

**OPERATIONAL FACTORS INFLUENCING E-COMMERCE
CUSTOMER EXPERIENCE IN NAIROBI COUNTY**

BY

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
**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
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DECLARATION

I hereby declare that this project is my original work and has not been submitted for examination to any university or institution.

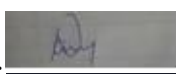
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DEDICATION

I dedicate this research project to my loving and caring mother, true friends and family at large.

ACKNOWLEDGEMENT

I would like to pass my sincere gratitude to my supervisor Dr. Nancy Marika for her tireless efforts in guiding me through this research project besides Dr. Lelei, my moderator. Special thanks goes also to my family and friends for encouragement and endless support and above all God Almighty for the gift of life and health, He has given me.

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ABBREVIATION AND ACRONYMS

E-commerce	Electronic commerce
\$	US Dollars
USA	United States of America
UK	United Kingdom
ICT	Information and Communications Technology
UNCTAD	United Nations Conference on Trade and Development
FMCG	Fast Moving Consumer Goods
POS	Point of Sale
WOM	Word of Mouth
eWOM	electronic Word of Mouth
TAM	Technology Adoption Model
TRA	Theory of Reasoned Action
DOI	Diffusion of Innovation

ABSTRACT

Electronic commerce in Kenya has experienced a significant growth over the past few years, especially among small and medium sized businesses. E-commerce has helped many businesses to expand their market presence through provision of cheaper and more efficient distribution channels for their goods and services. The use of mobile apps in e-commerce engineered with internet has gathered rapid penetration in the market and plays a big role in promoting online shopping. The facilitation of good data network and an efficient internet has enabled buyers and sellers to meet, and exchange goods and services besides transacting payments online. The customer experience on using mobile apps has contributed largely to e-commerce growth as they can purchase anything they want anytime and anywhere. The continual growth of online stores will depend on companies personalizing customer content, building loyalty with customers, providing unique tailored offers, going global by unlocking new markets internationally and delivering consistent shopping experience to them. The objective of this study is to explore operational factors influencing e-commerce customer experience in Nairobi County, Kenya. The study adopted a descriptive research design. The population of the study encompassed one hundred respondents and were selected randomly on a convenience basis. The collection of data was done through the use of questionnaires. Data was analyzed using Statistical Package for Social Sciences and MS Excel. The findings of this study show that majority of the people in Nairobi (over 90%) purchase products online from various e-commerce platforms. However, the respondents said that they do not purchase everything from the internet indicating that certain factors attract while others prevent customers from engaging in e-commerce. This study therefore established that operational factors are key in influencing e-commerce business in Nairobi County. The results from this research will inform market stakeholders' concerning the market needs and existing issues in today's technological world. Studying the market, particularly now while e-commerce is still at its rampant development stage, is key for industry stakeholders to safeguard the success of this growing market.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

The emergence and practice of electronic commerce (e-commerce) was given rise by the emergence and expeditious adoption of the internet, which has turn into an enormous trade in todays' world (Alyoubi, 2015). Through e-commerce, consumers have found it stress-free, fast, and suitable to shop for garments, groceries, beauty products, and other online user products (Paul & Rosenbaum, 2018). This has resulted in an increase for establishments selling products virtually (Mathew & Mishra, 2015; Gao, 2015).

Nowadays, remunerative offers and better shopping experience benefits are making customers to move to online stores. The Internet has provided a distinctive podium for enterprises to effectively reach more customers, both existing and potential, due to e-commerce enormous potential for current and futures markets. Mobile technology innovation and implementation by countless users, remodeling interactive traits and providing services to accomplish the best e-commerce customer experience which is crucial to enterprises (Bilgihan et al.,2016). In the current e-commerce competitive setting where the rival is only a stone-throw away, for a firm to survive it has to discover techniques in providing clients with distinctive experience other than low charges. The yearly online income of 24% which likens to extra \$50bn and £14bn lost in USA and the UK respectively, is due to poor online customer experience (Econsultancy,2011). Therefore, online establishments have acknowledged the reason to emphasis in giving a captivating shopping experience.

Over the last 20 years, technological advancements changes have been evident across the retail sector primarily influencing and transforming the shopping experience from a business outlook and consumers point of commitment (Jain & Werth,2019). 'Omni-channel Marketing', has risen thanks to technological drift which is a distinctive manner of shopping utilizing amalgamation of both traditional stores and virtual spheres presenting a unified shopping experience that relies entirely on technology and has added to speedy progress throughout the segment (Goyal,2017; Grewal et al. 2018).Retailers have been equipped with exceedingly operational technology device to expand and widen their markets of aim over online division, customer relationship

building, offering wide range of product lines and providing customized deals. Following these innovations, the responses of customers have increased immensely (Qazi et al. 2017), in retailing organizations and this can be tracked in increased online sales through the historical period (Office for National Statistics, 2019; Next Retail Ltd, 2018).

1.1.1 E-commerce

Electronic commerce, usually recognized as E-commerce, is transaction in goods or services via the Internet. It is modelled from technologies such as electronic money transfer, mobile commerce, Internet marketing, online transaction dispensation, electronic data interchange (EDI) and computerized data collection systems (Shahriari et al., 2015). Electronic commerce has also been described as exchange of goods and services via Internet. Besides business dealings, internet is used by many people to get information for price comparison or search for the newest products available on offer before purchasing them, (Khan, 2016). As of the range of descriptions offered, it is apparent that the main features of e-commerce are technology related and arbitrated exchanges among organizations and third parties, diverse electronic media forms are put together at certain point for facilitation of such interactions (Kinuthia & Akinnusi, 2014; Litondo & Ntale, 2013).

Ecommerce has common diverse models some of which are discussed as below. According to (Oracle, 2012; Nath, 2013) Business-to-Business (B2B) is the very utmost common type of e-commerce that denotes to filled range of activities which occurs among two establishments. Businesses-to-Consumers (B2C) encompass retailing dealings among establishments and distinct shoppers for instance Jumia and Amazon direct virtual retailers. On these fundamental platforms, customers search and purchase their favorite products from a number of available demonstrated products. B2C marketplace frequently distributes tangible products. Nonetheless, consultation services can be disseminated also through this form of marketplace. (D'Errico,2019.)

Consumer-to-Consumer (C2C) implicates dealings among consumers facilitated by the e-commerce website, eBay, Pigiame and www.bazee.com being good illustrations of such sale sites. This kind of model allows personal buyers to distribute their own special products to other Internet-based networks or website services short of complicated conditions, for instance,

registering as selling organizations to authorities or opening own stores (D'Errico,2019). Consumer-to-Business (C2B) is the act where consumers trade products to businesses; Travelocity and Priceline are an example of such freelancing sites.

The new channel for business dealings and marketing digitally is e-commerce (Syazali et al., 2019). This has changed the traditional methods of shopping and subsequently brought about online shopping. In the past people visited shops physically, touch goods they're interested in buying, requested for price cut from dealers, and thus purchasing the goods. The new online-based shopping has been conventionally converted for the customers to a more effective way of selecting and paying for their things. Increase in competition among competitors, has led to the companies wanting to empower themselves by remaining ahead. Because of this, the organizations from previous decades are attempting to have both digitized and traditional shopping methods, to stay updated (Nazir & Haq, 2018). In the current world, e-commerce has turn into an essential measure of business. You get a chance to have your products available to consumers by the help of e-commerce web-design. Online stores are available all day, every day (24/7) implying that customers can visit your store at all times, despite their schedule (Amal, 2016).

In Kumar (2018) report, immense e-commerce success is anticipated to increase 4 times by year 2021 as contrasted to 2015. Internet users, enhanced internet services, digitalization of utmost initiatives are going to be major contributors to this growth with government support, foreign investors entry and business thespians, unconventional payment alternatives accessible to customers but proper legal framework should be provided by government besides minimizing hurdles in development. Seth & Wadhawan (2016) remarks that for traders to get compatible with new digital businesses, they are required to go beyond their boundaries. Digitalization has now become a necessity for all retailers rather than a choice. Shahjee, (2016) states that companies have been given platforms by e-commerce to display their diversified products and help consumers to easily access goods of their importance, which marketing traditionally was challenging.

1.1.2 Customer Experience

The emotive customer insights combination in any interaction (indirect /direct) through business is known as customer experience. The future of business is known through how successfully you can create an enjoyable, effective and great business customer experience. E-commerce is not a supplementary strategy in contemporary markets and it has become part of the of public trade strategy (Bilgihan et al., 2016). Therefore, any trade-off of service, irrespective of its form, leads to the customer experience (Schmitt et al., 2015).

As illustrated by Meyer & Schwager (2007), customer experience is pivotal in tailoring shoppers' insights of virtual retailer's anticipation. Customer experience needs a comparison between the experience of an individual resulting from all product touch points, trademark or business and their prospects to them. The science of knowing your customers fully is known as customer experience management. Through this understanding an establishment is able to offer personalized experiences to clients, making them their advocates besides being loyal. A comprehensive knowledge about customers should be emphasized as it's crucial in creating relations with them, and analyzing of collected data in company's databanks can work as a foundation for anticipation of prospect consumer behaviors and wants (Sudolska, 2011). Porter and Heppelmann (2014) emphasize the significance of comprehensive acumens in the benefit delivered to consumers through products. Customer experience management encompasses processing of information gathered in a swift and efficient way by verification (Wereda & Grzybowska, 2016). McKinsey & Company research stressed on the importance of a customers' journey decision, i. e. the sequential methodology in interactions formed at touch points from the process of customer experience management (Neher et al., 2016).

Service Experience Clues, Service escapes and Service Transaction Analysis are instruments developed for customer experience identification and analysis purpose (Berry et al., 2006; Johnston,1999). Brand loyalty results from an outcome of quality products or its features and the amount of experiences met through customer interactions course with the organization that can reinforce or deteriorate their relationship. Establishments which are successful create a resilient expressive connection with customers translating into loyalty growth and their tendency in brand

recommendation. From IBM (2015) research results, an operational Customer Experience Management should be a non-intact task, but an inclusive business philosophy.

The ecommerce shopping experience refers to a situation where consumers are gradually depending on social interactions, online commendation engines and other aiding technologies to lead their purchasing decisions and use additional digital instruments to enable their deeds in shopping (Cheung et al., 2015);Bilgihan et al.,(2016). Advancement in technology system communications, computers, and user interface design has led to advent in online dissemination and e-commerce. Nowadays customers can get information from any place at any time in different stores. Consequently, information equipping ought to be modified to the limitations of various devices (smartphones, tablets, PCs). For instance, emotional factors have been recognized as the online customer experience core dimension. The digital customer service experience is well-defined as "the perception of consumers' mentality in relating with an organization's value intention virtually which follows a set of consequences such as benefits, moods, verdicts, and aims. The likely results of the online customer experience have been previously probed by researchers and supposedly established that the purpose to repurchase is among utmost outcomes of amplifying the online customer experience (Bilgihan, et al, 2016).

1.1.3E-commerce businesses in Kenya

Kenya has a high-spirited e-commerce system in Africa which has grown steadily over the past few years. A 2016 joint done by and the Kenya National Bureau of Statistics (KNBS) and National ICT Survey by Communications Authority recognized 39% of reserved initiatives are involved in e-commerce. This percentage continually grows continuously as currently most dealings offer digitized services, particularly in the ecosystem of mobile imbursement. Estimates in the industry indicates that 70% of Kenyas' e-commerce remittance is done through several platforms of mobile money. The Economic Survey 2018 reflects an incredible progress on transactions in mobile exchange. In 2017, mobile proceedings rose by 85.5 per cent from KSh.1.8 trillion in 2016 to KSh.3.2 trillion. According to the UNCTAD B2C Commerce Index (2019); Kenya was placed number 88 and 4th in the rapidly transitioning and growing e-commerce economies in African Sub Sahara after Mauritius, South Africa and Nigeria. Roughly, 24% of Kenyans internet users, are e-commerce consistent user.

During the pandemic period of Covid-19 lockdown, more businesses have decided to open up online shops to help in curbing the virus by reducing crowds in 'brick and mortar' stores and Kenyan e-commerce will accelerate further and grow. According to data from Jumia Kenya 2019, it shows that the largest group shoppers of e-commerce is 25-34 years of age, living in larger cities like Nairobi besides three products dominating on e-commerce that is; electronics, fashion and FMCG.

In Nairobi County, there has been an influx of both local and international online businesses like Jumia, Kilimall, Copia, Masoko, Glovo, Twiga Foods, Avechi, Skygarden, Hotpoint and many more others owing to apparent increase of the 'online shopping trend' among the urban Kenyan population in keeping up with the global trend. The success of M-PESA one of mobile money payment platforms, an invention originally bowled out in Kenya and commended worldwide as a mechanism of digital fiscal insertion underlined the growth of e-commerce.

1.2 Problem statement

In today's world, businesses are competing in an enforced environment dealing with varied online channel designs such as e-commerce, m-commerce and websites. For instance, companies' Facebook profiles are viewed by consumers, and companies' Websites visited using their smartphones and computers in dissimilar times. Online customer experience therefore, includes every interaction point (social media, apps, Website) which consumer decides on interacting with the firm. The chance to get admittance to a customers' diversity view point and company's ideas to foster innovation has been provided by modern social Web and online social networks (Oinas-Kukkonen & Oinas-Kukkonen, 2013). Numerous online mediums relations between firms and customers are essential in creating a complete virtual shopping experience. For example, Amazon clients can put -up a question regarding an item, and gets a reaction from the other customer who has the product. Customers can simultaneously interact with sellers too. Literature related to e-commerce and multi-channel retailing will be brought together to examine the role and effects of social and automated commercial channels on online customer experience.

The current business environment in Nairobi is characterized by increased level of competition. Implementation of technology has been viewed as a major way in which firms can improve their performance by increasing their level of efficiency. Performance of firms is achieved by effective use of technology since this provides them with the best way in which they can improve efficiency in their operations and product offering (Achrol & Kotler, 2011). When firms in both the private and public sector experience continuous change, they are most likely to reexamine their buying and selling strategies so as to improve their effectiveness especially when providing goods and services to their customers. This is essential in improving the customer experience on online business.

Company websites need to take part in inventive data and should to be frequently well-run and effortlessly maneuverable to meet the varying needs of the consumers. Affordable pricing of the products should be made to attract more customers and satisfy them as well. If the company has capacity to appeal and satisfy more customers through online shopping process, then the establishment will be able to deliver a tough rivalry towards resilient enterprises in the commercial market. Online companies need the proficiency of sturdy dissemination to prevent long periods of waiting for delivering their products, which was purchased by them. It is very significant to content the consumers constantly provided by quality products with reasonable charges thus increasing firm's income besides impacting customer experience positively.

There are various researches which have been conducted to analyze varying facets of e-commerce in emerging countries Kenya included, with an emergent gap in each. Most of the researches (Shemi, 2012; Wanjau et al., 2012; Mutua et al., 2013; Ochola, 2013), concentrated on aspects prompting the adoption of e-commerce in SMEs and challenges facing online businesses (Kinuthia & Akinnusi, 2014). However, research on experience of customers shopping at online establishments seems to be missing. Positive experience prospects that can lead to a lifelong relationship building have been created through consumer relations with company's website. The face-to-face context customer shopping experience domain is well developed, but no attention has been given to the online context especially through operations connection as most organizations focus on strategic ones. Therefore, this study is designed to

explore operational factors influencing e-commerce customer experience and their outcomes in Nairobi County.

1.3 Research objectives

The study's objectives are:

- I. The extent of e-commerce technology used on online shopping
- II. To establish the operational factors influencing e-commerce customer experience in Nairobi County.

1.4 Significance of the study

The study gave an insight to e-commerce companies on how to recognize the needs of customers and focus on providing shoppers with a compelling shopping experience. The results of this study will benefit e-commerce marketers, operation managers of online companies and Web site designers to provide effective online experiences for customers.

This study is significant to prevailing online businesses to give guidance and remind them of their drivers for successful customer experience. It advises them on the right things they've been doing as they continue to enhance online customer experience. To new entrants, they need to understand what they are getting into and how to get into it to maintain the existing good online customer experience. This research also builds on the existing literature on e-commerce customer experience in rising countries like Kenya in academic research areas.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Chapter 2 is very crucial in any research study as it offers the effect along with tangible information concerning the study matter. This chapter has numerous types of collected works reviewed according to this topic. This research has been shaped consistent with the topic of operational factors influencing e-commerce customer experience in Nairobi County. Occasionally more consumer commitment in the enterprise might hamper the customers' experience. The online businesses should emphasis on the decent quality websites and products delivered beside with numerous choices and reasonable product fee. Literature review is essential to appreciate the study topic correctly and collecting the existing information explored before by former authors.

2.2 Models of Adoption of e-commerce

In the unfolding of 21st century, the internet and electronic commerce has progressively become significant to the corporate world (Maswera & Edwards, 2008). Particularly, establishments can now overcome some of the main shortcomings for instance size, inadequate financial, technological and workforce and narrow exposure to the universal marketplace, by embracing internet technologies (Cooper, & Burgess, 2000). Most businesses especially small and medium sized ones are encountered with the difficult of taking up e-commerce as new technology to aid in refining the experience of their shoppers. Several theoretic Models have sought to elucidate electronic commerce adopted by online businesses and a few are discussed below

2.2.1 Diffusion of Innovation (DOI) – Rogers 1962

Diffusion of Innovation is a theory of how, why and at what proportion new concepts and lay-out of technology across customs employed at personal and organizational extent. This theory sees innovation conversed across specific means gradually and in a distinct social structure (Rogers, 1995). People are deemed owning distinct levels of enthusiasm to embrace innovation and therefore it's basically observed. Over the time, a percentage of the populace embracing an innovation is usually disbursed approximately. According to Rogers (1995), disintegrating this ordinary dissemination into sections brings about the partition of individual innovativeness in the

subsequent five grouping (from trendsetters to current adopters: innovators, early adopters, early majority, late majority, laggards). The proceeding of innovation in an establishment is a lot more complex. It normally involves several respective, possibly together with each proponent and contenders of the emerging concept, both of who take part in the environment-commitment. Innovativeness is associated to such independent variables as individual (leader) characteristics, internal organization structural characteristics, and external characteristics of the organization.

2.2.2 Technology adoption model (TAM) Fred Davis 1989

Technology adoption model is a development from Azen and Fishbein's theory of reasoned action (TRA) which is a behavioral forecast intent model, traversing demeanor and conduct prognosis. The successive intended behavioral segregation from conduct grants for clarification of parameter on inclination effect (Azen, 1980). Numerous TRA's attitude perspective actions have been replaced by TAM's two technology compliance measures, that is, ease of use, and usefulness. The decorum component TRA and TAM each, suppose that when somebody establishes a desire to do something, that they'll do it freely with less restriction. There will be a lot of limitations in the real world, for example, restricted liberty to take action, (Bagozzi et al.,1992).

The Technology Acceptance Model (TAM) is an information system concept which designs how operators come to assent and utilize automation. The theory indicates that end users are bestowed with latest technology, numerous aspects impact their commitment on how and when they'll utilize. The Technology Acceptance Model (Davis et al., 1989) is the largely embraced model for user acceptance of information systems. The model purposes to exhibit an illumination of the defining dynamics of computer adoption, delivering a root for outlining the effect of macroeconomic situation on inner assurance, assertiveness and intents. The model recommends that authentic structure use is set on by divined usefulness and ease of use of the automation. Technology Acceptance Model is also a vital idea for e-commerce acceptance; to form a fascinating customer experience, online establishments offer the essentials of user acceptance by accomplishing the necessities of apparent ease of use and usefulness. These two paradigms are the fundamentals of establishing affirmative experiences.

2.3 Extent of adoption of E-commerce

There has been a tremendous growth in the rate of mobile phone connectivity. This is also necessitated by the majority of the people being youth, who form the chunk of mobile phone users. Mobile phones have spread rapidly, not only meeting the ever-increasing demand for communication, but also necessitating access to critical services such as financial, education and training, entertainment, health among others that were not effectively accessible previously. Currently, there is transformation in the way people conduct their businesses, hence spawning important spill-out impacts in other functional units of the economy. The spread of the internet is yet to match with mobile telephony since its growth was expansion was hindered by issues such as the price of the smart devices, inadequate internet and poor electricity availability, and inadequate of digital literacy and know-how in the society. The internet will fully reach its transformative and developmental impact as these hindrances gradually overcome. Information and communications technologies (ICT) will have a significant impact in ensuring that the expected sustainable development goals are achieved, especially the post-2015 development agenda ones. The Sustainable Development Goals adopted by the UN General Assembly on 25 September 2015 commend considerably increasing use of ICTs, and aiming to give common and cheap access to the internet less developed and developing nations by 2020.

According to Criterion (2016) e-commerce's half transactions in 2016 came about using several devices. Further, that the value crossed the 50% in 2016, and that of sellers had to redesign the online purchasing experience in order to accommodate this emerging reality. Also 20% multiple device consumers were most probable to undertake their buying decision over the mobile device average user. This meant that the online buying experience needed to be redesign by e-commerce businesses to get in line with the reality that majority of the users visit them through different devices. Also, that marketing campaigns had to be activated on each and every device and all properties completely tagged to influence mobile and desktop. Criterion (2016) further noted that Mobile was the first screen for most customers, particularly as larger smartphone screens increase the convenience for mobile shoppers. Most customers now conduct intensive research online before going to the store hence it's vital to retailers to understand shoppers' prior their online activity. A research outcome by Google shows that 8 out of 10 customers use a smartphone within the stores to enable them to shop, but latter on buy their products using point of sale (POS).

With the social media importance growth, it is evident that it has become the most promising channels for enterprises to market and sell their goods and services. According to an elaborate research done by Hoot Suite firm, it emerged that in January 2018, there were 4 billion people using the internet all over the world out of which 3.2 were also active on social media platforms. Even though majority of the internet users were linked with developed nations, others in less and developing nations are adopting the use of internet at a very faster rate than expected. Social media and e-commerce convergence is being regarded as a global sensation that will steer the thought processes of enterprises all over the world. It is growing to be much more evident to the common man's eyes as this convergence grows stronger. Social media platform users see advertisements of the things they have searched on online platforms on their social media pages, which is the capability of the complex machine learning algorithms that operates unnoticeably in the background. Therefore, enterprises like Amazon are able to market its products and services with utmost levels of competence to its customers. And customers can intermingle with each other and exchange their experiences, recommendations, evaluations and know-hows through these platforms. The actual value is not derived from the specific platform but the way the platform is used. The platforms possess the potential to influence sales, alteration of brand images and involve in consumer service and support on an ongoing basis.

2.4 Operational factors influencing online customer experience

To be able to find what factors are characteristic for good e-commerce customer experience, it is important to investigate what other authors have found and how their findings have an impact on shopping online. This subsection discusses the main operational factors for customer experience building in e-commerce.

2.4.1 Convenience

This is a dynamic value provided by e-commerce shopping to buyers. Consumers can purchase for their preferred products besides services without visiting a supermarket. The facility offers services for 24 hours in a day has been provided by online shopping facility to help people enthusiastically as they might buy their preferred products in accordance with their schedule (Chin & Goh, 2017). Furthermore, with internet's active connection help, it is definite that the

consumers can make use of all online shopping facilities from any place or position. It gives an sufficient assistance to those buyers with a busy routines.

Numerous studies on shopping have acknowledged convenience as a distinct initiative for choosing the type of brand to purchase (Jiang et al., 2013; Liu & Forsythe, 2010). Often, convenience purchasers are considered as choosing products based on effort or time savings. Better shopping online experience has been acquired by consumers as the challenge of accessing the shop in person is reduced (Park et al., 2013). Customers acquire the opportunity to shop anytime and anywhere, as location turn out to be irrelevant when it comes to shopping online. Another major benefit is that customers can collect the product information conveniently and find valuable alternatives while shopping online reducing search costs while under pressure (Pahnila & Warsta, 2010). Hence, convenience entails the features of when and where customers can buy. The new varied experience of “usefulness” and “ease of use” are likely to be gained easily by customers in this convenience perspective. In other words, the shopping experience is more enjoyable with decreased frustration.

2.4.2 Website quality

The gathering of structured information concerning goods and services exhibited in the graphical form, texts and videos is called e-commerce shopping websites (Ghaffari & Ashkiki, 2015). Providing information to the customers forms the main purpose of online shopping platform. Therefore, Ghaffari & Ashkiki (2015) mentioned the significant indicator for defining customer satisfaction is the information quality about the products available in the virtual shopping website. Hong et al., (2017) moreover established a major link between quality of the website and customer satisfaction. Hence, the best reason for the low profit realization in an organization and customer loss is because of low-quality websites. In this manner, Kumar & Velmurugan (2017) appealed that customers’ buying agreement is influenced by websites quality. By continuing with this procedure, understanding the online shopping website quality customer satisfaction information can be known (Rasli et al., 2015). Because customers incline to have greater satisfaction with online shopping when they sense that website quality is good. In contrary, customers can have a bad experience from dissatisfaction realized through the poor quality of the online shopping website. Therefore, it’s necessary to understand how service of

website quality influence on customers' emotions which ultimately ascertain the degree of customer's satisfaction with regard to online shopping experience. Different authors have established various elements of website quality such as information quality (Ghaffari & Ashkiki, 2015; Vasić et al., 2019), system quality (Lin et al., 2011; Uzun & Poturak, 2014) and service quality (Wang & Le, 2015; Lin et al., 2011) which influences the perception of customers and as a result their degree of satisfaction towards online shopping experience.

Many writers have previously explored customer satisfaction by observing the website service quality (Pawlasova & Klezl, 2017; Zatalini & Pamungkas, 2017). Since the electronic service quality determines how effective and efficient a website can offer services in case of purchasing, selling and moving products to the online shoppers (Ghaffari & Ashkiki, 2015). As illustrated by Parasuraman et al., (1988), the basis for getting information concerning customer satisfaction is service quality. Thus, it can be concluded that service quality of the website has an affirmative influence on online shopping customer satisfaction as stated from the support of previous literature (Deyalage & Kulathunga, 2019; Guo et al., 2012). Additionally, Ghaffari & Ashkiki (2015) deliberated that a website can meet the users and customer anticipations that consequently, affect consumer satisfaction and experience.

2.4.3 Product attributes

Product variety reflects the quantity of diverse product types presented in a single product class (Maiyaki & Mokhtar, 2016). The key reason of offering a wide range of product is the consumer who is the source of demanded product (Ho & Tang, 2006). Customers specialized demands can be met by any organizations providing them with varied range of products (Xia & Rajagopalan, 2009). Similarly, many preferences will be given to customer to pick out based on their wants, budget or even taste. The varied products can further increase the likelihood of at least one product offered closely matching an individual preference. In addition, online store chances of offering wide range of products are bigger than those of physical store (Saprikis et al., 2010). Due to the virtually unlimited shelf-space online store has many alternatives to offer diverse range of product and try to fulfill the customer needs. Through this action companies are able to make more profits, form long-standing relationship with their customers besides attracting new and potential customers.

Linton (2018), stated that customer satisfaction and loyalty can be maintained through quality products. Besides, it can lower the cost of changing for the improper goods made by the employees (Linton, 2018). Many strategies exist that can meet customer expectation, manage a product status, meet industry standards and manage costs as well in quality products as stated in Linton (2018). Product quality is not only important for companies but also for consumers. It is because consumer will expect the amount that they paid to match the best quality product purchased. Failure for the company to comply, they will purchase from the competitors. Nowadays, local market can sell a lot of good quality international products. Therefore, local firms will find it hard to survive in the industry if they will not improve to a higher standard product quality (Akrani, 2013).

Product quality is as well of importance to online shopping. Product Information Report states product quality as one of the significant factors that leads to successful online sales (Retail Dive, 2016). Additionally, the product quality plays a vital part also in shopping cart desertion reduction and besides impacting the brand parity and consumer's future buying decisions (Retail Dive, 2016).

2.4.4 Accessibility

The extent to which website provide information to be obtained and used without struggle is referred to as accessibility (Ho & Lee,2007). Individuals who buy things over the internet can easily acquire the information on organizations websites and other social media platforms or even directly reach out to the marketers based on the information provided (Eisingerich & Bell, 2008; No & Kim, 2015). Through multiple methods such as email and telephone, online consumers are likely to contact online retailers. Online live chat has become consumer's best choice to contact the online retailers with speed and efficiently preventing time wastage through unnecessary calling or mailing when they're busy. Customer satisfaction levels are increased through live chats as customers get responses on the spot (Elmorshidy, 2013). Moreover, as indicated by Sohaib & Kang (2016), organizational websites are turning to be very vital to internet shoppers. Online customers habitually desire to have access to their seller chat rooms with the aim of having current and essential information to influence buying decisions (Jun et al., 2004).

Accessibility plays an important role in online shopping context, given that buyers choose the channel that exhibits manageable user interface (Overmars & Poels, 2015). Lately, individuals considered purchasing products from online to beat out crowds or avoid disappointment of missing their products online due to the simplicity of ease of access in online purchase (Khare & Rakesh, 2015). There are more beneficial benefits to consumers due to size, examining through filtering product type, prices, color and many more. Customers prefer sites that are free of accessibility violations while shopping online. People who are physically challenged find it easy to shop online as they are provided with reachable technologies like screen reader, voice recognition software, magnifier, etc. (Khare et al., 2012). The customer online shopping experiences have been better due to increased accessibility standards.

2.4.5 Last mile delivery

In order fulfillment process, last-mile delivery is an important stage in general and specific e-commerce and it entails main activities of moving products to their desired destinations from a common middle location such as a warehouse or dedicated fulfillment hubs (Janio,2019). Last-mile delivery should be promptly accomplished with the most affordable cost to promptly meet the customer needs. In an e-commerce standpoint, last-mile delivery can affect buyer satisfaction significantly when their prompt deliveries needs cannot be achieved to satisfaction. Additionally, the delivery expenditures within the business framework also make up a huge chunk of the aggregate operating costs of the business. Therefore, much more awareness for last-mile delivery should be raised in the ecommerce businesses to reduce the costs of operation while providing consumers with the most all-inclusive way out for delivery. Lately, free-shipping service is preferred by more and more consumers. When viewed in a corporate standpoint, customers' free-of-charge shipping is among the competitive factors for the online businesses to compete with other players in the industry. Thus, to necessarily offer additional services for delivery and balance the costs simultaneously, it is imperative for the ecommerce firms to pursue suitable solutions (Hero,2019.) Furthermore, additional services for example, the ability to trace and view products at the time of delivery, which keeps buyers in constant communication with their purchases until they can have them delivered to them in the right condition, may provide greater experiences to the customers. Then, it is also a useful strategy of attracting high levels of loyalty from the customers by leaving surprises in each shipment (Janio,2019).

To ensure purchased goods and services can be conveyed in a specific and suitable way to their final destinations, last-mile delivery is systematic way that involves many vital functional phases. As presented in figure 1 below, there exists five major phases within the delivery process to be achieved in view of enhancing the movement of goods and services from central places like warehouses to the target market or consumers easily and efficiently.

The following are delivery process notable stages in a methodical order.

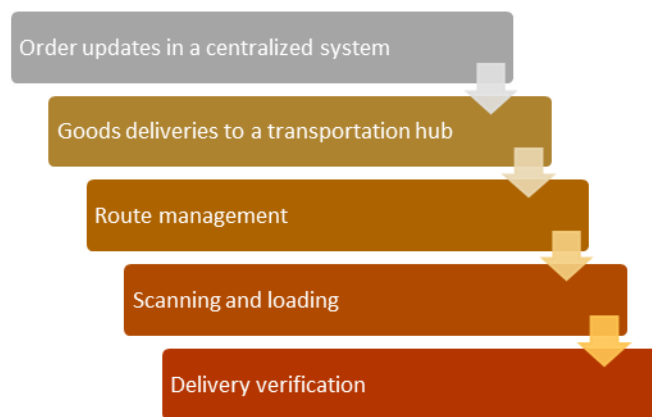


Figure 1: Last-mile delivery process (Smith 2018 and Onfleet 2020)

2.4.6 Reverse Logistics

As illustrated by Alfonso-Lizarazo et al (2017), "the course of formation, executing, and monitoring the efficient, economical flow of resources, in process inventory, finished goods, and interrelated information from the final consumer to the source so as to create value or appropriate disposal" is known as reverse logistics. In the B2C ecommerce model, the American Reverse Logistics Executive Committee defines term of reverse logistics as retrieving the product value or handle it properly, the procedure of transferring the product to the source from the buyer as a result of issues with the product or consumer dissatisfaction (Li & Li, 2015). As evident in the research by Kok et al (2016), the concept reverse logistics in online shopping is concerns the policy of return which permits online shoppers to take back the purchased products in line with the rules enumerated in the return policy.

Lately, reverse logistics can fully meet the satisfaction of online customers and generate revenue hence becoming an essential issue in e-commerce. The online marketers are required to organize, retrieve, and then ascertain the returned product result and ship to the customer the new good or service when a consumer demands to return them. Product return may be as a result of the huge variances between the original good or service and also chances of human error done by online marketers at the time of delivery. Rao et al, (2018) illustrates that online customers when not satisfied with the product, they might want to exchange or return the products ordered. Hence, to promise the quality of product being bought and ensure customers with security when they've acquired wrong products, a comprehensive return policy will be enabled.

2.5 Online customer experience

Chances to involve stakeholders such as customers within an organization are generated through all interactions (Klaus & Nguyen, 2013), as it is crucial in developing long-standing relationship. Today, the advancement in mobile telephony Mobile technology has improved the opportunities for organizations to interact and link with their clientele (Ahanonu et al., 2013; Deng et al., 2010). Customers are provided with varied alternatives to stay linked with companies due to mobile technology significant advancements (Rose et al., 2011). Customer decision-making process and long-standing relationship making and maintenance (Chan, 2012) have been positively influenced by these protracted communication networks have incorporated into an integrated online consumer experience (Luo et al., 2011). An example is the Google's zero moments of truth (ZMOT) model (Lecinski, 2011) which has made it possible for organizations to manage their accurate decision making by the application of integrated online consumer experience.

As illustrated by ZMOT, the moments of truth of consumers in reaching a purchase decision is not in a sequence as before, but they are exposed to different information stimuli concurrently to influence them in making repeat purchase as well as what and where to say (WOM or eWOM). Moreover, consumer commitment with the choice of their purchase product in the long run is facilitated with unified online customer experience (Brodie et al., 2013). For example, new online communication mechanisms and customer interaction platforms for instance social media networks and mobile devices have made it possible for organizations to have a protracted way of

meeting and engaging their customer base (Sashi, 2012; Chan, 2012). Also, consumers have an easy way of engaging their preferred brands and to actively participate in online communities through provision of feedback, follow ups and even referrals (Brodie et al., 2013). Precisely, WOM, e-WOM, recurrence buying and customer-seller interaction is inter-related and persuasive with/to each other as shown in figure2 below. The intention for the customer to make a repurchase decision is one of the most exceptional consequences of heightened online consumer experience as explained and hypothetically established by Rose et al. (2011).

In view of online gaming, Luo et al. (2011) empirically explored and established positive outcomes that improved online customer experience, customer loyalty, precisely recurrence buying and WOM. Wirtz et al. (2013) recommended that online trademark communities offer many channels to involve consumers with their preferred products and also enhances the extent of consumer interaction with the brand. On top of Wirtz et al. (2013)'s suggestion, enriched online buyer experience leads to WOM, recurrence buying, e-WOM and seller buyer product engagement. The outlined product variables are inter-related as shown in the figure below;

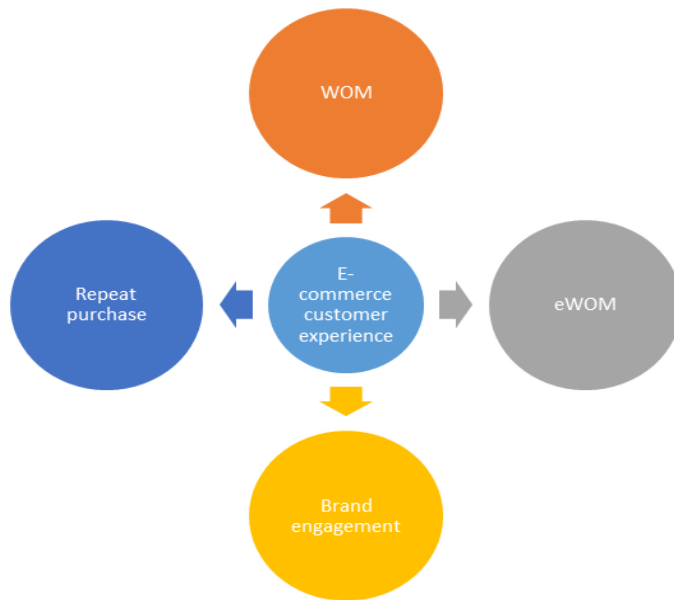


Figure 2: online customer experience outcomes (A. Bilgihan, J. Kandampully & Tingting Zhang, 2015)

Customer satisfaction is the upshot of correlating the anticipations and the experience; that is, the shopper is thrilled when goods delivered meet or surpasses their anticipations. Fulfillment and trustworthiness are the vital components responsible for achievement of the market idea execution (W. Khristianto et al., 2012). Satisfied clients will make a repeat purchase if the supplier reached or surpassed their expectations (Ahn et al.,2005).

Brand promoters are fostered over social contacts unification with business in the integrated virtual shopper experience. Social connections are useful for establishments to involve with their consumers fervently. As mobile devices get to more approval globally, more customers will act together with brands at every phase of the buying life cycle – from surfing, exploring and making contrasts of products to reviewing, exchanging their experiences and making real acquisitions.

2.6 Conceptual Framework

A conceptual framework is a simplified structure that helps in gaining of an understanding into phenomena that needs an elucidation. It has a connection with some idea or theory that is abstract. From the literature review above, we can generate a conceptual framework that will be the foundation of the data collection (see figure 3). The conceptual framework shows that the six factors; independent variable (convenience, website quality, product attributes, accessibility, last mile delivery and reverse logistics) will influence online customer experience, dependent variable. The factors may affect customer experience both positively and negatively depending on what the customer finds important on an online store (Anderson & Srinivasan, 2003).

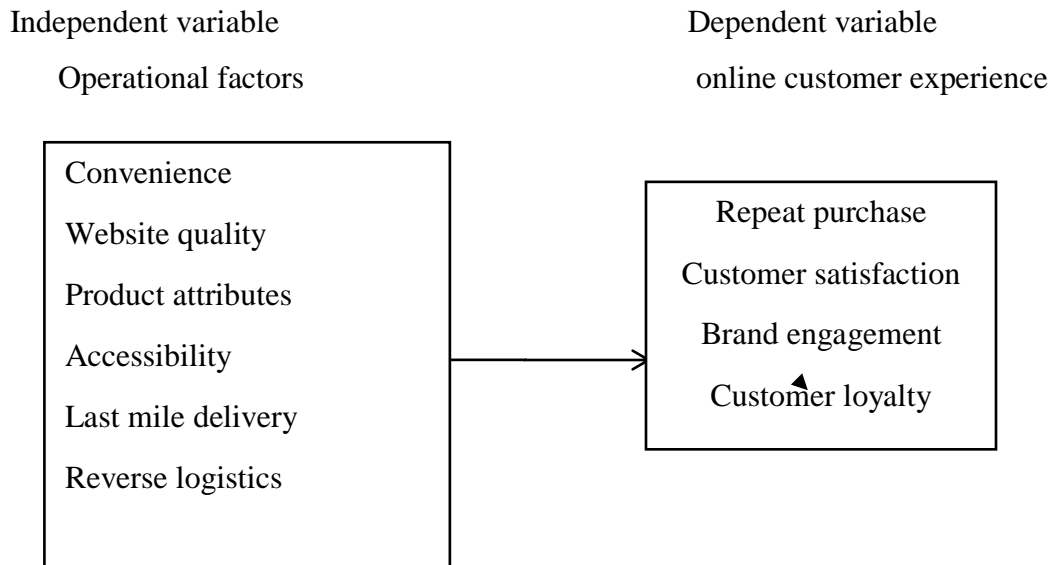


Figure3: Conceptual framework (compillation of the literature review)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design

As illustrated by Zikmund (2013), the process of research design is suggested for collection, analysis and elucidation of data to offer the required information in a systematic, resourceful and better way. A descriptive design was used as it relates the objectives of the research work as per the obtained findings. A quantitative method of research was used in this study as it enables the researcher to define the relationship between dependent and independent variable (Madrigal, 2012). Therefore, the relationship was determined between the selected independent variables (reverse logistics, last mile delivery, product attributes, convenience, accessibility, website quality) and dependent variable (online customer experience).

3.2 Study Population

The study population targeted online customers in the county of Nairobi. An e-commerce business is one which is only internet-based and its business is virtually done, though it continues to use physical logistic systems that help in supplying services (Schultz, 2009). To gather correct data on internet specifically from online business is pretty difficult in emerging countries, Kenya being one of them (Souter & Kerretts-Makau, 2012).

3.3 Sampling Design

The assortment of certain portion of population on the judgment basis for data collection purpose is known as sampling design. It is used because of impossibility of studying each individual making researcher to choose a ration from the targeted population to epitomize the entire target population (McLeod, 2014). A snowball sampling, non-probability sampling technique, was used in this study research. This kind of sampling uses a small group of early informers to recommend, over their social systems, other participants who meet the suitability measures and might possibly add to a particular study. One hundred respondents were taken on a convenience basis as sample size. This sample size was precise to help respondents answer by going over the pre-structural questionnaire. The sample size is carefully chosen to prevent and minimize probabilities of human faults and incorrectness.

3.4 Data Collection Method

Methods for collection of data are the most important parts of the research design (Sekaran, 2012). Primary data was used in this research. The questionnaires were used to collect data and will be disseminated through use of Google forms.

3.5 Data Analysis

The data for age, gender and the other general information section was analyzed through frequencies to understand the profiles of respondents. The aim for agreeing and not agreeing on operational factors influence on online shoppers was analyzed and for the relationship identification, factor analysis and regression analysis was used.

The regression equation will take the following form;

$$Y = a + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + E, \text{ where}$$

Y = E-commerce customer experience

a = Constant (co-efficient of intercept)

x_1 = Convenience

x_2 = Website quality

x_3 = Product attributes

x_4 = Accessibility

x_5 = Last mile delivery

x_6 = Reverse logistics

E = Error term

β_1, \dots, β_6 = Regression co-efficient of six variables

CHAPTER FOUR: DATA ANALYSIS RESULTS AND DISCUSSIONS

4.1 Introduction

The aim of this study was to explore the operational factors affecting the e-commerce customer experience in Nairobi County. The aims of the study were to establish the extent of e-commerce technology use on online shopping and the operational factors influencing e-commerce customer experience in Nairobi County. This chapter presents the findings of the research in accordance with the aforementioned aims.

4.2 Response Rate

The study surveyed 100 participants investigated out of the population of people in Nairobi City. These people were chosen randomly using snowball sampling technique. The researcher was successful to acquire all the 100 respondents who accepted to fill the questionnaire. The researcher then analyzed the responses that represented 100 percent response rate. As illustrated by Mugenda and Mugenda (2003), a response rate exceeding 70 percent is satisfactory for statistical testing and reporting.

4.3 Demographic Information of the Participants

The research aimed at establishing the demographics of study participants with a view of understanding whether participants from diverse demographics took part in the study.

4.3.1 Gender

This research attribute was used to investigate the gender of the participants. This data was required to establish that all genders were involved in the survey. It was also imperative as it investigate the impact of gender on e-commerce.

Table 4.1 gender

Gender	Frequency	Percent	Cumulative Percent
Male	46	46.0	46.0
Female	54	54.0	100.0
Total	100	100.0	

The study results indicates that most respondents were female (54%) while male were 46%. The results indicates an almost equal number of participants who were willing to undertake the study and that both males and females have knowledge on e-commerce. Again, the percentage also shows that the study considered gender representation and was unbiased.

4.3.2 Age of the Participants

The aim of this study statistic was to establish the composition of participants based on age. Age is a necessary factor when investigating ecommerce customer experience given that people of different age groups use ecommerce platforms differently. As a results, the study participants where requested to show their age based on the given age bracket. The output is as illustrated below;

Table 4.2 Age

Years	Percent	Frequency	Mean	Std. Deviation
18-25	17.0	17	22.35	0.577
26-35	67.0	67	29.51	0.602
<36	16.0	16	38.09	0.508
100	100.0	100	31.6	0.588

According to the study output above, most participants (67%) were between the age of 26 and 35 with the aggregate mean age of 31.6 and standard deviation of 0.508. This proves that most of participants in the area are young people. Moreover, since responding to a questionnaire was a voluntary exercise, the people who were conversant with the study topic are young people who also happens to be the major ecommerce users.

4.4 Frequency of Purchase

This study aimed at establishing the frequency at which participants buy online products. Frequency of purchase is an significant factor to consider when assessing the customer experience towards ecommerce. The study output is summarized below;

Table 4.3 Frequency of purchase

Description	Frequency	Percent	Cumulative percent
Always	60	60.0	60.0
Mostly	21	21.0	81.0
Sometimes	19	19.0	100.0
Total	100	100.0	

Based on the study output above, most participants (60%) always purchase products online. None of the respondents said that they never bought products online. This observation shows that e-commerce is a popular activity in Kenya and is influenced by various operational factors.

4.5 Online Shopping Websites preferred by participants

People have different preferences in terms of online shop of choice. These preferences are influenced by different factors including operating factors. This study evaluated the major online shops preferred by the participants with the aim of establishing the reasons behind such preferences. The output is as illustrated below;

Table 4.4 Online shopping websites

Online shops	Frequency	Percentage	Cumulative Percent
Jumia	69	69.0	69.0
Kilimall	17	17.0	86.0
Masoko	3	3.0	89.0
Copia	1	1.0	90.0
Amazon	7	7.0	97.0
Others	3	3.0	100.0
Total	100	100.0	

The output above indicates that most participants (69%) prefer purchasing their products from Jumia. A significant number (17%) purchase from Kilimall while other shopping sites are less preferred. This shows that Jumia commands a major online market and is preferred by individuals of all demographics.

4.6 Ease of engaging brands on social media and mobile devices

One of the major factors influencing increased e-commerce use is the availability of social media and smart phones. This study, therefore, investigated the extent at which participants accesses their e-commerce platforms using their social media accounts like Facebook on their smart phones. The results are shown below;

Table 4.5 Ease of engaging brands

Description	Frequency	Percent	Cumulative Percent
Yes	92	92.0	92
No	7	7.0	99
Total	99	99.0	
Missing	1	1	100

According to the study output above, majority of the participants (92%) find it easy to access brands through social media and mobile devices. This makes it easy to order, track and make payments for ordered items.

4.7 Appropriate time frame that you want to pick your order

The timeframe at which customers pick their order is very important. Some customers prefer having their orders immediately while others are patient enough to pick the orders later. The major difference between online purchase and physical purchase is that e-commerce providers are able to provide quick deliveries than what physical stores do. This aspect therefore measured the timeframe that customers were willing to pick their orders. The output is displayed below;

Table 4.6 : Appropriate time frame that you want to pick your order

Description	Frequency	Percent	Cumulative Percent
A few hours	89	89.0	89.0
1-2 days	9	9.0	98.0
3-4 days	2	2.0	100.0
5-6 days	0	0.0	100.0
more than a week	0	0.0	100.0

Based on the study output above, most customers prefers their deliveries done after a few hours. No customer preferred picking their order in 5 or more days. This shows that most online buyers prefer quick deliveries.

4.8 Preference of products delivery

Different modes of deliveries exist within the ecommerce industry that differentiates the industry from others. Three major deliveries exist; direct, drop off location and reception box. This study investigated the preferred product delivery and the results are shown below;

Table 4.7 Products delivery point

Delivery points	Frequency	Percent	Cumulative Percent
Direct delivery	93	93.0	93.0
Drop-off location	6	6.0	99.0
Reception box	0	0.0	99.0
Missing System	1	1.0	100.0
Total	100	100.0	100.0

Basing on the study output above, most study participants (93%) prefer direct delivery compared to drop off location and reception box.

4.9 Online customer experience

E-commerce has attracted many reactions concerning customer experience. Some customers affirm that it offers them desired experience while others still feel that it has not given enough in terms of customer experience. This statistic investigated the extent at which the participants felt that ecommerce provides them with the desired experience. The output is displayed below;

Table 4.8 Online customer experience

Description	Frequency	Percentage	Cumulative Percent
Yes	37	37.0	37
No	63	63.0	100
Total	100	100.0	

The study output above indicates that most participants (63%) felt that ecommerce has not given that desired customer experience. The reason for this statistic is based on the various factors explored in this research.

4.10 Analysis of factors

4.10.1 Convenience

Four factors were used to establish the aspect of convenience as it relates to customer experience towards ecommerce in Nairobi city. The output is as indicated below;

Table 4.9 Convinience

Convenience	N	Min	Max	Mean	Std. Deviation
It is time and effort saving in terms of visiting the store as compared to retail stores	100	1	5	4.20	.910
Easy to utilize online facilities from any place	100	1	5	4.36	.798
Suitable in amassing product information and finding valuable options	99	1	5	4.03	.826
Cost for searching products is reduced	100	1	5	4.27	.851

Source:Author 2022

According to the study output above, all the four factors have a mean larger than 4 meaning that they strongly influence customer experience. This affirms that convenience is among the major factors affecting customer experience on ecommerce.

4.10.2 Website Quality

This factor measured the extent at which the website attributes contributes to customer experience. Four factors were measured and the output is displayed below;

Table 4.10 Website quality

Website Quality	N	Min	Max	Mean	Std. Deviation
It is easier to navigate and filter	100	1	5	4.14	.876
Provides accurate information about products and services offered	100	1	5	3.84	.918
Has inspiring and attractive designs	100	1	5	4.04	.764
It is user friendly with a lot of speed	98	1	5	3.67	.862
Availability of interactive features on the website	100	2	5	4.10	.759

Source:Author 2022

According to the study output above, the highest mean is 4.17 while the lowest mean is 3. 67. This shows that website quality has a significant impact on customer experience.

4.10.3 Product Attributes

This factor measured how the products attributes provided by ecommerce platforms influence customer experience.7 factors were explored and the results are as shown below;

Table 4.11 Product Attributes

Product Attributes	N	Min	Max	Mean	Std. Deviation
High quality and wide range of products offered	100	1	5	3.96	.764
Products ordered meet the expected needs	99	2	5	3.70	.851
Clear product information	100	1	5	3.78	.848
Different and relevant Brands	100	1	5	3.94	.750
Competitive product prices	100	1	5	3.91	.854
Availability of products ordered in stock	99	1	5	3.74	.899
Provision of promotion and discounts on products	97	1	5	3.92	.862

Source:Author 2022

All the factors measured had a mean of less than 4. The highest mean recorded was 3.96 while the lowest was 3.74. This shows that product attributes is significant but not a very strong factor to consider concerning ecommerce customer experience.

4.10.4 Accessibility

This factor measured the extent at which ecommerce platform accessibility impacts customer experience.4 factors were explored and the results are as shown below;

Table 4.12 Accessibility

Accessibility	N	Min	Max	Mean	Std. Deviation
Is the e-commerce brands easily accessible	100	1	5	4.12	.756
Are products and services easily accessed	100	1	5	4.01	.745
Has no accessible violations especially to physically challenged people	98	2	5	3.99	.711
Helps in fighting crowds in retail stores	100	1	5	4.13	.761

Source:Author 2022

According to the study output above, most factors have a mean of more than 4 showing that accessibility is among the major factors affecting ecommerce customer experience.

4.10.5 Reverse logistics

This is the course of formation, executing, and monitoring the efficient, economical flow of resources, in process inventory, final goods, and interrelated information from the point of use to the source for the purpose of creating value or appropriate disposal. This study evaluated the three factors of reverse logistics whose results are shown below;

Table 4.13 Reverse logistics

Reverse Logistics	N	Min	Ma x	Mea n	Std. Deviat ion
The procedure is Simple	99	1	5	3.27	1.159
The abilities to return products after delivery and checking	99	1	5	3.13	1.157
Returns with comparable alternatives or full refunds	100	1	5	3.17	1.146
Has comprehensive return policy that protect consumers when wrong goods are delivered	100	1	5	3.22	1.124

Source: Author 2022

According to the table above, all the factors have a mean of more than 3 but less than 3.5. This proves that reverse logistics is an important operational factor but not a major influencing factor towards customer experience.

4.10.6 Last Mile Delivery

This refers to the extent at which the ecommerce provider is able to deliver products to the customers. This study explored the 3 factors of last mile delivery and the results are as shown below;

Table 4.14 Last mile delivery

Last Mile Delivery	N	Minimum	Maximum	Mean	Std. Deviation
Correctness of products delivered	100	2	5	3.98	.666
You can effortlessly keep track of your products with your electronic device	100	1	5	4.02	.910
Quality packaging of products during delivery	100	1	5	4.04	.816

Source: Author 2022

According to the study output above, 2 factors have a mean higher than 4 while one factor has a mean of 3.98. This shows that the last mile delivery is an important factor to consider when evaluating ecommerce customer experience.

4.11 Sample Adequacy Test

Within this section, operational factors influencing e-commerce customer were explored further. Kaiser–Meyer–Olkin (KMO) test was conducted to test the sample adequacy for individual variable within the model. The rule of thumb for this test is that the KMO values of between 0.8 and 1 shows that the sample is adequate while values of below 0.6 indicates that the sampling is not adequate and action must be taken. In this study, KMO value of 0.842 was obtained as shown in the table below. This result confirms that the sample was adequate.

Table 4.15 Kaiser–Meyer–Olkin (KMO) test

Kaiser-Meyer		.842
Measure of Sampling Adequacy.		
Bartlett's Test of Sphericity	Approx. Chi-Square	2211.274
	Df	561
	Sig.	<.001

Source: Author 2022

According to the study output in the table above, a high degree of correlation was in the data as measured by the Bartlett’s test of sphericity, which has a significance value of $p < 0.001$. This result also proves the appropriateness of the factor analysis for the given data sample.

4.12 Principle components evaluation

The reliability and strength of the obtained data was assessed using Cronbach's alpha. Cronbach's alpha ≥ 0.80 shows that the test statistic is good while the value ≈ 0.70 may or may not be just acceptable. The output from the investigation is as indicated below;

Table 4.16 Factor analysis

Total Statistics				
Description	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
Convenience				
It is time and effort saving in terms of visiting the store as compared to retail stores	12.67	3.776	.739	.554
Easy to utilize online facilities from any place	12.51	4.477	.625	.415
Suitable in amassing product information and finding valuable options	12.84	4.708	.515	.280
Cost for searching products is reduced	12.60	4.407	.585	.383
Cronbach's Alpha			.901	
Cronbach's Alpha Based on Standardized Items			.799	
Website quality				
It is easier to navigate and filter	16.17	6.846	.724	.588
Provides accurate information about products and services offered	16.46	7.426	.541	.383
Has inspiring and attractive designs	16.28	7.480	.688	.528
It is user friendly with a lot of speed	16.14	7.010	.707	.594
Availability of interactive features on the website	16.21	7.737	.623	.440
Cronbach's Alpha			.845	
Cronbach's Alpha Based on Standardized Items			.848	
Product attributes				
High quality and wide range of products	23.03	15.799	.642	.439

offered				
Products ordered meet the expected needs	23.28	15.720	.556	.484
Clear product information	23.20	14.581	.764	.656
Different and relevant Brands	23.03	15.588	.716	.574
Competitive product prices	23.05	15.039	.682	.526
Availability of products ordered in stock	23.23	14.810	.686	.512
Provision of promotion and discounts on products	23.05	14.534	.758	.615
Cronbach's Alpha		.701		
Cronbach's Alpha Based on Standardized Items		.788		
Accessibility				
Is the e-commerce brands easily accessible	12.15	2.791	.670	.584
Are products and services easily accessed	12.27	2.692	.741	.628
Has no accessible violations especially to physically challenged people	12.28	3.789	.278	.092
Helps in fighting crowds in retail stores	12.10	2.979	.661	.468
Cronbach's Alpha		.801		
Cronbach's Alpha Based on Standardized Items		.882		
Reverse logistics				
The procedure is Simple	1.000	.599	.512	.694
The abilities to return products after delivery and checking	.599	1.000	.837	.746
Returns with comparable alternatives or full refunds	.512	.837	1.000	.732
Has comprehensive return policy that protect consumers when wrong goods are delivered	.694	.746	.732	1.000
Cronbach's Alpha		.742		
Cronbach's Alpha Based on Standardized Items		.755		
Last Mile delivery				
Correctness of products delivered	11.90	4.596	.614	.400
You can route your products anytime and anyplace in a timely manner	12.02	4.141	.541	.306

You can effortlessly keep track of your products with your electronic device	11.88	3.521	.716	.566
Quality packaging of products during delivery	11.84	4.015	.647	.483
Cronbach's Alpha		.803		
Cronbach's Alpha Based on Standardized Items		.821		

Source: Author 2022

The principal components investigation disclosed that all the six variables had eigenvalues of more than 1. The main factor named 'convenience' had the largest Cronbach's Alpha of 0.901 showing that is highly impacts the dependent variable. Other variables with Cronbach's Alpha more than 0.8 includes website quality, accessibility and last mile delivery. Product attributes and reverse logistics had a value less than 0.8

4.13 The Model Summary

This statistic summarizes the study model by calculating the R and R². The results of the study are summarized in the table below;

Table 4.17 Model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.896 ^a	.841	.768	.865.767

Source: Author 2022

The table above displays the R and R² values. According to the study output, the R value, which shows the simple correlation is 0.896. This shows that there exists a high level of correlation between the dependent and independent variables. The R² is used to show the how much of the total variation is the dependent variable, Here, ecommerce experience can be explained by the independent variables. In our study output,76.8 percent of the dependent variable can be explained, which is very large.

4.14 Analysis of Variance(ANOVA)

The analysis of variance(ANOVA) is a statistical output which gives information about the levels of variability within the regression model and used to test the significance of the model. The table below shows the ANOVA output which illustrates how well the regression equation predicts the dependent variable.

Table 4.18 ANOVA

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.425	28	.194	.999	.000 ^b
	Residual	11.631	60	.194		
	Total	17.056	88			

Source: Author 2022

The table above proves that the regression model predicts the dependent variable well. According to the study output, the significant value sig =0.000 which is <0.05 hence proving that generally, the regression model statistically significantly predicts the outcome variable (i.e., it is a good fit for the data).

4.15 Coefficients

Coefficients indicates the type of relationship that exist between a specific independent variable and a dependent variable. The sign of linear regression indicates the type of relationship. A positive coefficient shows a value of the independent variable increase and also the increase in the mean. A negative coefficient, on the other indicates an increase in the independent variable and the decrease in the dependent variable (Frost, 2021). The value of the coefficient also shows the change in the mean of the dependent variable due to a unit change in the independent variable while other variables remain constant. The standardized beta statistic compares the dependent and independent variables, where the higher the absolute value indicates the strong relationship. The table below shows the coefficients of this study.

Table 4.19 Coefficients

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
(Constant)	.923	.451		2.048	.005	
Convenience						
It is time and effort saving in terms of visiting the store as compared to retail stores	-.065	.092	-.139	.708	.001	
Easy to utilize online facilities from any place	.031	.106	.057	.289	.004	
Suitable in amassing product information and finding valuable options	-.003	.080	.006	.040	.000	
Cost for searching products is reduced	.064	.084	.127	.760	.001	
Website Quality						
It is easier to navigate and filter	-.042	.103	.085	.407	.789	
Provides accurate information about products and services offered	.007	.090	.016	.082	.982	
Has inspiring and attractive designs	-.024	.107	.043	.225	.023	
It is user friendly with a lot of speed	.163	.116	.324	1.397	.018	
Availability of interactive features on the website	-.132	.104	.229	1.269	.210	
Product Attributes						
High quality and wide range of products offered	.094	.102	.161	.919	.062	
Products ordered meet the expected needs	-.096	.106	.191	.899	.242	
Clear product information	.116	.107	.230	1.086	.132	
Different and relevant Brands	-.142	.139	.236	1.020	.012	
Competitive product prices	.034	.093	.067	.363	.018	
Availability of products ordered in stock	.004	.096	.009	.044	.201	
Provision of promotion and discounts on products	.038	.109	.075	.346	.031	
Accessibility						
Is the e-commerce brands easily accessible	.011	.115	.020	.098	.011	

Are products and services easily accessed	-.068	.142	.118	.483	.031
Has no accessible violations especially to physically challenged people	-.066	.112	.111	-.591	.006
Helps in fighting crowds in retail stores	.021	.120	.034	.176	.011
Reverse Logistics					
The procedure is Simple	-.138	.074	.366	1.868	.017
The abilities to return products after delivery and checking	-.094	.090	.254	1.047	.099
Returns with comparable alternatives or full refunds	.076	.092	.202	.824	.013
Has comprehensive return policy that protect consumers when wrong goods are delivered	-.015	.088	.040	.171	.006
Last Mile Delivery					
Correctness of products delivered	-.019	.128	.029	.149	.102
You can route your products anytime and anyplace in a timely manner	.053	.099	.103	.533	.009
You can effortlessly keep track of your products with your electronic device	.049	.110	.102	.451	.103
Quality packaging of products during delivery	-.057	.104	.107	.552	.031

Source: Author 2022

According to the table above, most of the coefficients are have a positive sign showing that they increase with a unit increase in the level of the dependent variable. The convenience variables are the highly significant and also have the highest standardized beta absolute value. This shows that convenience highly impacts customer experience. Other factors include website quality and last mile delivery. Product attributes and accessibility factors were not highly significant and had low standardized beta absolute values. This output also shows that the independent variables are correlated with the dependent variable hence supporting the study question.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives the summary, conclusions, and recommendations of the investigation. The parts explored are centered are derived from the research objectives which include; Establishing the extent of e-commerce technology use on online shopping and the operational factors influencing e-commerce customer experience in Nairobi County.

5.2 Summary of the Key Findings

The aim of this investigation was to find out the operational factors influencing e-commerce customer experience in Nairobi County. The specific objectives were to acknowledge the e-commerce technology used in online shopping and specific operational factors that influence customer experience. This was attained through snowballing design. Semi-structured questionnaires were applied in the collection of primary data where 100 participants were involved. Regression and factor analysis was done to explore the collected data whereas descriptive statistics like percentages and frequencies were used to explain the data.

This study established that majority of the people in Nairobi (over 90%) purchase products online from various e-commerce platforms. However, the respondents said that they do not purchase everything from the internet indicating that certain factors attract while others prevent customers from engaging in e-commerce. This study therefore established that operational factors are key in influencing e-commerce business in Nairobi County. The purchase of online products is equivalent for both males and females. However, young people, who happened to be the majority of respondents showed a high level of use of e-commerce platforms than old people. This observation, therefore, affirms the studies that allude that young people are high consumers of e-commerce products than older people (Brodie, Ilic., Juric, & and Hollebeek, 2013; Kinuthia & Akinnusi, 2014).

The consumption of online products is also directly proportional to social media and smartphone use. As deduced from the study results, most respondents reported accessing their e-commerce

platforms using their smartphones and social media pages. This observation reinforces the studies which have linked e-commerce with increased mobile telephony, social media use and access to the internet (Chan, 2012; Cheung, Lee, 2017).

Several e-commerce platforms are present in Kenya such as Jumia, Kilimall, Amazon, etc. While these websites provide almost similar products, some are highly preferred over others. According to this study, Jumia is the most preferred online shopping market in Kenya followed by Kilimall. Other global online markets such as Amazon have not penetrated well into the Kenyan market. These differences can be explained in this study. One of the factors investigated is the convenience offered by the e-commerce provider. Jumia is highly preferred as it provides quick deliveries to its customers. A product ordered on Jumia can be delivered within a day or few days depending on the time ordered, the day of the week, and the location of the customer. This is different from other providers like Amazon where all the products have to be shipped into the country hence consuming a lot of time. Jumia is also available in most parts of the country. Even though the study was conducted in Nairobi, some of the people investigated live on the outskirts of the city and therefore would choose their purchases to be conveyed right to their doorstep. The e-commerce provider who is able to cover major parts of the market is likely to be preferred over those who only have a few designated pick-up points. Hence, this study conforms with the study done by Pahnla and Warsta (2010) which established that the e-commerce provider that provides less frustration to the shoppers is highly preferred.

The other attribute of convenience that was evident in this research was the degree to which the e-commerce platform solves the problems of consumers. Most of the respondents cited that the quality of the website was not a major challenge but what the platform offers them. Given the many e-commerce websites, customers can easily compare product prices and quality and chose the product that offers them the highest level of satisfaction. This provides them with information on the prevailing market prices of their desired products and helps them make a purchase decision. It also reduces the cost and time that would have been used in searching for the products from different stores.

In regards to website quality, this study established that it is a significant factor in influencing customer experience. While most large e-commerce platforms have almost similar website

quality that can attract consumers, issues such as navigation, provision of accurate information and the interactive features of the website highly impacts customer experience. This observation can be related to online purchase habits in Kenya. In most cases, consumers prefer purchasing from large online sites such as Jumia and Kilimall which are of good quality and provide competitive customer interaction capabilities.

The other factor investigated was the product attributes. While this factor was significant, it was weak compared to other factors. The respondents claimed that they prefer e-commerce websites that offer different types of products and those which are variable based on quality and price. This attribute makes Jumia the most preferred e-commerce provider in Nairobi. Jumia not only provides easy access to common products that are highly used in Kenya such as home products but also offers them at an affordable price. The company displays the product that is on offer and those with low prices to attract rational consumers. Moreover, the company provides all the charges including delivery fees. This level of convenience attracts more customers than other providers who have hidden information such as shipping fees. However, a significant number of respondents cited a challenge in purchasing online products as some do not meet the expected needs and standards. This result indicates that some e-commerce platforms do not provide the exact product attributes as depicted on the company website. Moreover, the fact that e-commerce is a highly competitive market, customers can easily shift allegiance whenever the product attributes is not convincing enough. This has made many e-commerce platforms to offer competitive prices, discounts and a wide range of products based on specialization and needs and therefore it is not a major concern.

The challenge of verifying e-commerce products before the purchase can be handled through reverse logistics. This study established that the majority of the participants preferred e-commerce providers who provide return policies with little complexity. While some of the platforms provided for the returns, the majority did not accept refunds and would only exchange the product if it has a default or exchange them with another item. Reverse logistics was a major concern in this study and is the basis through which most consumers avoid online purchases.

Most people prefer online purchases due to the capacity of the e-commerce companies offering delivery services which are sometimes free. The other important attribute was the ability to route

products from different destinations with ease and keep track of the products in transit. While return logistics was a significant factor, it was not very strong in influencing customer experience. Respondents preferred the organizations that take responsibility for any damages made during the transit. However, some respondents cited challenges with delivery services where some organizations provide delivery only. This might be a cost imperative to some consumers who are within reach and would like to pick up the products directly from the warehouses.

5.3 Conclusion

With the guidance of technology adoption theory and through exploring and analyzing the collected data, this study established the operational factors influencing e-commerce customer experience in Nairobi County. It is evident that even though many e-commerce platforms exist in Kenya, only a few have managed to attract a wide market. Many people still prefer purchasing products from physical stores and online purchases are limited to specific products only. This challenge is majorly brought about by the operational factors which inhibit the core purpose of an e-commerce organization majorly time, product attributes, communication and price.

This study shows the most imperative factors that need to be deliberated by e-commerce providers in Kenya in order to appeal to their customers. E-commerce providers need to enhance their convenience for easy and reliable access by customers. The study illustrates the possible factors that enhance customer experience including the availability of the website and customer service. Websites that are available on a 24-hour basis are preferred over those which limit the extent to which they serve their customers. The other important issue is the type and quality of the products provided by the e-commerce platforms. Since the platforms serve people of all demographics, both the quality and affordability of the products are significant factors. In most cases, the platforms which provide quality products at affordable prices are preferred. The extent to which these products and services are displayed on the company websites is another significant factor affecting customer experience. As established in this study, the e-commerce platforms which provide clear information about the product such as the price, quality, specifications, etc. are preferred. However, those which provide limited information are often avoided. Reverse logistics is another factor worth consideration. Most people prefer confirming the product attributes before purchasing them. Hence, making a purchase online becomes a risky

exercise in an event when the product features fail to match the expected attributes, and the buyer is not guaranteed a refund. This has been a big challenge to most e-commerce platforms as it reduces customer confidence hence affecting future customer base.

5.4 Recommendations

This study informs on the key factors that may play a substantial role in enhancing e-commerce customer experience in Nairobi Kenya. Many people in Nairobi opt for online shopping due to its convenience, time consumption, and accessibility. To better enhance customer experience, this study has established that e-commerce organizations should focus on maximizing customer satisfaction. Just like convenience stores, e-commerce platforms should offer competitive prices and quality products to their customers. Some people fear online purchases, especially from those organizations which are not well known due to the habit of providing faulty or misleading information about product attributes. Organizations should always accept the option for the customers to return back products that do not meet their expectations in a process that is easy and clear. This enhances customer loyalty and enhances company brand.

The results of this research may build to the market players' understanding of their possible customers' needs and existing concerns in current technological world. Studying the market environment, particularly now when e-commerce is still at its proliferating development stage, is important for industry players to guarantee the success of this promising market. Future studies should pay attention on investigating the development of e-commerce and testing the research model. Subsequently, possibly significant scope of the research could include a investigations in multiple cities, majorly remote and rural regions, which may result in much precise and all-inclusive results and analysis where the online purchase is not common.

5.5 Limitations of the study

The research study encountered some limitations such as information scantiness and finding respondents with enough experiences. Besides, questionnaires distribution to different levels of customers disclosed that most of the questions were easy to comprehend but the concept of reverse logistics seemed somehow difficult.

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APPENDICES

Appendix I: Questionnaire

My name is Phanice Khamonyi; pursuing a Master of Business Administration degree in University of Nairobi working on a research about operational factors influencing e-commerce customer experience within Nai

robi City. I would highly appreciate your assistance in completing the Questionnaire for data collection. Your information beside others will help me in the research and will be used sternly for academic purposes and will be treated with a lot of confidentiality.

Thank you.

Tick and fill where appropriate

PART A

GENERAL INFORMATION

1. Please specify your gender
Male [] Female []
2. What's your age category
18-25years [] 26-35years [] Above 36 years []
3. How often do you purchase products online?
Always [] Mostly [] Sometimes [] Never []
4. Is it easy to engage brands through social media and mobile devices?
Yes [] No []
5. Which of online shopping websites do you use the most?
Jumia [] Kilimall [] Amazon []
Masoko [] Copia [] Others []

**PART B: OPERATIONAL FACTORS AFFECTING E-COMMERCE
CUSTOMER EXPERIENCE**

The key below is for question 1 and 3

KEY

5-Strongly Agree 4-Agree 3-Neutral 2-Strongly disagree 1-Disagree

1. Do you agree that the following operational factors enhance online customer experience? Please tick appropriately

Convenience statements	5	4	3	2	1
It is time and effort saving in terms of visiting the store as compared to retail stores					
Easy to utilize online facilities from any place					
Suitable in amassing product information and finding valuable options					
Cost for searching products is reduced					
Website quality statements					
It is easier to navigate and filter					
Provides accurate information about products and services offered					
Has inspiring and attractive designs					
It is user friendly with a lot of speed					
Availability of interactive features on the website					
Product attributes statements					
High quality and wide range of products offered					
Products ordered meet the expected needs					
Clear product information					
Different and relevant brands					

Competitive product prices					
Availability of products ordered in stock					
Provision of promotion and discounts on products					
Accessibility statements					
Is the e-commerce brands easily accessible					
Are products and services easily accessed					
Has no accessible violations especially to physically challenged people					
Helps in fighting crowds in retail stores					
Reverse logistics statements					
The procedure is simple					
The abilities to return products after delivery and checking					
Returns with comparable alternatives or full refunds					
Has comprehensive return policy that protect consumers when wrong goods are delivered					
Last mile delivery statements					
Correctness of products delivered					
You can route your products anytime and anyplace in a timely manner					
You can effortlessly keep track of your products with your electronic device					
Quality packaging of products during delivery					

2. When buying goods online;

a . What's an appropriate time frame that you want to pick your order?

A few hours [] 1-2 days [] days [] 5-6 days [] more than a week []

b. Where do you prefer your products delivered to?

Direct delivery [] Drop-off location [] reception box [] At physical online shops []

3. Consequences of online customer experience

Statements					
Satisfied that online shopping websites offer purchasing options					
It is easy shopping online					
Would you recommend online shopping to other customers					
Buying process has been made interesting by internet shopping					

3a. Are you satisfied with the online shopping experience provided by e-commerce companies up-to-date?

Yes []

No []

3b. What suggestions can you give to help improve online customer shopping experience

Thank you for your time and contribution!

APPENDIX II: E-COMMERCE SITES IN NAIROBI COUNTY

NUMBER	COMPANY NAME
1	Jumia.co.ke
2	Mydawa.com
3	Phoneplacekenya.com
4	PriceinKenya.com
5	Shopit.co.ke
6	Kilimall.co.ke
7	Oxfarm.co.ke
8	Nairoidrinks.co.ke
9	Pharmacydirectkenya.com
10	Masoko.com
11	Avechi.com
12	Soys.co.ke
13	Copia.co.ke
14	Skygarden.co.ke
15	Jiji.co.ke
16	Mita.co.ke
17	Autocheck
18	Amazon
19	Ebay
20	Zalando
21	Rupu.co.ke

22	Olx.co.ke
23	Cheki.co.ke
24	Pigiame
25	Batakenya.com
26	Officemart.co.ke
27	Saruk.co.ke
28	Textbookcentre.co.ke
29	Jamboshop.com
30	Glovokenya.com
31	e-smart.co.ke

Source: e-commerceDB.com