and Partial Least Square model which was used for hypotheses testing.

Out of the 384 questionnaires issued, 356 respondents had full responses that could be used for data analysis. The results showed that 97.2% of the respondents had shopped online in the past while 2.8% had never shopped online. The study found out that 10 out 13 hypothesized relationships defined in the conceptual framework were positively supported by the data collected.

The findings of this study has provided positive contribution to field e-commerce research in Kenya by assessing the behaviors of online consumers and the adoption of the technology. The study recommended further longitudinal research is needed to study the behaviours of consumers towards online shopping to assess their frequency of goods or service purchase and amount spent over a period of time.

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ABBREVIATIONS AND ACRONYMS

UNCTAD	United Nations Conference on Trade and Development
B2B	Business to Business
B2C	Business to Consumer
C2C	Consumer to Consumer
C2B	Consumer to Business
CA	Communication Authority
ICT	Information Communication Technology
OLX	OnLine Exchange
TAM	Technology Adoption Model
TRA	Theory of Reasoned Action
TPB	Theory of Planned Behaviour
DTPB	Decomposed Theory of Planned Behaviour
PU	Perceived Usefulness
PEOU	Perceived Ease of Use
IS	Information Systems
MSE	Micro and Small Enterprises
NCBD	Nairobi Central Business District
SEM	Structural Equation Model
PLS	Partial Least Square

CHAPTER ONE: INTRODUCTION

1.1 Background

Kuester(2012) states that consumer behavior is the study of individuals, groups, or organizations and the procedures they use to choose, secure, and dispose of goods, services, experiences, or ideas to satisfy needs and the effects that these procedures have on the buyer and the community in general. Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet. The various forms of online shopping include Business-to-Business (B2B), Business-to-Consumer (B2C) and Consumer-to Consumer (C2C) models. Under its strategic master plan of Vision 2030, the Kenyan government has realized and incorporated the ICT platform in the attainment of development objective. The ICT platform is visualized as an instrument that can be used to positively change the welfare of Kenyans through a structured public policy. This platform is supported with a strong desire that these services are easily available, efficient, affordable and reliable.

According Communication Authority (CA)2015 report, mobile phone penetration in the country is at 72%. The usage of internet and majorly through mobile access is relatively high comparatively to rural areas or nationwide numbers. In urban areas, 72% are online, out of these 95% have phones with the ability to browse the internet and smartphones constitute 31% (Atema 2014). Kabuba(2014) postulates that online shopping is one of the areas within the technology industry in the country that is growing very fast. It goes further to state that online retail competition in Kenya is increasingly gaining momentum due to the new online retailers joining the industry such as Jumia, Killmall, OLX, Kaymu and Ravenzo e.t.c. Daily the intense competition for consumers' attention towards online shopping increases to higher levels. The online consumers' expectations are also heightened and shaped by their personal experience with online webstores through the Internet. It is critical to an online retailer that they understand the behaviours of online shoppers and what are their needs, preferences and wants.

1.2 Problem Statement

In a recent UNCTAD report by Fredriksson(2015) that focused on unlocking the potential of e-commerce in developing countries recognizes that there is a huge potential for growth of e-commerce economies in Kenya. However, the report states that growth rate in Kenya from 2012 to 2015 has been at 2% YoY and that trend is to continue at that rate till 2018. This growth rate is way below the average when compared to other regions in the world. The report states that while Kenya is among the top 10 countries in Africa that have high internet penetration, it still lagging behind in terms of utilization of the internet for e-commerce purposes.

1.3   Research Objectives

The main objective of this research was:

To assess the behavior of consumers towards online shopping in Nairobi County, Kenya.

The specific objectives of the research included:

1. To select an appropriate framework for assessing the consumer behaviors of online shoppers.
2. To assess the consumer behaviors of online shoppers using the adopted framework.
3. To suggest changes to the framework based on the results and findings of the study.

1.4   Significance of the Research

The study was done in order to provide an understanding of the influencing factors affecting a consumers' decision before they commit to making an online purchase transaction. The findings of this research will also assist technopreneurs, investors, Kenyan government, consumer protection bodies, marketers and retailers to formulate policies, frameworks and marketing strategies that will enhance the penetration of online shopping and its effectiveness in Nairobi. The findings will also help retailers in improving the quality of their services to the consumers. The study is also to add knowledge to the research area of online shopping and e –commerce in the country by providing an up to date assessment of the sector.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section evaluates available literatures with a focus on the consumer behavior towards online shopping and its adoption. The chapter will also provide data on up to date status of internet penetration in Kenya. Case scenarios from local and global context will also be analyzed. The different types of e-commerce will be discussed and an analysis of the different consumer attributes also be done. Theoretical frameworks reviewed are Technology Adoption Model (TAM), Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB) and Decomposed Theory of Planned Behaviour (DTPB) will also be discussed. The chapter also presents a conceptual framework reflecting the relationship various variables in online shopping

2.2 Internet Penetration in Kenya

In the quarterly sector report released by Communication Authority of Kenya(2015) stated that a large proportion of the users are accessing the internet using their mobile devices. This has been as a result of the mobile telecom operators investing in expanding their network and 3G/4G coverage across the nation. The report continued to explain that the providers of broadband internet have also grown and expanded their networks in the country through last-mile fiber transmission. These internet providers have conducted various promotions to create awareness among the people in the country about their services. As a result of this, the online services in the country are now easily accessible.

2.3 Types of Online Shopping

Katawetawaraks(2011) postulated that online shopping involves the behaviors of buyers and how they buy goods or services online. In the advent of new technologies and ever increasing uptake of internet use in Kenya, this form of shopping is greatly gaining traction among the Kenyan citizens. According to Ndegwa(2013), the number of people who find online shopping very helpful, satisfying and simple to use are inclined towards shopping online. Today, many technologies are being used to support business processes. The various types of online shopping are described below in relation to those applicable to Kenyan consumer:

2.3.1 Business-to-consumer

Nemat(2011) states that business-to-consumer (B2C) is the process by which businesses provide goods and/or services to the end users. This type of online shopping is applicable to any organization that allows the purchase of its services or goods through the internet by the end user for thier own use. Some of other forms of this type e-commerce aside from online retailing include online auctions, online travel offerings, banking over the internet, e-health services and online real estate websites.

2.3.2   Consumer-to-consumer

Consumer-to-consumer (C2C) is a type of e-commerce that includes the online enabled transactions of goods or services between consumers using a platform provided by a third entity. It provides a way individual can exchanges goods or services directly without the need of beeing an accredited or registerd business entity. This form of electronic commerce is presumed to expand in the future since it eliminates the costs of utilizing another organization. According to Niranjanamurthy(2013), insecurity poses a great risk to this type of commerce during the transactions.

2.3.3   Consumer-to-business

According to Nemat(2011) consumer-to-business (C2B) is a form of e-commerce where the consumers sell their goods or services to organizations and get paid by these companies. It is a reversal of the predominant business design where the businesses are the ones selling goods or services. This model was introduced majorly due to the need of providing a platform to connenct a huge group of people to a bi-directional commercial relatiosnhip. In comparion to the old brick and mortar business models which are uni-directional, this business design is of bi-diectional nature. With reduced technological costs, consumers can now obtain them where previously only big organization could only afford them. Examples include the high perfomance computers, powerful and strong software and digital printing.

2.3.4   Business-to-business

Nemat(2011) states that business-to-business (B2B) is an aspect electronic commerce where there is an exchange of goods or services between businesses. This could be between a manufacturing busines and a wholesaler, or between the wholesaler and a normal retailer. A large number of companies are utlizing social media to allow thier employees to engagae with each others just as they are using the same platform to interact with their consumers. The communication between employees is called business to business. This term originally was used to distinguish it from the relationship between business and consumers; it used to describe communication between busisnesses.

2.4   Previous Research Studies on Online Shopping

2.4.1   Factors influencing consumer online buying behaviour in a project based company

In the study done by Leboo(2015), the research investigated factors influencing online buying behaviour of Geothermal Development Company (GDC) employees in Nakuru town, Kenya. The study proposed four objectives which were to assess how perceived benefits, perceived risks, psychological factors and website design influence online buying behavior of Geothermal Development Company employees.

The study recommends that various risk-reducing strategies should be developed by online retailers in addition to putting mechanisms in place to guarantee the quality of their merchandise and create avenues of settling disputes.

Another recommendation is that online vendors should not give less priority to website design since consumers rarely focus on visual design, site content ordering and transaction procedure in making purchase decision via the internet. The researcher focused on the online buying behaviours of employees in a specific organization in Nakuru County. The research did not extend to buyers from the general public but rather from a private organization.

2.4.2   E-commerce adoption by formal micro and small enterprises in Nairobi, Kenya

Kinya(2013) examined the influencing factors that have an impact on the uptake adoption and utilization of e-commerce by the micro and small sized enterprises (MSEs) operating within the NCBD. The research design adopted was a cross sectional survey. The study population comprised of all MSEs with formal premises registered with the Nairobi City Council operating within the NCBD. The results show that MSEs in Kenya are sole proprietorships and are mostly operated by young people who have at least a secondary level of education and in most cases college education.

Arising from the study findings the researcher therefore recommends that the government should enact legislation to regulate the ICT industry in Kenya with a few of reducing the cost of ICT applications. The management of formal MSEs should also ensure that their employees are trained on ICT aspects. The study did not focus more on the online consumers but rather on the entrepreneurs who are willing or have invested in e-commerce in Kenya. The conceptual framework developed is more focused on the adoption of the technology in an organization.

2.4.3   Establishing the Success Factors for Adoption of Mobile Shopping in Kenya's Retail Industry

Ndegwa(2013), states that several factors were found to be crucial towards successful adoption of mobile shopping in Kenya. One of the factors was perceived usefulness. Another factor that was found to be important towards adoption of mobile shopping in Kenya is the ease of use. Many respondents already use other applications from feature and smart phones. The ease of use ensures that many people are able to access the rich information provided by the application without a hassle.

Other factors were also captured in the research that would promote adoption. Such factors included the availability of real-time prices. This means that for the application to make more sense to the final users who would mostly use it for budgeting purposes, it would be crucial to have the prices in real time. In

connection to this, having a shopping list that can be used in future was crucial to adoption. Creating a complete list of items to buy is not so easy and hence once created; it should be persisted for future use.

In addition to this, the availability to compare prices and features of related items were mentioned too in the research. Some of the recommendations that came through were being able to compare prices from different retail outlets for the same product. Despite this being an important factor worth mentioning, it was outside the scope of the application that aimed to bring mobile shopping for individual outlets and not all outlets in one application.

Other factors were of aesthetic nature that would still play a vital role. Such issues are such as lack of a good design and appealing look, poor navigability as well as sluggish speed while using the application. If the factors above are well considered, the adoption would be smooth and the customers would be happy to try it out and do it again and refer a friend or two to try. The research focuses solely on the access of online shopping from mobile platform. It does not incorporate all the access platforms for e-commerce that are available. The research excluded the use of social commerce and web commerce platforms.

2.4.4 Factors influencing online shopping adoption in Kenya: a case of Westlands district, Nairobi County.

Ngugi(2014) states that online shopping has also been growing at a very fast pace in the developed world, but the trend has not quite picked up in the developing nations, including Kenya. It is still a relatively new trend. There is not much research that has been conducted in this field, and as such literature on online shopping adoption in the Kenyan context is very limited. The research findings of the study revealed that online shopping was a new trend in the Kenyan market and was taking root. Some of the reasons cited for adoption of online shopping include; time saving, easy comparison of alternative products, fairer prices of online goods, expert/user review of products and access to a market without borders.

Some challenges and concerns that need to be addressed as far as online shopping adoption goes were perceived risks negatively influences consumers' intentions and actual use of e-shopping. The study provided relevant business advantage in terms of providing insights on how online shopping is being embraced the challenges, and how to improve it. The study also lays a foundation for future research in the area of online shopping adoption in Kenya. The study was primarily focused on Westlands County which is a sub-county of Nairobi County. The conceptual framework used was about the adoption of the technology rather than the analysis of the behaviours of online shoppers.

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2.5   Theoretical Frameworks on Technology Adoption and Consumer Behaviour

2.5.1   Technology Adoption Model (TAM)

This theory is among the ones to be proposed for studying the acceptance of technology and was developed by Davis(1989) and was derived from the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975). According to Davis, both the independent variables perceived ease of use (PEOU) and perceived usefulness (PU) and) had an impact on people's intention to use, eventually, contributing to the use or non-use. The theory asserts that usefulness is adversely affected by usage than ease of use. It goes further to state that perceived usefulness had a stronger correlation with the acceptance of technology by users.

The main advantages of this theory is that it gives the factors which can lead to adoption of information system and has leeway for extension comparatively to competing models. The disadvantages are that it fails to evaluate some of the barriers that prevent the adoption of technology. Due to its simplicity, over time it has been over-used at the cost of other models. Lee(2003) document the use of this model in IS research.
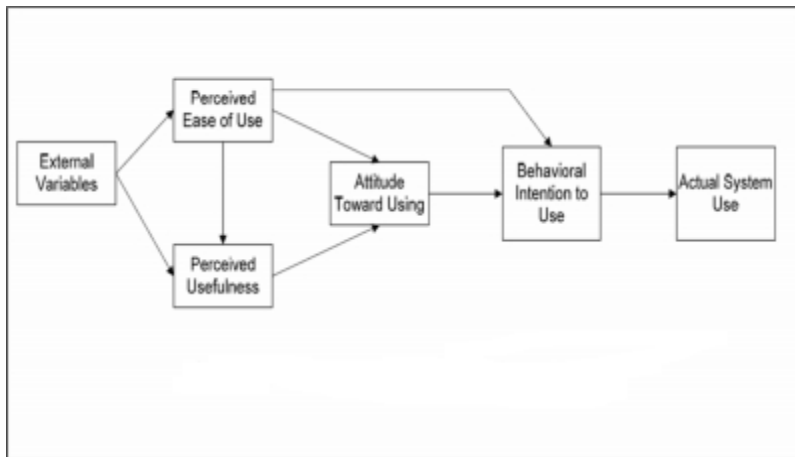
Figure 1:Technology Acceptance Model (TAM)
Source: Davis, Bagozzi, & Warshaw, 1989

2.5.2   Theory of Reasoned Action (TRA)

This theory was also reviewed with and was originated by Ajzen and Fishbein(1975). The model has four variables in its model: the two independent variables are subjective norm and attitude. These independent variables in turn affect the intention to a behavior. The dependent variable is actual behavior that comes after the behavioral intention. This theory is critical in measuring the behavior of individuals. It has been successfully used in the study of common consumer technologies as stated by Hsu(2004). In any measurement model, the variable intention to use is a common behavioral factor. In various models,

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generally the actual behavior follows intention. This model was not selected because it does not provide a way of studying the facilitating conditions and its impact on buyers towards online shopping and their confidence levels while shopping online.
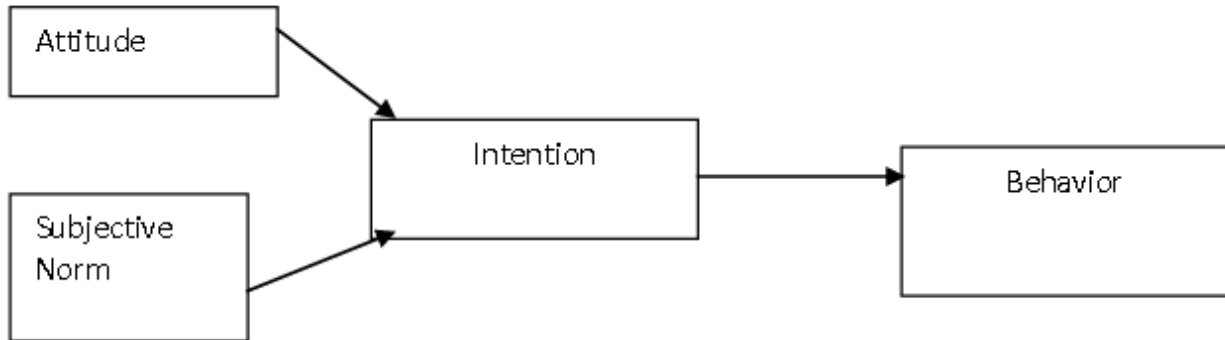
Figure 2: Theory of Reasoned Action (TRA)
Source: Ajzen and Fishbein 1975

2.5.3   Theory of Planned Behaviour (TPB)

The TPB (Ajzen 1991) accounts for situations where the individuals are not in absolute control of their behavior. It asserts that actual usage is established by perceived behavioral control and the behavioral intention. Velarde(2012) states that behavioral intention is determined by three factors which include subjective norm, attitude and perceived behavioral control where every element has its own belief structures and attributes. In the pretext of shopping online, subjective norm is about the internal or external influences that affect individual towards online shopping. Attitude is the overall feelings by buyers on how good or not online shopping is towards them. Perceived behavioral control is about the facilitating conditions that enable one to shop online and the confidence levels of buyers in shopping online. A major advantage of this model is that it studies behavior aspect of individual and their eventual behavior towards a certain technology. The main disadvantage of this theory is that it does include the adoptions aspect of technology as proposed in TAM model by Davis(1989).
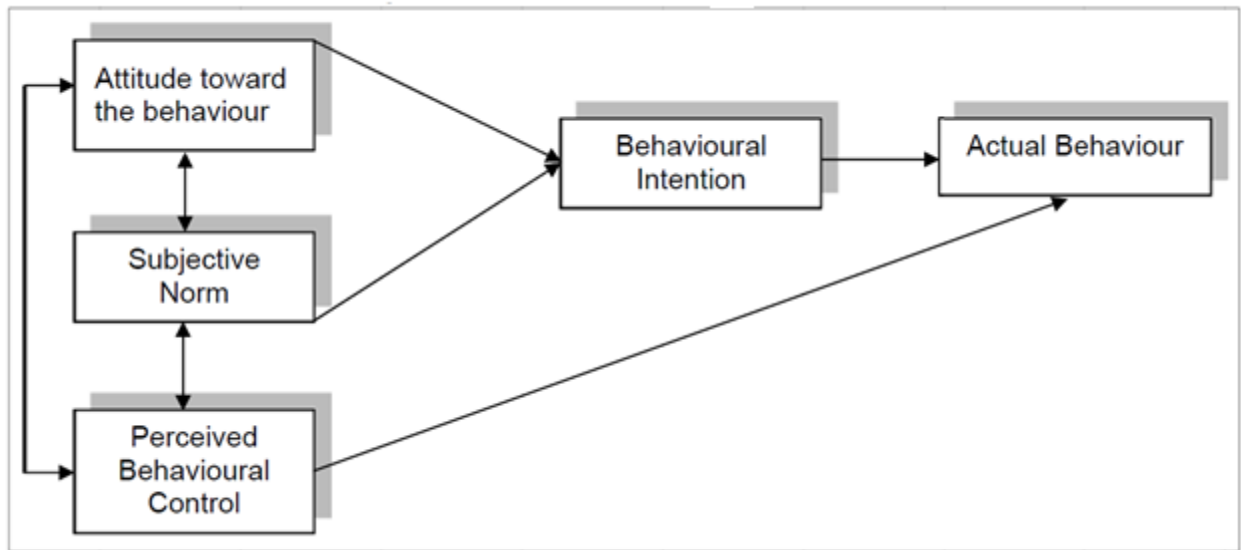
Figure 3: Theory of Planned Behaviour (TPB)

Source: Icek Ajzen 1991

2.5.4 Decomposed Theory of Planned Behavior (DTPB)

According to Taylor and Todd(1995), they originated the notion that Theory of Planned Behavior beliefs can be broken down into various multi-dimensional constructs. They opined that the summation of beliefs to build measures of subjective norm, perceived behavior control and attitude, presented by Ajzen and Fishbein, does not point out key factors that can be used to predict a specific behavior. Furthermore, Taylor and Todd assert that "the decomposed Theory of Planned Behavior model has benefits comparable to the TAM model since it describes specific dominant beliefs that influence usage of IT" (Taylor and Todd, 1995).

In reference to Taylor and Todd (1995), the decomposed Theory of Planned Behavior model (DTPB), normative, control beliefs and attitudinal are broken down into multi-dimensional constructs. The decomposition of beliefs about attitude contains three traits of innovation that affect behavioral intentions; they are built on the diffusion of innovation theory presented by Rogers(1995): compatibility, complexity and relative advantage.
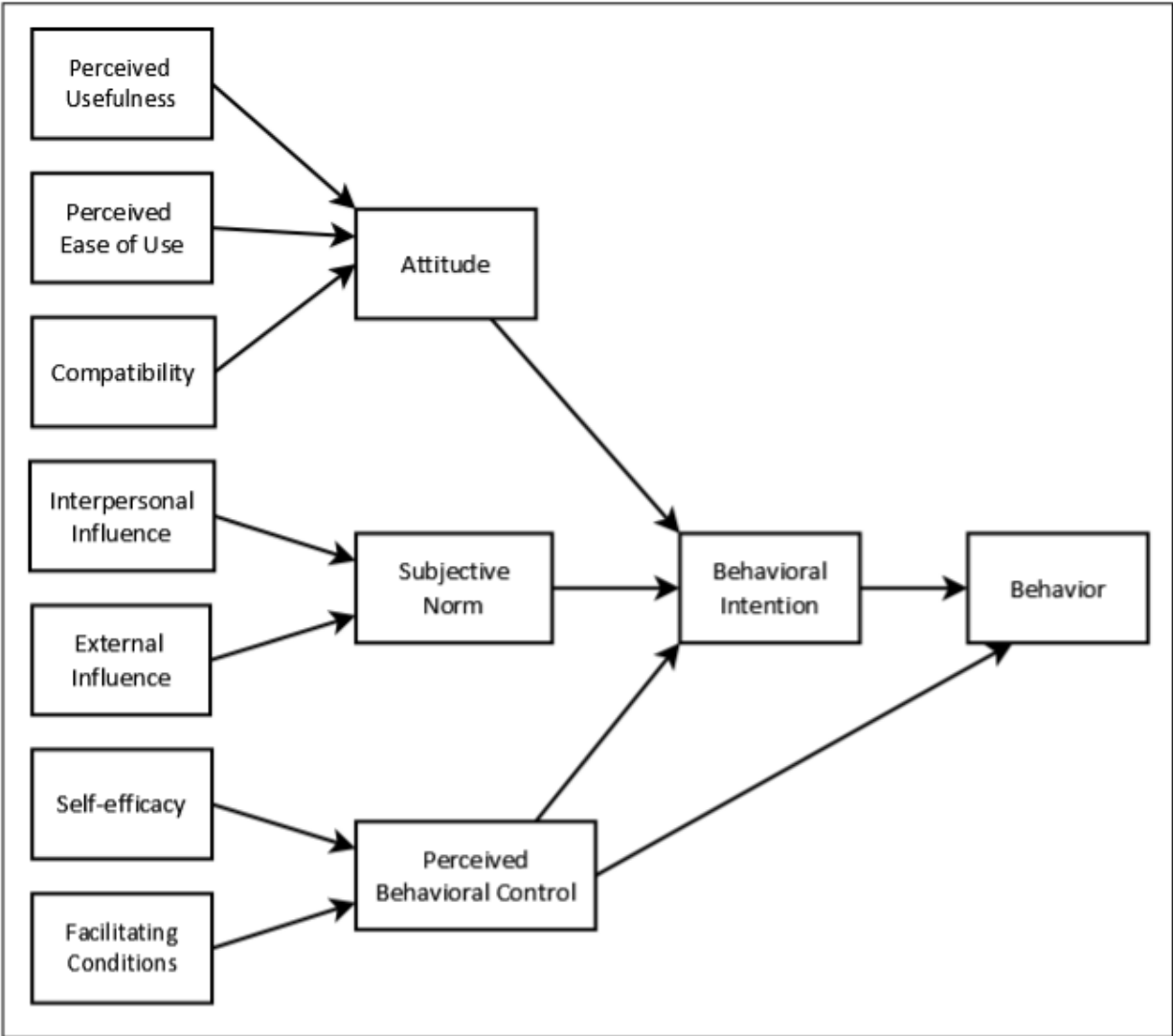
Figure 4: Decomposed Theory of Planned Behaviour (DTPB)

Source: Taylor and Todd 1995

2.6   Summary of Literature Review

Consumer behavior towards online shopping is a critical aspect of success of its adoption in Kenya. The technology is ever changing hence defining new standards of living in our country. The research is to assess if there is a paradigm shift in the purchase patterns of consumers from store visits to online shopping. It seeks to understand what are the triggers for this shift and the critical success factors for online shopping in Kenya. Moreover, the theories analyzed looked at the adoption of new technologies and the planned behavior of the consumers. There exists a research gap in Kenya of studies about the consumer behaviour of online shoppers without bias in terms of whether the shoppers belong to a certain cluster or organization. There are few studies in Kenya that look at how online shoppers access online

shopping irrespective of the platforms they use, be it social, mobile or web online shopping. The theoretical framework is to guide the research in looking at the different constructs of online shopping among the citizenry of Nairobi County.

2.7   Conceptual Framework

After carefully reviewing various theoretical frameworks on technology adoption and consumer behavior, from literature, the conceptual framework was modelled. Theoretical frameworks reviewed are Technology Adoption Model (TAM), Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB) and Decomposed Theory of Planned Behaviour (DTPB). The conceptual framework was derived based on the decomposed Theory of Planned Behaviour(DTPB) model that was developed by Taylor and Todd (1995). This conceptual framework was found relevant for the study because it provides a platform of studying, at the same time, the variables that influence both the adoption of that technology and the behavior of consumers towards that technology.

The concepts of the model include the independent variables perceived usefulness and perceived and its impact towards attitude as driven by Davis (1989). The relationship between the independent variable compatibility and attitude variable was added by Taylor and Todd(1995). The effects of the independent variables internal influence and external influence on the subjective norm variable was also designed by Taylor and Todd(1995). The study of the relationships between subjective norm, attitude, and perceived behavior control towards behavioral intention was derived by Ajzen(1991). The influence of behavioral intention and perceived behavior control on the dependent variable behavior was also developed by Ajzen(1991). The theoretical framework to be used for purposes of research to achieve the research objectives can be shown in the diagram below:
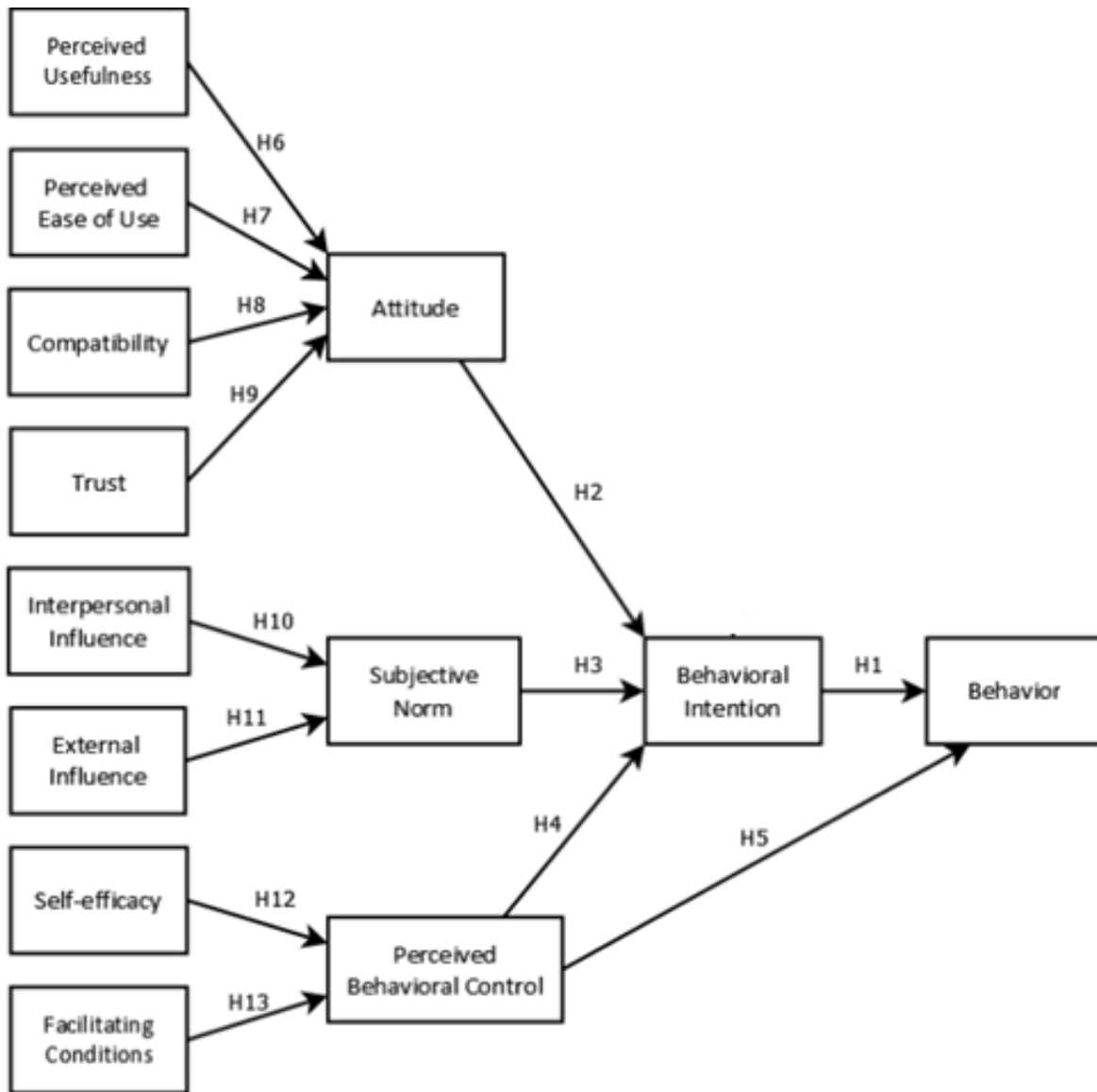
Figure 5: Conceptual Framework

2.8   Model Extension: Trust

McKnight(2002) states that trust is a crucial aspect in bilateral relations that can be defined by uncertainties and susceptibility. Previous studies show that trust has a significant role in determining how a consumer behaves, both in online and offline modes. In online shopping context, the significance of trust grows since perceptions of the unknown can be of essential importance in an electronic commerce setup. According to Jarvenpaa(2000), absence of trust was attributed as part of key basis that stops consumers in participating on online shopping.

2.9 Hypotheses

The table below shows the different hypotheses that were tested during the research.

Table 1: Hypotheses

#	Hypotheses
HI1	A shopper's behavioral intention to shopping online positively impacts their actual online shopping (BI → B)
HI2	A shopper's attitude towards online shopping positively impacts their behavioral intention to shopping online (AT → BI)
HI3	A shopper's subjective norm in relation to online shopping positively impacts their behavioral intention to shopping online (SN → BI)
HI4	A shopper's PBC over online shopping positively influences their behavioral intention to shopping online (PBC → BI).
HI5	A shopper's PBC over online shopping positively influences their actual online shopping (PBC → B)
HI6	A shopper's perceived usefulness of online shopping positively impacts their attitude towards online shopping (PU → AT)
HI7	A shopper's perceived ease of use of online shopping positively impacts their attitude towards online shopping (PEOU → AT)
HI8	Compatibility between online shopping and a shopper's lifestyle and needs positively impacts their attitude towards online shopping (CO → AT)
HI9	A shopper's trust in a web retailer positively influences their attitude towards online shopping (TR → AT)
HI10	A shopper's perception of interpersonal influence is positively associated with their subjective norm about online shopping (II → SN)
HI11	A shopper's perception of external influence is positively associated with their subjective norm about online shopping (EI → SN)
HI12	A shopper's positive self-efficacy positively influences their perceived behavioral control over online shopping (SE → PBC)
HI13	A shopper's positive facilitating conditions positively influence their perceived behavioral control over online shopping (FC → PBC)

2.10 Operationalization of the Research Variables

Table 2: Operationalization of Variables

Construct	Variable Type	Measure Scale	Indicators
Perceived Usefulness	Independent	Ordinal	PU_1: Shopping online saves me time when purchasing goods or services
			PU_2: Goods can be easily compared in online shopping
Perceived Ease of Use	Independent	Ordinal	PE_1: I find online shopping in Nairobi very understandable
			PE_2: Buying goods and services online is easy to do
Compatibility	Independent	Ordinal	COM_1: Online shopping is compatible with the way I like to shop
			COM_2: Purchasing goods/services fits very well with my lifestyle
Trust	Independent	Ordinal	TRU_1: Online shopping of goods and services is safe
			TRU_2: Generally, I find online stores trustworthy
Interpersonal Influence	Independent	Ordinal	II_1: My friends or family encourage me to shop online for goods
			II_2: My friends or family think that online shopping is a good idea
External Influence	Independent	Ordinal	EI_1: I have read or seen reports in the mass media that have influenced me to purchase goods and services online
			EI_2: Website adverts have influenced me to buy goods online
Facilitating Conditions	Independent	Ordinal	FC_1: I have enough income to do online shopping
			FC_2: I have enough internet to do online shopping
Self-Efficacy	Independent	Ordinal	SE_1: I am confident in buying goods/services from companies based in Kenya
			SE_2: I am confident in buying goods/services from companies based outside Kenya
Attitude	Control	Ordinal	ATT_1: Online shopping in Nairobi is a good idea
			ATT_2: I enjoy shopping for goods/service online
Subjective Norm	Control	Ordinal	SN_1: People who are important to me would recommend that I do buy goods/services online.
			SN-2: People who I value their opinions would buy goods/services online
Perceived Behavioral Control	Control	Ordinal	PBC_1: I have the ability to do online shopping
			PBC_2: Doing online shopping using the internet is within my control
Behavioral Intention	Control	Ordinal	BI_1: I intend to purchase goods and services online in the near future
			BI_2: I will purchase goods and services online in the near future

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design of the study, the target population, the sampling procedure used in conducting the study, methods of data collection, data collection procedure and the data analysis methods used. The first process for this research started with choosing the topic. Then previous theories and knowledge, past studies outcome and helpful topic provided value informing the research. After all the literature was reviewed to build the research, the research problem was developed and an appropriate research method was chosen. Thereafter data collected using the selected research method and instrument. The next step was to analyze the collected data and test it against the measurement model. At last, the findings were presented and the conclusions are drawn.

3.2 Research Design

The type of research used in this study was an explanatory research. The main reason is that it guided the research in analyzing the causal effects of the relationships between the variables in trying to understand behaviours of shoppers towards online shopping in Nairobi County. According to Zikmund(2013), it presents insights of the relations between the variables in the conceptual framework. When starting to carry out a research, an understanding in approach by which the research was carried out is critical. The research can take either a deductive or inductive approach. In inductive approach, the researcher begins by collecting data, proceed to identify patterns from the data and work towards to develop theory that can explain those patterns(Bryman 2011).

Deductive approach differs from inductive approach because it seeks to find out the theory first, procedurally moving from the theory and test the collected data against the theory. Thereafter, the hypotheses are tested to see if they are supported or not. A deductive approach was chosen for this study. Furthermore, the deductive approach is appropriate when using quantitative data. It was also appropriate since this study was compromised of quantitative data.

In order to meet the research objectives, this research drew on primary data collection method. Survey in the style of questionnaire was selected for this study. A structured survey was selected to collect data from the respondents for this research since they are normally used to gather feedback from a huge target population. Every respondent was asked to reply to the same set of questions. This method provides a systematic way of gathering responses from a huge sample before proceeding to quantitative analysis (Saunders et al., 2009: 361). To investigate shopper behaviors and their purchasing trends, a quantitative style was used to analyze the survey results.

The questionnaire was made as self-administering and circulated both on paper-form and electronically through the Internet. Questionnaires distributed through the internet provided a means of reaching a wider number of respondents. The questionnaire incorporated likert scales to measure perception, attitude, subjective norm and behavior.

3.3   Population Sample

The sample was drawn from Nairobi County. The total population listed by the 2009 Kenya Population and Housing Census report was 3,138,369 persons. According to the Communication Authority, the number of internet users in Kenya has grown to reach 26.1 million translating to 64.3 per 100 inhabitants with access to internet. Based on these statistics, the target population size was 2,017,972 persons. In getting the sample size for consideration, the research was guided by the Krejcie and Morgan(1970) sample size table shown in Appendix 1. Based on the population size under consideration; 2,017,972 persons, the corresponding sample size are at least 384 respondents with a 95% confidence level and 5% percent margin of error. Further, Crouch(1984) recommends that "minimum sample size for quantitative shopper surveys are of the order 300 to 500 respondents". Thus this study required at least 384 usable participants.

The targeted respondents were of certain characteristics since purposive random sampling method was used during data collection. These characteristics included respondents who were above 18 years, had access to internet (both mobile or computer). The targeted respondents were majorly to consist of a young generation since in Kenya, the adoption of new technologies is high among the youthful generation (Waithaka 2013). The study was also focused on, as many as possible, respondents who have done online shopping in the last 12 months.

3.4   Sampling

Sampling is the process of selecting a number of individuals for a study in such a way that the individuals selected represent the large group from which they were selected (Mugenda and Mugenda, 1999). They further note that the purpose of sampling is to secure a representative group, which enables the researcher to gain information about an entire population when faced with constraints of time, funds and energy. For the research objectives to be met, the respondents were chosen using a non-probability sampling method. Non-probability sampling focuses on sampling techniques where the units that are investigated are based on the judgment of the researcher.

Purposive random sampling was used. It provided the researcher to use his judgment to select occurrences that will be enabling to meet the research objectives(Saunders et al, 2009). Some of the elements looked at included geographic location of the respondents, access to technology and the age group of the respondents. This was guided by the statistics provided in the previous chapter of literature review.

3.5   Data Collection and Analysis

Once the questionnaire was finalized, a pilot test was conducted among select number of respondents before the final distribution. This was a way to provide initial suggestions from the respondents on the questionnaire. During the final distribution of the questionnaires, research assistants were sourced in the interest of collecting data from the respondents within limited period of time. This next step involved the analysis of data to highlight the critical attributes so as to establish the outcomes. The instruments used to collect data were thoroughly checked for coherence and uniformity before processing. The quantitative data was to be analyzed using descriptive statistics where measures like frequency and percentages and the relevant implication of these values are noted. The results were then categorized into tables and charts to present the frequency distribution tables to indicate variable values and number of instances in percentage and frequency form.

To measure the SEM model, Partial Least Square (PLS) technique was used. PLS regression is a common method in studying behavioral research since it uses multiple regression analysis. It is very helpful when one is trying to study the impact of huge set of independent variables on a group of dependent variables. It is increasingly becoming popular for multivariate regression in non-experimental research(Abdi 2013). Test statistics (T-values) was collected to measure how far the observed data are from the expected hypothesis. The t-value was referenced to determine if the hypothesized relationships were statistically supported. The researcher also analyzed the data using a computer package; SPSS (Statistical Package for Social Scientists). Tables were to be used to present the research findings.

CHAPTER FOUR: RESULTS AND DISCUSSION

This section provides the analysis of collected data which are guided by the objectives of the research and the proposed conceptual framework. As stated in the previous chapter, data was collected in the form of structured questionnaires utilizing both electronic and physical form as a medium of distribution. Out of the 400 issued questionnaires, 356 respondents provided constructive feedback for the study. The characteristics of the sample size are discussed in this section. The measure of assessing the model involves hypothesis testing of the data collected.

4.1   Descriptive Statistics

The study sought to collect information from the respondents on various aspects such as age group bracket, gender, marriage status and education levels attained. This information was useful in determining the viability of the respondent in answering questions about shopper behavior towards online shopping in Nairobi County.

4.1.1   Response according to Gender and Previous Online Purchase

The table below provides findings for the study based on the respondents' gender.

Table 3: Respondents Gender and Previous Online Purchase

		Have Purchased Goods/Services Online			
		No	Yes	Total (Frequency)	Total (Percentage)
	Female	5	121	126	**35.4%**
	Male	5	225	230	**64.6%**
Gender	**Total (Frequency)**	10	346	356	**100%**
	Total (Percentage)	**2.8%**	**97.2%**	**100%**	

As per the results in Table 3, a majority of people who were answered the questionnaire were male 64.6% and the remaining were female 35.4%. This shows that all genders were included in the study. Out of the 356 respondents, 346 respondents (97.2%) had done online shopping while 10 respondents (2.8) had never shopped online.

4.1.2 Response according to Age Group Bracket

The tabulated figures below show the findings of the respondents according to their age groups used in the study.
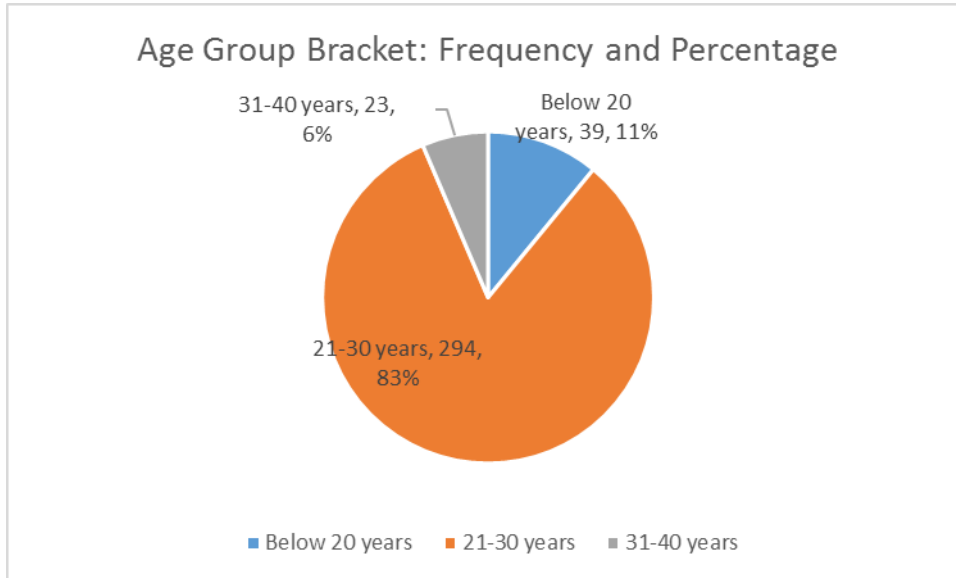
Figure 6: Age Group Bracket: Frequency and Percentage

The findings in figure 6 above show most of the respondents were between the ages of 21-30 years (83%), while 6 % of the respondents are aged between 31-40 years. 11 % percent of the respondents were below 20 years.

4.1.3 Response according to Education Level

The research requested the respondents to indicate their level of education and the results are shown below in the table.

Table 4: Respondents Education Level

Education Level	Frequency	Percentage (%)
No Certified Schooling	1	0.3
Primary School	1	0.3
High School	15	4.2
Certificate	4	1.1
Diploma	61	17.1
Undergraduate	234	65.7
Post Graduate	40	11.2
Total	356	100

The findings show that a large proportion of the sample size have an undergraduate qualification (65.7%), followed by diploma (17.1%), Post Graduate (11.2%), High School (4.2%) and Certificate (1.1%).

Respondents with primary school qualification and no certified schooling had minimal significant to the study. This demonstrates that the respondents were knowledgeable enough to give reliable and valid responses.

4.1.4   Respondents according to their Marital Status

The research also asked to the respondents to indicate the marital status. The results are shown in the table below.
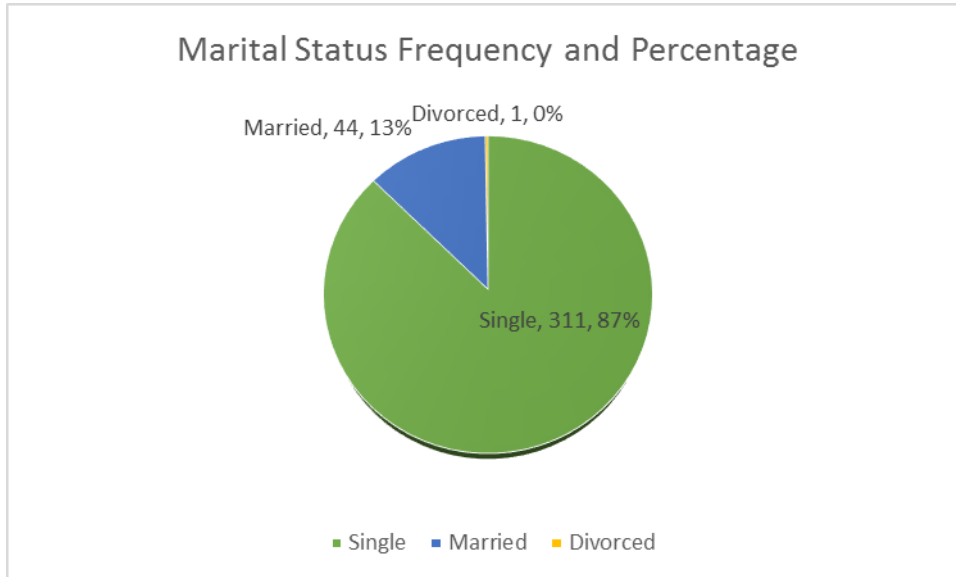
Figure 7: Respondents Marital Status

The findings in Figure 7 show that most of the respondents are single (87.4%), then Married (12.3%) and 1 (0.3%) divorced respondent. This implies that most of the respondents are people who are non-married.

4.1.5   Internet Usage against Online Shopping Experience

The study asked respondents to state how long they have been using the internet and if they had ever purchased goods online. The findings are shown in the figure below.
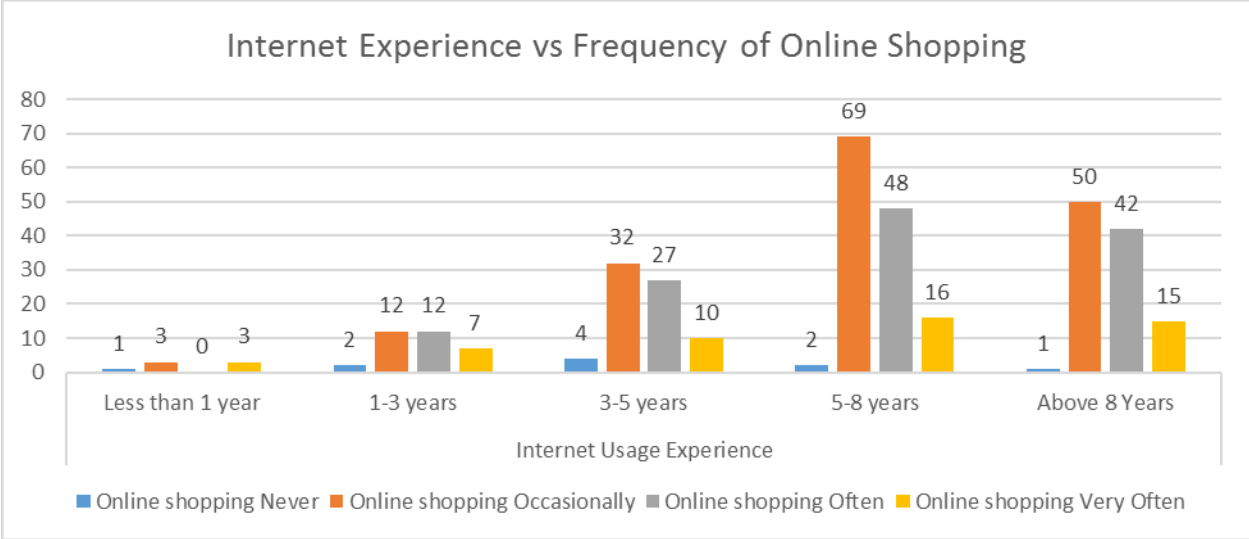
Figure 8: Respondents Internet Usage Experience

The results show that most respondents occasionally shop online across the various groupings of internet usage experience. Only 10 respondents had never shopped online.

4.1.6 Devices used for Online Shopping against Payment Options.

The respondents were also asked on which devices they used to access online shopping and the various payment modes which they used while doing their purchases. The results of the findings are shown below.
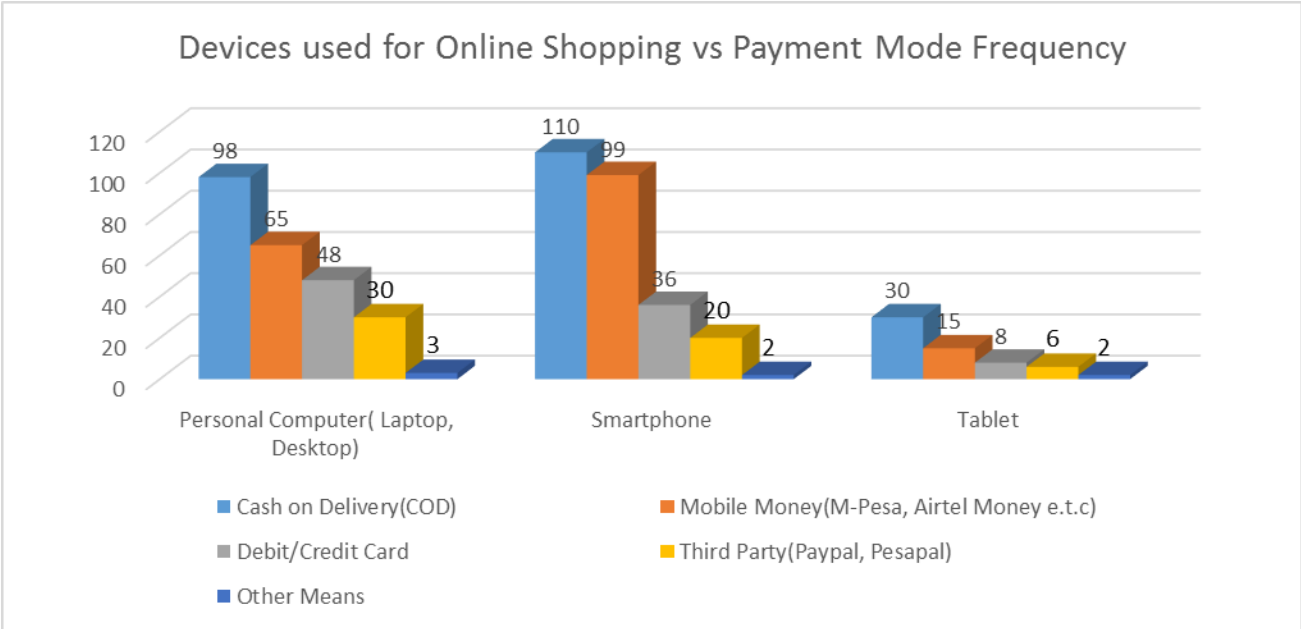
Figure 9: Devices used for Online Shopping vs Payment Mode

The results in Figure 9 above show that majority of the respondents prefer to pay for goods using Cash on Delivery method and most online purchase was done using smartphones. This demonstrates that the respondents are actively doing mobile commerce in Nairobi County.

4.1.7   Goods and Services Bought Online

This section some of the goods and services the respondents have bought through various online shopping platform available in Nairobi County. As shown in Figure 10 below, Mobile Phone and accessories are most popular goods bought online.
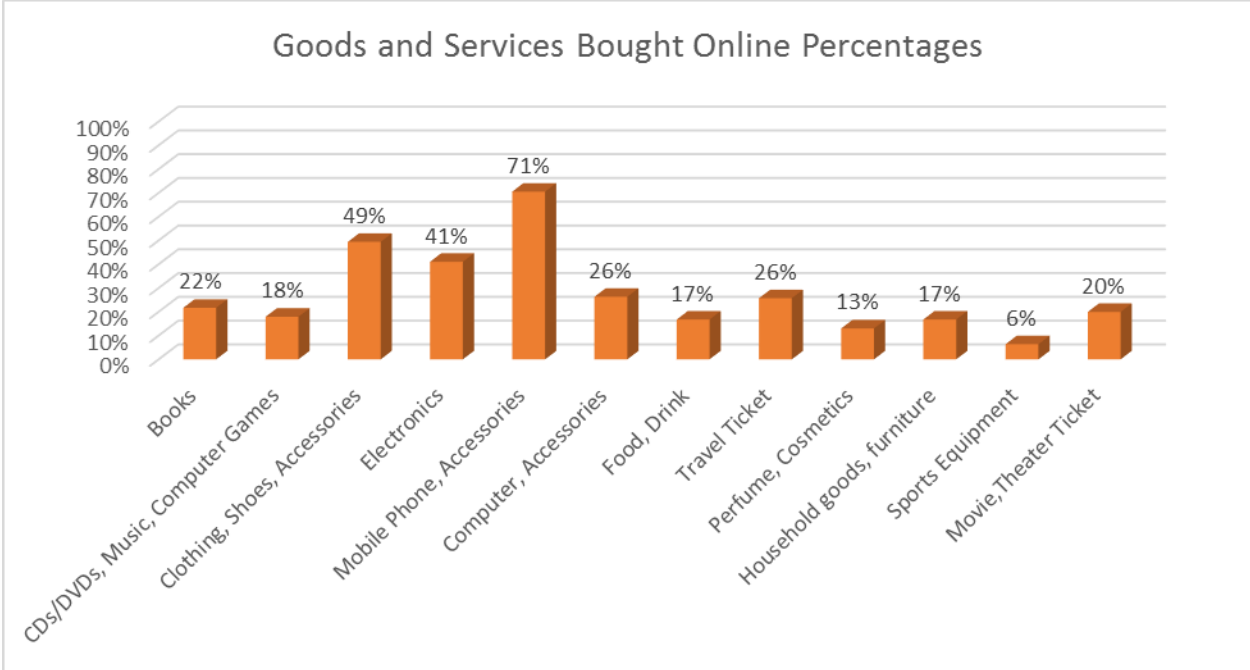
Figure 10: Goods and Services bought online

4.1.8   Amount Spent in the last 1 year doing online shopping

The respondents were also asked how much they had spent doing online shopping in the last 1 year. The results of that study are shown below in Figure 11.
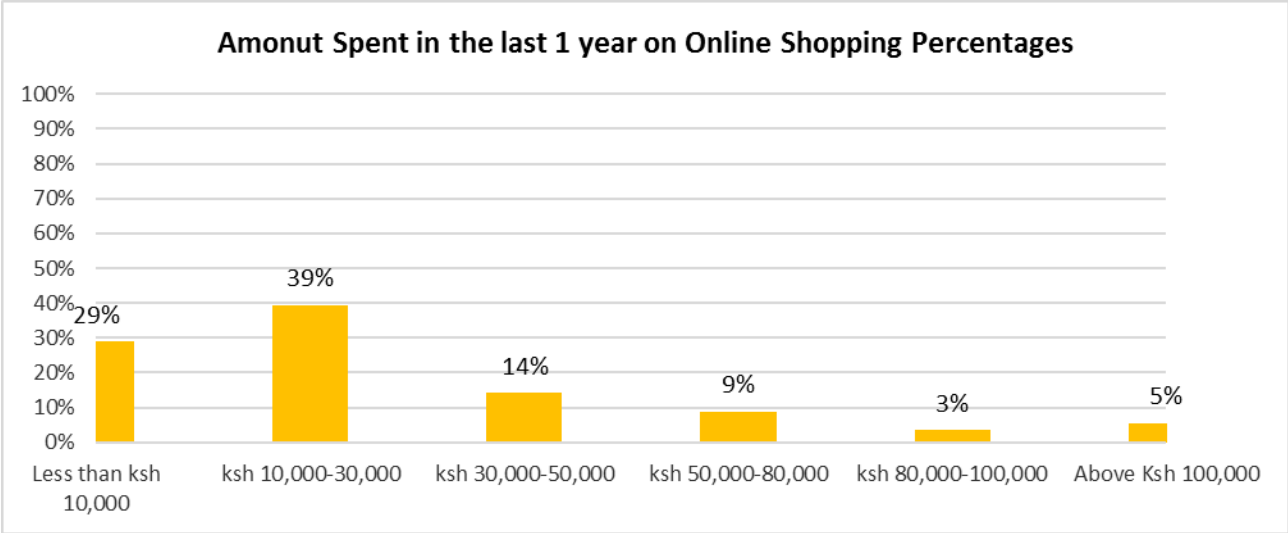
Figure 11: Amount spent online in the last 12 months

The results show that most respondents spent approximately between Ksh 10,000 – Ksh 30, 000 doing shopping online in the last 12 months. This demonstrates that the respondents have enough disposable income to do online shopping.

4.1.9 Online shopping platform references

The respondents were also asked how they came to know about online shopping
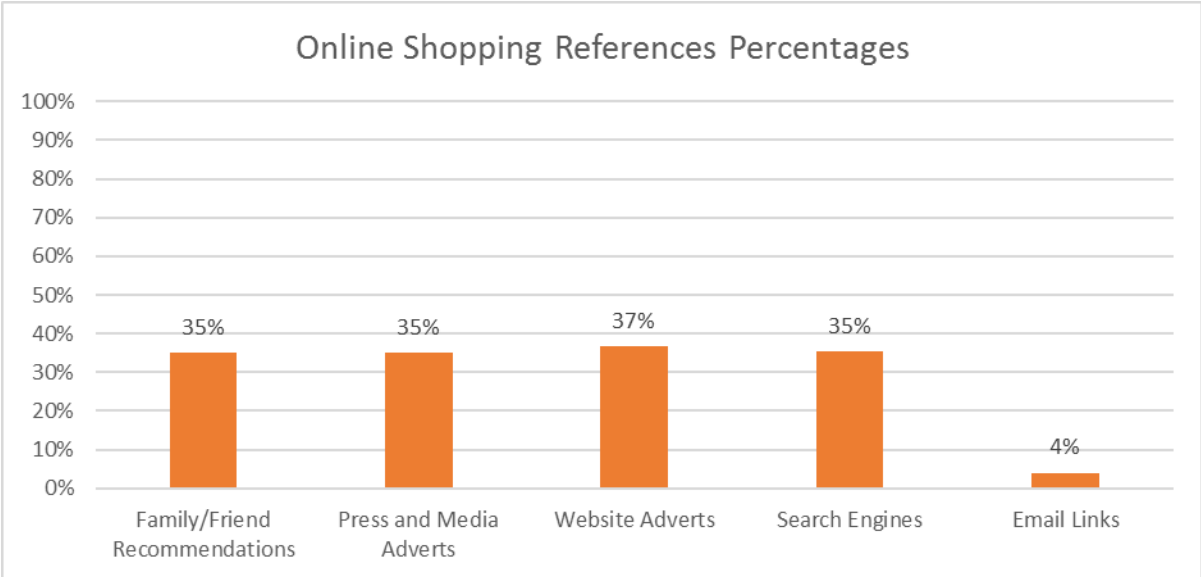
Figure 12: Online Shopping References

The results of the study are shown by Figure 12 above shows the results of the study. This shows that the respondents are mainly influenced to shop online by website advertisements. This demonstrates how online advertising is crucial in creating awareness about online shopping in Nairobi County.

4.2   Hypotheses Testing Results

This section provides results of the correlation between the constructs and the indicators. The various indicators for each construct is shown in Appendix 3. SmartPLS 3.0 tool was used to do the analysis of the correlations. For this section, PLS algorithm was simulated using SmartPLS with 300 as the number of repetitions maximum limit. The hypotheses to be tested and defined in the conceptual framework are discussed in the next section.

4.2.1   Bootstrap Hypothesis Testing

According to Adams(2007), Bootstrapping Hypothesis testing is a multivariate regression method that gives an approximation of the shape of the distributed sample for a particular statistic. Bootstrap procedure was used to measure the importance hypothesized relationships. It is a procedure that generates a number of samples where every bootstrapped sample has similar number of occurrences as the original sample. The bootstrapped samples are generated by randomly deriving occurrences with replacement from the original sample and PLS approximates the path model for each bootstrap sample. Thereafter the generated path model coefficients create a bootstrap distribution that allows the researcher to carry out t-tests on the various relationships defined in the model(Henseler et al., 2009).

For this research, bootstrap was conducted with 346 occurrences and a sample of 500. The impact of hypotheses path relationships in the model was decided using the one tail t-test distribution. This test was conducted primarily because hypotheses in the study were unidirectional. In reference to this test, 95 percent significance level or $p < 0.05$ requires t-value > 1.645. Table 5 below shows the t-values results. The graphical output of the bootstrap hypothesis is shown in Appendix 3.

Table 5: Bootstrap t-values

Hypotheses	Relationship	T-values	Result
H1	Behavioral Intention → Behavior	2.398	Supported
H2	Attitude → Behavioral Intention	1.930	Supported
H3	Subjective Norm → Behavioral Intention	3.525	Supported
H4	Perceived Behavior Control → Behavioral Intention	16.009	Supported
H5	Perceived Behavior Control → Behavior	1.397	Rejected
H6	Perceived Usefulness → Attitude	2.108	Supported
H7	Perceived Ease of Use → Attitude	1.664	Supported
H8	Compatibility → Attitude	4.609	Supported
H9	Trust → Attitude	1.890	Supported
H10	Interpersonal Influence → Subjective Norm	0.820	Rejected
H11	External Influence → Subjective Norm	3.457	Supported
H12	Self-efficacy → Perceived Behavior Control	0.535	Rejected
H13	Facilitating Conditions → Perceived Behavior Control	14.458	Supported

4.2.2 Interpretation of Hypothesis Testing Results

H1: Behavioral Intention → Behavior

The results of the research show that a shopper's behavioral intention to shopping online positively impacts their actual online shopping.

H2: Attitude → Behavioral Intention

The findings demonstrate that a shopper's attitude toward online shopping positively impacts their behavioral intention to shopping online.

H3: Subjective Norm → Behavioral Intention

The results show the hypothesized relationship between a shopper's subjective norm and their behavioral intention to shopping online is positively supported.

H4: Perceived Behavior Control → Behavioral Intention

The findings of the research statistically show that a shopper's perceived behavior control has a positive impact towards their behavioral intention to shopping online.

H5: Perceived Behavior Control → Behavior

The findings of the research statistically show that a shopper's perceived behavior control does not have positive impact towards their behavior to shopping online ($p<0.05$).

H6: Perceived Usefulness → Attitude

The result of the research supports the positive relationship that a shopper's perceived usefulness of online shopping positively impacts their attitude toward online shopping.

H7: Perceived Ease of Use → Attitude

The findings show that a shopper's perceived ease of use of online shopping positively impacts their attitude toward online shopping.

H8: Compatibility → Attitude

The hypothesized relationship is supported that the compatibility between online shopping and a shopper's lifestyle and needs positively impacts his/he attitude toward online shopping.

H9: Trust → Attitude

The results support the relationship that a shopper's trust in online shopping webstores positively influences their attitude toward online shopping.

H10: Interpersonal Influence → Subjective Norm

The findings of the research statistically show that a shopper's interpersonal influence is not positively associated with their subjective norm towards online shopping ($p<0.05$).

H11: External Influence → Subjective Norm

The results show that a shopper's perception of external influence is positively associated with their subjective norm about online shopping.

H12: Self-efficacy → Perceived Behavior Control

The findings of the research statistically show that a shopper's positive self-efficacy does not positively influence their perceived behavior control over online shopping. ($p<0.05$).

H13: Facilitating Conditions → Perceived Behavior Control

The hypothesized relationship that a shopper's positive facilitating conditions positively affects their perceived behavioral control toward online shopping is supported by the research findings.

4.3 Discussion on the relationships between trust, perceived usefulness, compatibility and perceived ease of use on a shopper's attitude towards online shopping

The results show that perceived usefulness has a positive influence on attitude towards online shopping. This demonstrates that the possibility of getting information about goods or services and comparing offers a huge role in guiding the shoppers to create positive attitude for those looking to save time and the convenience offered. A buyers' experience buying goods or services online, effortless search for goods or services, user friendly webstores and efficient check out procedure are very critical when buyers are considering online shopping. The results also show that perceived ease of use also has a strong effect on attitude towards online purchasing.

The hypothesis that compatibility between shopping online and a shopper's prevailing values and way of life would have a positive effect on their attitude towards shopping online was supported by the outcome. Therefore, more buyers whose lifestyle is to shop online are encouraged more to do so because of the convenience of shopping online and the time saved. The hypothesized relationship that shopper's trust in webstores positively effects their attitude towards online shopping was statistically supported by the research. This would mean that the respondents have had positive experiences while doing online shopping in Nairobi County.

4.4 Discussion on the relationships between external influence and interpersonal influence on a shopper's subjective norm towards online shopping

The results of the study found sufficient statistical confirmation supporting external influence as meaningful belief structures that impact on the subjective norm. This would mean that online shoppers in Nairobi County are heavily influenced to shop online by their mass media and website advertisements. However, the study did not statistically support the significance of the relationship between interpersonal influence and subjective norm. An explanation would be that online shoppers in Nairobi are not easily motivated to shop online by their inner circle of friends or family.

4.5 Discussion on the relationships between self-efficacy and facilitating conditions on a shopper's perceived behavior control towards online shopping

The results show that a shopper's positive facilitating conditions positively affect their perceived behavioral control about shopping online. It means that the shoppers evidently need income and enough internet resources to be able to make purchases online. The study found that the relationship between self-efficacy its positive impact on perceived behavior control was statistically supported. An explanation, would be that the respondents are not very confident when it comes to doing online shopping.

4.6 Discussion on the relationships between attitude, perceived behavior control and subjective norm and facilitating conditions on a shopper's behavioral intention toward online shopping and the actual behavior of online shopping

This study examined the causal relationships between subjective norm, attitude, perceived behavior control and behavioral intention. The research also studied the correlation between behavioral intention and the eventual online purchasing behavior, and the correlation between perceived behavior control and the actual purchase behavior. From the results of the study, it supported all the relationships except the relation between perceived behavior control and purchase behavior. The results confirm the significance of attitude, subjective norm and perceived behavior control as predictors of behavioral intention and behavioral intention as a forthright influencer of behavior.

Statistically, the direct positive influence of perceived behavior control on the actual online purchasing behavior was not significant. A plausible explanation for the incoherence of the results with past studies can credited to the difficulties in calculation of actual behavior.

CHAPTER FIVE: ACHIEVEMENTs, CONCLUSION, FURTHER RERSEARCH WORK AND RECOMMENDATIONS

This chapter present the conclusion of the research. This section also provides the limitations of the study and recommendations for further research work.

5.1 Achievements

The research was successfully conducted and the research objectives were met. The research objective of selecting an appropriate framework by reviewing different theories on adoption of technology and study of consumer behavior. A conceptual framework was derived from one of the reviewed frameworks, decomposed Theory of Planned Behaviour by Taylor and Todd(1995) with an additional extension. Sufficient data was collected from the defined sample in order to assess the behaviours of consumers towards online shopping in Nairobi County. The study was able to collect enough useful responses from the sample population. Thereafter, the hypotheses were tested with the collected data and the results discussed to establish plausible explanations about the relationships between the variables in the conceptual framework.

5.2 Conclusion

The objective of this research was to understand what variables affect the behaviors of online shopping consumers. The model tested was primarily drawn from the decomposed theory of planned behavior. The method used to do the test is s similar to the one Taylor and Todd(1995) used with decomposed belief arrangements. The high penetration of internet in Kenya (Communication Authority 2015) provides a developing prospect for online businesses and shoppers. The awareness of the factors affecting Kenyan buyers' likelihood to make online purchase can further develop marketing strategies in converting potential customers into active online shoppers.

The beliefs about perceived ease of use, perceived usefulness, trust, compatibility, self-efficacy, facilitating conditions, interpersonal influence and external influence were incorporated in the model to justify shoppers' behavior in relation to shopping online and point out significant determinants for purchasing online. The conceptual model was assessed statistically, a study of 346 online shoppers was carried out. 13 relationships were tested using PLS, 10 of them were empirically supported.

It was hypothesized and statistically confirmed that perceived ease of use, perceived usefulness, compatibility and trust between shopping online and shoppers' needs, positively affect attitude toward purchasing online. It was hypothesized and empirically supported that external influence positively

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impacts a shopper subjective norm towards online purchasing while a positive relationship between interpersonal influence and subjective norm was not supported.

The hypothesized positive correlation between self-efficacy and perceived behavior control was not supported but the relationship that facilitating conditions and perceived behavior control was statistically supported in this study. It was hypothesized and empirically supported that attitude, subjective norm and perceived behavior control, positively impact a shopper's behavioral intention towards online shopping.

5.3   Recommendations

The results of the study show that a lot of the respondents (97.2%) are shopping online which is a contradiction to previous studies that showed online shopping in Kenya is low as shown by Table 3 in the results section. Further research of longitudinal type is required to study the frequency at which the repeat online shoppers buy goods and services online and the amount spent over a period of time. This is because, as per the research problem, the growth rate of online shopping is predicted to be low, 2% till 2018 yet the results show that online shopping penetration is high in Nairobi County, 97.2%. According to the results as shown by Table 5 in the results section, the relationships between interpersonal influence and subjective norm should be explored. Moreover, further research is also required to understand why the respondents have low confidence levels in shopping online as shown by the study's results.

As shown in the results section, Figure 9, mobile payment was the second most preferred payment options for online shoppers in Nairobi County by the respondents. Therefore, online retailers should also ensure there is a smooth payment processes and if they can include money-back guarantees can go a long way to increase the confidence of first time online shoppers to actually do it. In addition, online retailers should put measures in place to guarantee the standards of their merchandise and create channels for dispute resolution.

5.4   Further Research Work

The research solely focused on Nairobi County only, more studies is required to assess the uptake and behaviors of online shoppers in urban, peri-urban and rural areas across the country. Further, as many shoppers buy from popular and webstores that are trusted, they begin to develop allegiance towards specific online shops, therefore understanding the drivers that impact loyalty in shopping online shopping can be crucially significant.

Technology is always in continuous progression, new gadgets such as tablets are accessible to search for goods or services; mobile applications for shopping online are popular in Kenya. Therefore, as the technology evolves and increased sales from mobile apps, buyers' shopping trends are evolving. The

relationship between social and mobile commerce and its adoption among the youthful generation should be explored and its immense potential analyzed.

5.5 Limitations of the study

The major drawback of the present study is related to the geographical dispersion of the respondents. The study focused on people who have shopped online from Nairobi County. This is can be misleading in relation to the advancement of online shopping across the country. The uptake of online shopping in Kenya can be seen to be high, according to the results, 97.2% of the respondents in Nairobi county have shopped online, while in other parts of the country that cannot be true.

Additionally, this research explored determining factors that impact purchasing of goods or services online, where assessment of the amount spent on online shopping in the last 12 months, which can be considered a limitation. This is because it can be difficult to accurately remember any information in the previous 12 months.

REFERENCES

1. Abdi, H., Williams, L.J. and Valentin, D., 2013. *Multiple factor analysis: principal component analysis for multitable and multiblock data sets. Wiley Interdisciplinary reviews: computational statistics*, 5(2), pp.149-179.

2. Adams, J., Khan, H.T., Raeside, R. and White, D.I., 2007. *Research methods for graduate business and social science students*. SAGE Publications India.

3. Ajzen, I., 1991. The theory of planned behavior. Organizational behavior and human decision processes, 50(2), pp.179-211.

4. Atema, V., 2014. E-commerce adoption among small and micro enterprises in Nairobi (Doctoral dissertation, University of Nairobi).

5. Bryman, A. and Allen, T., 2011. Education Research Methods.

6. Cheema, U., Rizwan, M., Jalal, R., Durrani, F. and Sohail, N., 2013. The trend of online shopping in 21st century: Impact of enjoyment in TAM Model. *Asian Journal of Empirical Research*, *3*(2), pp.131-141.

7. Chin, W.W., 1998. The partial least squares approach to structural equation modeling. *Modern methods for business research*, *295*(2), pp.295-336.

8. Cloete, E., Courtney, S. and Fintz, J., 2002. Small businesses' acceptance and adoption of e-commerce in the Western Cape Province of South Africa. *The Electronic Journal of Information Systems in Developing Countries*, *10*.

9. Crouch, S. and Housden, M., 1984. Marketing research for managers.

10. Davis, F.D., Bagozzi, R.P. and Warshaw, P.R., 1989. User acceptance of computer technology: a comparison of two theoretical models. Management science, 35(8), pp.982-1003.

11. Erhardt, E.B., Rachakonda, S., Bedrick, E.J., Allen, E.A., Adali, T. and Calhoun, V.D., 2011. Comparison of multi-subject ICA methods for analysis of fMRI data. Human brain mapping, 32(12), pp.2075-2095.

12. Fishbein, M. and Ajzen, I., 1975. Predicting and changing behavior: The reasoned action approach.

13. Fredriksson, T., 2015. Unlocking the Potential of E-Commerce for Developing Countries. *Information Economy Report 2015*.

14. Hair, J.F., Sarstedt, M., Ringle, C.M. and Mena, J.A., 2012. An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science*, *40*(3), pp.414-433.

15. Henseler, J., Ringle, C.M. and Sinkovics, R.R., 2009. The use of partial least squares path modeling in international marketing. *Advances in international marketing*, *20*(1), pp.277-319

16. Humphrey, J., Mansell, R., Paré, D. and Schmitz, H., 2003. Reality of e-commerce with developing countries.

17. Hsu, M.H. and Chiu, C.M., 2004. Predicting electronic service continuance with a decomposed theory of planned behaviour. Behaviour & Information Technology, 23(5), pp.359-373.

18. Grazioli, S. and Jarvenpaa, S.L., 2000. Perils of Internet fraud: An empirical investigation of deception and trust with experienced Internet consumers. IEEE Transactions on Systems, Man, and Cybernetics-Part A: Systems and Humans, 30(4), pp.395-410.

19. Jarvenpaa, S.L., Tractinsky, N. and Saarinen, L., 1999. Consumer trust in an internet store: a cross-cultural validation. Journal of Computer-Mediated Communication, 5(2), pp.0-0.

20. Kabuba, P.K., 2014. *E-commerce and performance of online businesses in Kenya* (Doctoral dissertation, University of Nairobi).

21. Kaplan-Sturk, R., Åkerud, H., Volgsten, H., Hellström-Westas, L. and Wiberg-Itzel, E., 2013. Outcome of deliveries in healthy but obese women: obesity and delivery outcome. *BMC research notes*, *6*(1), p.1.

22. Katawetawaraks, C. and Cheng, L.W., 2011. Online shopper behavior: Influences of online shopping decision. Asian Journal of Business Research, 1(2).

23. Kempen, E., Toerien, E. and Kasambala, J., 2015. A conceptual framework of e-fashion shopping intent.

24. Kenya Internet Growth, http://ca.go.ke/index.php/what-we-do/94-news/290-internet-access-continues-to-record-positive-growth.

25. Kinya, K.K. and NJIHIA, D.M., 2013. *E-commerce Adoption By Formal Micro And Small Enterprises In Nairobi, Kenya* (Doctoral dissertation, University of Nairobi).

26. Krejcie, R.V. and Morgan, D.W., 1970. Determining sample size for research activities. Educ psychol meas.

27. Kuester, S., 2012. MKT 301: Strategic marketing & marketing in specific industry contexts. University of Mannheim, 110.

28. Kumar, V. and Mishra, S., 2012. A study of the attitude towards online shopping: A conceptual model regarding intention formation, the role of perceived risks. *Available at SSRN 2287643*.

29. Leboo, L., 2015. *Factors influencing shopper online buying behaviour in a project based company. A case of geothermal development company* (Doctoral dissertation, University of Nairobi).

30. Lee, Y., Kozar, K.A. and Larsen, K.R., 2003. The technology acceptance model: Past, present, and future. Communications of the Association for information systems, 12(1), p.50.

31. McKnight, D.H., Choudhury, V. and Kacmar, C., 2002. Developing and validating trust measures for e-commerce: An integrative typology. Information systems research, 13(3), pp.334-359.

32. Mugenda, O.M. and Mugenda, A.G., 1999. Research Methods: Quantitative and Qualitative Strategies.

33. Nazir, S., Tayyab, A., Sajid, A., Rashid, H.U. and Javed, I., 2012. How online shopping is affecting shoppers buying behavior in Pakistan. *International Journal of Computer Science Issues*, *9*(3), pp.486-495.

34. Ndegwa, E.N., 2013. Establishing the success factors for adoption of mobile shopping in Kenya's retail industry.

35. Nemat, R., 2011. Taking a look at different types of e-commerce. World Applied Programming, 1(2), pp.100-104.

36. Niranjanamurthy, M. and Chahar, D.D., 2013. The study of e-commerce security issues and solutions. International Journal of Advanced Research in Computer and Communication Engineering, 2(7).

37. Ngugi, K., 2014. *Factors influencing online shopping adoption in Kenya: a case of Westlands district, Nairobi county* (Doctoral dissertation, University of Nairobi).

38. Ringle, C.M., Wende, S. and Will, A., 2010. Finite mixture partial least squares analysis: Methodology and numerical examples. In *Handbook of partial least squares* (pp. 195-218). Springer Berlin Heidelberg.

39. Rogers, E.M., 1995. Diffusion of innovation theory.

40. Russo, B., Sun-Basorun, A. and Van Wamelen, A., 2012. *The rise of the African shopper*. McKinsey Global Institute.

41. Saunders, M.N., Philip, L. and Adrian, T., 2009. Research Methodology, Methods and Techniques. New Age International Publishers, 2nd Ed. New Dehli, India.

42. Taylor, S. and Todd, P., 1995. Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions. International journal of research in marketing, 12(2), pp.137-155.

43. Torbjon, F. 2015. Information Economy Report: *Unlocking the Potential of E-commerce for Developing Countries*. UNCTAD.

44. Velarde, V.D.V., 2012. Determinants of online purchasing behavior: An empirical investigation using an extension of the Theory of Planned Behavior. Business and Social Science.

45. Waithaka, M.W., 2013. Internet use among university students in Kenya: a case study of the University of Nairobi.

46. Wong, K.K.K., 2013. Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, *24*(1), pp.1-32.

47. Zhou, L., Dai, L. and Zhang, D., 2007. Online shopping acceptance model-A critical survey of shopper factors in online shopping. Journal of Electronic Commerce Research, 8(1), p.41.

48. Zikmund, W.G., Babin, B.J., Carr, J.C. and Griffin, M., 2013. Business research methods. Cengage Learning.

APPENDICES
APPENDIX 1: Population Sampling Table

| Population Size | Confidence = 95% | | | | Confidence = 99% | | | |
| | Margin of Error | | | | Margin of Error | | | |
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1067	427	636	827	1119
1,500	306	515	759	1297	460	712	959	1376
2,000	322	563	869	1655	498	808	1141	1785
2,500	333	597	952	1984	524	879	1288	2173
3,500	346	641	1068	2565	558	977	1510	2890
5,000	357	678	1176	3288	586	1066	1734	3842
7,500	365	710	1275	4211	610	1147	1960	5165
10,000	370	727	1332	4899	622	1193	2098	6239
25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	384	783	1534	9512	663	1352	2647	16317
2,500,000	384	784	1536	9567	663	1353	2651	16478
10,000,000	384	784	1536	9594	663	1354	2653	16560
100,000,000	384	784	1537	9603	663	1354	2654	16584
300,000,000	384	784	1537	9603	663	1354	2654	16586

Source: Krejcie & Morgan 1970

I am a graduate student undertaking a Master's Degree in Information Technology Management at University of Nairobi (UON). As part of my course work, I'm conducting a study of shopper behavior towards online shopping in Nairobi County. I would appreciate if you could take some time to answer the survey questions, it will take approximately 10 minutes to complete.

The information collected is strictly confidential and for academic purposes only. Thank you for agreeing to take part in this survey, I really appreciate your help.

SECTION A: GENERAL INFORMATION

Instructions: Please respond to the following questions by ticking only **ONE** answer.

1. **What is your gender?**

 [ ] Male   [ ] Female

2. **What is your age bracket?**

[ ] Below 20 years   [ ] 21-30 years   [ ] 31-40 years   [ ] 41-50 years

[ ] Above 50 years

3. **What is your highest level of education achieved or in the process of attaining it?**

[ ] No Certified Schooling   [ ] Primary School   [ ] High School [ ] Certificate

[ ] Diploma   [ ] Undergraduate   [ ] Post Graduate

4. **Which of the following describes best your current occupation?**

[ ] Student   [ ] Part-time Employment   [ ] Full-time Employment

[ ] Unemployed [ ] Self- Employed   [ ] Retired

[ ] Housewife/husband

5. **What is your marital status?**

[ ] Single   [ ] Married   [ ] Separated   [ ] Divorced

[ ] Widowed

SECTION B: SHOPPER BEHAVIOUR TOWARDS ONLINE SHOPPING IN NAIROBI COUNTY

1. **How long have you been using the internet? (Please tick one)**

    [ ] Less than 1 year [ ] 3 – 5 years

    [ ] 1 – 3 years   [ ] 5 – 8 years

    [ ] 8 years and above

2. **How often do you use the internet for the following purpose?**

	Very Often	Often	Occasionally	Never
Browsing social Media	[ ]	[ ]	[ ]	[ ]
Online shopping	[ ]	[ ]	[ ]	[ ]

Search product information	[ ]	[ ]	[ ]	[ ]
Reading news/articles	[ ]	[ ]	[ ]	[ ]
Searching for a job	[ ]	[ ]	[ ]	[ ]
Studying and researching a topic	[ ]	[ ]	[ ]	[ ]
Others	[ ]	[ ]	[ ]	[ ]

3. **Have you ever purchased any product/service using the internet? (Please tick one).**

   If your answer is No, please go to Question 14.

   [ ] Yes   [ ] No

4. **How did you access the online shopping platform?**

   [ ] Website [ ] Mobile App [ ] Both

5. **Which devices do you prefer to access online shopping? (Tick at least once)**

   [ ] PC (Laptop, Desktop)   [ ] Smartphone

   [ ] Tablet

6. **What products/services have you purchased online? (Please tick as many as possible).**

   [ ] Books   [ ] Food, Drink

   [ ] CDs/DVDs, Music, Computer Games   [ ] Travel Ticket

   [ ] Clothing, Shoes, Accessories   [ ] Perfume, Cosmetics

   [ ] Electronics   [ ] Household goods, furniture

   [ ] Mobile Phone, Accessories   [ ] Sports Equipment

   [ ] Computer, Accessories   [ ] Movie, Theater Ticket

7. **HIn the last 12 months, how much money have you approximately spent shopping online for goods/services? (Please tick one)**

   [ ] Less than Ksh 10,000   [ ] Ksh 30, 000 - 50, 000

   [ ] Ksh 10, 000 – 30, 000   [ ] Ksh 50,000 – 80,000

   [ ] Ksh 80,000 – 100, 000   [ ] Above Ksh 100,000

8. **What payment methods do you prefer for online shopping? (Tick at least once)**

   [ ] Cash on Delivery (COD)   [ ] Mobile Money (M- Pesa e.t.c)

   [ ] Debit/Credit Card   [ ] Third Party (Paypal, Pesapal)

9. **Do you go to the shop to see the product before purchasing?**

[ ] Yes   [ ] No

[ ] In some cases. Please specify…………………………………………………………………

10. **How do you know about shopping websites? (Please tick at least one)**

[ ] Family/Friend recommendations   [ ] Press and Media adverts

[ ] Website Advert   [ ] Email links

[ ] Search Engines

11.   **Have you bought any products or service online from any of the following? (Tick ONE only)**

	Yes	No	Don't Know
Companies based in Kenya	[ ]	[ ]	[ ]
Companies based outside Kenya	[ ]	[ ]	[ ]

12. **In summary, how confident would you say are with buying goods or services online from each of the following?**

	Very Confident	Fairly Confident	Not Very Confident	Not Confident at all	Don't know
Companies based in Kenya					
Companies based outside Kenya					

13. **Kindly indicate to the extent to which you agree with following statements about shopper behavior towards online shopping on a scale of 1 -5.**

	Strongly Disagree = 1	Disagree = 2	Neutral = 3	Agree = 4	Strongly Agree = 5
Shopping online saves me time when purchasing goods or services					
Goods can be easily compared in online shopping					
I find online shopping in Nairobi very understandable					
Buying goods and services online is easy to do					
Online shopping is compatible with the way I like to shop					

Purchasing goods/services fits very well with my lifestyle					
Online shopping of goods and services is safe					
Generally, I find online stores trustworthy					
My friends or family encourage me to shop online for goods					
My friends or family think that online shopping is a good idea					
I have read or seen reports in the mass media that have influenced me to purchase goods and services online					
Website adverts have influenced me to buy goods online					
I have enough income to do online shopping					
I have enough internet to do online shopping					
Online shopping in Nairobi is a good idea					
I enjoy shopping for goods/service online					
People who are important to me would recommend that I do buy goods/services online.					
People who I value their opinions would buy goods/services online					
I have the ability to do online shopping					
Doing online shopping using the internet is within my control					
I intend to purchase goods and services online in the near future					
I will purchase goods and services online in the near future					

14. Would you recommend online shopping to someone else?

[ ] Yes   [ ] No   [ ] Not Sure

Thank you for taking the time to fill in this questionnaire