THE ADOPTION OF ONLINE MOBILE PHONE CUSTOMER CARE SERVICES BY UNIVERSITY OF NAIROBI STUDENTS

BY

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A research project submitted to the Department of Management Science in the School of Business in partial fulfillment of the requirements for the award of the Master of Business Administration degree of the University of Nairobi.

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Declaration

I hereby declare that the work in this research project is my own except for quotations and summaries which have been duly acknowledged. The research project has not been presented for a degree in any other university.

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Dedications

This project is dedicated to all my classmates who took a chance, my supervisor who took a bigger chance and my family who had no choice.

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Abstract

The usage of mobile phones has been a 21st century phenomenon that spreads for different purposes and functions. So far, the term customer care has been primarily associated with sorting customer problems using face – to – face method. However, the next vista for service companies with huge customer bases and operating in the virtual marketplace seems to be e-customer care in order to satisfy diverse customer demands. This online customer care service concept has been left virtually unexplored in the services research literature. In this study, an attempt is made to investigate the adoption of online customer care services in Kenya, drivers of this e-service, benefits and challenges of this e-service in the context of mobile phone industry. The relationship between adoption of this e-service and variables: gender, age and type of mobile service provider, moderated by: type of phone, knowledge of Internet and level of Education, are investigated by means of a descriptive survey design study. The results suggest that the three moderators have a more significant main effect on the customers' adoption of the online service than the drivers. The Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) are employed to provide the theoretical foundation for this study. Based on the empirical data collected from a survey, the findings demonstrate the importance of functionality (usefulness), an easy-to-use interface, social networks, fun to use e-service, cheaper options and advertisements as critical influences on both intention to use and adoption of online customer care services offered by mobile phone companies in Kenya.

Chapter One: Introduction

1.1 Background

Telecommunication services in Kenya, Uganda and Tanzania dates back from the colonial times with the introduction of East African Posts and Telecommunications Corporation (EAP&TC) - a regional network of the three neighboring countries forming the East African community. After the collapse of the East African Community (EAC) in 1977, a separate Kenya Posts & Telecommunications Corporation (KP&TC) was established. The monolithic government-owned Kenya Posts & Telecommunication Corporation (KP&TC) was a monopoly provider of postal, telecommunication and regulatory services across Kenya.

The Kenya Communication Act of 1998 split up KP&TC into the following five major components: Postal Corporation of Kenya, Telkom Kenya, Communication Commission of Kenya (CCK) - the regulator, National Communication Secretariat - the policy body and the Appeals Tribunal - judicial body of the industry (Hansard, 1998). This led to the liberalization of the mobile phone sector and the inception of Safaricom Limited. It was based on an analogue Extended Total Access Communications System (ETACS) network but was later upgraded to Global System for Mobile Communications (GSM) in 1996 and licensed in 1999. Since then, three other mobile phone companies have been licensed. These are: Airtel Kenya- formally Celtel and Zain Kenya, Telkom Kenya which operates under the brand name Orange Kenya and Essar Telecom Kenya with a brand name Yu Mobile.

Mobile phone companies in Kenya offer varied services to their customers. Voice calls and Short Message Services (SMS) are the most common. Other services include: mobile money transfer, data and Internet services. Some of them offer sales and after-sales services of mobile phones, I-pads, broadband modems, laptops and other related accessories. Some also provide cloud computing services, virtual meeting services and optic-fiber network connection to clients. The companies have also partnered with banks to offer mobile-banking services. They have extended similar services to other businesses to facilitate payment for goods and services through mobile phone money transfer facilities. The companies also offer value-added services such as Information, Messaging and Music to interested customers.

Cell phone and Internet connectivity use have increased dramatically in recent past. Kenya had an estimated 19.2 Internet users by September 2013 representing 47.1 percent of the entire population. Mobile Data/Internet Subscriptions stood at 11.6 million users, representing 60.4 percent of the total Internet users (CCK, 2011). The bulk of Internet users engaged in communication in form of e-mail and social media. Other key uses of Internet by Kenyans include: getting information about goods and services, entertainment, e-commerce, e-banking and research (CCK, 2011).

1.2 Customer Care Services

Customer care can be defined as the process of delivering high quality after-sales service to internal and external customers. This results in high levels of customer satisfaction leading to long term business relationship between sellers and customers (Atkinson,

2011)**.** Customer care can also be defined as the work of looking after customers and ensuring their satisfaction with a business and its goods or services (Collins Dictionaries, Accessed 2014). According to Macmillan Dictionary (Accessed 2014), customer care is the activity of looking after customers and helping them with any complaints or problems. On the other hand, online customer care services refer to web-based customer care services where the consumer utilizes the provided digital platform to resolve issues that may arise in the course of using a technological service (Chuck, 2000).

In this study, online customer care will refer to the activity undertaken by businesses of looking after customers and helping them with any complaints or problems using Internet as the medium. Businesses world-wide view customer-care services as a significant driver to customer retention (Churchill, 2008). Nowadays, most businesses operate online where customers are familiar with not only shopping and paying bills, but also finding digital resolution to any issues they may encounter. Online Customer care services take various forms in different industries such as online booking and reservations in tourism and industry, paying bills and online account maintenance in banking industry, and so on. There is a very thin line between online customer service and online customer care and many companies use the two terms interchangeably. However, in service – based sector, such as the mobile phone industry, the distinction is evident. Online resolution of issues emanating from utilizing the services is an enhanced e-service. Traditionally, customer service and assistance required individual physical presence at service desks or help desks and personnel to facilitate the transactions.

Online services have several benefits to customers. E-service transactions save customers transaction time since they are very fast (Egowan, 2011). In a study among people affected by gambling problem, Rodda et al (2013) identified benefits of using online services as: easy to use, ability to communicate openly and honestly without feeling embarrassed and helpfulness. Cook and Doyle (2002) researched on comparison of face-to-face and online counseling using both e-mail and chat and found out that working alliance levels demonstrate that participants felt a collaborative, bonding relationship with therapists, just as they would do in a face-to-face situation. In a study on e-School pilot project in Kenya, Nyagowa et al (2013) found out that e-school made learning more enjoyable to the students and teachers and students believed that it contributed to their improved academic performance. Wood and Wood (2009) found out that web-based interventions were more attractive to clients due to their accessibility and availability. In another study on features and benefits of online counseling at a metal health community centre, Richards (2009) identified benefits of online services as increased access, flexibility and on-time and on-demand service delivery.

Several drivers determine the user-adoption of online services. Seneler et al (2010) in a study found out that perceived usefulness and ease of use affect the intention to use online services. They also acknowledged that users were positively influenced by their acquaintances, commercials and related news about online services. Vojvodic and Matic (2013) in a research on Croatian online consumers identified two major factors that influence their behavior: hastiness and recreational factor. Ahmad et al (2013) in a study on user's adoption of e-government services in Pakistan found the determining factors to

be: performance expectancy, effort expectancy, facilitating conditions and social influence. Hsiao (2013) in a study on Android Smartphone adoption and intention to pay for mobile internet identified the subscriber's gender to be a key factor. In a study on Mobile internet diffusion in China, Liu and Li (2010) concluded that making mobile internet enjoyable, easy to use and compatible with people's lifestyles lead to mobile internet adoption.

Online services, like other technologies, pose various challenges that impede users' adoption. Among them are: lack of awareness, user data privacy issues and lack of appropriate user support and assistance (Ahmad, Markkula, & Oivo, 2013). Chen et al (2004) in a study posits that scarce online design guidelines to model customers' online behavioral patterns is a challenge since Internet users are not homogeneous and they improve on their Internet literacy through interactions with the vast amount of Internet services. According to Poon (2008) privacy, security and convenience factors challenge users' acceptance of e-banking services moderated by user age group, education level and income level.

1.3 University of Nairobi

University of Nairobi was started in 1956, as the then Royal Technical College. This college was later transformed into the second University College in East Africa on 25th June, 1961 under the name Royal College Nairobi. The college entered in training partnership with the University of London and began preparing students in the faculties of Arts, Science and Engineering for awarding degrees of the University of London. The

other faculties of Commerce and Architecture continued to offer diplomas for qualifications of professional bodies/ institutions. On 20th May 1964, the Royal College Nairobi was renamed University College Nairobi as a constituent college of inter-territorial, Federal University of East Africa. In 1970, the University College Nairobi transformed into the first national university in Kenya and was renamed The University of Nairobi.

The university has six colleges headed by principals, the largest being the College of Humanities and Social Sciences (CHSS). The college has one faculty, four schools, five institutes and one centre. It boasts of over fifty percent of the total student enrolment and staff in the university. The School of Business, formally Faculty of Commerce, was started in 1957 in the College of Humanities and Social Sciences. Up to 1972, it offered Bachelor of Commerce degree program only with two options, Accounting and Business Administration.

From 1972/3 academic year, it started offering other options, Marketing and Human Resource management. In 1992, the Master of Business and Administration (MBA) program was started and the Doctor of Philosophy (PhD) studies later in 1999. In 2006, the Faculty of Commerce was renamed School of Business of the University of Nairobi. It has a current student population of over thirteen thousand students with two satellite campuses in Mombasa starting in 2004 and Kisumu in 2008. The bulk of the post-graduate students in the Universty are in the School of Business pursuing Master of Business and Administration degree.

According to CCK (2011) 6.3 percent of Kenya's population engaged in internet activities in 2010. Nairobi had the highest proportion of internet users at 25.9 percent. A higher proportion of males (7.5 percent) compared to females (5.2 percent) used internet. The frequency of use rose with level of education: 0.8 percent for pre-primary, 2.0 for those with primary education, 12.4 percent of those with secondary education and 59.5 percent for those with higher education. CCK (2011) noted that Internet usage rose with age but peaked at around the ages 20 to 34 after which it declined with increase in age. Specifically, those aged 30-34 years had the highest proportion of internet usage with 15.4 per cent having used it in the previous six months preceding the review. Based on these findings, university students are among the bulk of frequent Internet users and hence most appropriate for this study. This study will collect data from post - graduate students at the University of Nairobi since they are easily accessible and they fall within the category of Kenyans who use online services frequently, based on region and age.

1.4 Statement of the Problem

Three - quarters of Kenya's total population are mobile phone subscribers. The four mobile phone service providers had a customer base of 31.3 million subscribers in the financial quarter ending September 2013 (CCK, 2014). The companies offer a variety of services that are almost similar in nature. They include voice calls, mobile money transfer, roaming services, data and Internet services and cloud computing. Given the number of subscribers involved and the variety of services on offer, it is very likely that customers do experience difficulties in the process of using these technologies. These difficulties were previously resolved at various customer-care shops strategically located

in major urban centers in the country. The other mode of offering help to customers is through the use of toll-free, dedicated telephone help-lines set aside by the service providers.

However, the two methods proved insufficient due to huge turn-outs witnessed at customer care shops and congestion of the help-lines coupled with long holding time on line before being assisted. To address this problem, the companies rolled-out web-based customer self-care services. This meant that issues that made subscribers to physically visit customer care shops or call help-lines could now be resolved through the online systems. Adoption of this service by subscribers is critical to customer service, satisfaction and loyalty to the companies which is important for their profitability and survival.

Studies reviewed support online customer care service as a method of retaining customers and hence creating more business. Otim and Grover (2006) in their study argue that web-based post-purchase services consisting of customer support, among other services, positively influence customer loyalty. They, therefore, conclude that businesses need to pay more attention to post-purchase services in their strategy to retain customers. They note that this will keep customers satisfied and willing to continue their relationship with a company for a longer term. This was confirmed by Yang and Fang (2004) in a study that found out that service quality leading to online customer satisfaction boost customers' loyalty to the business.

Another study by Karakaya and Barnes (2010), established that consumer opinion about customer care services in socially-based web sites impact on their opinion and engagement and, consequently, choice of brand or company when making purchases. They conclude that companies need to pay more attention to the voices of customers on socially-based websites and respond appropriately in order to keep them brand-loyal. Cost implications of online customer care services were been addressed by McMellon (2000) in a study. He argues that the online method lowers transaction costs for the customer and the firm leading to the former satisfaction. He adds that using this system, the firm can also be able to gather relevant consumer information for future marketing efforts. He advocates for a customer-oriented approach to the design and function of an online customer care service system while stressing the need for management support and involvement as the key factors for success.

However, not much was found written about online customer care services in the Kenyan context. This is the knowledge gap that this study seeks to address by attempting to answer the following research questions: - Are the University of Nairobi students using online customer care services offered by mobile phone companies in Kenya? What are the benefits of online customer care services to the customers? What challenges do customers encounter in using online customer care services? What factors lead to the usage or non-usage of online customer care services?

1.4 Objectives of the Study

The general objective of this study is to evaluate the usage of online customer care services by the University of Nairobi students offered by the mobile phone companies in Kenya. Specifically to:

(a) Determine the extent to which University of Nairobi students are using the online customer care services.

(b) Establish the benefits of online customer care services to customers.

(c) Determine the challenges encountered by the customers in using online customer care services.

(d) Establish the factors leading to the usage or non-usage of online customer care services.

1.5 Value of the Study

This study will assist the policy makers in formulating customer care policies and formulate legislation on the quality of online customer care services. These will enable players in different industries to standardize the customer care services and also to address adequately issues such as data security, privacy and ethics in offering these services.

The findings will also assist mobile phone companies in determining the shortfalls and successes of this innovation. It will provide results that will be useful to the managers in mobile phone companies for strategic planning. It will also enable them to determine the quality of the services provided by the web-based customer care services with a view to

determine how well they address customer issues. It will also assist other service-based companies dealing in essential services to roll out similar services and de-congest their customer care centers.

The study will contribute to the body of knowledge by filling the existing gap in determining the adoption of this technology in Kenya. It will also contributes to existing theories of technology acceptance and use of technology by confirming, negating or adding value to the factors that lead to use and adoption technological innovations such the web-based customer care service.

Chapter 2: Literature Review

2.1 Introduction

This chapter looks in detail the concept of usage of online customer care services by customers in the mobile phone industry in Kenya. The chapter begins by tracing the history of customer care services from physical-method to online self-care services. Available literature on drivers of online services, benefits of online services, challenges of online services and online service adoption have been analyzed in details in order to put the concept of adoption of online customer care service in Kenya into context. In particular, studies from Africa and other parts of the world regarding adoption of online services have been reviewed in order to draw parallels with other places. The chapter discusses two theories relevant to technology adoption. These are the technology adoption model and the unified theory of acceptance and use of technology. A conceptual framework based on literature review and the theories discussed is modeled for this study. The chapter ends with a summary based on the findings established from the studies reviewed.

2.2 History of Customer Care Services

According to Macmillan Dictionary (2014) customer care refers to the activity of looking after customers, and helping them with any complaints or problems. Prior to 1960s, customer relations relied on primitive means of interaction such as face-to-face conversations. According to Cusack (1998) telephone as a means of relaying customer complaints began in 1960s. This was followed by supporting customers through toll-free telephone access to centralized call centers. Although they were expensive, the method

was viewed as commitment to customer care within an industry. Improvements on call centers to include automatic call distribution were undertaken in 1970s thereby enhancing companies' reputation. Call centers are still available today offering pre-sales support, store location requests, order processing, general enquiries, account maintenance, and billing, technical support, complaint handling and market intelligence data gathering (Zendesk, 2014).

In an effort to satisfy customer demands, further improvements were done to the call centers to include automatic number identification (ANI), dialed number identification service (DNIS), call routing and contact tracking systems. In the late 1980s business began to outsource customer support services with a view to reduce cost. Help desks as a means of addressing customer inquiries emerged in early 1990s. The World Wide Web emerged in early 1990s giving rise to e-mail and live chat modes of customer support. Customers could email their problems to an agent and get response through the Internet. Online customer support software became popular in the 2000s. Businesses did not have to design customer support software since vendors, such as Oracle, came up with tailor made products (Oracle, 2000). The social media based form of online customer care took shape in late 2000s. Customers could interact with companies in form of comments on face book walls or tweets. In early 2010s, remote desktop support emerged. In this model, customer computers were equipped with remote desktop software which allowed other devices to connect to them through Internet or another network. Rapid development of Internet in the 21st century led to e-business which had greater ability to foster customer loyalty. Businesses that deliver superior web-based services, consisting of customer

support among others, are more likely to win customer loyalty. In a study, Otim and Grover (2006) found out that post-purchase services by web-based stores positively influence customer loyalty.

2.3 Online Customer Care Services

Online customer care is the activity of providing customer support through the Internet. This support can be in form of frequently asked questions (FAQs), interactive response website, Voice over Internet Protocol (VoIP), e-mail, YouTube, social media and other web related platforms (Dundon, 2004). Mobile phone companies in Kenya have employed different online methods in addressing customer support. Safaricom limited uses a Self-care portal in their website where a customer can resolve all issues and an online help comprising of frequently asked questions. Orange limited has provided customers with frequently asked questions and an interactive e-mail address on their website under the customer care tab. Airtel Kenya limited uses a comprehensive frequently asked questions list and a self-care service under the customer care menu option in the website. Finally, Yu mobile has a combination of frequently asked questions (FAQs) and a self-care system in the company website to support their customers. Based on these findings, it is prudent to conclude that all the mobile phone companies in Kenya do recognize the essence of customer care services and have done something to provide the service online.

2.3.1 Drivers of Online Services

Customers' perceived ease of use and perceived usefulness drive their adoption of online services (Seneler, Basoglu, & Daim, 2010). Perceived usefulness is defined as the degree to which a person believes that using a particular system would enhance his or her job performance. On the other hand, Perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). Hastiness and fun drives usage of online services according to (Ahmad, Markkula, & Oivo, 2013). According to Macmillan Dictionary (2014), haste is defined as great speed in doing something because of limited time. The same source defines fun as enjoyment, especially from an activity.

According to Venkatesh et al (2003), performance expectancy is the degree to which an individual believes that using the system will help him or her to attain gains in task performance. This dispels the fear that using new electronic systems is troublesome and not helpful in improving performance. The authors go on to define effort expectancy as the degree of ease associated with the use of a system. Effort expectancy explains whether online services are easy to use or not, how the user interacts with the interface and cost effectiveness. Effort expectancy affects user attitude towards technology usage. On the other hand, Venkatesh et al (2003) defined social influence as the degree to which an individual perceives that important others believe he or she should use the new system. This plays an important role in the adoption of a technological innovation.

Finally, Venkatesh et al (2003) describe facilitating conditions as the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system. The facilitating condition to use a technology or service ensures that the required environment, equipment and assistance it is easy to use. Gender, as a driver towards adoption of online services is defined as the fact of being either male or female (Macmillan Dictionary, Accessed 2014). Gender is an important determinant in online services adoption according to Hsiao (2013) since male users were found to be more likely to use e-services on their Smartphone than female users.

2.3.2 Benefits of Online Services

Online services save customer time since they can be undertaken faster than face-to-face transactions and can take place at any time and place (Egowan, 2011). In online environment, users exhibit a form of loosening up, feel less restrained and express themselves more openly than they would do in the face-to-face environment. Suler (2004) termed this phenomenon as the online *disinhibition* effect. Online services are easier to use compared to face-to-face services (Rodda, Lubman, Dowling, & McCann, 2013). Ease of use refers to the degree to which a person believes that using a particular system would be free of effort. Given that effort is a limited resource, an application perceived to be easier to use than another is more likely to be accepted by users (Davis, 1989). Ease of use is related to the nature of the task. It encompasses essential characteristics of technology such as ease of learning, flexibility, and clarity of its interface (Gefen & Straub, 2000). Online services are also helpful. Helpfulness or Usefulness is defined as the degree to which a person believes that using a particular

system would enhance his/her job performance. Davis (1989) describes a system high in Perceived Usefulness as one for which a user believes in the existence of a positive user-performance relationship. The user perceives the system to be an effective way of performing the tasks (Henderson & Divett, 2003).

Fun, as a benefit of online services, refers to enjoyment - which is an emotional concept, in predicting consumers' adoption of a new technology. According to Chtourou and Souiden (2010), fun is an important predictor of the adoption of digital mobile television. Social norms and intrinsic motives such as enjoyment are important determinants of intention to use a technology among female users, whereas extrinsic motives such as usefulness and expressiveness are key drivers among men (Nysveen, Thorbjornsen, & Pederson, 2005). This is supported by Fang et al (2005) who proposed that perceived playfulness influences consumers' attitude but only for gaming tasks. This opinion was confirmed by Wang et al (2012) who found that fun was more important than utility when considering the adoption of self-service technologies in the banking context.

2.3.3 Challenges of Online Services

Users' experience several challenges in using and adopting online services. Online applications are unable to offer personalized advice while language (semantics) appear as an obstacle to providing appropriate and useful services (Nijland, Gemert-Pijnen, Steehouder, & Seydel, 2008). Scarce online design guidelines were identified by Chen et al (2004) as a challenge. Scarce online design guidelines refer to information quality online where service providers have not gone beyond the Frequently Asked Questions

(FAQs) which is very limiting to the customers (Sheth & Sharma, 2007). Privacy, security and convenience challenges were identified by Poon (2008) as key online service challenges. In a study on Internet going mobile in eleven African countries, Stork et al (2013), found reasons for not using Internet in Kenya as follows: 57.7 percent did not know what Internet was; 51.6 did not have interest or found Internet not useful; 81.1 percent lacked skills; 78.4 percent did not have computer or internet connection; 65.2 percent found it to be too expensive; 30.9 percent were too busy and had no time for Internet; 36.1 percent did not use Internet since none of their friends used it and 11 percent cited limited bandwidth as the reason.

Security and privacy in online transactions is of considerable importance to consumers, businesses, and regulators. Security breaches of internet transmissions and databases characterized by unauthorized use of consumers' confidential information such as name, address, password, social security and credit card numbers often result in identity theft (Featherman, Miyazaki, & Sprott, 2010). Privacy is defined as the freedom to do things without other people watching you or knowing what you are doing (Macmillan Dictionary, Accessed 2014). Online users are entitled to a certain amount of privacy since they are bound to disclose a lot of their personal details such as personal identification numbers, identification card numbers and telephone numbers when using e-services.

2.3.4 Online Service Adoption

Several determinants that explain the success or failure of online service adoption can be derived from literature (Santos, 2003) . Riel et al (2001) hypothesized the five-dimension

model of adoption for online services namely: core service, facilitating services, supporting services, complementary services and user interface. Studies on online services have put forward several frameworks to explain the adoption of online service from the time of its inception. Kling (1994) argues that e-services should be developed based upon interactive features such as multimedia content and capacity for easier customization; Davis (1989) found ease of use and fun to be important factors in adoption; Bagozzi and Dabholkar (2002) added control and waiting as important determinants in adoption of technology-based self-service. This implies that users are more inclined to use a technology-based self-service if there is a sense of control and they do not have to wait to use it. In a study Hahn et al (1999) came up with users' six dimensions of choosing e-services. They include: use, content, structure, linkage, search and appearance. Parasuraman (2000) identified factors contributing to adoption of online services as: flexibility, convenience, efficiency and enjoyment. He also identified online security concerns as a key negative factor toward online services adoption.

2.4 Theories of Information Technology Adoption

According to CCK (2011) internet usage in Kenya via traditional computers grew by nineteen percent to about eight million users, while mobile phone internet usage grew by about two percent to nearly thirty million users. The use of Internet enabled phones has been a 21st century phenomenon that spreads for different purposes and functions (Ezemenaka, 2013). It, therefore, follows that customer care services and support provided online will be adopted promptly by customers in Kenya.

Invention of mobile phone technology has brought about immense positive progress to human societies, but this invention equally brought in its wake serious user support challenges to customers. This phenomenon cuts across all users irrespective of age, gender, service provider, education or locality of subscribers. As at September 2013, out of the nineteen million Internet subscribers in Kenya, twelve million were mobile Internet users (CCK, 2014). Several studies have explored motivation for adopting mobile Internet services and systems, and various models have been applied to forecast customers' intentions to use technological innovations (Khayyat & Heshmati, 2013); (Funk, 2004); (Stork, Calandro, & Gillwald, 2013). However, none of these studies have specifically investigated online customer care services adoption in the mobile phone industry context. Similarly, several studies have investigated customer care from different perspectives, such as the relationship between customer support and core service in the telecommunications service (Roos & Edvardsson, 2008); leading to customer care - that emphasizes the need for customer care to be part of continuing business strategy (Morris, 1996). Again, none of the studies have specifically investigated online customer care adoption in service industry such as mobile phone industry.

This study will rely on theoretical models to determine the relevant factors that predict the intention to adopt an online customer care service and particularly through mobile Internet. The most important and applicable theories to study intentions to adopt this technology are: the technology acceptance model (TAM) developed by Davis (1989) and the unified theory of acceptance and use of technology (UTAUT) explained by Venkatesh et al (2003). Numerous studies have relied on the models inherent in these

theories' to explain the intention to adopt technologies (Venkatesh, Morris, Davis, & Davis, 2003).

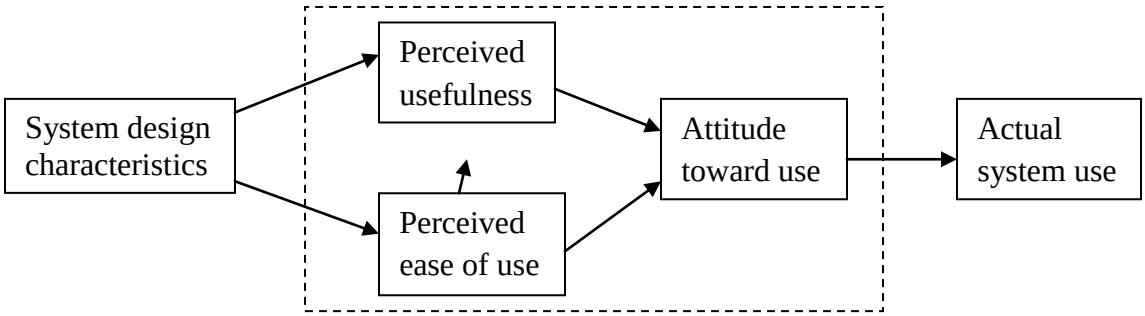
2.4.1 The Technology Acceptance Model

Technology Adoption Model (TAM) postulates that an individual's behavioral intention to adopt a technology is determined by two beliefs, perceived usefulness and perceived ease of use. Perceived usefulness is defined as the degree to which an individual believes that using a particular technological invention would enhance his or her productivity while perceived ease of use is defined as the degree to which an individual believes that using a particular technological invention would be free of effort (Davis, 1989). Among the two, perceived ease of use has a direct effect on both perceived usefulness and technology usage (Venkatesh, Morris, Davis, & Davis, 2003). These two perceptions combine to affect user acceptance of information technology innovations (Ramayah, Maruf, Jantan, & Mahamad, 2002).

Based on TAM or its extensions, a number of online service adoption studies have been conducted in different countries. A study on mobile internet usage among early-adopters in Finland, Verkasalo (2009) found that the diffusion of the mobile internet depends on many factors. In addition to regulation, trends in the mobile business ecosystems, technical evolution and end-user behavior affect the pace of mobile internet growth. In a study on three competing models derived from the technology adoption model tested out in two markets in Canada and France that present two different maturity stages, Chtourou

and Souiden (2010), found fun to be an important precursor of the attitude toward the act of using mobile devices for surfing the internet.

Figure 1: Technology Acceptance Model (TAM)



Source: Adapted from Chuttur M.Y. (2009)

They also found fun to arbitrate the effect of usefulness on attitude towards using a technological innovation, implying that the impact of sensations goes beyond the consumption of pleasurable products. Based on responses from Master of Business and Administration (MBA) students enrolled in a regional university in Texas, Lu et al (2005) found that social influence and personal innovativeness considerably affect both perceived usefulness and ease of use, which in turn influence the intention to adopt wireless internet services.

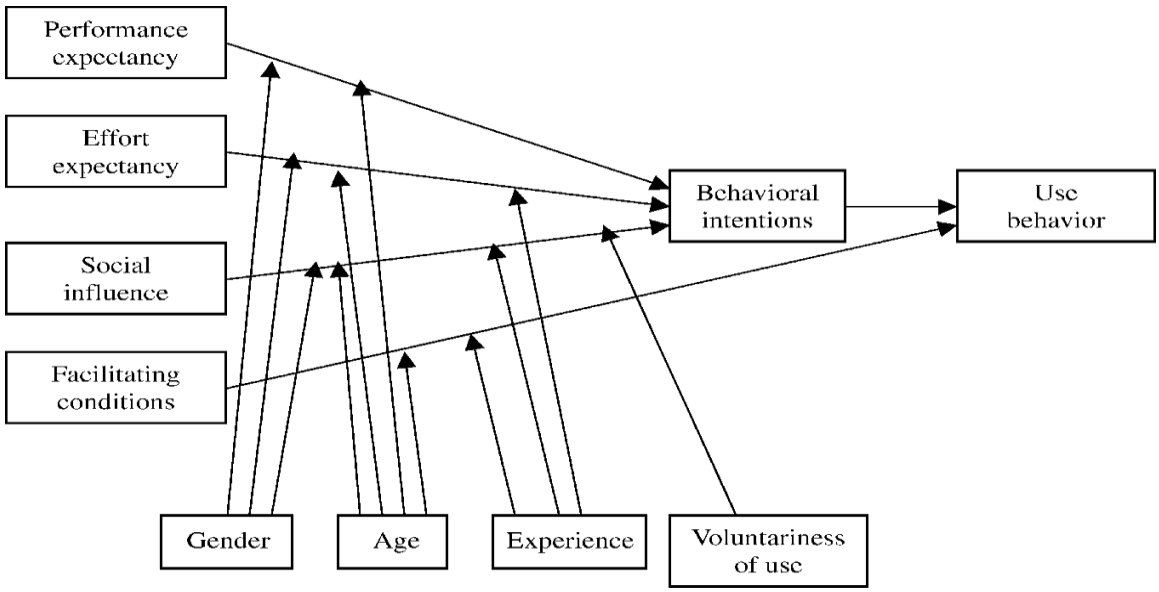
Based on these theories, researchers have studied many aspects of e-service adoption, such as the effects of factors such as usefulness, ease of use, fun, content and system quality and impact of technical issues. Limitations do exist in each, but experiences gained from these studies and their results can be used to specify suitable models of adoption of online customer care services by mobile phone companies in Kenya.

2.4.2 Unified Theory of Acceptance and Use of Technology

The unified theory of acceptance and use of technology (UTAUT) model has four key constructs namely: performance expectancy, effort expectancy, social influence, and facilitating conditions that influence behavioral intention to use a technological innovation (Venkatesh, Thong, & Xu, 2012). This study will adapt these constructs and definitions to the consumer technology acceptance and use context. Performance expectancy is defined as the degree to which using a technology will provide benefits to consumers in performing certain activities while effort expectancy is the degree of ease associated with consumers' use of technology. Social influence is the extent to which consumers perceive that important others - such as family and friends - believe they should use a particular technology. On the other hand, facilitating conditions refer to consumers' perceptions of the resources and support available to perform a behavior (Venkatesh, Thong, & Xu, 2012).

According to the Venkatesh et al (2012), performance expectancy, effort expectancy, and social influence are hypothesized to influence behavioral intention to use a technology, while behavioral intention and facilitating conditions determine technology use. In addition, individual difference variables, namely age, gender, and experience are theorized to moderate various UTAUT relationships. This study will seek to determine the extent to which adoption of online customer care service conforms or deviates from this model.

Figure 2: UTAUT Model



Source: Venkatesh *et al* (2003)

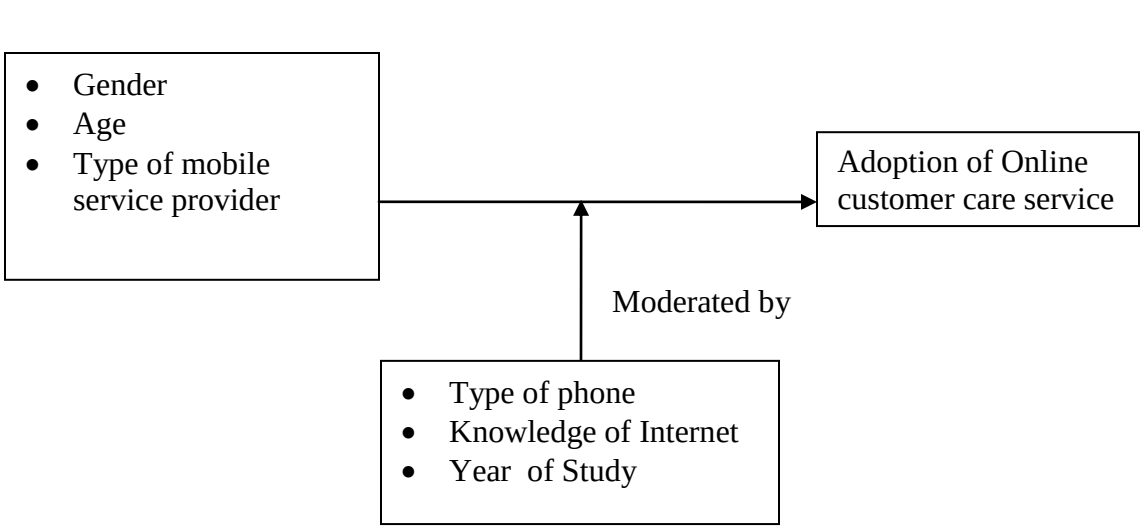
2.5 The Conceptual Framework

Several variables drive user adoption of online customer care services. According to Hsiao (2013) gender is an important determinant of online services adoption since male users were found to be more likely to use e-services on their Smartphone than female users. According to CCK (2011), a higher proportion of males (7.5 percent) compared to females (5.2 percent) used Internet services in 2010. Another driver in the conceptual framework is age. CCK (2011) noted that Internet usage rose with age and peaked at around the ages 20 to 34. Mobile phone service provider determines whether a user will adopt online customer care services or not. The two leading mobile phone companies: Safaricom and Airtel had 20.8 and 5.5 million subscribers respectively as at September 2013. The bigger the subscriber base, the more difficult it is to serve the customers using

conventional methods hence the higher the adoption rate of online customer services by the subscribers (CCK, 2014).

Adoption of this online service would be moderated by subscriber's type of phone. Smartphone owners can access online services more easily through their handsets. This saves them time and costs involved in accessing Internet from bureaus. Users' knowledge of Internet drives their intention to use online services. Subscribers with good knowledge are more confident and willing to try new technology leading to higher adoption rates. Lastly, the level of education determines the frequency of Internet usage. According to CCK (2011), the frequency rises with level of education and peaked at higher education. Subscriber's year of study has a moderating effect on adoption of online customer care services.

Figure 3: The Conceptual Framework Model



2.7 Summary

This chapter has presented a review of the literature that drives the adoption of online customer care services. The study has also examined the benefits, challenges and online service adoption issues. The literature reviewed also confirms that there is an empirical relationship between users' adoption of online services and drivers such as: gender, fun involved, costs, age, time the service takes, type of mobile subscriber and availability of the service around the clock. The two theories reviewed add more drivers such as ease of use, perceived usefulness, performance expectancy, effort expectancy, social influence, and facilitating conditions.

Most of the studies reviewed have however not been able to specifically bring out the adoption of online customer care services by mobile phone subscribers in Kenya. What is clear is that most of the studies appreciate the adoption of e-services and technological innovations. This is a clear indication that there is need to carry out a study to determine the adoption of online customer care services by mobile phone subscribers' in Kenya.

Chapter three: Research Methodology

3.1 Introduction

This chapter deals with the research methodology used in the study. It also highlights the geographical area where the study will be conducted. The study design, target population and sample size have also been described. Other items discussed are: the instrument that will be used to collect the data, methods to be implemented to maintain validity and reliability of the instrument are also explained. Finally, the chapter describes the method of data analysis used in the study.

3.2 Research Design

A quantitative approach will be followed in this study. A descriptive survey design will be used to collect original data necessary for describing the larger population. The study will seek information through self-administered questionnaires distributed to Master of Business Administration students at the University of Nairobi. Descriptive survey is selected because it provides an accurate account of the characteristics, such as behavior, opinions, abilities, beliefs, and knowledge of a particular individual, situation or group.

3.3 Population

The population of interest for this study is all continuing students at the University of Nairobi. The population that is accessible to this study consists of all continuing students in 2014, who are subscribers of any of the mobile phone companies in Kenya.

3.4 Sample Design

Approximately one thousand five hundred master of business and administration students pass through the University of Nairobi each year. Taking a nonzero probability of selection of 0.100 the sample size was:

$$0.067 = \frac{\text{Sample size}}{1500} = 100$$

This gave a sample size of a hundred respondents for inclusion in the study.

3.5 Data Collection

A questionnaire is the data collection instrument of choice for this study. Questionnaire was chosen because it will ensure high response rate since distribution to respondents will be undertaken by the researcher, it requires less time and energy to administer and it is possible to uphold anonymity of respondents since their names will not be required on the completed questionnaires. In addition, there is minimal opportunity for bias since it will be administered in a consistent manner and most of the items in the questionnaires are closed, which will make it easier to compare the responses to each item.

3.6 Data Analysis

Upon completion of data collection, it will be organized and analyzed. Data gathered in sections A and C of the questionnaire will be analyzed using descriptive statistics. Data in sections B and D will be analyzed using regression analysis - a statistical tool for the

investigation of relationships between. The general form of regression equation applicable in this case is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where:

Y = adoption of online customer care service.

β = represents the regression coefficient associated with each X.

β_0 = a constant, the value of Y when all X values are zero.

X_1= drivers of adoption of online customer care.

X_2= moderating variable.

ε = an error term.

Chapter Four: Data Analysis, Results and Discussion

4.1 Introduction

The purpose of this study was to determine the adoption of online customer care services by University of Nairobi students. Data was collected from a total of eight nine mobile phone subscribers in Kenya out of the targeted one hundred subscribers. This translates to a response rate of eight nine percent. This is an indication that the study managed to achieve a significant response rate that can enable the researcher to generalize the findings of the study on the entire population.

4.2 Adoption of Online Customer Care Services

The study collected data from eight nine respondents and the adoption rate was twenty five percent. Twenty two respondents out of eight nine respondents use online customer care services offered by mobile phone companies. The adoption is higher in female respondents than their male counterparts. Fourteen out of forty five women respondents use the service compared to eight out of forty four men. These findings contradict communications commission of Kenya 2011 findings that a higher proportion of males compared to females use Internet. This trend may have been reversed by more female rapidly embracing technology when their male counterparts do so at a much slower rate.

Table 1: Adoption of Online Customer Care Services

Gender	Total Number of Respondents	Number that Use the Service	Percent
Female	45	14	31%
Male	44	8	18%
Total	**89**	**22**	**25%**

4.2.1 Adoption Based on Age Group

Majority of respondents using online customer care services were in the age group of between twenty to twenty nine years. The usage dropped gradually as the age increased. Eight respondents had between thirty and thirty nine years and three respondents were between forty and forty nine years. There was no respondent in above fifty years age bracket. These findings confirm the CCK, (2011) findings that Internet usage peaked at around the ages 20 to 34 after which it declined with increase in age. This is the prime age where majority of the users have stabilized in their careers and hence easy to adopt online technologies.

Table 2: Online Customer Care Service Adoption per Age Group

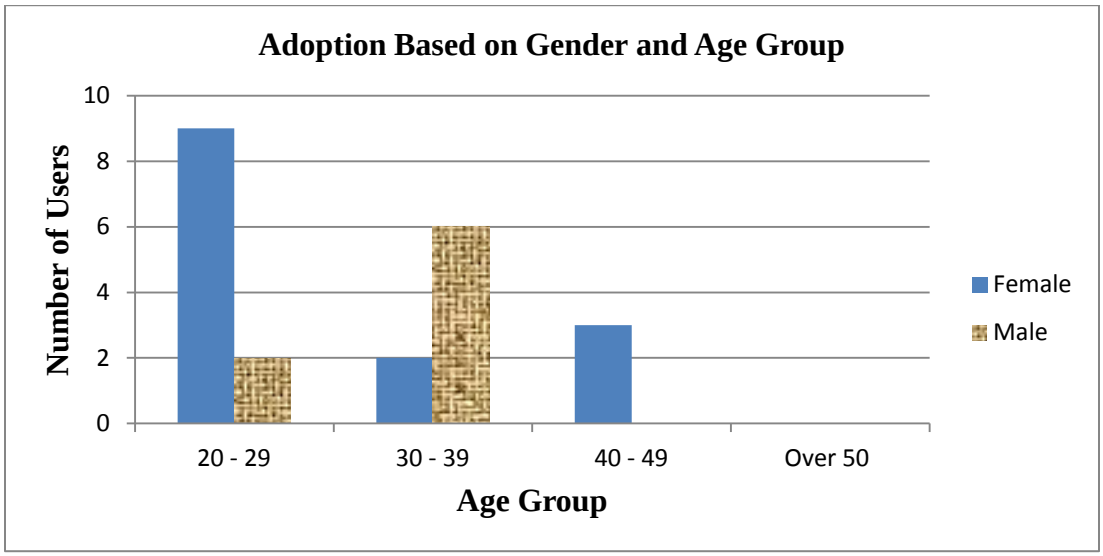
Adoption Based on Age Group					
Age Group	**20-29 years**	**30-39 years**	**40-49 years**	**Above 50 years**	**Total**
Number	11	8	3	0	22
Percent	50%	36%	14%	0%	100%

Majority of female users of online customer care services were between the age group of twenty to twenty nine years at 41%. However, majority of male adopters were between the age group 30-39 years. There was no adoption beyond age 39 among men while female adopters stopped at age 49 years. There was no usage beyond 49 years across the gender.

Table 3: Adoption Variation Based on Gender and Age Group

Age Group	Female	Female Percent of Total Users	Male	Male Percent of Total Users	Total
20 - 29	9	41%	2	9%	11
30 - 39	2	9%	6	27%	8
40 - 49	3	14%	0	0%	3
Over 50	0	0%	0	0%	0
Total	**14**	**64%**	**8**	**36%**	**22**

Figure 4: Adoption Variation Based on Gender and Age Group



4.2.2 Adoption based on Mobile Service Providers

Respondents for this study were drawn from the four mobile service providers in Kenya. Majority of respondents used Safaricom mobile service provider at 58%. Airtel was the second most subscribed mobile provider with twenty subscribers followed by Yu and Orange service providers. Safaricom and Airtel mobile service providers had higher female subscribers than male subscribers at 28 and 11, respectively. Over eighty percent

of respondents using online customer care services were Safaricom mobile company subscribers while the other service providers had 19% users.

Table 4: Mobile Service Providers in Kenya

Mobile Service Provider	Respondents		Total	Percent	Number of Adopters	Percent of Total Adopters
	Female	Male				
Safaricom	28	24	52	58%	18	82%
Aitel	11	9	20	22%	3	14%
Yu	2	6	8	9%	0	0%
Orange	4	5	9	10%	1	5%
Total	**45**	**44**	**89**	**100%**	**22**	**100%**

4.2.3 Distribution of Adopters Based on Mobile Service Providers

Safaricom mobile service provider had the highest number of users of online customer care services at 50% female and 32% male. Female adopters were subscribers of the two leading mobile companies in Kenya out of the four service providers, Safaricom and Airtel. Similarly, male adopters were subscribers of two service providers, Safaricom and Orange. Safaricom service provider had the highest adoption rate among the two genders. The adoption rate was highest for Safaricom subscribers probably due to the huge customer base that would make use of face-to-face customer care method difficult.

Table 5: Adoption Based on Gender and Mobile Service Providers

Respondents' Gender	Mobile Service Provider				Total
	Safaricom	Airtel	Yu	Orange	
Female	11	3	0	0	14
Female % of Total Users	50%	14%	0%	0%	64%
Male	7	0	0	1	8
Male % of Total Users	32%	0%	0%	5%	36%
Total	**18**	**3**	**0**	**1**	**22**

4.2.4 Adoption Based on Type of Mobile Phone

Majority of the respondents in the study owned smart phones. Out of 89 respondents, 59 owned smart phones compared to 30 who ordinary mobile phones. Adoption of online customer care services was higher among smart phone owners compared to ordinary mobile phone owners at 34% and 7%, respectively.

Table 6: Customer Care Service Adoption Based on Type of Mobile Phone

Respondent's type of phone	Respondents Adoption of Online Customer Care Services				Total
	Yes		No		
	Number	Percentage	Number	Percentage	
Smartphone	20	34%	39	66%	**59**
Ordinary	2	7%	28	93%	**30**
Total	**22**	**25%**	**67**	**75%**	**89**

Out of 45 female respondents in the study, 69% percent of them owned smart phones compared to 28 out of 44 (64%) male respondents. Out of 31 female respondents that owned smart phones, 12 of them, equivalent to 39%, used online customer care services compared to 29% of male respondents. Only two male respondents out of 16 that owned ordinary phones used online customer care services. More female than male respondents

owned smart phones and subsequently used online customer care services. This is probably due to the fact that female subscribers are more vulnerability than males when competing for scarce resources such as face-to-face customer care services.

Table 7: Comparison of Respondent's Type of Phone, Gender and Adoption

	Respondent's Gender			Number Adopting the Service		
Respondents Type of Phone	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Smart Phone	28	31	59	8	12	**20**
Ordinary	16	14	30	2	0	**2**
Total	**44**	**45**	**89**	**10**	**12**	**22**

The bulk of smart phone owners in this study were in the age group ranging between 20 to 29 years, followed by 30 to 39 years and finally 40 to 49 years. However, the adoption rate was highest in the age group 30-39 years. This confirms CCK, (2011) findings that Internet usage rose with age but peaked at around the ages 20 to 34 after which it declined with increase in age. Specifically, those aged 30-34 years had the highest proportion of Internet usage.

Table 8: Comparison of Respondents Age – Group, Type of Mobile Phone and Adoption

	Respondent's Type of Phone			Adoption Based on Type of Phone			
Respondent's Age Group	**Smart Phone**	**Ordinary**	**Total**	**Smart Phone**	**Percent**	**Ordinary**	**Total**
20-29	32	10	42	10	31%	1	11
30-39	20	16	36	8	40%	0	8
40-49	7	4	11	2	29%	1	3
Total	**59**	**30**	**89**	**20**	**34%**	**2**	**22**

4.2.5 Adoption Based on Level of Education

The study collected data from 45 first year and 44 second year graduate students. A higher percent of first year students were using online customer care services compared to second year students. This contradicts CCK (2011) study that Internet usage increases with the level of education. This may be due to increased academic work in second year graduate studies as opposed to first year of study.

Table 9: Impact of Users Level of Education on Adoption

Year of Study	Total Respondent's Gender			Adoption Per Gender			
	Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Percent**
First Year	19	26	45	6	9	15	33%
Second Year	21	23	44	2	5	7	16%
Total	**40**	**49**	**89**	**8**	**14**	**22**	**25%**

4.2.6 Impact of Internet Knowledge on User Adoption of Online Customer Care Services

Internet knowledge and competence was identified by 47% of the respondents as being critical to their adoption of online customer care services. Only 4% of the respondents without Internet skills used the service under study clearly pointing that it is a critical determinant. Good Internet skills make the users more confident and willing to embrace online services and this explains why it is a relevant driver.

Table 10: Internet Competence and Users Adoption of Online Customer Care Services

	Respondent's Internet Competence		
Respondent's Use of Online Customer Care	**Good**	**None**	**Total**
No	22	45	**67**
Yes	20	2	**22**
Total	**42**	**47**	**89**
Percent	**47%**	**53%**	**100%**

Majority of adopters of online customer care services in first year were also competent in Internet use compared to second year of study, at 87% and 100% respectively. However, more first year students were knowledgeable in Internet skills than second year students at 24 and 18 respondents, respectively. Respondents in second year of study without Internet skills did not use online customer care services at all. This is a pointer that competence in Internet is a key factor in determining the adoption of online customer care services.

Table 11: Adoption Based on Year of Study and Competence in Internet

Year of Study	**Respondent's Use of Online Customer Care**	**Respondent's Internet Knowledge**		**Total**
		Good	**None**	
1st Year	**No**	11	21	32
	Yes	13	2	15
	Total	**24**	**23**	**47**
2nd Year	**No**	11	24	35
	Yes	7	0	7
	Total	**18**	**24**	**42**
Grand Total		**42**	**27**	**89**
Percent		**70%**	**30%**	**100 %**

There were more female respondents with good Internet skills than male respondents at 57% and 43%, respectively. A higher proportion of female respondents with good Internet skills adopted the service under study compared to male respondents at 50% and 44%, respectively. Again, this is an indicator that competence in Internet is a precursor to user adoption of online customer care services.

Table 12: Comparison of Gender, Internet Skills and Adoption

Gender	Adoption of online customer care services	Respondent's Internet Knowledge		Total
		Good	None	
Female	Yes	12	2	14
	No	12	19	31
	Total	**24**	**21**	**45**
Male	Yes	8	0	8
	No	10	26	36
	Total	**18**	**26**	**44**
Grand Total		**42**	**47**	**89**

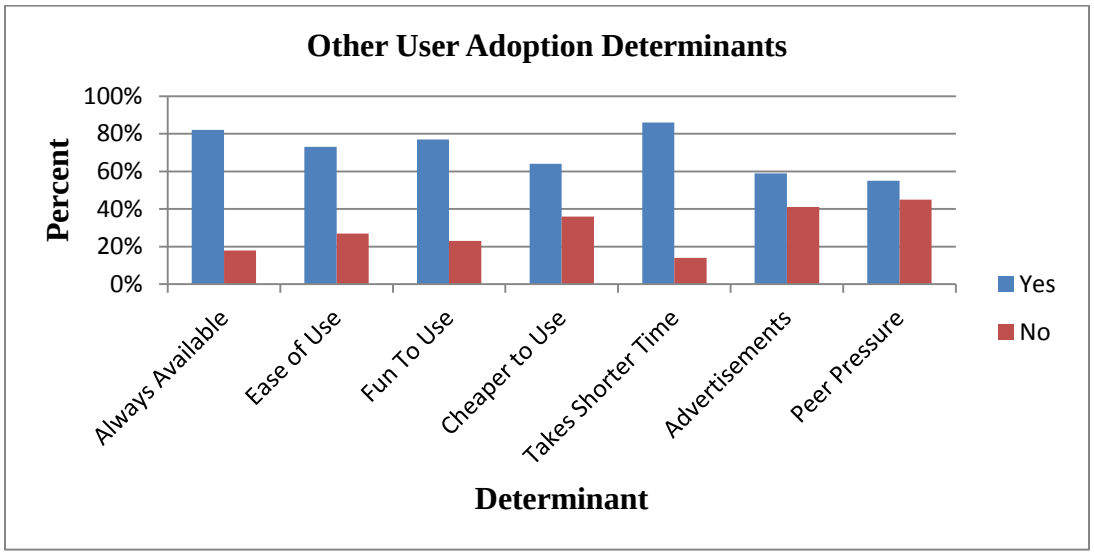
4.3 Other Drivers of Online Customer Care Services Adoption

There are other drivers, not captured in the conceptual framework of the study, that influence the adoption of online customer care services in varying proportions. The study revealed that 86%t of those using the service were driven by the short duration it takes to access the service online, followed by availability of the service all the time at 82%. Least influence to the users' adoption of the service under study was: advertisements at 59%, followed by peer pressure at 55%. Table 11 below gives a summary of other drivers that affected user adoption of online customer care services.

Table 13: Other Determinants of Online Customer Care Services Adoption

Driver	Yes		No		Total
	Number	Percentage	Number	Percentage	
Always Available	18	82%	4	18%	22
Ease of Use	16	73%	6	27%	22
Fun To Use	17	77%	5	23%	22
Cheaper to Use	14	64%	8	36%	22
Takes Shorter Time	19	86%	3	14%	22
Advertisements	13	59%	9	41%	22
Peer Pressure	12	55%	10	45%	22

Figure 5: Other Determinants of Online Customer Care Services Adoption



4.4 Online Customer Care Services Adoption Challenges

User of online customer care services identified five key challenges. Eight six percent of them were unable to follow up their transactions online, while eight two percent felt that the service lacked human touch. Others were challenged by lack of control of the content online; content used online lacking clarity and the entire service being unable to improve

customer usage of mobile phone services. The challenges revealed by the study reinforce challenges from the literature reviewed.

Table 14: Online Customer Care Services Adoption Challenges

Challenge	Agree	Strongly Agree	Total	Percent of Total Respondents
No Follow up	7	12	19	86%
No Human Touch	10	8	18	82%
No Control of Content online	8	7	15	68%
Content online not clear	6	8	14	64%
No personalized Service	5	9	14	64%
Content Does not Improve phone usage	10	3	13	59%

4.5 Benefits of Online Customer Care Services

All the users of online customer care services benefited from the availability of the service around the clock. Majority of them also found the service easy to use and manipulate in addition to enabling them to be more open in seeking solution without feeling embarrassed. Many of them found the service easy to learn and become skilful, flexible and enjoyable. The service was also cheaper than conventional customer care methods, improved mobile phone usage and allowed the user some degree of independence. The benefits revealed by the study reinforce benefits summarized from the literature reviewed.

Table 15: Online Customer Care Services Adoption Benefits

Benefit	Agree	Strongly Agree	Total	Percent of Total Respondents
Saves Time	9	13	22	100%
Easy to Learn and Operate	15	6	21	95%
Available 24/7	5	16	21	95%
Easy to acquire Skills	11	9	20	91%
Flexible	10	9	19	86%
Enjoyable	7	11	18	82%
Save Money	13	5	18	82%
Improves Use of Phone	8	7	15	68%
Creates Independence	6	7	13	59%

4.6 Regression Analysis

The Cox and Snell R^2 and the Nagelkerke R^2 show how much variation in the dependent variable (user adoption of online customer care services) can be explained by the model. This variation based on the model derived from this study ranges between 10% and 14% for Cox & Snell R^2 and Nagelkerke R^2 respectively for drivers and 28% and 43% respectively for moderating variables. Nagelkerke R^2 is a modification of Cox & Snell R^2, the latter of which cannot achieve a value of 1 hence its preferable to report Nagelkerke R^2 value.

Table 16: Model Summary for Variables

	Step	-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2
Drivers	1	90.503[a]	0.097	0.143
Moderators	1	69.458[a]	0.287	0.426

a. Estimation terminated at iteration number 5 for drivers and 6 for moderators because parameter estimates changed by less than 0.001.

4.6.1 Category Prediction

Binomial logistic regression estimates the probability of an event (in this case, adoption of online customer care services) occurring. If the estimated probability of the event occurring is greater than or equal to 0.5 (better than even chance), classified the event is classified as occurring for example; online customer care adoption is present. On the other hand, if the probability is less than 0.5, the event is classified as not occurring i.e. there is no online customer care services adoption. Binomial logistic regression can be used to predict whether cases can be correctly classified (i.e., predicted) from the independent variables. The classification table assesses the effectiveness of the predicted classification against the actual classification in the study.

Table 17: Classification Table[a] – Drivers

Observed			Predicted					
			Respondent's Use of Online Customer Care					
			Drivers			Moderators		
			No	Yes	Percentage Correct	No	Yes	Percentage Correct
Step 1	Respondent's Use of Online Customer Care	**No**	67	0	100.0	61	6	91
		Yes	20	2	9.1	7	15	68.2
	Overall Percentage				**77.5**			**85.4**
a. The cut value is 0.500								

The table has a subscript which states, “The cut value is 0.500”. This means that if the probability of a case being classified into the “yes category is greater than 0.500, then that particular case is classified into the “yes” category. Otherwise the case is classified as in the “no” category. The percentage of accuracy in classification which reflects the

percentage of cases that can be correctly classified as adoption of online customer care services with the independent variables added is 77.5% for drivers and 85.4% for moderating variables. The sensitivity, which is the percentage of cases that have adopted online customer care services, was correctly predicted by the model since the figures are true positives. Specificity – the percentage of cases that did not adopt online customer care services - was also correctly predicted as true negatives. The positive predicted value, which is 9.1% for drivers and 68.2% for moderating variables, was correctly predicted. This translates two adopters based on drivers and fifteen adopters based on moderating variables. The table reveals that moderating variables are better predictors for users' adoption of online customer care services than drivers.

4.6.2 Variables in the Equation

The Wald test ("Wald" column) is used to determine statistical significance for each independent variable. The statistical significance is found in the "Sig." column. For the drivers, the results show that mobile service provider (MSP) (0.031) did not add significantly to the model. However, Age (0.386) and Gender (0.225) contribute significantly to the model. The table shows that the adoption of online customer care services ("Yes" category) is (0.529) times greater for males as opposed to females. Likewise, the adoption rate is lower for higher age groups (1.414) than in higher age groups. Finally adoption is higher for Safaricom service provider, (0.389) than in the other service providers.

Table 18: Variables in the Equation

	Drivers	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	Gender(1)	-0.637	0.525	1.474	1	0.225	0.529	0.189	1.479
	Age	0.346	0.4	0.752	1	0.386	1.414	0.646	3.094
	MSP	-0.944	0.437	4.676	1	0.031	0.389	0.165	0.915
	Constant	0.019	0.76	0.001	1	0.98	1.019		
Step 2[a]	**Moderators**	**B**	**S.E.**	**Wald**	**df**	**Sig.**	**Exp(B)**	**Lower**	**Upper**
	Phone	-2.009	0.849	5.605	1	0.018	0.134	0.025	0.708
	Year (1)	-0.341	0.625	0.298	1	0.585	0.711	0.209	2.422
	Knowhow	0.973	0.266	13.355	1	0	2.647	1.57	4.462
	Constant	-1.847	1.351	1.869	1	0.172	0.158		
a. Variable(s) entered on step 1: Phone, Gender, Age and Mobile Service Provider (MSP).									
a. Variable(s) entered on step 2: Phone, Year of Study and Internet Knowhow.									

For the moderating variables, the results show that type of mobile phone (0.134) did not add significantly to the model. However, Internet Knowhow (2.647) and year of study (0.711) contribute significantly to the model. The table shows that the adoption of online customer care services ("Yes" category) is (0.134) times greater for those who own smart phones as opposed to those who own ordinary phones. Likewise, the adoption rate is lower for those with little Internet Knowhow (2.647) than those who possess higher Internet skills. Finally adoption is higher for those in the first year of study, (0.711) than those in second year of study.

4.7 Summary

A logistic regression was performed to ascertain the effects of two categories of variables, drivers and moderators, on the adoption of online customer care services. Drivers include: gender, age and MSP while moderators are: type of mobile phone, year

of study and internet knowhow. The logistic regression models were statistically significant.

The drivers' model explained 14.3% (Nagelkerke R^2) of the variance in online customer care services adoption and correctly classified 77.5% of cases. Males were 5.29 times more likely to adopt the service than females. Increasing age was not associated with an increased likelihood of adopting the service, but adoption associated with Safaricom service provider was higher and reduced as one customers subscribed to other service providers. The moderating variables model explained 42.6% (Nagelkerke R^2) of the variance in online customer care services adoption and correctly classified 85.4% of cases. First year graduate students were 7.11 times more likely to adopt the service than second years. Increasing Internet Knowhow was associated with an increased likelihood of adopting the service as well as the subscribers who own smart phones.

Chapter Five: Summary, Conclusion and Recommendations

5.1 Introduction

A study was carried out to determine the adoption of online customer care services by university students in Kenya. The study had three independent variables (drivers) and three moderating variables: The drivers were: Gender, Age and Type of Mobile Service Provider while moderators were Type of Phone, Knowledge of Internet and Year of Study. A binomial logistic regression analysis was used to depict this relationship and predict user adoption of online customer care services. This chapter presents a summary of the findings, conclusions and recommendations made based on the study findings.

5.2 Summary of Findings

The study reveals that users' adoption of online customer care services offered by mobile phone companies in Kenya is 25 percent. For a country with a mobile phone subscriber base of over 30 million, only 7.5 million use the service. The adoption rate is higher among female subscribers than males at 31% and 18%, respectively. The adoption rate is highest among the age groups between 20 to 29 years followed by age group 30 to 39 years at 50% and 36%, respectively. Majority of female adopters are between age groups 20 to 29 years compared to male adopters at age group 30 to 39 years at 41% and 27%, respectively.

Safaricom service provider has the highest adopters at 82% followed by Airtel at 14%. According to CCK (2014) as at september 2013, Kenya had a total of 31.3 million mobile phone subscribers. The two leading mobile phone service providers, Safaricom and Airtel

had, 66.5% and 17.8% subscribers, respectively. Safaricom leads in subscription as well as in adoption of the service under study rate. However, adoption rate is slightly higher compared to subscription numbers.

Type of mobile phone proved to be a significant factor in users' adoption of online customer care services. Out of 22 adopters, 91% of them owned smart phones compared to two ordinary phone owners. More female adopters owned smart phones than male adopters at 54.5% and 45.5%, respectively. Interestingly, the age group between 20 to 29 years, with the highest adoption rate, was not leading in smart phone ownership. Majority of smart phone owners were in age group between 30 to 39 years and second in adoption rate.

Level of education did not, significantly, determine user adoption of the online service under study. Majority of adopters were in their first year of study compared to second year of study at 33% and 16%, respectively. However, user Internet skills proved to be an important precursor to adoption of online customer care services. The study revealed that 96% of respondents without Internet skills did not use the service under study compared to 47% for those with good Internet skills.

Other variables in the study determining user adoption of online customer care services at varying degrees are as follows: Takes Short Time at 86%; Always Available at 82%; Fun to Use at 77%; Ease of Use at 73%; Cheaper to Use at 64%; Advertisements at 59% and Peer Influence at 55%.

Key benefits of user adoption of online customer care services revealed by the study are: Saving time; Easy to Operate; Always Available; Easy to Acquire Skills; Flexibility; Fun to Use; Cost Saving; Improve Phone Use and Creating Independence. Challenges of the service include: Lack of Follow Up; Lack of Human Touch; Lack of Control of Content; Unclear Content and Lack of Personalized Services.

Binomial logistic regression ascertained that moderating variables are better predictors of user adoption of online customer care services than drivers at Nagelkerke R^2 value of 42.6% and 14.3%, respectively. Drivers had a prediction values of 9.1% compared to moderators value of 68.2%.

5.3 Conclusion

The study reveals that online customer care services in Kenya is adopted moderately at 25% only in the mobile phone industry. Subscriber characteristics that influence user adoption of online customer care services are: age, gender, Internet skills, type of mobile service provider and type of phone. Adoption rate is highest between ages 20 and 39 years. More ladies adopt the e-service than men. Those with internet skills more easily adopt the e-service than those without the skills. Finally, type of mobile service provider and type of phone a user owns determines his intention to use the online service.

5.4 Recommendations

Since it is clear that age is significant in determining user adoption of the e-service, it is important for the mobile companies to target the ages between 20 and 39 in their

advertisement campaigns in order to increase adoption rates. The companies should develop strategies to increase male adoption since they are lagging behind females.

The study has exposed the challenges and benefits of users' adoption of the e-service. This will assist the service providers in revising their respective web-based services in order to suit their customer needs. Top on this list of challenges are lack of follow up in online environments and lack of human touch. The service providers can revise the designs in order to eliminate challenges while boosting the benefits.

The study revealed that adoption rate also depends on Internet skills. This will assist policy makers in developing strategies that will boost Internet skills in the country. Likewise, the type of mobile phone a user owns determines whether to adopt the e-service or not. Majority of users who own smart phones also adopt the e-service. This can assist mobile phone companies and the government in developing strategies to increasing the number of smart phones in the country either through tax exemptions or promotions.

Finally, adoption rate seemed to depend on the type of mobile service provider. This can assist the companies in the industry to determine the level of competition in the industry. It can also assist the customers to choose a service provider in choosing a service provider that best addresses customer issues.

5.5 Limitations of the Study

The study experienced the following limitations. First, the data were collected from graduate Master of Business Administration University of Nairobi students only. These are not the only subscribers of the four mobile phone companies in Kenya. The generalization of the model and findings to subscribers requires additional research to cover other groups of mobile phone users.. Second, the results may have been influenced by self-selection bias. The sample comprised only active customers using only one service provider. Individuals who are subscribers of more than one service provider might have insights that can assist in comparing customer care services in a better way.

5.6 Suggestions for Further Research

A comparative study on this same subject should be carried out using a cross-sectional survey research to include different categories of mobile phone users and other regions in Kenya. This study may also be replicated after some time to establish whether the position has changed. This will assist in getting a clear picture on adoption of online customer care services offered by mobile phone companies in Kenya.

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Appendix 1: Questionnaire

The Adoption of Online Mobile Phone Customer Care Services by University of Nairobi Master of Business and Administration (MBA) Students

Introduction

This study aims at obtaining your opinion on the success of online customer care services by mobile phone companies in Kenya. The study aims at identifying factors that lead to adoption or lack of adoption of the service. Your participation in this survey will help in informing mobile phone companies on which areas of customer care system to improve. Thank you for taking your time to answer the questions that follow.

Section A: General Information

1. What is your gender? Male ☐ Female ☐

2. What is your age group?

20-29 years ☐ 30-39 years ☐ 40-49 years ☐ 50 years and above ☐

3. What is your year of study? First ☐ Second ☐

4. What type of phone do you use? Smartphone ☐ Ordinary ☐

5. Who is/are your service provider(s)?

Safaricom ☐ Airtel ☐ Yu ☐ Orange ☐

6. I have good knowledge of the internet.

Strongly Disagree ☐
Somewhat Disagree ☐
Undecided ☐
Somewhat Agree ☐
Strongly Agree ☐

7. Are you using online customer care? Yes ☐ No ☐

If **Not**, Why? _____

_____

_____

If **Yes**, Move to **sections B, C** and **D.**

Section B

Challenges

8. Please check the option that indicates your level of agreement with these statements. Use the scale below to rate your response.

Strongly Agree	5
Agree	4
Undecided	3
Disagree	2
Strongly Disagree	1

No	Challenge	1	2	3	4	5
1	No interest in Internet and I do not find online customer care useful					
2	Lack of personalized service					
3	Language/semantics used on the service unfamiliar					
4	Content in online service not clearly written to suit the problems at hand					
5	Security of your data online					
6	Fear of unauthorized use of your confidential information - privacy					
7	Unable to follow up transactions if the problem persists					
8	Internet service provider is expensive for me					
9	Lack of human touch compared to physical customer care service					
10	Lack of control over the content online					
11	Too slow or limited Internet bandwidth – waiting time					
12	Lack of computer or Internet connection					
13	None of my friends use the service					
14	I am too busy and have no time for Internet					
15	Features of online customer not easy to learn and use					
16	Using online customer care does not improve my use of mobile phone services					
17	Congestion of online customer care service occasioned by number of users					

Section C

Benefits

9. Please check the option that indicates your level of agreement with these statements.

Use the scale below to rate your response.

Strongly Agree	5
Agree	4
Undecided	3
Disagree	2
Strongly Disagree	1

	Benefit	1	2	3	4	5
1	Learning to operate online customer care services is easy for me					
2	I find it easy to get online customer care solve my problem					
3	It is easy for me to become skillful at using online customer care service					
4	It is enjoyable to use online customer care service					
5	Online customer care service helps me save money					
6	Online customer care service helps me save time					
7	Online customer care service is always available for use.					
8	Using online customer care services enable me to be more open without feeling embarrassed					
9	Using online customer care service improves my use of mobile telephone service.					
10	I use online customer care service because it is more flexible than physical customer care service					
11	I use online customer care service because I value being able to solve the problems myself without having to consult anyone					

Section D

Drivers

Indicate, by placing a tick, whether each of the following drive you to use online customer care services.

No	Driver	Yes	No
1	I use online customer care service because it is easy to use		
2	I use online customer care service because it is fun to use		
3	I use online customer care service because it is cheaper than face-to-face method		
4	I use online customer care service since it takes shorter time than face-to-face method		
5	I use online customer care service because it is available 24 hours a day, seven days a week		
6	I use online customer care service because all my friends, peers and family members use it.		
7	I use online customer care service because advertisements on print and electronic media drive me to so.		