USER PERCEIVED WEB QUALITY OF SERVICE AND NETWORK ON E-SERVICES.

CASE STUDY: GOVERNMENT OF KENYA

BY

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS DEGREE IN THE FACULTY OF COMPUTING & INFORMATION MANAGEMENT AT KCA UNIVERSITY

SUBMISSION DATE……..MONTH……YEAR……..

DECLARATION

I declare that the work in this Research project has not been previously published or submitted elsewhere for award of a degree. I also declare that this my own original work and contains no material written of published by other people except where due reference is made and author duly acknowledged

Student Name: ONESMUS ITUO WAMBUA Registration Number: O5/06529

Sign……. Date…….

I do hereby confirm that I have examined the Master's Research Project of **ONESMUS WAMBUA** AND have certified that all revisions that the Research project panel and examiners recommended have been adequately addressed.

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USER PERCEIVED WEB QUALITY OF SERVICE AND NETWORK ON E-SERVICES

ABSTRACT

Fulfilling e-services effectively entails a sufficient service set-up which delivers a solid base for dependable services. A key part of this service set-up is the transport which e.g. launches the Internet. This transport structure is responsible for delivering a reliable end to end transport service with diverse service levels which is a prerequisite for any e-service put up on top of it.The dynamic change and enhancement of information communication technologies (ICTs) have significantly modernized the way organizations do their businesses nowadays. More businesses are coupling the use of website as a tool to gain competitive niche in marketing their services and product. In that respect, Quality of service and eservice quality is becoming more precarious for organization to maintain and draw customers in the digital era. Since any internet medium should incorporate quality of service, which embraces important eService adoption, the perseverance of this research was to investigate the magnitude to which web quality of service influence and perceive the adoption of e-commerce among the Kenyan online clients. Through this, the research attempted to establish the key quality factors in web context that influence user adoption of business to consumer ecommerce. The research further scrutinized the non-quality of service factor that significantly influence the adoption of Electronic Trade and Commerce apart from eservice quality factors. Through this, the most important teamsters and inhibitors to E-commerce adoption in Kenya were identified. The outcomes shown that, in framework of e-service quality, feature that are connected to perceived risk namely confidentiality, security and e-trust were identified as the key quality factors that affect e-commerce adoption in Kenya. In event of non-quality of service factors, perceived risk, legal & legislation environment were found to be key factors to adoption of ecommerce by Kenyan web users..

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DEDICATIONS

I dedicate this research project to my dear wife Anne, my daughters Lindsey, Alexis and Carlean respectively not forgetting my beloved father Josphat

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ACRONYMS AND ABBREVIATIONS

WWW	World Wide Web
CCK	Communication Commission of Kenya
ICT	Information Communication Technology
QOS	Quality of Service
KQFs	Key Quality Factors
PC	Personal Computer
e-CAM	E-commerce Adoption Model
TAM	Technology Acceptance Model
B2B	Business to Business
B2C	Business to Consumers
B2G	Business to Government
IS	Information System
PU	Perceived Usefulness
IT	Information Technology
PEU	Perceived ease of Use
BI	Behavior Intention
PRT	Perceived Risk Transaction
PRP	Perceived Risk Product
PB	Purchasing Behavior
ATM	Automated Teller Machine
PM	Process Modeling

SQ Service Quality

TERMS AND DEFINITIONS

- E-commerce - the sharing of business information, maintaining business relationships and conducting business transactions by means of Internet-based technology.
- Quality of service - differences between customer's expectations of service provider's performance and their evaluation of the services they received.
- E-service – provision of service through electronic methods.
- E-quality- consumer's overall evaluation and judgment of the excellence and quality of e-service offerings in the virtual market place.
- Customer satisfaction - collective outcome of perception, evaluation, and psychological reactions to the consumption experience with a product or service.
- Online consumers – Refers to users who use the internet services.

INTRODUCTION

CHAPTER ONE

1.1 Background

Less than a two decade since the launch of the WWW, the Internet has become a prominent space for people to link and compare ideas, work, trade or spend leisure time. And increasingly, it is a place for doing business and learning (Berenfeld, 1996; Khan,).In this era of dynamicity and technological age, the prompt improvement of information and technology and Internet make sure the dynamic gadget implements in corporate, which has a positive and negative effect on business in the world. Net considerably transformed the way companies do their businesses. In the initial stages of Internet adoption price differentiation was used as basis for winning customers by providing service at lower prices to online customers. However with a growing number of firms contributing in the online market, the primary price gains in online service have nullified, and little price has become a least requirement to compete in the online market. As a mean of embracing ecommerce, businesses have developed sites to allow a firm to do transaction via evolving online technology. We have numerous substantial, realistic tools that encourage firm to implement e-services. Several and vital paybacks increase to those firms that embrace this technology including: minor transaction, unrestricted access to markets across the globe, coming up with innovative services and products to users and outstanding barely touching the surface. In e-services, website is the leading tool of business communication and transactions between a firm and its clients. On web sites, businesses promote their goods and services,

provide directories of their commodities, sell goods and services, provide technical support, and obtain response from their clients. The web site provides ways for public relation, marketing, research, and mode of payment. Therefore the quality of the web site becomes very core to success of the e-services. Research has exposed that a tough connection among e-service quality and adoption of e-commerce. In Kenyan context, Thomas Ombati (2010) in his findings publicized that, secure services as the most essential aspect of e-service in banking industry, followed by convenience, effectiveness, capacity to come up with interpretations so that the user can do businesses instantaneously, correctness of records, user responsiveness, simplicity and correct transactions.

A general observation in Kenya shows that there has been good penetration of internet technology in Kenya. There are approximately 10.2 million internet users in Kenya (CCK, 2011). However little information is available on the level of adoption of ecommerce in Kenya. Majority of Internet users have perceived communication information based on internet services such as emails, information browsing and social network very useful. Very few internet users' use transactional based services such e-payments.

Presently, in spite of various readings concerning old-style service quality, pretty minimum readings have been piloted in the online context, and even fewer on internet service quality. This study emphasis on how Kenyan online users perceive e-service quality and how this boosts or discourages them to use web eservices. In the current market of online services, e-service excellence not only potentially increase the attractiveness, user withholding, and positive expression of mouth, nevertheless also maximizes the online reasonable advantage of e-commerce. Hence e-service value has become a unique fundamental contributing factor of the achievement for internet retailing. There is need to begin approaches for enlightening quality to realize economical niche and build client fulfillment. This will in turn promotes the adoption of the e-service delivery technologies by Kenyan people.

However it is significant to note that in Kenya, eservice is just one of the major factors of ecommerce adoption. Therefore there're is need for the research to identify other drivers and inhibitors of ecommerce in Kenya. This concern forms core of this research project.

1.2 Problem Definition

The research problem is founded on the following background:

Web technology has been a growing phenomenon all over the world with the growth of internet technology and especially among countries with well-developed infrastructure. Kenya has not been an exception especially with landing of fiber optic cable. The adoption of internet usage has been well embraced by most Kenyans.

There exist fundamental benefits to internet users on embracing eservices such as online shopping among others. These benefits include avoiding crowd, lower prices, ease of comparing prices and products, avoiding the inconvenience of traveling to shops and wider selection of products on the internet.

However, most online Kenyans use web technology for services such as information searching, emails, news and social network. Few Kenyans shop online. Majority of internet users are not willing to embrace transactional based eservice technologies such as online shopping, internet banking and online subscription.

• Research indicate that factors such as privacy, security, convenience, availability, performance, trust and experience influence the user behavior on adoption of eservices.

• In context of service providers who are the web site owners, most of the web sites are not interactive, they are not ecommerce enabled, and users perception of internet services and how clients view their online provision quality have not been factored when designing the web sites. Also, online shoppers also want their swipe cards, personal data and details of transactions free from unauthorized use. This constitutes eservice quality issue which is very important for adoption of eservices.

Research is needed to establish the key quality factors in eservices and the extent to which these factors influence the adoption of eservices in Kenya. Moreover, the research needs to recognize the role of other factors related to adoption of eservices.

1.3 Aim of study

The reason for the study was to scrutinize an extent to which web quality of service is perceived on how it influences the adoption of eservice technologies among Kenyans with specific focus on business to consumer ecommerce. It aims to establish the KQFs of site quality and the level to which they influence adoption of eservices such as ecommerce. The research further identifies the other non-quality of service factors that influence positively or negatively the adoption of ecommerce.

1.4 Objectives

i) Develop a theoretical and model web quality of service reference model eservices in Kenya.

Specific research objectives are:

(i) To identify quality of service factors that affects e-services adoption.

(ii) Identify the key quality of service factors that affect the adoption of eservices.

(iii) To establish the extent to which each quality of service factor affect the adoption of eservices

(iv) Identify the non-quality of service factors affecting the adoption of eservices,

(v)To identify and test quality of service factors that affects e-services adoption and its challenges

1.5 Research Significance

The findings of this study are of great significance to both online companies and online consumers in Kenya. The findings will address the constraints hindering the adoption of eservices by most Kenyan online consumers. It will help online service providers incorporate user perception of web quality of service as an integral component of their online systems. Both functional quality of service features such as web design quality and non-function quality of service features such as privacy, availability, e-trust, performance, reliability and convenience will be captured in the study. The outcome of the study will help the online companies implement web portals which meet the ecommerce requirements. Through this consumer confidence will be increased and hence motivation to adopt eservice technologies. This will in turn help both online businesses and consumers enjoy the full benefits which come with the advancement of internet and eservice technologies.

1.6 Scope

This research project will focus on user perceived transactional based web services such as E-commerce, Internet banking, online subscription or any high risk web services. It is these services where the users shy off embracing the technology. The research will not consider basic web services such as information search and emails because these services have been well embraced by most online users.

1.7 Research assumptions

The research assumes that there has been good penetration of internet technology in the country and most respondents will have no challenge of using the internet technologies. The expectation is that they have basic skills on using internet.

1.8 Limitation

The expected challenges during this research project include:

(i) Time limitation to carry out extensive research.

(ii) Financial limitation to travel different regions of the country. For this reason the research will be limited to Nairobi and its environs.

(iii) Corporation from the interviewees. Some respondents may not be willing to offer the information voluntarily.

CHAPTER TWO
LITERATURE REVIEW

2.1 State of the art

Provision quality encompasses some comparison of prospects with performance. As per Lewis and Booms (1983) provision quality is the extent of how well a distributed service go hand in hand with the clients' prospects. Mostly the client request for a provision at the service interface where the provision encounter is being cherished, and then the amenity is being supplied by the source and at the same time it's distributed to the client. Gronroos (1982), states that total service quality user opinion of difference among projected service and perceived service. The description of service quality of the service encounter occurs in two different ways: namely output quality and process quality. The core objective to concentrate on superiority is to meet client's needs while outstanding sparingly viable at the same time. In that respect, meeting client wishes is significant to the business to persist. Result of incorporating quality is:

Good understanding of effective procedures.

Categorizing complications rapidly and in systematic manner.

Founding up to date and trustworthy service performance measures.

Assessing user's fulfillment and other performance conclusions.

Service quality is an industry admin's term that pronounces the level of success of a well-organized provision. In that matter connection, goals and quality can be notable. Neutral service value is the actual quantifiable conformity of a real outcome with the prior defined value; since the range is dependent on the perfection, a quantifiable value criterion which easily can turn out as an independent one.

Independent service quality is the clients' opinion conventionality of the working outcome with the expected value; this opinion is put over with the user's imaginative thoughts of the service and the service source ability to present his enactment as best.

2.1.0Service Quality

Individual desires and past know-how builds an anticipation of the service. The opinion service is associated with the projected service by the users. This indicates the apparent service quality as an outcome amongst the estimated and the seeming service can show an opening in a case that the seeming service does not tie with the predictable service. Aspects which inspires the appearance of this opening have been curiosity of study by different researchers.

Zeithaml and Berry (1985) acknowledged 10 determining factor of service quality that share to a service: tangibles, trustworthiness, communication, credibility, security, competency, courtesy, considerate, sympathetic, and easily accessible.

Later Berry and Parasuraman identified 5 scopes to cover the human elements in provision value as stated below.

Tangible: compacts with expression of physical services and message tools

Dependability: works with trustworthiness, and reliability of service.

Awareness: compacts with the capacity to offer swift services and support to users.

Reassurance: compacts with the dependence and assurance with the provision source based predominantly on the domain and politeness of workers.

Empathy: works well with requests of gentle and tailored politeness to clients.

On an effective level service eminence the study takes direction from SERVQUAL tool which groups quality factors into 5 clusters: *dependability, openness, reassurance, empathy* and *tangibles.*

In addition, a concrete model of provision quality which includes five openings was suggested by Zeithaml et al. (1988). In their exemplary opening one is about directors' perceptions to client's expectations on service quality.

Managers consider they know what clients really need, but actually there exists openings.

Opening one is via clients' anticipated service and management perceptions of clients expectations.

Opening two is almost service quality integrities. Since at hand no definite method that managers can use to construe their perceptions into service quality standards, an opening is inevitable.

Opening three the dissimilarity among service quality standards and the level of service distributed.

Opening four is the dissimilarity between service providers' service delivery and service providers' promises through outward infrastructures.

Opening five is the dissimilarity between predictable service and perceived service from users view. This abstract model is suitable in that it is easy for experts to understand service quality mechanisms.

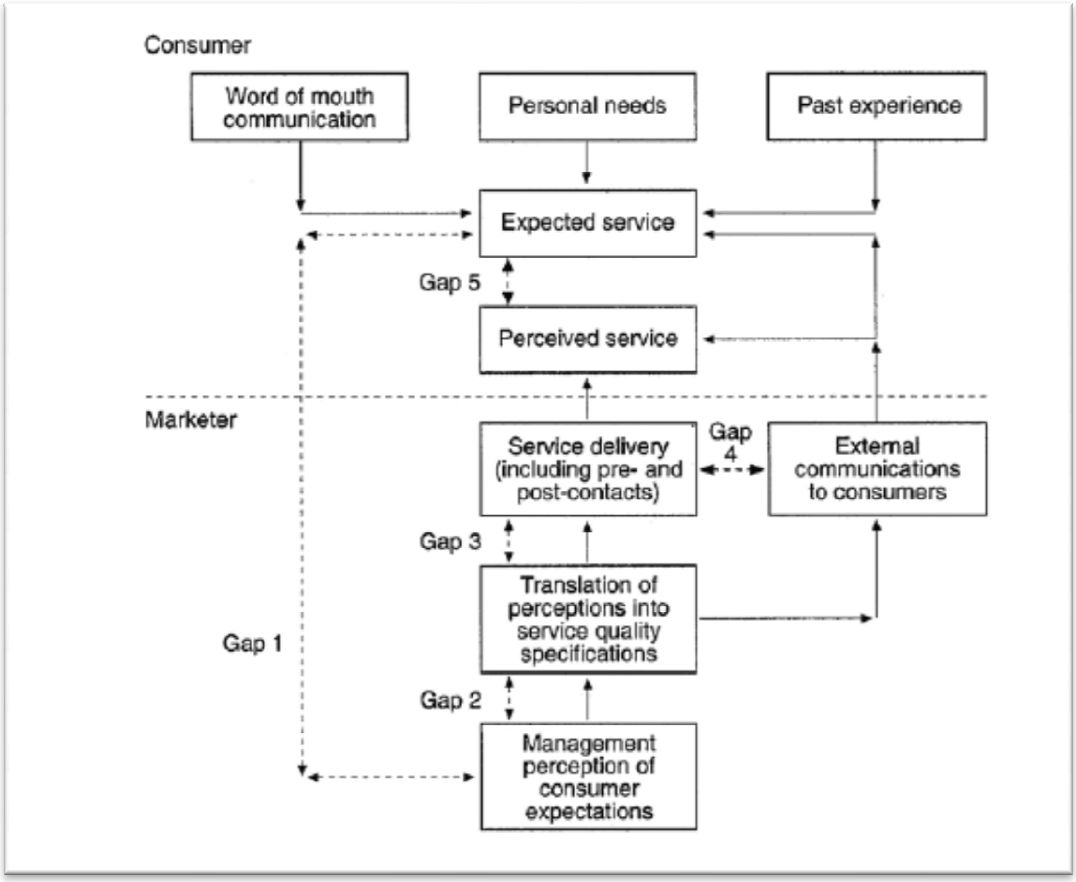


Figure 1: Service quality prototypical
Source: Parasuranum et al 1985 pg 44

2.1.1 Electronic Service Quality definition

Electronic service quality can be termed as client's opinions of the aftermath of the provision along with recapture opinions if a challenge has to occur, Collier & Carol (2006).

Zeithaml (2002) well defines the eservice quality as " degree to which an online tool accelerates current shopping, buying plus supplying", which had substantial impact on the businesses in the service sector. The definition emphases on meeting client's needs and requirements, and attempts to describe how the service carried can meet the company's prospects.

2.1.2 Electronic Service Quality Dimensions

By means of the development of eservice embracing in business sector, the importance of evaluating and observing eservice worth in the essential world has been acknowledged, and eservice quality is a vital area in research field. Specific educational researchers have been presently piloted to develop eservice quality Capacity. Most of the trainings in eservice quality take a mixture of old-fashioned service value magnitudes and web interface excellence proportions as the starting stage.

After merging and synthesizing the present concept of service quality and eservice quality, alleged eservice quality constructs comprises of the dimensions from both online firm' and clients' perspectives. These scopes are discussed below:

Simplicity of use

Simplicity of use is defined as how easy is for client to use website. Website must be designed for user simplicity of usage, comprising search, circumnavigating and usage. Simplicity of use is a significant factor in the incubative aspect of eservice quality. Simplicity of use has highly been rated in clients' eservice quality dimension, and it has been well-known by many researchers.

Web design

In real situation of eservice, clients' website is the core access to online firms and to a prosperous buying practice. The scarcity of design can effect in a bad brand of the site class to the clients, and user may stop the acquisition practice. Website is the preliminary point for clients to gain self-assurance. Web design can affect clients perceived company picture, and petition clients to conduct buying online products simply with good celestial direction-finding and useful info on the website. Website should offer suitable information and multiple chores to users.

Dependability

This is termed as the regularity of performance and reliability of a firm. Bestowing to some experimental situations, dependability is the most key aspect of eservice quality. In the real atmosphere, it is vibrant to ensure clients trust a firm and perform as expected. Dependability can make client know the credibility of the company as well.

System availability

Structure convenience refers to the true methodological purpose of the site. In eservice, the convenience makes users reachable to the online service offered by online firms, which can help users to have a noble image of online firms.

Privacy

Privacy is the point where by the site is free from attacks and client data is safe. This aspect grasps a significant position in eservice. User perceives vital risks in the essential environment of eservice restricting from the likelihood of incorrect use of their monetary data and individual data. End users apply virtual services because they offer simplicity and save time. But, online shoppers might terminate the usage of online services due to the fears about privacy and the safeguard of individual delicate material which may be sold to other people.

Study show that the figure of shoppers' purchases via the Internet increases, electronic merchants can increasingly obtain online buyers' private data such as demographic profiles or purchaser shopping behavior which can be conceded on to intruder. Some firm do not have an intention to defend their clients' data and information if they don't have idea of any obligation regarding the societal cost of privacy raids.

Nevertheless, many prosperous internet service providers have tailored their services and restructured the offered products to match single client' needs recognized through the users individual information.

Privacy hitches can get resolved through collaboration of law, code of conduct and markets which strengthen the surviving conventions about acquiescence of online service source to their

own privacy policy as stated on their online sites, letting user have governor over their individual evidence for their private remunerations such as currency and goods

Responsiveness

Openness is an effective usage of hitches and takings online. In eservice,

firm prompt service to users through online can make clients feel more contented during acquiring and continue buying without disturbance.

Security

Security perceptions, state to the capacity to guard alongside prospective coercions. However, in online settings, security is demarcated as capability of the online firm site to defend client information and their monetary transactions data from being pinched during diffusion. Perceived security measures pronounce the level to which an e-commerce website seems to be safe and capable to guard other information from possible threats. Since the development of internet services, security has become steadily evident as an acute issue. Optimistic electronic attacks fallouts to loss of business, name and customer trust.

Fram and Grady (1995) piloted a study dedicated on online buyers from an online client viewpoint. They recognized that most anxieties reduced into a pool of transaction issues such as lack of credit card security, vendors not wholly identified and a lack of payment substitutes. The findings stated that the unwillingness of undertaking business over the Internet" is the most critical obstacle that prevents online users from becoming online buyers. Security alarms in this context refer to users opinions is that online firm are not able to defend their users' transaction's info from being diverted during storage. These issues have a remarkable effect on individual decision to do business online. Research conclusions, have shown that users' behavioral target is to use an e-commerce websites which is innocently influenced by their perception about the level of safety control that website possess.

Empathy

Even nevertheless, nothing like straight human collaboration in the essential eservice process, some human links are convoluted in eservice, for example email message. Providing single

courtesy to express some empathy to clients. Reaction to clients should be mindful to clients' wishes and show understanding of clients' needs. In the practical atmosphere of eservice, empathy is significant in clients' perception of the eservice quality without one on one encounter.

Trust

Trust can be termed as the degree of assurance the client us in exchange possibilities .E-trust is demarcated as the notch of assurance user need in online exchange passage. Moreover Mayer (1995) states it as "the readiness of an event being susceptible to activities of an extra party centered on the prospects that others will make a particular action significant to the expectation .In the framework of the Internet users, confidence toward online business and firm is regularly viewed as a key aspect of commerce growth, online victory and effectiveness. It is important to note that trust in eservice is a function of other eservice quality dimensions such as the dependability of the site, privacy and securities issues, order fulfillment and the status of the firm. Users trust to online firms is serious for online companies' victory.

Online clients do not only need to trust online merchants, they again want to trust the web itself as a business intermediate. Consequently accumulating the responsiveness of how to implement system designs that adventure the user's semantic appreciative of electronic commercial process can be of help in technique in building trust in electronic environments. Zuboff (1988), in her study concentrated on information technology convention, she found without trust in a new technology would affect its usage. In point of fact, trust is a significant factor influencing user behavior and it determines the success of technologies embracing such as ecommerce.

Agreeing to Palvia, (2009) belief has a noteworthy effect on participation intention through usage approach. In the circumstance of B2C ecommerce, building trust among two parties is crucial for firm which chooses to do internet business. Numerous studies establish that consumer trust is expressively related to hope in the ecommerce web site itself and perceived site quality is absolutely interrelated to trust in the web site.

Loyalty Clients devotion is a profoundly obligation to re-buy or re-utilize a chosen product and services constantly in the prospect, again initiating repetitive same variety-set obtaining in spite of situational effects and marketing determinations have the prospective to cause swapping behavior. Consequently, Anderson and Srinivasan (2003) have demarcated electronic-loyalty, in

short, as a very good desirable approach of a client regulated for an e-transaction, leading to tedious online shopping.

Because to expanded circulation and the services done through the Internet; the extent of rivalry among online service sources have escalated progressively permitting the online client authority. Continuous improvement in web dynamic technology, provision and product value aids to get and maintain online client devotion which is acute to the victory of any online service provider in current online economical world.

In the state like Kenya, presently we have a deficiency of research on issues that affect client loyalty. Studies specify that devoted clients considered product quality and repute, strengthening the concept that online consumers in developing countries prefer companies that assure their privacy. Saha and Zhao (2005: 20), relate old-fashioned service quality scopes with online service quality scopes among the researchers who worked on both of them the results of their comparison are shown in table below

Dimensions	Online service quality	Service quality	Authors
Reliability	Y Y		Parasuraman et al., (1985) Zeithaml et al., (1988,2002) Yang and Fang (2004) Liu and Arnett (2000) Riel et al. (2001)
Responsiveness	Y Y		Parasuraman et al. (1985) Zeithaml et al. (1988, 2002) Kaynama and Black (2000) Delone and Mclean (2003) Yang and Fang (2004) Arnett (2000) Riel et al. (2001)
Competence		Y	Parasuraman et al. (1985)
Accessibility	Y Y Kaynama and Black (2000)		Parasuraman et al. (1985)
Courtesy		Y	Parasuraman et al. (1985)
Communication		Y	Parasuraman et al. (1985)
Credibility		Y	Parasuraman et al. (1985)
Security		Y	Parasuraman et al. (1985)
Understanding the customer		Y	Parasuraman et al. (1985)
Tangibles		Y	Parasuraman et al. (1985) Zeithaml et al. (1988)
Content		Y	Kaynama et al. (2000)
Accuracy		Y	
Easy of use	Y	Y	Yang and Fang (2004)
Timeliness		Y	Zeithaml et al. (2002)
Efficiency	Y		Zeithaml et al. (2002)

Dimensions	Online service quality	Service quality	Authors
Fulfillment	Y		Zeithaml et al. (2002)
Privacy	Y		Zeithaml et al. (2002)
Compensation and contact	Y		Zeithaml et al. (2002)
Navigation	Y		Kaynama and Black (2000)
Page design and presentation	Y		Kaynama and Black (2000)
Background	Y		Kaynama and Black (2000)
Personalization and customization	Y		Kaynama and Black (2000)
Assurance	Y Y		Zeithaml et al. (1988) Delone and Mclean (2003) Arnett (2000) Riel et al. (2001)
Empathy	Y Y		Zeithaml et al. (1988) Delone and Mclean (2003) Arnett (2000)

Table1 : Summary of Service Quality Factors,
Source Saha and Zhao (2005: 20),

2.2 State of Practice

2.2.1 Eservice

E-services or Electronic services refer to services delivered over the Internet. Electronic service comprises the provision division of electronic tailing, clients care, and overhaul provision. A description of Eservice constitutes 3 important modules - service source, service receiver and the means of service delivery. It is vital to note that online business is the core passage of e-service distribution while other classic frequencies include telephone, call focal point, public shops, mobile phone and television. In eservices the there is no direct conduct between service source and users. In this case the site become the ‘moment of reality’ between customer and the organization offering the facilities. As a consequence the user-interface governs to high degree how the service is brought to the client.

Eservice can also be defined as combined and online founded user facilities, motivated by the user and incorporated with correlated legislative user provision procedures and technologies with the aim of reinforcement user service source affiliation.

E-Service is characterized by the fact that the service is reachable with automated networks and the service is used by a person using the Internet. Example of eservices include :e-commerce, e-banking services, e-financial advice , hotel e-booking services, railway e-ticket services, packaged tour e-services, real estate e-services and food take-away e-services,

2.2.2 Characteristics of e-services

E-Services are characterized by four unique features which make them different from other service technologies. The eservices are: intangible, delicate and heterogeneous. The eservices characteristic cannot be dignified using old-style quality assurance methods since these procedures are for produces that are physical, consistent and independent from their production and usage. It is only at the time of service happenstance, the e-services takes importance to the client, and it's at this time the service meeting that users' decisions to purchase are strengthened. This means that it's the act of the provision through the service meeting that substances most to the client hence, the features of services convert to be outweigh limitation to their success and letdown in a market. Below are eservices characteristics

Intangibility

Intangibility is one of the very most significant of e-service attribute. Mainly it is the source for untying services from long-lasting goods. It's frequently quoted as the foundation of the other traits. Intangible is not to have enough material qualities, and so not able to be moved or seen and services writings emphasizes intangibility as a defining service attribute. Facilities are intangible because their values are done through actions, benefits or fulfillments.

E-services are intangible, there are not long lasting goods. After the collaboration with the source the client do not own ownership because of its intangibility. Intangibility does not spread out to the service only, but most of the times the definite value of the provision.

Through that respect e-services are insubstantial clients look for symbols of provision quality. They will come up with assumptions on the where about of the quality of a service from the position, users, tools, communication, symbols and prices that they get. The service source has to accomplish these abstract features to make the service more actual. This intangible nature makes

e-services tough to amount, control and validate – not only for the service provider, but again for the service client. Beginning with the awareness of the e-service client, an e-service is a way to an end; the value of the service is indirect and only expresses when the client is able to realize the conclusion the service .

.Heterogeneousity

Electronic services remain extremely flexible, as the service routine measure are influenced by mostly on who offers it and when and where it is sourced at .It is the range to which variants of something are possible or that all occurrences are identical to each other.

The environment of electronic services and service chance meeting creates a condition ripe for inconsistency in quality that can rapidly become invalid. The diverse characteristic of services requires strong procedure and control in order to deliver dependable enactment. Competency is a main provider to changeability..

• **Perishability**

Electronic facilities are fragile in that the provision source cannot retrieve, store, reuse or correct the service after it's in assembly. It spreads the worth of the service and that letdown to come up with adequate quality service capacity, availability, or endurance can result in lost opportunities for providers.

Electronic services only have cost when they are produced and consumed, so they are always fragile. Perishability is often primarily the concern of the service provider because the shopper only becomes aware of the issue when there is scarce supply and they have to wait for service.

• **Inseparability**

Electronic service invention and consumption is intimate, it's concurrently created and consumed, e-services send the value provided on request. Its evident that no e-service if there are no shoppers. Inseparability is related to the delivery perspective of e-service. Recognized service enactment and the quality of the service are formed during the distribution process.

2.2.3 E-services Benefits

Adoption of E-services offers benefits to both consumers and the service providers. In particular these benefits include: gain access to a greater base customer, enlargement market, entry of reducing the barrier to new markets and price of acquiring new users, alternate communication

medium to trades, collective services to client, increasing perceived firm picture and acquiring viable niche and potential for increasing clients understanding.

2.2.4 Effects of E-Service Characteristics on Service quality management

The eservice attribute have consequences when it comes to service quality. Sometimes it can be made more exciting for users to estimate service quality than to assess product quality. They also mean that service quality assessments include wanted results, but also the service delivery process. The intangibility and heterogeneity of services make it rough for the source to constantly deliver the anticipated level of services.

Unique characteristics of e-services make users identical players in e-service delivery. This point makes managing e-service quality more challenging than measuring durable good quality because, fairly literally, there is nothing to measure – except the fulfillment of the shopper with the service after they consume it.

For the reason that of the sole nature of e-services, e-service management requires particular organizational competences, activities, and approaches. Limitations placed upon e-service providers by the traits of e-services means that e-service source can no longer afford to emphasis largely upon technology. Instead they must now emphasis on the provision of clients and ruminate the quality of the services they offer.

The enactment of an electronic service is assured by the limitations of its features, and then by the resources and competences of the source systems it subsumes, then by the chosen management process, tracked by the recognized service delivery, and lastly by the ingestion of the e-service.

2.2.5 Models of E-Service Quality Dimensions

Good service excellence measurably increases a company's overall productivity, its cost premium, and its perceived and actual marketplace stake. But, most societies have narrow appreciative of the way to design a friendly highlighted web site that can aid them come up with better business affairs and to safe guard the victory of their e-Business idea. Most firms would like to know more closely how the secure is their web sites so that it can influence them to do purchasing decisions of web client. Different researches have provided different models that show relationships between web quality web factors and adoption of ecommerce. Smith and

Merchant (2001) believe that e-commerce corporations depend on users visiting their web, buying their products, and, more significantly, becoming repeated clients.

2.2.5.1 E-service quality model

Santos, (2003) presented a model that offers a complete structure of e-service quality and its determining factor. The author by using focus group interviews and insight from previous researches found a concrete model of e-service quality. The model anticipated that electronic service feature entails of a nurtured aspect and an active aspect. The incubated aspect and the active dimension each consist of five related overlapping determinants. Clients often divide service worth scope into frequent sub-scopes (Carman, 1990), and a ranked conceptualization of service superiority is appropriate. The outcomes from the focus cluster research understood that the active scopes are as vital as the incubative dimensions. The sequence of determinants in both the incubative dimensions and active dimensions are presented according to their importance as they emerged from the focus groups, either explicitly or implicitly.

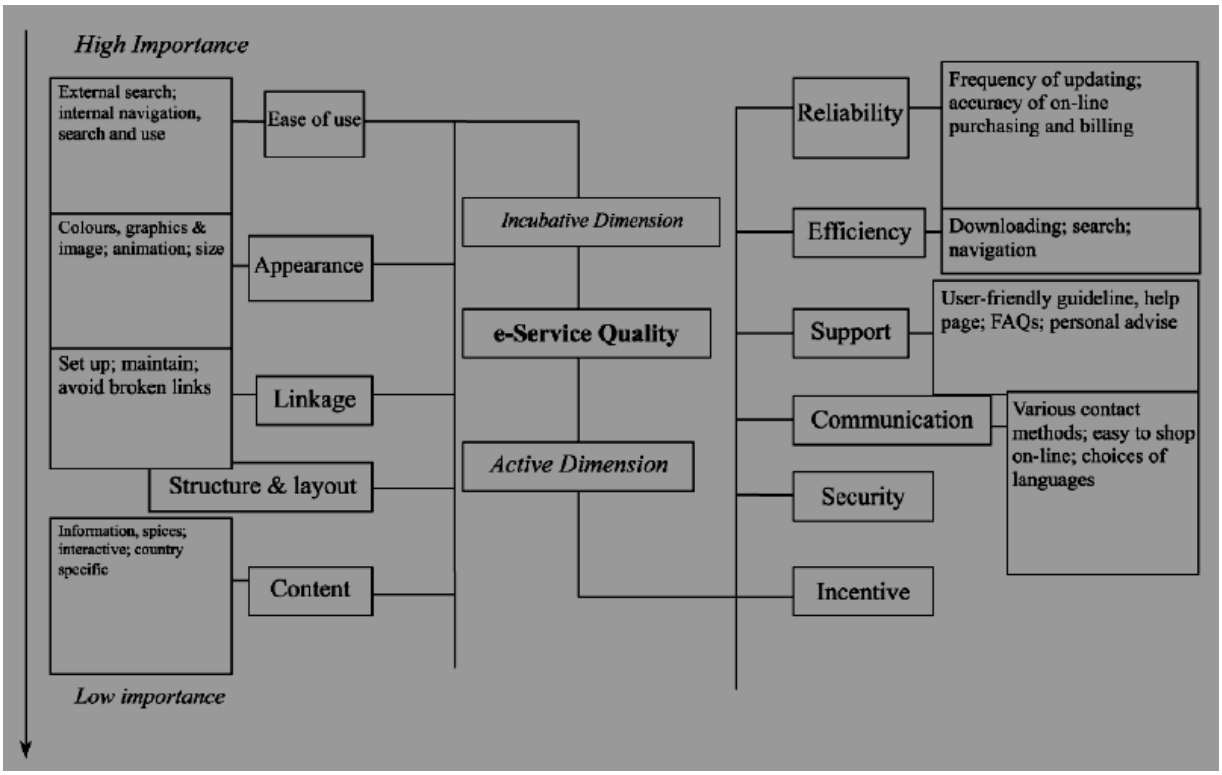


Figure 2: E-Service Quality Model
Source: Santos, 2003

The incubative scopes are defined as the good design of tool to access, how abilities are used to provide clients who can easily view, understandability, and user-friendly. The mainstream of essentials is the incubative dimensions can be advanced before a web site is propelled. The active dimensions are defined as the high supportive, very fast, and an alert upkeep that a web site can provide to its users. Dynamic magnitudes must be reached consistently all through the period that a web site stays up. It can increase client retention and encourage positive word-of-mouth referral (Santos, 2003). A more pragmatic grounded of the events that emphasis precisely on the online interface is WebQual (Loiacono et al., 2002). By interviewing both users and website designers and using undergraduates to rate e-commerce sites, Loiacono et al. identified 12 scopes of website eminence which they claimed have adequate discriminate validity: informational fit-to-task, user friendly, etrust, responsiveness, easy to undertand, in-built operations, innovativeness, online fullness and better than alternative medium.

2.2.5.2 Theoretical Model for Carrying a Quality Web to Fulfill the Clients model

Cox and Dale (2002) detail the KQF and then put onward a categorization of the KQFs in the form of a theoretical model for conveying a site to satisfy user requests. Then they have grouped these KQFs into four classifications that each ordering communicates among other part of the web site practice and serves to expand user fulfillment to the point that the client returns back.

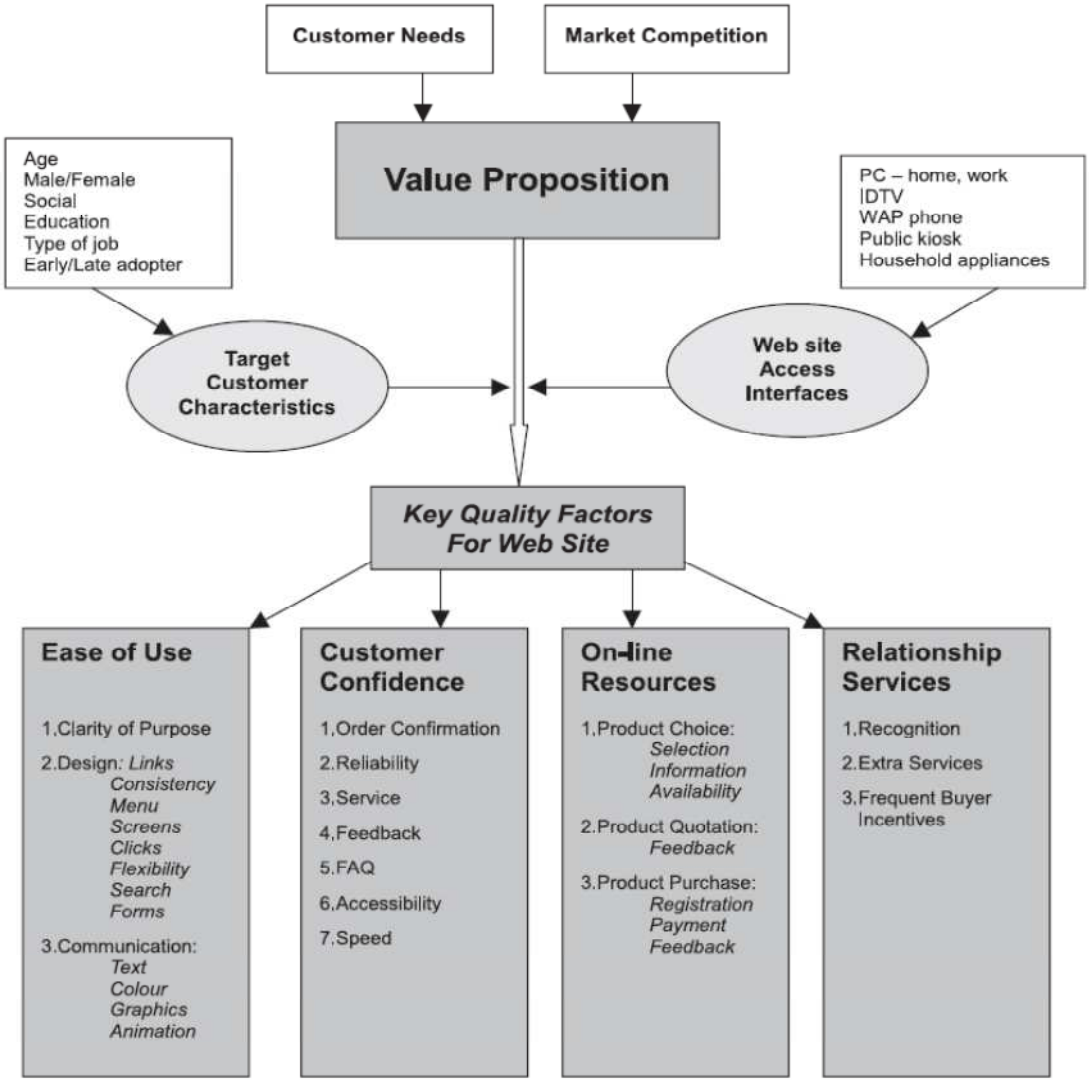


Figure 3: Theoretical Model for Delivering a Quality Site to Satisfy the Client
(Source: Cox and Dale, 2002)

In that model, this can be well-thought-out as a guide, that how to express the value intention of the site before determining which KQFs are suitable in the assessment.

2.2.5.3 SERVQUAL model

Revised SERVQUAL model was developed by Lee and Lin (2004), who extent items to inaugurate scope of e-service quality via web design, dependability, just in time, and trust. The connection among the e-service quality scopes, overall service quality and shopper fulfillment is hypothesized as shown in the figure.

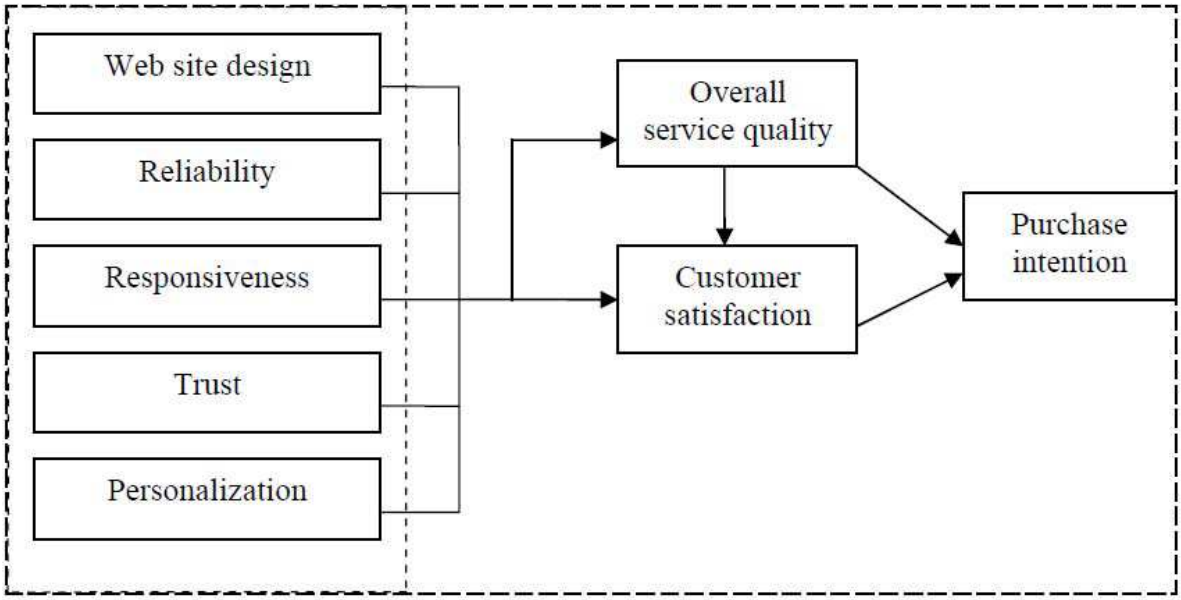


Figure 4: The Relationship among Complete Service Quality, Customer Fulfillment, and Purchase Intension

(Source: Lee and Lin, 2004)

2.2.5.4.The Framework to Evaluating E-Commerce Web Quality model

Liu and Arnett (2000) derive a structure from IS and marketing literature. They identify four major factors that are acute to site achievement in e-commerce: quality of information, use of system, playfulness and system quality design. They use below structure to share web site quality to user perceived usefulness and intention to revisit the site. The framework is developed by TAM, SERVQUAL and the notion of trust Lin and Lu, 2001; Chen et al.,2003),

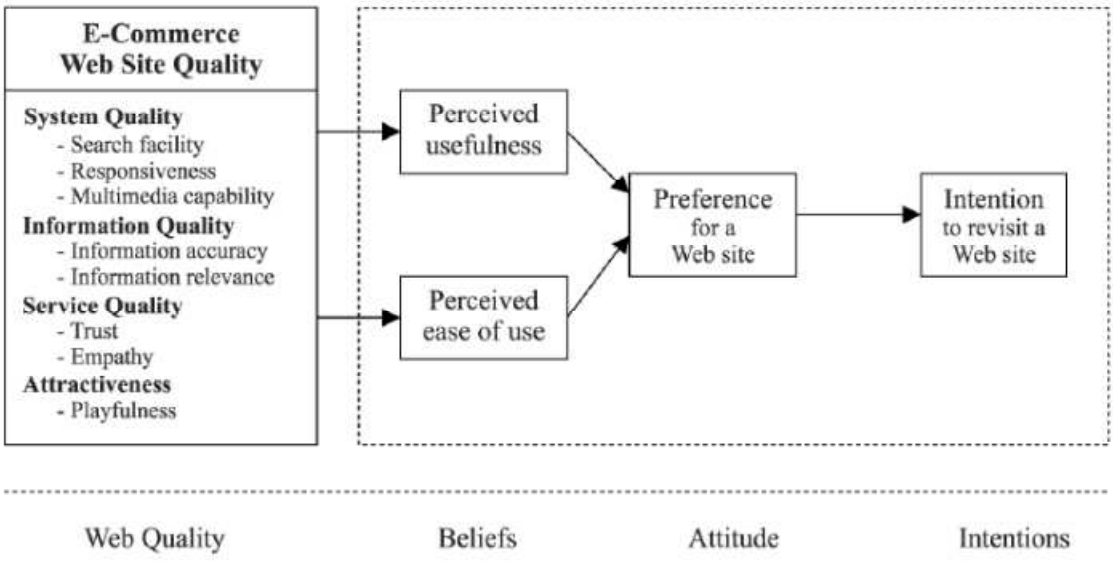


Figure 5: A Structure for Estimating E-Commerce Web Site Quality
Source: Cao, Zhang, and Seydel, 2005

2.2.5.5. Electronic Tail Quality as Higher Order Factor Model

The latest classical in this section and also which is considered as one of the most completed models in this part is Wolfinbarger and Gilly model (2003). Wolfinbarger and Gilly (2003) offers vital contentions aimed at the dimension of handlers opinions of online acquisition know-how. Their analysis suggests that findings regarding the safety of an online site are most intensely related to website design aspects and reliability. In their model 14 items chosen, measure the 4 factors at an international level. Most amazing is concealment, which is not vital in quality forecast, except among the most regular users and clients of the website.

Their finding shows that suggestions of privacy are originally found from other related quality factors, frequently website design, when buyers are fresh to a website. They claim that it also, appears primarily user judge security/privacy based on essentials such as the specialized design of the site, as well as key functionality of a site, and firm image. Their electronic TailQ measure can be linked to the SERVQUAL scale .According to writers, the principal variance among them is that user perceptions of employees play a crucial role in SERVQUAL, then the firm is an entity in the focus of eTailQ. Website design is a new element that strongly affects user awareness of their shopping experience. Reliability can be termed in SERVQUAL to entails consistency of performance and reliability. In divergence, contentment in eTailQ emphases on

the correctness of the portrayal of the product on the website, the precision of the direction and delivery, attributes to sellers. Privacy/security does play part into play in SERVQUAL, although belief is one attribute of their promise aspect. Due to fears such as personality theft and spam, e-tail users are particularly thoughtful to privacy and security in ways that contrast from how user develops trust in individual service employees (Wolfinbarger and Golly, 2003).

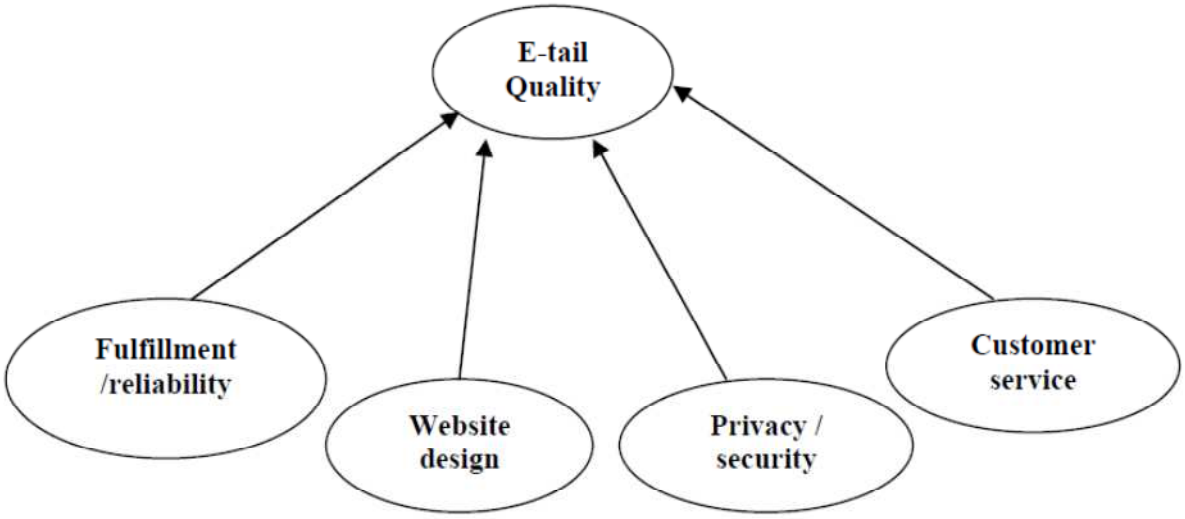


Figure 6: Modeling E-Tail Quality as a Higher Orer Factor

Source: "Wolfinbarger and Gilly,2003"

Four factors mined in Wolfinbarger and Gilly model are demarcated as follow:

Satisfaction/dependability is the correct demonstration and depiction of an artifact so that what clients receive is what they assumed they ordered, and distribution of the right product within the time setting given.

Website design involves the modules of the client know-how at the website (except for users and client services), plus direction-finding, info, processing orders, appropriate personalization and selecting product.

Customer service is welcoming, cooperative, keen provision that returns to clients request rapidly.

2.3Critique and Causes of Problem /Benefit

Electronic commerce can be well termed as any corporate movement that practices ICT-based submissions to permit the buying and selling of products and services and to enable the contract of transaction events among organizations and user. This comprises using ICTs to noble the movement of products among traders and clients, e.g. marketing and ordering among others. Zwasse's (1996) justification of electronic commerce is embraced relating online commerce as: "the participation of transaction concepts maintaining good business interactions and conducting transactions by means of Internet-based technology".

Three main classifications comprising e-commerce: (B2B) and (B2C).B2B submissions comprise electronic markets, which are scenes that bring organized transaction to exchange goods and services as well as other options of price e.g. handling of online payments, exchange of documents, etc. B2B also comprises email among industrialists to exchange price and product information, companies using the Internet to check for supplier prices and order goods, building firm web sites, and banks and financial service firms adopting online payment systems and practices. B2C applications recurrently overlap with B2B applications, particularly in areas like electronic retailing markets. Other examples contain firm emerging web sites to showcase their products, setting up virtual malls to compromise a wide range of user goods, enabling clients to purchase goods online, and creating online customer service centers. B2G entails government agencies publicizing their procurement requirements online and having firm bid for the procurement contract electronically.

2.3.1 Technology Acceptance Model

Evidence Systems academics have prepared substantial struggles in building concepts to examine and forecast the contributing factor of information technology recognition. Midst theories, TAM appears the most widely recognized among IS researchers due to the productivity of recent pragmatic support. Bestowing to the TRA ideal, theories affect attitudes, which repeatedly lead to intentions, then direct or make behaviors. The Technology Acceptance Model , advanced by Davis from the theoretical basis of TRA, get a feel for this approval behavior relationship to an IT user recognition. Thus, the resolution of TAM is to clarify and IT prediction, acceptance and empower design changes before users have knowledge with a system (Davis, 1989).

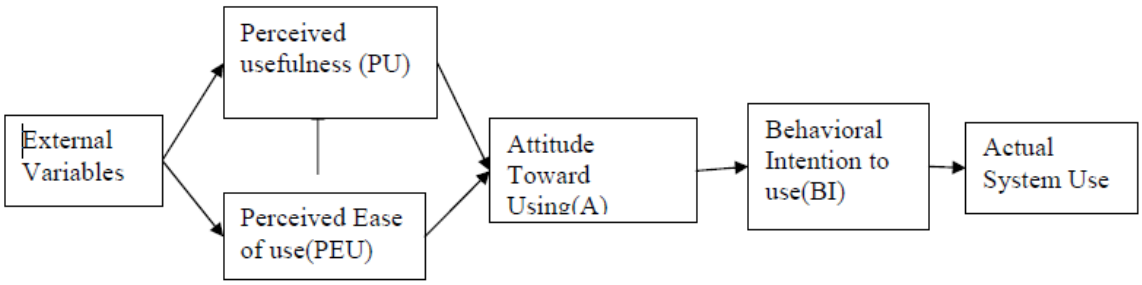


Figure 7 : Technology Acceptance Model
Source: Davis: 1989

As demonstrated in figure 8 above, TAM forecasts user recognition founded on some definite behavioral views: perceived simplicity of use (PEU) and perceived usefulness (PU), which determine a personal behavior intention (BI) to use an electronic technology. Furthermore, the effects of outside variables on behavioral intent are interceded by the above mentioned major factors. Imperative researchers studied the TAM's inclusive expounding power and measurement legitimacy in dissimilar settings categorized by constructs and type of IS. Formerly the model was applied in scrutinizing online mails, word processing and graphics and motion software. TAM has been overextended its submission to different types of IS, such as spreadsheets, internet and E-commerce. Built on pragmatic confirmation, the approach construct was left out from the original TAM model because it did not fully intervene the effect of PU on behavioral intention (BI). In addition, numerous studies have overlooked the consequence of PEU/PU on the attitude (A) and/or BI. As a substitute, the emphasis is on the effect of PEU and/or PU directly on the actual system usage. Since this paper emphasis on users authentic usage on e-Commerce, it adapts the TAM model by sinking some paradigms as shown in the below.

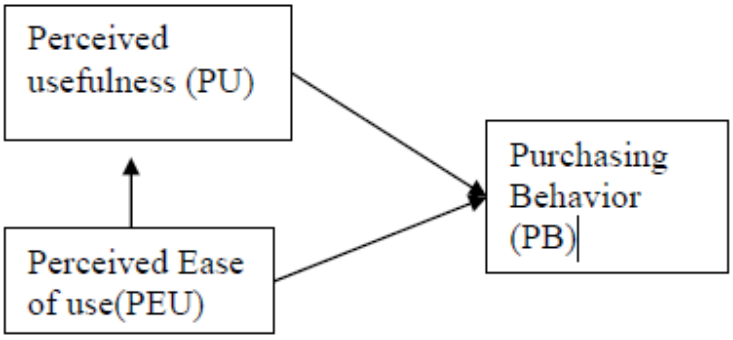


Figure 8 : TAM Model on E-commerce Adoption,
Source:Jinsoo Park, 2001

Users can contact thousands of online sites and obtain anything from basic commodities such as outfit to files and policies without going to a shop. Be acquainted with that client are likely to want products/services carried soonest, many e-Commerce sites offer next-day delivery. Moreover, e-Commerce shoppers can view directories of diverse products/services and recite widespread information describing their features and performance while information acquisition was wasting time and not easy prior to the outset of the Internet. Therefore, the TAM on E-commerce adoption distinguish simplicity of information search, simplicity of ordering (any time, any location), simplicity of using customer service, and overall simplicity of use as consumers' perceived simplicity of use (PEU). Moreover, the model measure observes usefulness (PU) by the following elements: cutting cost, saving time, infinite selection of products and services.

2.3.2 The Alleged Risk Prototypical on the Adoption of e-Commerce

This model was established by Bauer (1960) in gratitude that shopper behavior to be seen as Taking risk. The model tries to categorize numerous kinds of perceived risk in the context of the Customer's purchase behavior as discussed below.

Perceived Risk with Product/Service

Perceived risk has been acknowledged as a core determining factor to shopper behavior that might be a crucial cause influencing the transformation of browsers to real shoppers. This ideal indicates to perceived risk as the complete amount of vagueness perceived by a customer in a particular purchase condition. Perceived Risk with Product/Service comprises the risk resultant from poor presentation, fitness hazards, and budgets.Roselius (1971) recognized 4 kinds of damages that related to the risk type: time and hazard and ego and money respectively. Jacoby and Kaplan (1972) categorized shoppers' perceived risk into the below 5 types of risk namely as

Risk Type	Definition
Financial Risk	The risk that the product will not be worth the financial price
Psychological Risk	The risk that the product will lower the consumer's self image.
Physical Risk	The risk to the buyer's or other's safety in using products.
Functional Risk	The risk that the product will not perform as expected.

When clients are not able to directly touch product/service in the electronic market shoppers may be uncomfortable when they are doing transactions with online merchants. For example, product/service delivered to users may not do well as required. Furthermore, users are also required to bear the cost such as shipment and control, when exchanging the product/service. Amongst the many types of risk, *functional loss* and *monetary loss* are recognized as risk types linked to product/service that may disappoint clients from doing businesses online. Furthermore, when purchased products/services don't work, the consumer may delay accessibility, and struggle to make it replaced. Although time is non-monetary struggle and varies among persons, it is significant take time as the cost that shoppers must pay for products/services. Thus, the model branded *loss of time* as an additional risk with the product/service. Once products are acquiruired over the web, users can find a product/service of similar or higher quality at a lower price. Hence the model recognized another seeming risk, *opportunity loss*, which is the risk that can occur by getting one action to consumer will fail from doing something else he/she would really prefer to do. Therefore, perceived risk with product/service (PRP) can be defined as the overall amount of uncertainty or anxiety perceived by a user in a particular product/service when the consumer purchase online.

2.3.4Perceived Risk in the Framework of Online Business

Researchers indicate that users assurance can be upgraded by accumulating the transparency of the business process in possession to a lowest personal info necessary from the shopper, and by making clear the permitted eminence of any evidence given. Bhimani (1996) portrays out the extortions to the agreement of e-Commerce that could patent from such prohibited activities such as keyword sniffing, overhearing, data alteration, spoofing and repudiation. Therefore, the fundamental requirement for electronic business that fulfills the below mentioned security issues as important: confirmation, endorsement, readiness, privacy, data uprightness, nonrepudiation, and selective request services.Swaminathan et al. (1999) declare that user assess online vendors before they enter into online transaction and therefore the trait of the vendors play a vital role in enabling the transaction. Rose et al. (1999) identified the practical obstructions and their related prices and restrictions specific to B2C e-commerce, which consist of deferments of download, limits of the user interface, and insufficient measurement of Web application achievement, security weakness, and deficiency of Internet principles. Furthermore, it's said that if individuals

do their business with dishonest merchants or if sensitive information is stored on unsafe databases, security fears exist even where data is perfectly safe.

Therefore, we describe perceived risk in the context of online transaction as a possible corporate risk that user can face when uncovered to electronic means of doing exchange.

Lastly, 4 types of PRT are renowned as follows: confidentiality, verification, non-repudiation, and universal perceived risk on online business. Constructed on the users' perceived risk, a speculative model that assumes perceived risks as the backgrounds to the adoption of e-Commerce representation as shown below.

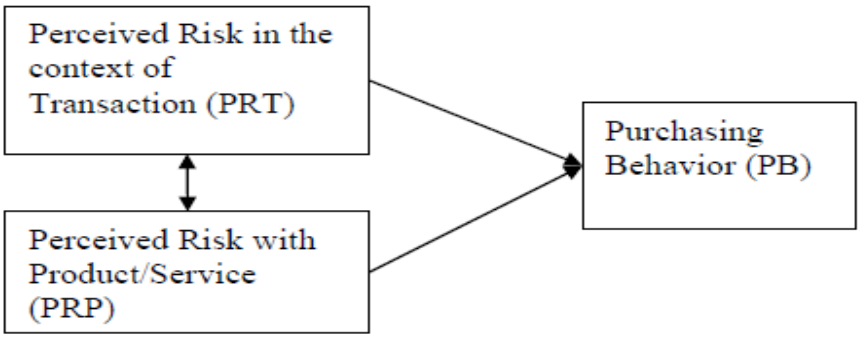


Figure 9: Perceived Risk Model on the Adoption of e-Commerce,
Source: Bauer (1960)

2.3.5 E-Commerce Adoption Model (e-CAM)

Numerous aspects positively or negatively affect users' choice to embrace e-Commerce as acquiring earnings of products/services. The model is developed from each of the constructs from TAM Model on E-commerce Adoption on the Acceptance of e-Perceived Risk in the Commerce. e-CAM suggests that Perceived Simplicity of use, Perceived usefulness, Perceived Risk with Product/Service and Perceived Risk in the context of Operation will inspire on the users adoption of e-Commerce. The connections established the model also has care from prior theoretical and empirical work

in the preceding research.

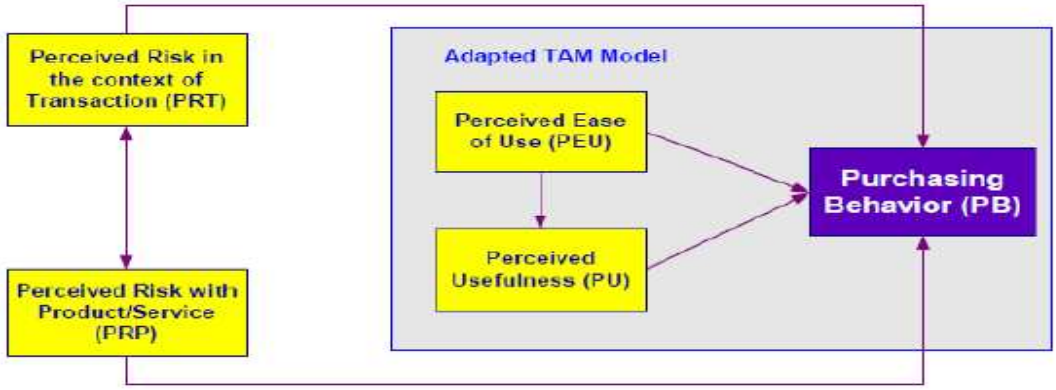


Figure 10: E-Commerce Adoption Model (e-CAM),
Source: Joongho Ahn, 2001

2.3.6 Electronic commerce Benefits

Electronic commerce suggests numerous assistances over old-fashioned commerce. It offers the user with more options by enhanced incorporating the strategy and invention processes with the distribution of products and services (Richardson, 2007). The client appreciates a wider choice of products and services at reduced prices, as well as certain suitability .Due to the cooperative nature of e-commerce, an improvement for corporate produces an advantage for users and vice versa, thus backing up the growth and development of this innovative means of interchange.

Ecommerce reduces the time and cost of spending and grows the market from local and regional markets to national and international markets with minimal capital cost, tools, space, or staff. It authorize for just-in-time fabrication and payments. Big business reduces overhead and record through improved automation and reduced dispensation times (Al-Kibsi et al., 2001). Evans and Wurster, (1997) disclose the e-exchange permits users and dealers to decrease the transaction expenditures considerably and empowers information to touch more users without sacrificing the productivity of the content.

Through computerized material, e-commerce empowers production reliability, historical database scheme, marketing and payment data. Major vital item is that due to computerization, it quickens increased client openness; including on-request delivery. Online credit card transactions can be valuable, simplifying the administrative problem on the users service responding information-based enquiries. Billing can be done automatically, directed and scrutinized. E-commerce has at present fruitfully invaded territories of middlemen (Gates, 1995).

The use of ICT for the restructuring of internal admin transactions, communications, and interrelationships and for easy information flow and transfer offers considerable opportunity to increase the company capacity. Intranets authority diverse departments to share databases of common users and to pool skills and capacities of their members for problem solving. Furthermore, e-commerce develops email passages and provides a virtual interactive environment where the sellers and consumers can exchange facts and products. (Zhang and Tang, 2006) believe that e-commerce expands the infrastructures midst partners beside a value series and bids an integrated business model by which firm can be more approachable and springy to the dynamic markets and user requirements .

2.3.7 Challenges of e-commerce

Electronic commerce normally, it's mentioned as a motivator, but beside is also referred as a task and a peril in itself (Ndou: 2004). Paré (2001) argues that the request and admittance to technologies such as the open Internet and the World Wide Web are unlikely to reduce business costs adequately to reduce the obstacles to the entry into worldwide markets by firms in fast moving countries in technology. Shown in table below outlines the challenges and benefit of electronic commerce.

PERCEIVED BENEFITS	**PERCEIVED CHALLANGES**
Prospective growth in sales	Attack by virus
Shop hours (24/7/365)	Goin faster
Ability to rise firm profits	Porno
Create alertness	Um mature content
Allow small target gap	Hacking
Clients loyalty	Privacy
Good client relationship opportunities	Reliable network
Many revenue streams	cost
Decrease costs	Lack of regulatory laws
Look for variety	Political change
Free working environment	Lack skilled resources

Table 3: Electronic commerce benefits and challenges
(Source: Paul Kipkech)

2.4Technological Advancement in E-services

This section of research its goal to review relevant gathered knowledge and available literature on factors affecting adoption of ecommerce in developing countries and technological advancement in eservices. Several similar field of study have been revised and prepared built on context and integrative assessments classes. An indication about IT and Internet activity in developing regions are existing followed by a dialogue about adopter attribute and significant elements that have an extraordinary influence on embracing an emerging technology

2.4.1 Firsthand Technology Adopter Characteristics

Rogers (2003) agrees that, the following of a new-fangled expertise is normally younger, has good returns and applicable level of education and more volatile to new modernization than the non-adopter. Rogers (2003) also specifies that state-of-the-art persons have optimistic outlooks, capability to converse with others and a high level of collective contribution. He established that adopters are fresher and energetic, well-off, typically have a good level of training, and hold more social mobility than those who embrace improvements later.

Socio-monetary variables such as *age*, *education*, *income* and even *occupation* expressively supported to clarify variances between the adopters and non-adopters. It was establishes that the persons proposed to use the Internet primary in Australia were young males, with good monetary and revenue . Choudrie and Dwivedi (2005) also deep-rooted that the monetary status for personal guidance and their capability to peculiar and then use an expertise. Besides, Rogers (2003) disclosed that demographic characteristics show a vital role in forecasting acceptance and that monetary status is highly interrelated to preliminary agreement.

2.4.2 Diffusion of Innovation

According to Rogers (2003), diffusion is an improvement which is passed through certain passages for some time among the associates of a system.Rogers (2003) categorized 5 major traits of an innovation that shake users' rate of acceptance as follows:

Comparative advantage: the level to which an improvement is perceived as superior than the impression it supersedes. Comparative advantage is mostly referred to in terms of cutting cost, energy, period and minimizes inconvenience in using and embracing an innovation. When it comes to electronic service context, users may observe a reasonable advantage in accessing the Internet and expenditure its website services from any location and at any time. Internet services present other remunerations for the firm in addition to granting unlimited access. They

potentially underwrite to valuable raises of the firm; enhance the quality and swiftness of user services; create competitive niche; entice shoppers and encourage users interaction; support core transaction functions that are integral to business strategy; and come up with new business potentials by increasing market presence and enabling online purchasing.

Compatibility: the level in where by an innovation seems as being reliable with the standing proficiencies and the wishes of prospective adopters. Electronic service, mainly in field of e-commerce, studies have exposed that compatibility has a significant impact on the purpose to adopt. As a result, it is projected that people who perceive e-services to be compatible with their experience, culture and language will be more likely to adopt.

Complexity: the degree and level to where by an improvement is seems as challenging to comprehend and expenditure. A good number of studies realized that complexity or simplicity of use has an important effect on users' intentions to use or to adopt a new technology. When it comes to online framework perceived simplicity of use was found to affect e-service embracing, portraying the importance of the role of the simplicity of use variable on adoption of e-services.

4. *Observability*: This degree and level where by the results of an innovation are noticeable to others. An e-service setting, observability can be observed by computing ones acquaintance about the e-service and its gain. This knowledge could be gained by using public media such as newspapers among others. If this familiarity is easy to get and share among individuals and e-service benefits are apparent, embracing should follow. Therefore, it is apparent that observability has an effect on the embracing of e-service as a new technology. Rogers (2003) in the other hand suggested improvements with more profits, observability, trialability, compatibility, and less complexity will be adopted more faster than other innovations.

2.4.3 Diffusion of Innovation Theory

Diffusion theory whose proponent is Everett Rogers is described as generalizations concerning the typical range of innovations inside a societal system. Rogerres (1995) states transmission as the mean where by an innovation is passed over certain passages in a period of time among the associates of a system. Diffusion study institute claims the circumstances which increase or decrease the chances that a new respectable idea and product will be adopted by followers of a particular values. Diffusion of improvement belief predicts that media as well as interpersonal contacts provide data and influence outlook and judgment. Studying how

innovation occurs as a result, Rogers (1995) claims that it consists of 4 phases: invention, diffusion (or communication) through the system, time and consequences. The statistics flows via networks. The nature of networks and the opinion leaders' play in them determine the likelihood that the innovation will be embraced. Innovation diffusion research has wriggled to expound the variables that affect how and why users adopt a new information medium/ICT, such as the Internet. Opinion leaders exert encouragement on audience behavior via their individual details, but more intermediaries called change agents and gatekeepers are also included in the process of diffusion. 5 adopter categories are: Knowledge – one becomes alert of an improvement and has some know-how of how it works; Persuasion –one forms a promising or negative attitude toward the innovation; Decision – one absorbs in events that lead to a choice to adopt or reject the innovation; Implementation –one sets an innovation into use; Confirmation – one gets the outcome of an innovation decision made. The most prominent feature of diffusion belief is that, most of the followers of a system, the innovation-decision hang on heavily on the innovation-decisions of the other members of the system. The improvement-verdict is made via a cost-benefit analysis where the core impediment is uncertainty. Kenyan will embrace revolution if they believe it will and boost their utility. So they must belief that the innovation may return some relative advantage to the idea it supersedes. Again, on consideration of monetary value, clients decide which move to take improvement would disrupt other operational facets of their day to day life. Is it well-suited with existing practices and morals? Is it hard to practice? The freshness and unfamiliarity of an origination infuse the cost-benefit analysis with a great dose of vagueness. Its good however, does it work well? Will it really break? If I adopt it, will people think I'm like weird? Since people are on average threat-averse, the improbability will often result in a postponement of the decision until further evidence can be composed. But the key is that this is not the case for every person. Each character's innovation-decision is largely framed by personal attribute and this diversity is what makes diffusion possible. Diffusion specialists divide the bell-shaped curve to show 5 types of member innovativeness, where innovativeness is defined as the supreme unit to which a person is somewhat earlier in adopting new ideas than other members of a system. These are: 1) reformers, 2) early adopters 3) early majority 4) late majority 5) laggards. Figure below, gives a breakdown of how an innovation diffuses and is either adopted or rejected by people in a given society and the influencing factors. The model

focuses on 5 elements: (i) the traits of an innovation where it may affect its embracing; (ii) the decision-creation formula that occurs when persons consider embracing a new idea (iii) the trait of persons that false them to adopt an innovation; (iv) the magnitudes for personal and culture of embracing an innovation; and (v) email frequencies used in the embracing process (Rogerress, 1995).

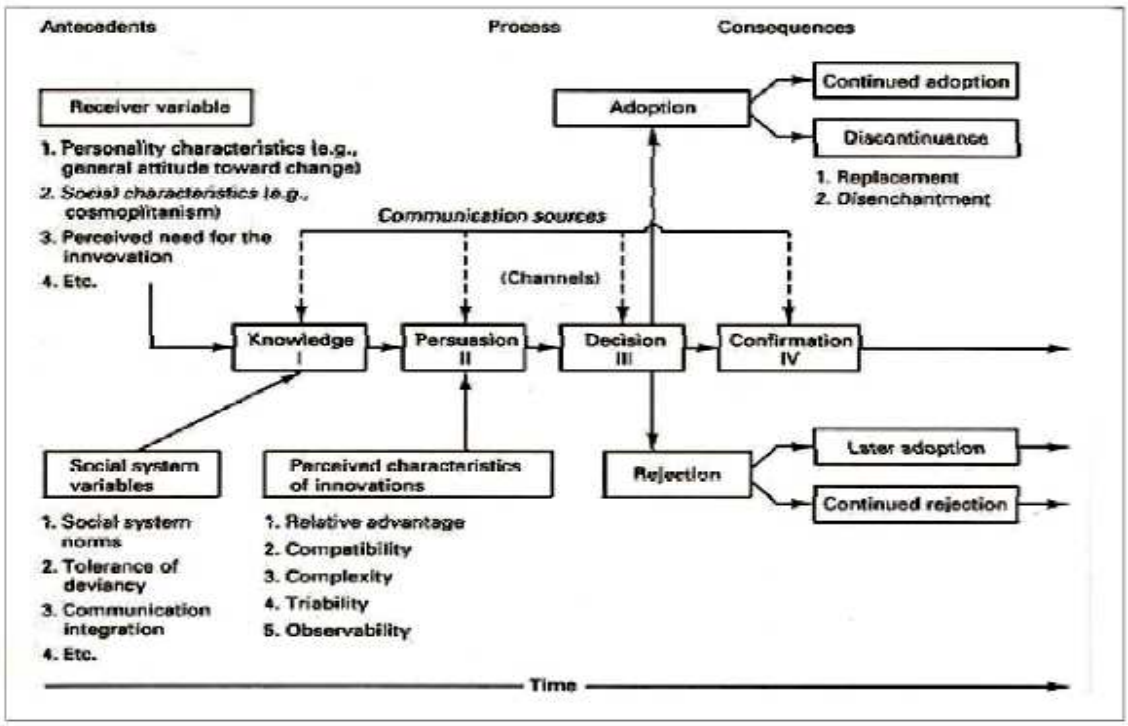


Figure 11: Diffusion of innovations source
Source: Rogers, E.M. 1995.

2.4.4 Perceived Risk

When the users intermingle with a firsthand know-how, normally they understand the practicality as well as the risks accompanying with the technology. TAM suggests that a growth in perceived usefulness the goal and aim is a bigger target to use. The paper spreads this proposal to infer that perceived risk influences the authentic usage of the Internet. While there are other factors affecting users adoption behavior on the Internet, perceived risk is an inhibitor to the patronage and buying of the Internet. In short, perceived risk may influence the attitude and behavior of users towards the Internet services

Perceived risk is termed as valuation of reservation concerning the distribution of potential outcomes and the uncontrollability of outcome accomplishment. In the case of purchasing on the Internet, it is possible that clients may perceive disclosing their credit card information as risky, and they have no control over this. Chellappa and Pavlou (2002) describe information security as the subjective probability with which clients believe that their personal information will not be seen, saved or manipulated during transit or storage by wrong parties, in a manner consistent with their projections. Indeed, uncertainties about how their financial information is treated by merchants will increase perceived risk associated with online business.

Perceived risk achievement comprises internet banking where clients assume greater risk transferring monies from their bank accounts to third party accounts, pay their service bills or make inter-bank loan repayments and so forth. A medium risk activity includes online reservation, which involves the disclosure of clients financial account or credit card information, but no transaction will take effect unless one appears physically before the service provider in order to confirm a purchase. On the other hand, information searching is considered as low risk activity since it does not involve any disclosure of financial related data. Therefore, clients who adopt high-risk activities for example, online banking can be considered as having higher risk tolerance than those who use the Internet for online reservation and information search.

2.4.5 Users' Level of Experience and Web site features

It's anticipated that a well-accomplished web portal may clue to better revenues and profitability associates to choosing the right shopper. That is, good thoughtful of users' prospects and perceived value is definitely essential. In principle, as users embrace a fresh technology, they tend to have a sophisticated level of expectations of that particular technology. For example, as users with more know how in information searching, the process becomes much easier the next time. As a result, information finding becomes shared and users tend to look for other new added-value services from a search browser. In other words, the higher the prospects, the higher the fulfillment judgments of a service. Ward and Lee (2003) found that more skilled Internet users tend to be more successful in information searching and are less-brand reliant, hence less loyal

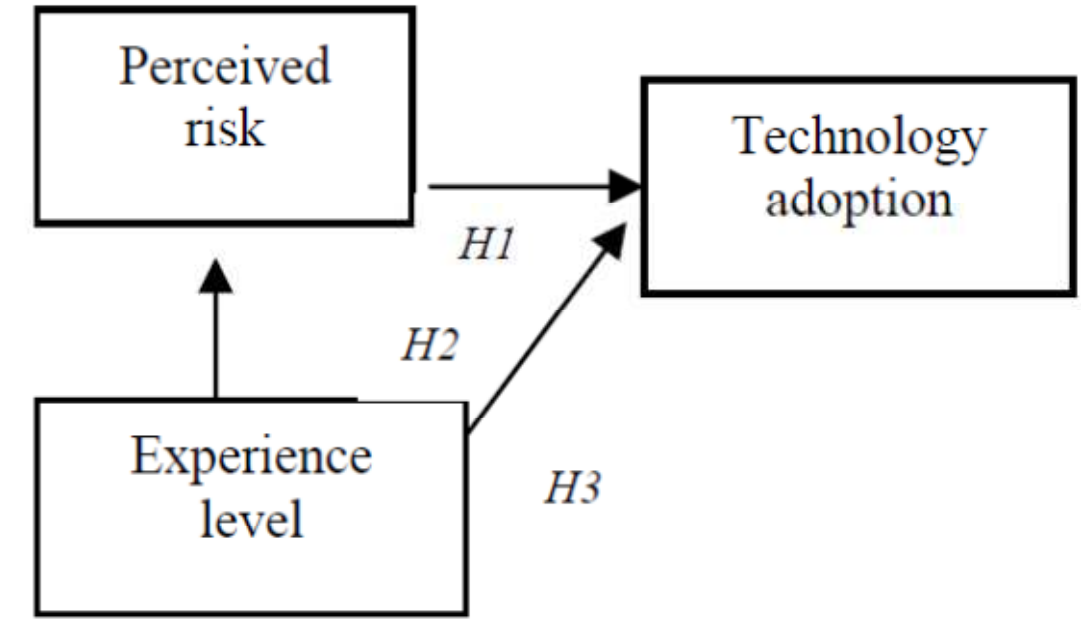


Figure 12: Relationship between Perceived risk, user experience level and Technology adoption.

2.4.6 E-Service Quality

Electronic service quality is a demonstration of the whole service distributed via the online service sources. Attribute like age, sex, salary, and know-how and technology tendency may affect the user perceptions and assessments of the service and user fulfillment. Therefore, service value on the online is part of the user shopping know how and affects the overall fulfillment level; therefore, numerous paper established that electronic service quality is highly associated to user fulfillment. There is vital relationship between electronic service quality and electronic service adoption. Service quality has been established to be significant input to client fulfillment. Client contentment is a short-term business measure, whereas service quality is an insolence formed by a long-term overall assessment of a performance. Although, service quality and client satisfaction are separate constructs but as per Parasuraman et al., (1988) there is a close link between them.

2.4.7 E-Commerce Adoption in Kenya

Although, there is no any credible statistics in the e-commerce context in Kenya, but most of the information indicates that the volume of e-commerce in Kenya is low. The penetration of e-commerce has been slow in comparison to the level of internet usage in Kenya. However the has

been rise in the the number of local online e-commerce stores of late. They include bidorbuy.com, Kalahari.co.ke, elimishaonline.com, MamaMikes.com and TtotallyToto.com among others.

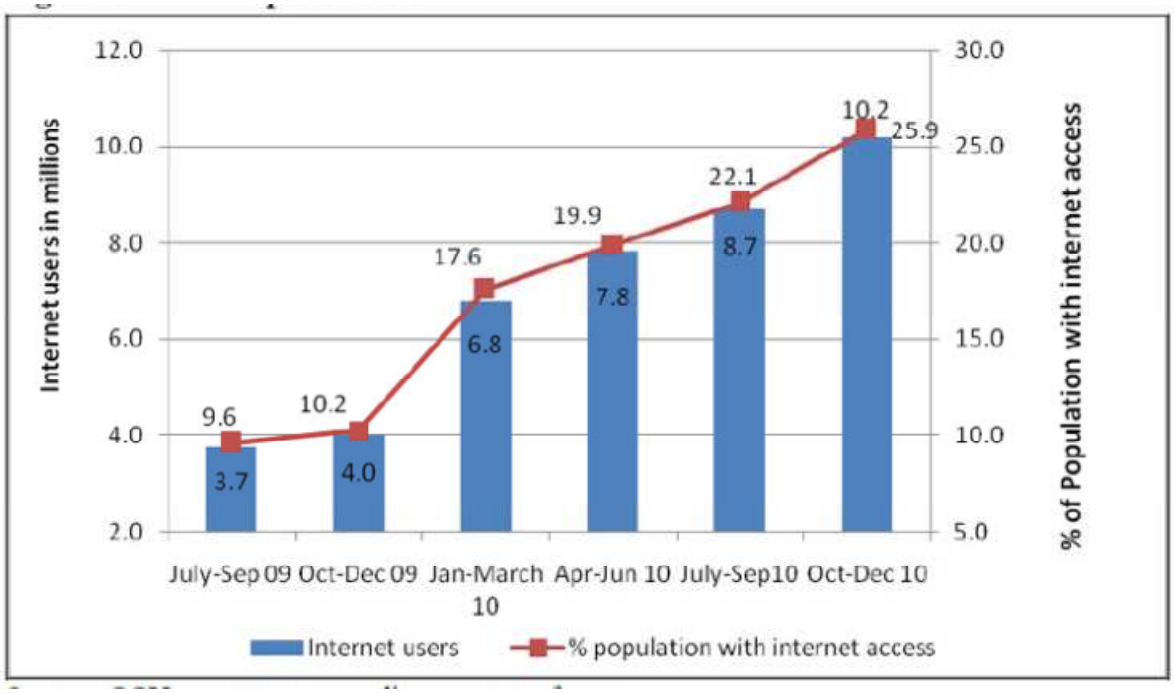


Chart 1: Internet penetration in Kenya,
(Source : CCK)

One of largest e-commerce player in Kenya has been Kalahari.co.ke. This is a site which is a spin-off of the highly popular South African online Kalahari.net. In other ward, Kalahari.co.ke mimics its South African forerunner with the exception of the Kenyan localization. Kalahari.co.ke is wide-ranging in that clients can buy journals, electronics, music, movies, toys, gifts and vouchers, all in local bills. The only limitation with Kalahari.co.ke is that it does not have online credit card payments (currently) so one has to use M-Pesa or direct bank deposits to make payments. Unfortunate it has announced it will be closing its operations in Kenya and Nigeria as from 24th October 2011 due to underperformance (http://www.kalahari.co.ke, 2011).

Hindrance cited to making e-commerce a reality in kenya has been lack of legislation, suitable Internet infrastructure and innovation, but with the introduction of the ICT Bill there will be positive impact on growth of the ecommerce.

Another major issue in realizing widespread e-commerce is that internet-based payment systems are still not fully established in Kenya and credit card penetration is somewhat limited.

Nevertheless, the mobile phone has become the preferred payment platform following the massive success of Safaricom's M-Pesa. Just resembling the rest of the globe worldwide the Kenyan government is in progress to be part of social economic rewards of electronic trading and commerce. It has taken alot of events to set up and advance electronic trading services and locations country wide. Obviously, e-commerce is something new in our country and in order to have success in e-commerce, there is need to do many researches in different contexts of e-commerce such as online retailing in order to utilize opportunities and avoid the risks.

2.4.8 E-service quality and E-Commerce Adoption in Kenya

In Kenya few researches have been conducted to define the special effects of eservice quality on adoption of ecommerce. Thomas Ogoro Ombati et al (2010) did a research to establish the association between web and service quality in the banking business. The study was carried via across-sectional analysis design which questioned respondents on e-banking facilities. The paper majorly instituted to clients of the banks within the CBD, Nairobi. The results of the study were clients of banks who use e-banking services are few(internet banking, mobile banking and ATM). The figures collected were evaluated by using frequency, percentage, means and the correlation analysis. The results shows that, safe services as the most substantial scope of eservice quality, followed by accessibility, efficiency , capacity to come up with accounts so that the client can perform business straightaway, exactitude of records, customer friendly, simplicity of use, complaint satisfaction, correct transactions and operation round the clock.The outcomes were consistent with research findings by Joyce Wangui Gikandi (2009). The objective of the study wore to scrutinize the factors prompting the adoption and efficiency of e-banking in retail banking in Kenya. Various future challenges of e-banking embracing renowned in the existing research comprise security of the internet and client's legal related issues alongside technical issues .From the findings, security of the internet was acknowledged as a very significant future encounter in electronic banking while user trust, privacy and awareness are being accepted as challenges of great reputation. Both readings demonstrate that we have a strong connection flanked by web service quality and embracing of ecommerce in Kenya. However there is other non-quality of service factors of importance which need to be researched. They include customer awareness, spread of ICT usage, internet access cost, lack of legislation, internet infrastructure and spread of computers.

2.5 Conceptual Framework

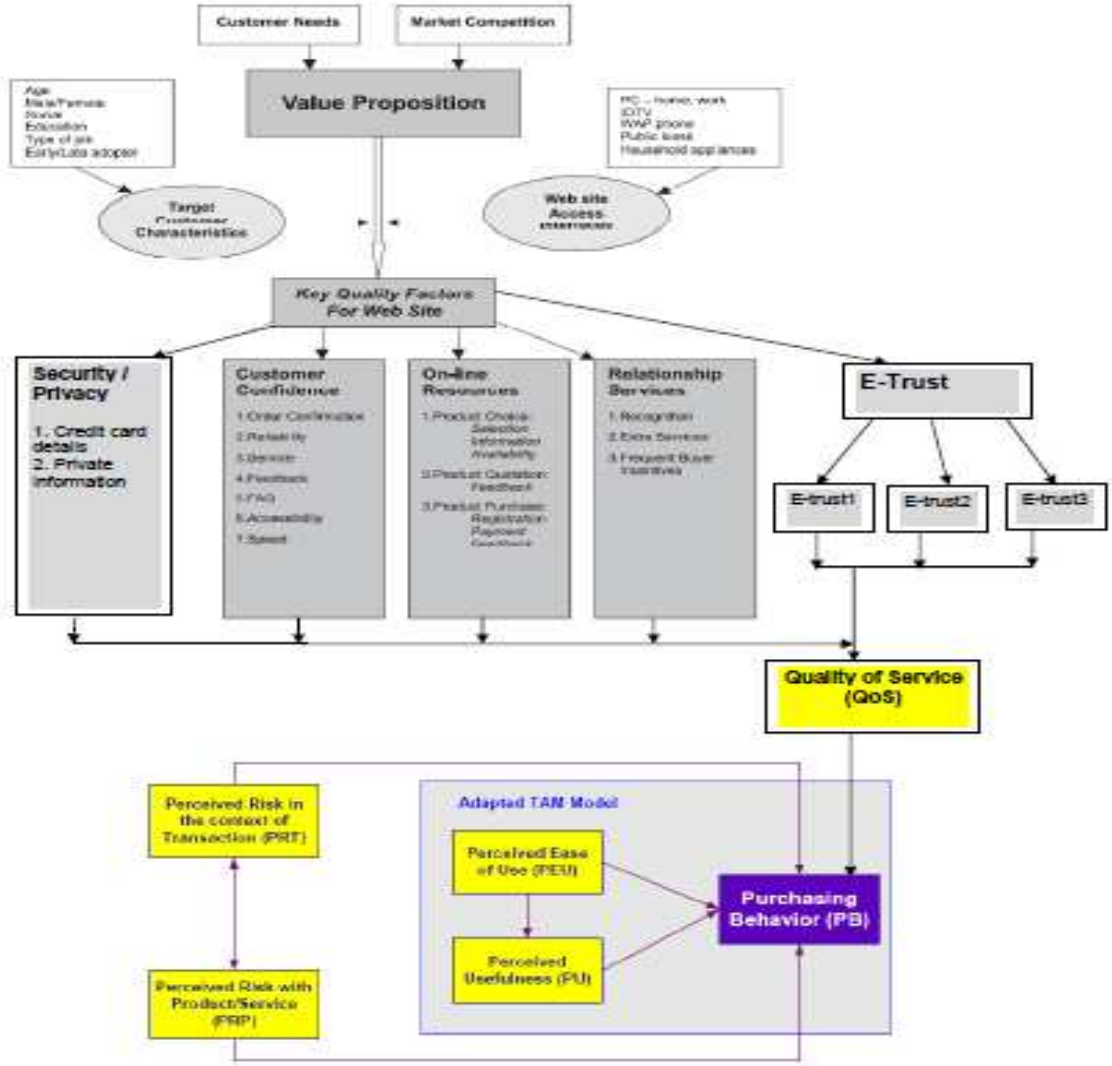
This part of the research provide a conceptual framework coupled with theoretical overview by explaining the key factors, variables, and the relationships among theories in directive to give a better accommodation of the research. The aim of the thesis was to discover out the extent to which user perceived web quality of service affects adoption of eservice technologies in perspective of Kenyan online consumers. Based on review in the previous section, it was mentioned that quality, user perception and user fulfillment are conceptually distinct but closely related structurally. At the same time, endless growth of competition in the online market shows that thoughtful of user as an important issue in marketing. So, current firm have shifted their attentions from products and sales to clients oriented marketing in order to survive in such a highly competitive world. Again, there is a combined force to recognize better the issue of online quality since with user experience; expectations of online transaction are increasing. In addition, having user satisfied primarily depends on the stability between user prospects and proficiencies with the products and services. Because clients have increasing predictions, it's compulsory for businesses to endlessly improve their quality standards and hence, user' experiences with the organization. Firm offer quality to fulfill their users and create positive perception toward their services. As a website is part of the linking in a firm and its clients, it is obvious that it should show the quality efforts that are in place all through the organization. Besides, there is another reason why firms should provide high quality Websites to its clients: there is no human contact through sites. The interface via the Internet between a company and clients is always through technology. This means that the "moment of truth" between a company and a client is the website. Although, companies may try to emulate human behavior through technology, the interaction remains different because some phases of human interaction cannot be replaced with technology of today, e.g. courtesy, user-friendly,, care, commitment, flexibility and cleanliness. Shortage of such aspects of human partnership which are normally delivered to user through quality will have to be rewarded by a better performance on other quality factors or by excellent enactment on "new" specific Web quality factors. Moreover, a site should show the significance suggestion and report if it is trying to fulfill the client needs to ensure frequent visits from the user in the hope of gaining customer loyalty. The outcome should be a mutual footing between the objective sought by the website and the clients goals leading to a pleasant experience on the

part of the user. In literature review, different website quality and ecommerce adoption models have been discussed. It is clear that in most cases, there exist a link between quality of web service and adoption of ecommerce. This research was grounded on two models: *Conceptual Model for Delivering a Quality Web Site to satisfy the user* and *e-CAM*. The above models were integrated to create the research model. *The Theoretical Model for Delivering a Quality Web Siteto Satisfy the Customer* was used for evaluation of web service quality factors while the e-CAMmodel was used for evaluation of the ecommerce adoption factors. *The Theoretical Model for Delivering a Quality Web Site to Satisfy the user* identifies 4 KQF of the Web site: simplicity of use , customer confidence ,online resources and relationship .

Reason behind this selection is the fact that this model, from the researcher's point of view, is Considered as one of the most comprehensive models it attempts to measures the quality of websites for online retailing. Each of the four key quality factors of the model narrates to a dissimilar part of the web site involvement and enhances client satisfaction to the extent that the users will return.

Also put into the consideration by the model is target user characteristics such as gender, age, education level, job type and technology adoption stage .The type of web site access interface is also an input element of KQFs. The various web site access options Comprise of: personal computers (home or work), mobile phones or cyber cafés.Also in e-commerce context, quality of service is closely related to interpersonal trust. Trustworthy clients are reflected exceedingly appreciated and loyalty accredited to fulfillment with the quality of service. Further, many of antecedents of trust are common with website quality items, the relationship of e-trust with satisfaction and quality is also examined in this research. Therefore, Cox and Dale (2002) model, is extended to included e-trust, security and privacy as key quality factors. E-trust was incorporated since online transaction involves many uncertainties to the customers; trust is a situation for give-and-take. Trust has been initiated to be of significant for building and continuing long-term interactions. In the modified Cox and Dale(2002) model, ease of use is replaced with security/privacy factors. This is because Ease of Use's appearing still in e-CAM model. The inclusion of Security/Privacy is because these are two important dimensions of any viable eservice model.

The e-CAM model consists of four constructs: Perceived Simplicity of usage, Perceived usefulness, Perceived Risk with Product/Service (PRP) and Perceived Risk in the context of Transaction (PRT).



New extended and modified research model appears as shown in the figure above.

Figure 13: Research model

2.6 SUMMARY

Electronic services are contributing to rapidity, effectiveness, elasticity and innovation to their users. In most of the circumstances they are available round the clock and reachable from all corners of the world. Electronic services are in paperless form which thus has a zero rated ecological effect than old-style paper based public services. Electronic Service Quality Model Charter provides scale abilities and comparative estimate of e-services. It also supports making resolutions in civilizing the eminence of service and complete user fulfillment. The improvements in mobile devices technology have improved the functionality of mobile phones. This enabled growth of new submissions for mobile phones like: contacts management, email capabilities and Internet browsing. It also encourages possibility of the development of just-in-time services, or mobile services that literarily offer anytime and anywhere access to services like: mobile banking, mobile learning, and mobile commerce among others. As long as the cell phone has a broadband internet connection enabled. This allows users together update their skills or pay their bill while waiting in the airport for their flight, while waiting at the bus terminal for their bus or while commuting.

CHAPTER THREE

3.0RESEARCH METHODOLOGY

3.1 Research Design

This section offers contextual facts on how the research was conducted in terms of research method and techniques. The research method can be defined as set of rules, dependable and well-systematic ways to study the genuineness, to disclose the apathy, and to secure the solution (Khaki, 2000). This set up research design, population, area of study, illustration selection methods, data collection and analysis methods.

Research design is a strategy, the plan and structure of conducting the research idea. It's a Logical manner in which individuals or other units are compared and analyzed. A strategy is used to assembly the paper, to display how all of the main parts of the paper work together to try to address the central research question. Beri (2000) says that the research design must answer The research question. There exist different types of research designs whose choice depends on the nature of the research aim and goals. These research designs include descriptive, exploratory, explanatory, experimental, case study and correlational design. This research was founded on descriptive study. The high-quality of the research is to purpose and base on the nature of the research objectives which reveal that this is an expressive research. The main goal of descriptive research is to describe the data and characteristics about what is being done. Descriptive research is well practiced when a the person doing the research wants to gain a better understanding of a topic of study e.g. attitudes, opinions or habits of people. Therefore since the aim of this research was to get the best understanding to the extent and degree to which user perception on web quality of service affects adoption of e-service technologies, then the descriptive study is the most suitable to use in this context.

A large scale survey was applied to establish the impact perceived quality of service in online context on ecommerce adoption by Kenyan internet users. Further the research identified the none quality of service factors the influence the adoption of ecommerce in Kenya. The relevant data was collected and analyzed to verify the hypothesis of the research.

3.1.1 The target population

Population is collection of persons or items from which models are taken for measurement other ward it can be referred as a group of persons with a common understanding. In this research the target population was the Kenyan internet users. The users were selected based on diversity, representation, accessibility and knowledge. The study targeted online Kenyan users who use web portal various services such e-mails, news, social network, ticketing, shopping, banking and e-payments and web informational services. Internet users were requested to respond on their experience or their perception on various web quality and ecommerce adoption factors on web portals they have ever used. The web portals were also evaluated against a list of e-commerce features to determine if they meet the required ecommerce web site standards.

3.1.2 Sampling and sampling techniques

A sample is one of a number of things or one part of a whole, which can be examined to see what People like. Where period and budget permit, a researcher ought to take as big a sample as conceivable, since this would ensure the reliability of the results (Mugenda and Mugenda, 2003).Statistically, a small demonstrative sample will show the group from which it is drawn from. The larger the sample, the more correct it reflects the target group while the smaller the sample the bigger the sampling error (Mugenda and Mugenda, 2003). Sampling error is defined as the discrepancy between the sample characteristics and the population characteristics respectively. It is therefore imperative for a researcher to identify the minimum sample size which will give results within acceptable sampling error margin.

3.1.3 Sampling method selection:

Sampling method selection is used in a study and it depends on a number of related theoretical issues. Therefore it take note of the type of the study, the goal , and the time frame and financial plan given.

3.1.4 Probability sampling:

This sampling is majorly and commonly associated with survey-based research where by the, study needs to make proposals from the model about a residents to answer the research questions onto meet research objectives (Saunders et. al., 2003.

3.1.5 Non-probability sampling:

Look for a variety of substitute procedures based on researcher goals judgment (Saunders et. al., 2003). In non-probability sampling the collection of components for the sample is not necessarily made with the aim of being statistically representative of the population. Reasonably the researcher uses the subjective methods such as personal familiarity, convenience; expert judgment and soon to select the elements in the sample. According to Saha and Zhao (2005, p.33) refer to Samuel et. al., (2003), most of non-probability sampling approaches is as follow:

Convenience sampling:

This includes select sample linking who can give necessary information and who are more accessible to contribute in the study. Convenience samples enable the researcher to complete a large number of interviews cost effectively and quickly but they suffer from selection bias because of difference of target population.

Judgment sampling:

Sometimes researchers' verdict can be used to select sample element and it comprises for a specific aim. Group of people who have knowledge about particular problem can be selected as sample elements.

3.1.6 Data collection methods and procedure

Data was collected using a combination of data gathering methods. These included: pre-designed questionnaires and literature surveys, which involved reading books, journals and publications with relevant literature as well as web site evaluation.

3.1.7 Self-administered questionnaires

Respondents were required to log in and fill the questionnaires independently with little assistance from the researcher where applicable. A total of 134 closed ended questionnaires were administered to the online users. The specific reasons for choosing self- administered questionnaires included: first, the population of the study is educated and ICT literate enough to provide relevant answers to the questions. Secondly, the population was expected to provide their feedback on the practical experience on use of the web portal services. And lastly it is the cheapest and easiest method of collecting large amounts of data. The plaintiffs were asked to rate

their judgment using 5 point Likert scale stretching from 1 to 5 which denotes Strongly disagree and Strongly agree respectively for all independent variables and dependent variables.

The questionnaire consisted of the following parts:

• **Part one** collected general information about the respondents' gender, age, education level, internet usage experience, the regular sum of time spent on the Internet, and place of internet usage.

• **Part two** asked the respondents to provide their opinion on website quality factors including ease of use, availability, reliability, security, privacy, responsiveness, empathy and e-trust.

• **Part three** asked the respondents to provide their opinion on non-quality of service ecommerce adoption factors. These factors included: technology accessibility, perceivedusefulness, perceived risk with products/services, compatibility; and legal and legislation environment.

• **Part four** asked the respondents on online shopping frequency. The respondents were asked to whether they have shopped online, the number of times they shopped and the amount they have spent on the shopping.

This method was chosen due to the following advantages:

(i) Questionnaires are among the least expensive methods of collecting data.

(ii) Questionnaires have a wider reach. Questionnaires can be sent by post to respondents in far flung areas.

(iii) Questionnaires give the respondents a sense of anonymity and this encourages them to give more candid responses.

(iv) Questionnaires can be filled at the respondents' convenience and returned later.

The following are some of the limitations of self-administered questionnaires:

(i) The often take longer than other forms of data collection. Some respondents may take a long time before filling and/or returning the questionnaire.

(ii) Questionnaires are prone to ambiguities. The respondent may interpret the questions Contrarily from the way they were anticipated.

Pre-testing the questionnaire

The questionnaire were pre-tested before conducting the main interview to ensure that it serves the purpose for which it was intended to, there is no ambiguity in the questions and that all instructions to the respondent are clear. The following steps were for the pre-testing stage:

(i) Review the questionnaire with the supervisor.

(ii) Testing the questionnaire with a small number of respondents having similar features to those of the target group.

3.1.8 Literature surveys

A wide range of literature related to the research topic was reviewed; these resources included books, journals and publications with the relevant literature as well internet materials. This method of data collection was preferred because it gave the researcher an insight into what other researchers have written about the impact of web quality factors on online consumer perception toward usage of the eservices. Through this method, the researcher was able to relate the findings of the study to those of other related researchers undertaken

3.1.9 Evaluation of web portals against the E-commerce features

A list of web portals offering eservices or online shopping to Kenyan online consumers was identified. The web site features were identified and analyzed to determine if they meet the requirements for ecommerce web site.

3.1.10 Ethical considerations

Individual consent is the basis for one to participate in the study. No respondent was coerced into giving information. Respondents were assured that information will be treated with confidentiality in case there was need for that. Data collected was used specific for this research alone and would therefore not be revealed to any other party with need to carry out a similar study.

For mutual trust, user must first log in before answering the questionnaires for the purpose of identification of the researcher.

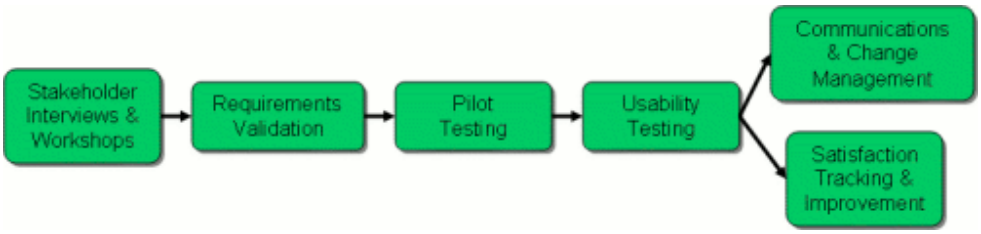
3.2. Methodology used

The methodologies talks about the frame that is used to strategies and regulate the process to develop an eservice. A wide diversity of such frameworks has developed over a long time, each with its own admitted potentials, strength and threats. A system methodology is not necessarily proper for use by all projects stakeholders. Each of the available methods is best appropriate to particular kinds of projects, based on various technical, structural and team deliberations.

3.2.1 Systematic, phased approach

Rockbridge improves and give necessary support to the the improvement of e-services via systematic phased approach that adventures and capitalize on long-run clients contentment and market recognition. Below find the 6 Phase Method which has a number of data collecting and consent building techniques, and while not all are appropriate in every step, they state the very best practice improvement process. The phases are in iterative.

SIX ITERATIVE PHASE PROCESS FOR DESIGNING AN E-SERVICE-



3.3 PROCESS MODELLING

A use case diagram provides a graphical view of the functionality provided by the website in terms of the actor (the user) and their goals with the website. E-services realize communication between users and public agencies. Clients getinformed about rules and regulations, about rights and requirements and several other societal issues. Users can also communicate to agencies in different predefined ways; e.g. issuingapplications for permits. The communication between user and public administrators isoften not only mediated through e-services but also through internal IT-systems. Integrated eservicemay also imply information exchange with IT-systems in other agencies or sometimessome other type of external organization. E-service in context is depicted in figure below.

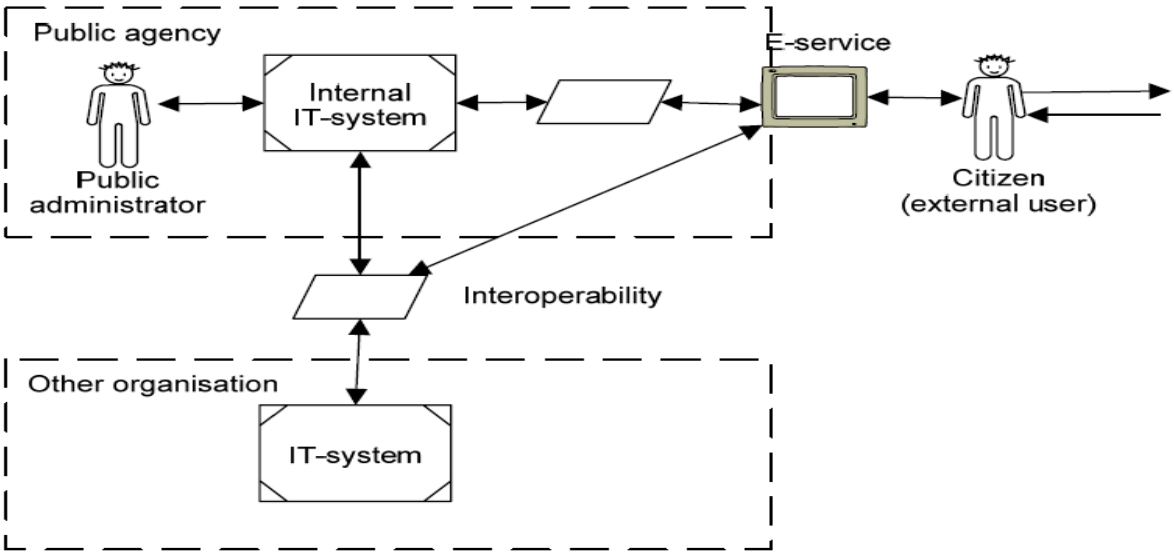


Figure 14:E-service in context

CHAPTER FOUR

4.0 Theoretical frame work

In this section, theoretical contributions are highlighted. As discussed at the beginning in chapter one, the major objective was todevelop a theoretical model and framework for this study, come up with web quality of service reference model eservices in Kenya with corepurpose of the study to investigate the extent to which web quality of service is perceived on how it influences the adoption of eservice technologies among Kenyans with specific focus on business to consumer ecommerce. It aims to establish the key quality factors (KQFs) of site quality and the range to which they affect adoption of eservices such as ecommerce. The research further identifies the other non-quality of service factors that influence positively or negatively the adoption of ecommerce. So as to get the best know how of how quality of service in eservices, 5 research questions have established and articulated every research question emphases on one abstract concepts i.e. reliability,security,privancy,responsiveness,communication and access. Based on this, the 5 major known service quality factor mentioned in this paper inquiry are chosen as variable in our frame of reference. The connection between how quality of service impact the service quality and thereby the overall service quality in eservices

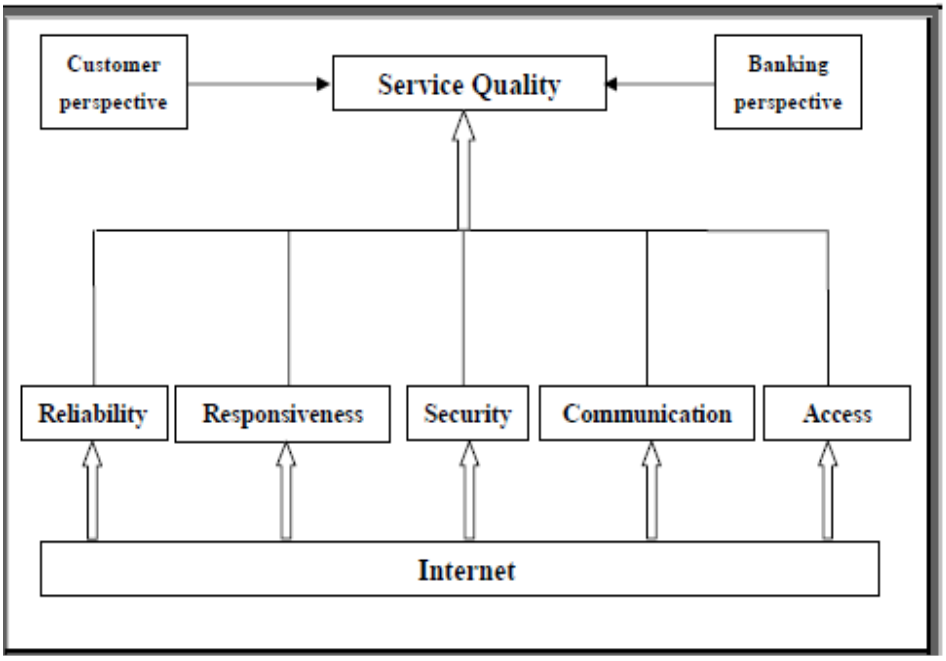


Figure 15:Theoretical frame work

4.1.1 Theoretical Contribution

The aim of the paper is to advance a better know how of how eservice affect the quality of eservice.to fill the purpose, we explored a lot of research papers. During this process 5 study questions have established and articulated each research question emphasizing on one speculative concepts i.e. reliability, security, privacy, openness, message and accessibility.

The paper has evidently celebrated access as the most significant dimension in services quality.it is identified in this study that internet leads eservice more convenience, time saving and easier to reach.

4.1.2 Respondents

In Kenya some researchers has been piloted to determine the effects of eservice quality on embracing of ecommerce. Thomas Ogoro Ombati et al (2010) did a research to launch the association amongst web knowhow and service quality in the banking institution in Kenya. The study was carried via across-sectional survey design which questioned respondents on e-banking facilities. The population of study mostly constituted of users of banks within the CBD, Nairobi. The respondents of the study were clients of banks using e-banking services (internet banking, mobile banking and ATM). The facts collected were examined by existence, percentage, means and correlation scrutiny. The outcomes depicts that, protected services as the most significant dimension of eservice quality, followed by convenience, efficiency, capability to come up with accounts so that the user can perform business with immediate effect, correctness of records, user friendliness, simplicity of use, complaint satisfactory, accurate transactions and operation in 24 /7hours.

4.1.3 Ranking of Web quality factors graphically

Ease and Simplicity of Use

From the outcome on the simplicity of web site usage, the study found that most of the online users are able to use web sites without much difficult. It is easy for them to look for information they need on the web site. Majority have no difficulty in navigating around website and filling online forms. The research further established that most web sites do not present products and services clearly and accurately. Also most of the web sites' web pages do not load quickly. There are web design issues which need to be improved in order to make ease of use fully acceptable

by internet users. Therefore it can be concluded that ease of use is not a challenge toward adoption of e-commerce by most Kenyan internet users.

Availability and Reliability

On availability and reliability of website, the study found that the websites offer confirmation to the users on completion of the service process, however majority of internet users are sure on whether service is delivered accurately and web sites run without problems. The most vital aspect of availability and reliability is whether websites' services are available whenever users need services. Therefore availability and reliability still has considerable impact on the user perception toward adoption of ecommerce.

Security and Privacy

From the findings on privacy and security of E-commerce, the study revealed that respondents believe websites do not provide secure services to online customers, they believe websites do not protect customers' credit card information in case of online shopping, they feel privacy of their online information is not protected on the website and they believe websites owners do not share customer information with others. This means a lot of need to be done by the service providers in terms of improving security status of these web sites. This will in turn win customer confidence toward adoption of ecommerce.

E-Trust

Findings on E-trust, indicate that majority of the online users are unwilling to give their credit card numbers and private information to online companies. They also do not trust services offered by websites and they will mind to pay in advance for product/services purchased online.

Responsiveness and Empathy

On responsiveness and empathy, the study found that online companies offer incentives to its regular online customers and online companies address customers' complaints friendly and promptly, The online users are however neutral on whether online companies provide prompt feedback to its customers and websites offer services requested by customers promptly.

4.1.4 The key web quality of service aspects that affect the embracing of ecommerce in Kenya

From the eservice quality that influences and encourage the embracing of the ecommerce in Kenya and neighboring, this research was able to identify the key quality factors and their

important variables/aspects. From the data analysis, eservice quality aspects related to E-trust, Security & Privacy; and Availability & reliability were in the top ten most important aspects. E-trust is the most important eservice quality factor, followed by security and privacy then availability and reliability

4.1.5 Demographic information on response

Demographic analysis was done using response statistics in order to determine relative frequencies and percentages of the demographic behavior of the respondents. This included gender, age, and education level, and internet usage experience, frequency of internet usage and place of internet access. The results are as presented below.

Table 4: Gender of the respondents

Gender	Frequency	Percent
Female	**66**	**49.25%**
Male	**68**	**50.75%**
Total	**134**	**100%**

From the findings on the respondent gender, the study found that most of the respondent as shown by 50.75% indicated that they were male whereas 49.25% of the respondent indicated that they were females, this is an indication that both genders were well represented in the study.

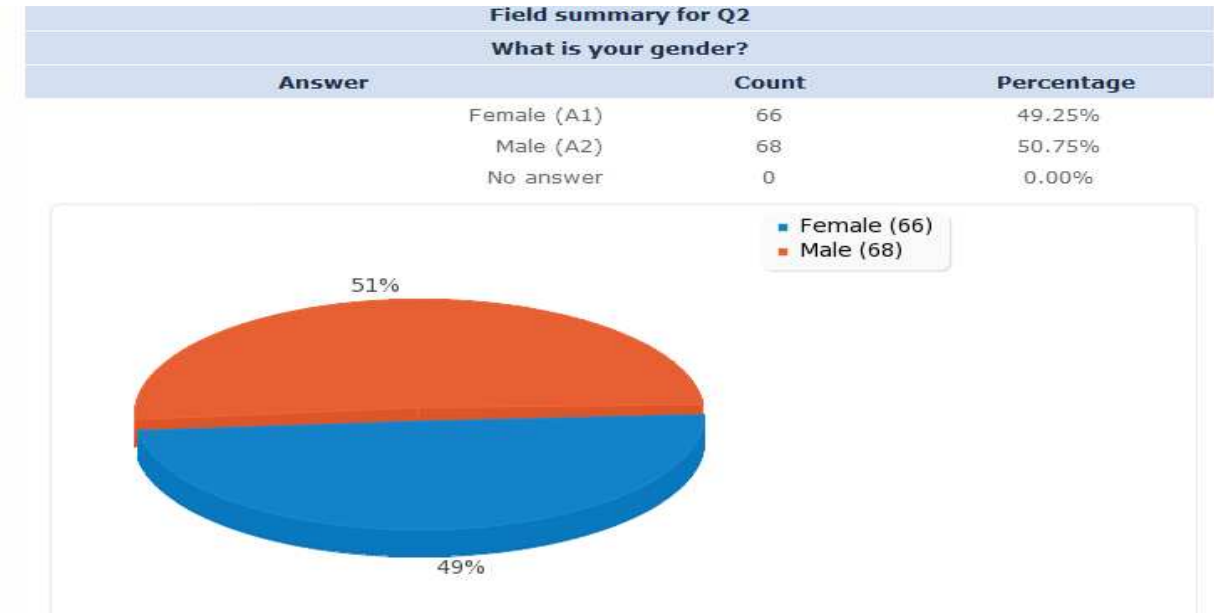
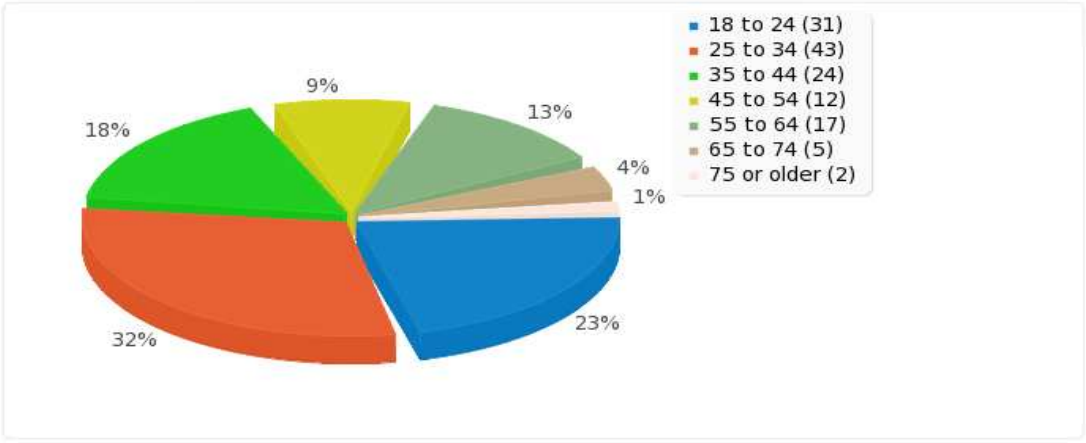


Chart 2: Distribution of respondent by age

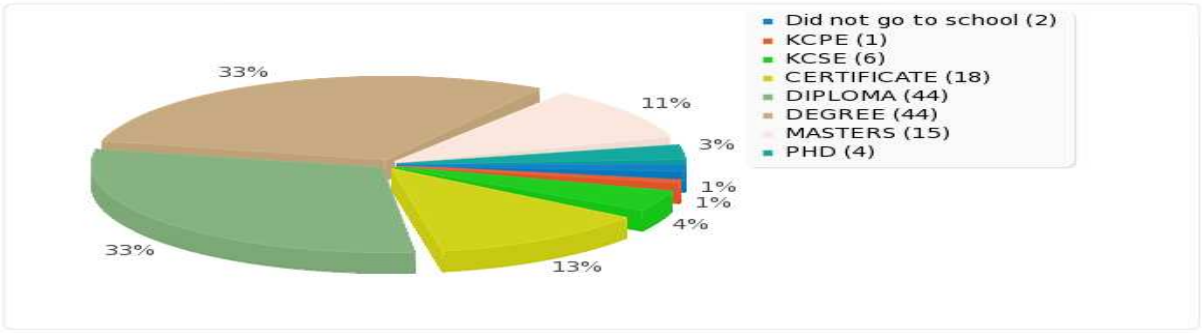
What is your age?		
Answer	**Count**	**Percentage**
18 to 24 (A1)	31	23.13%
25 to 34 (A2)	43	32.09%
35 to 44 (A3)	24	17.91%
45 to 54 (A4)	12	8.96%
55 to 64 (A5)	17	12.69%
65 to 74 (A6)	5	3.73%
75 or older (A7)	2	1.49%
No answer	0	0.00%



From the results shown in the above tables on the age of the respondent the study found that most of the respondent as shown by 32% indicated that they were aged between 25 to 34 years, 23 % indicated that they were between 20 to 24 years 17% of the respondent indicated that they were aged between 35 to 44 years, 12% of the respondent indicated that they were aged between 55-64 years ,9% indicate 45-55 years whereas 3% and 1% indicated that they were aged between 65 and above 75years old.

Chart 3: Respondent education level

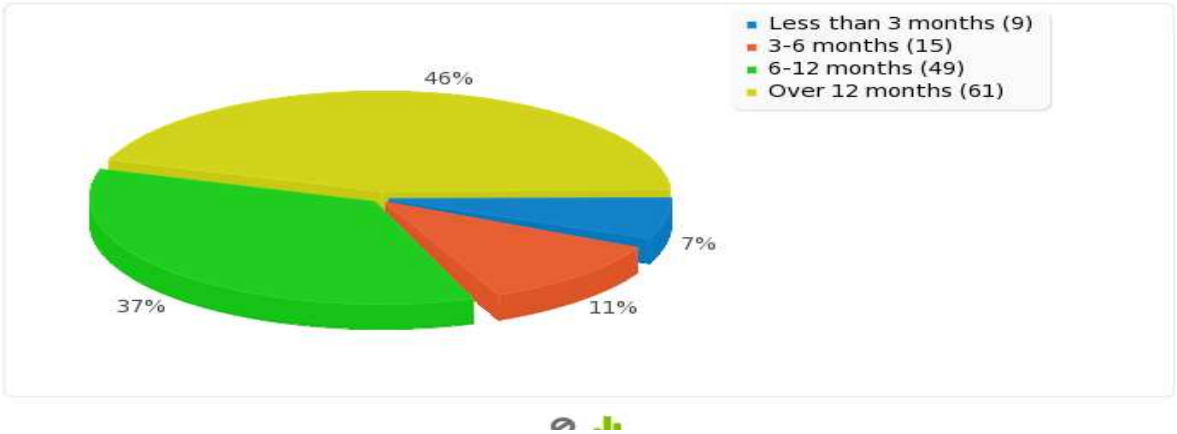
What is the highest level of education you have completed?		
Answer	**Count**	**Percentage**
Did not go to school (A1)	2	1.49%
KCPE (A2)	1	0.75%
KCSE (A3)	6	4.48%
CERTIFICATE (A4)	18	13.43%
DIPLOMA (A5)	44	32.84%
DEGREE (A6)	44	32.84%
MASTERS (A7)	15	11.19%
PHD (A8)	4	2.99%
No answer	0	0.00%



On the respondent level of education, the study found that majority of the respondent as shown By 33% indicated that they were on diploma and degree level,13% of the respondent indicated that they were on Certificate level whereas 11% indicated that they were masters level while the rest were kcpe,kcse and phd level

Chart 4: Internet usage experience

For how long have you been using the Internet?		
Answer	**Count**	**Percentage**
Less than 3 months (A1)	9	6.72%
3-6 months (A2)	15	11.19%
6-12 months (A3)	49	36.57%
Over 12 months (A4)	61	45.52%
No answer	0	0.00%

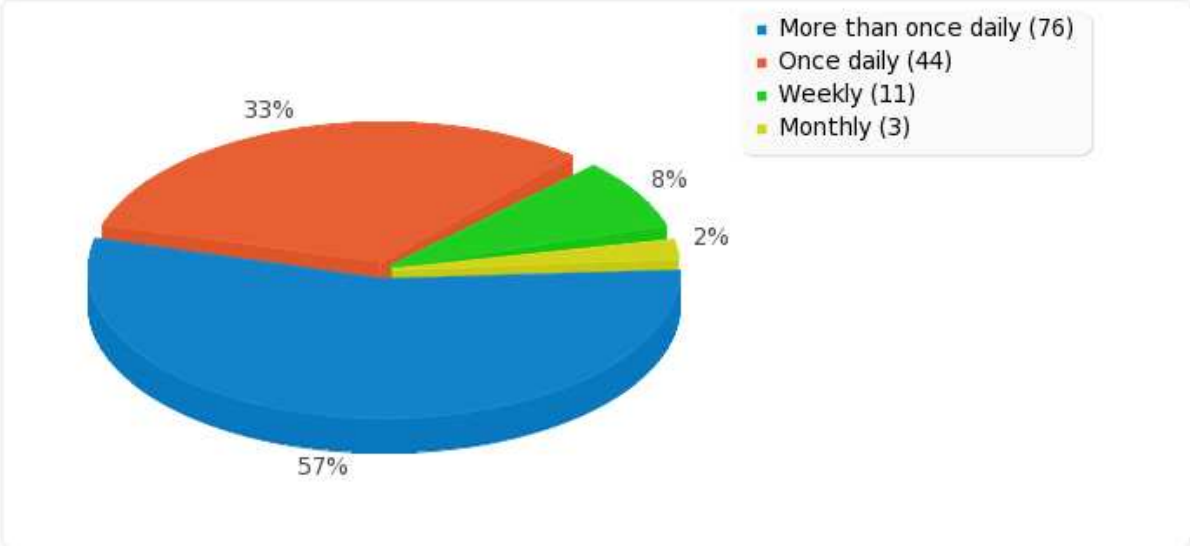


From the findings on the respondent internet usage and experience the study found that 46%

indicated that they had been using internet for over 12 months, 37% of the respondent indicated that they had been using internet for 6 to 12 months, 11% indicated that they had been using internet forto 6 months 3 whereas7% indicated that they had been using internet for less than 3 moths.

Chart 5: Frequency of internet usage

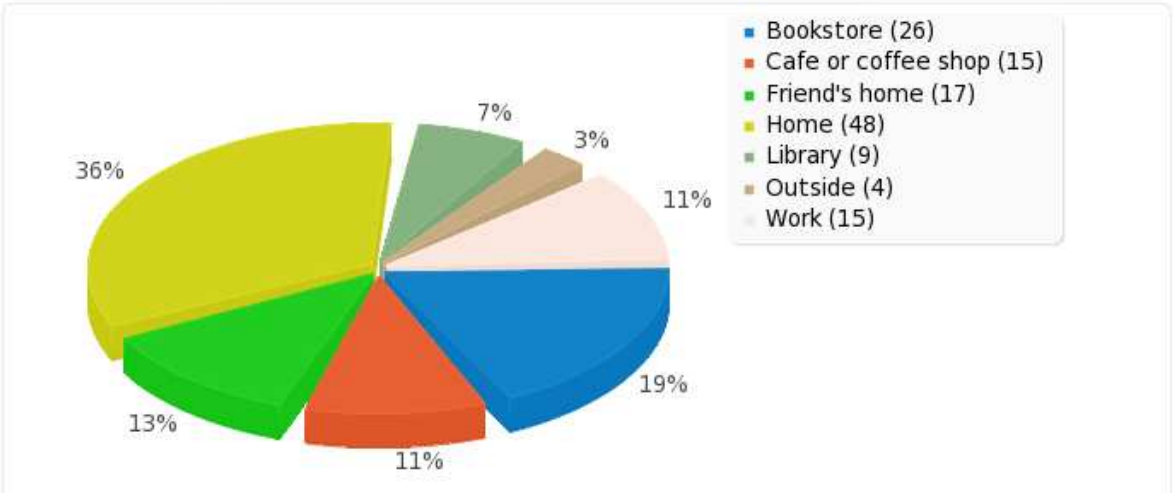
How frequent do you access the Internet?		
Answer	**Count**	**Percentage**
More than once daily (A1)	76	56.72%
Once daily (A2)	44	32.84%
Weekly (A3)	11	8.21%
Monthly (A4)	3	2.24%
No answer	0	0.00%



On the respondent frequency of internet usage , the study found that 57% of the respondent indicated that they had been using internet more than once daily , 33% of the respondent indicated that they had been using internet once daily , 8% indicated that they had been using internet weekly whereas 2% of the respondent indicated that they were using internet monthly.

Chart 6: Place of internet access

Where are you most often when you use the internet?		
Answer	**Count**	**Percentage**
Bookstore (A1)	26	19.40%
Cafe or coffee shop (A2)	15	11.19%
Friend's home (A3)	17	12.69%
Home (A4)	48	35.82%
Library (A5)	9	6.72%
Outside (A6)	4	2.99%
Work (A7)	15	11.19%
No answer	0	0.00%



From the results in the above table on the place of internet access, the study found that 36% of the respondent indicated home, 19% indicated bookstore , 13% indicated friends home,11% of the respondent indicated cafe/work whereas 7% and 3% of the respondent indicated at library and outside.

4.1.6 Descriptive study

This research was founded on descriptive study. The optimal of this paper aim was based on the nature of the research objectives which reveal that this is a descriptive research. The key goal of descriptive research is to describe the data and characteristics about what is being planned. Descriptive research is mainly done best when a researcher wants to gain a better understanding of a topic of study e.g. attitudes, opinions or habits of people. Therefore since the

goal and objective of this thesis was to get better understanding to the extent to which user perception on web quality of service affects adoption of e-service technologies, then the descriptive study is the most suitable to use in this context.

A large scale survey was applied to establish the impact perceived quality of service in online context on ecommerce adoption by Kenyan internet users. Further the research identified the non Quality of service factors the influence the adoption of ecommerce in Kenya. The relevant data was collected and analyzed to verify the hypothesis of the research

CHAPTER FIVE

5.0 DISCUSSION OF CORRECTIONAL ANALYSIS OF RESULTS

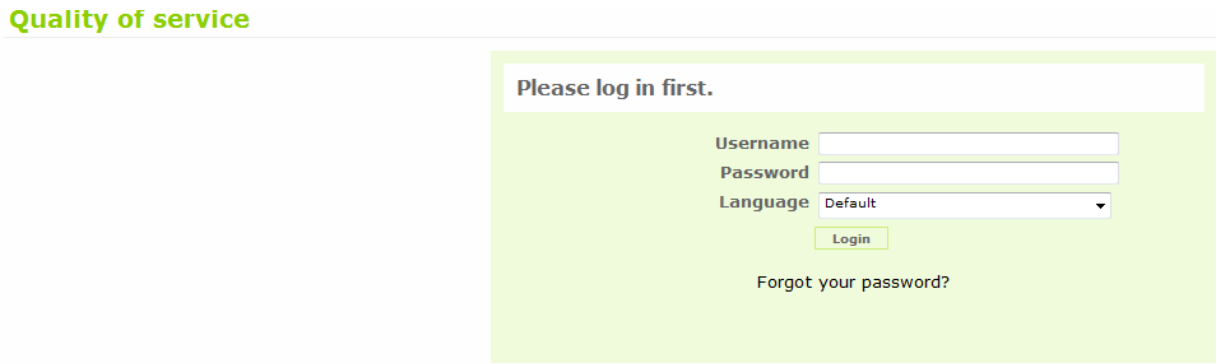
5.1 Overview

This chapter shows analysis, interpretations and results of the research. From the study population target of 134 respondents, and emailed their questionnaires, constituting 100% response rate.Data analysis was done through responses and statistics from the survey. The analysis involved reliability test, Factor analysis, response statistics, frequency statistics and T-Test. In the response statistics, relative frequencies and percentages were used in analysis of demographic information of the respondents. The web quality factors and non quality of service factors of ecommerce adoption were analyzed using mean scores, T-Test and charts with the help of Likert scale ratings.

5.1.2 Questionnaire Reliability Test and snapshots

A measurement is said to be dependable and consistent if the measurement can produce similar results if used again in similar situations. Hence, the consistency of a scale is the correlation of that scale with the hypothetical one which truly measures what it is supposed to. Lack of reliability may result from negligence, guessing, differential perception and recording errors. Internal consistency reliability denotes to the extent to which a measure is consistent with itself.

Login form page



This is where the admin will key in the username and password to log in.The username is admin and password is admin

Tools used in the web page

From the first line from left to right tools meaning are as follows:

1. Default admin page

2. Manage survey admin

3. Create and edit user group

4, Global setting

5. Check data integrity

6. Back entire database

7. Edit label sets

8. Template editor

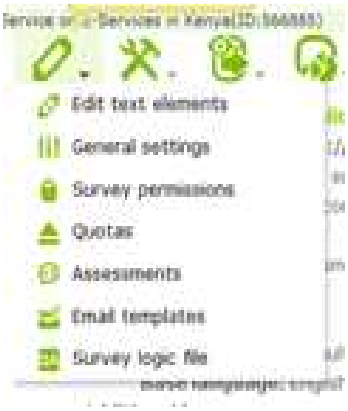
9. Central participant dbase

From the second line,the tools meaning are:

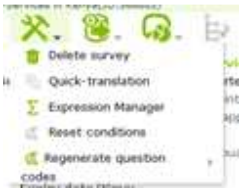
1.survey is active

2.execute the survey

3



4.

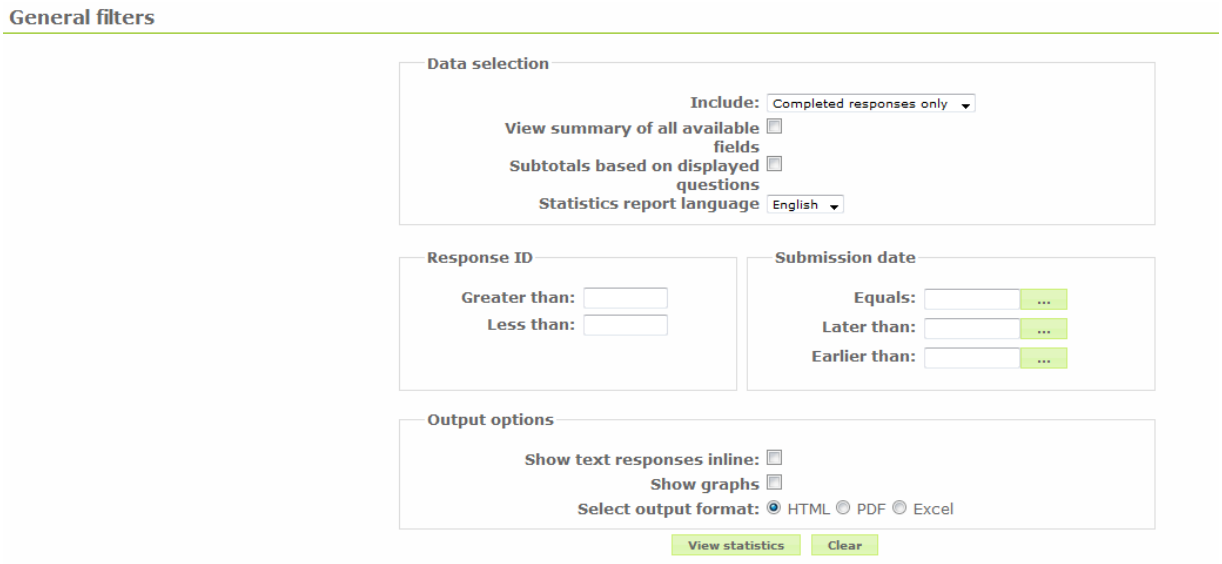


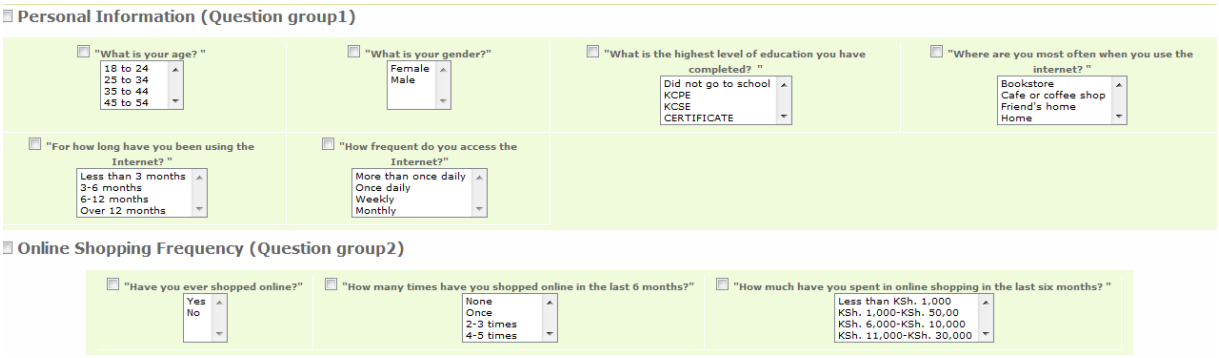
5.

At this level,you click response and statistics which will take you to the following page

Which shows additional tools and the total number of surveys done in this session and the total response.

You click the 6th icon from left which allows you to get statistics from the responses





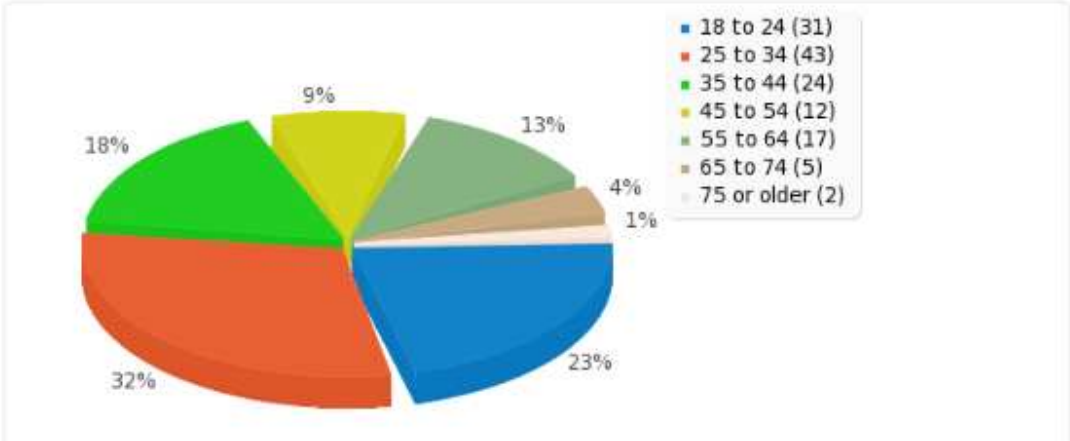
On the above page,on data selection tab,click view summary of all available fields and subtotals based on displayed questions and in output options click show graphs then click on view statistics.

From viewing statistics you will get all the respondent results analyzed in % and in pie chart for further advice to the government on the perceived usage of ecommerce services and its adoption.

Results	
Number of records in this query:	134
Total records in survey:	134
Percentage of total:	100.00%

Browse

Field summary for Q1		
What is your age?		
Answer	**Count**	**Percentage**
18 to 24 (A1)	31	23.13%
25 to 34 (A2)	43	32.09%
35 to 44 (A3)	24	17.91%
45 to 54 (A4)	12	8.96%
55 to 64 (A5)	17	12.69%
65 to 74 (A6)	5	3.73%
75 or older (A7)	2	1.49%
No answer	0	0.00%



From the results shown in the above tables on the age of the respondent the study found that most of the respondent as shown by 32% indicated that they were aged between 25 to 34 years, 23 % indicated that they were between 20 to 24 years 17% of the respondent indicated that they were aged between 35 to 44 years, 12% of the respondent indicated that they were aged between 55-64 years ,9% indicate 45-55 years whereas 3% and 1% indicated that they were aged between 65 and above 75years old.

5.1.3 Analysis of demographic information

Demographic analysis was done using response statistics in order to determine relative frequencies and percentages of the demographic behavior of the respondents. This included gender, age, and education level, and internet usage experience, frequency of internet usage and place of internet access. The results are as presented below.

Gender of the respondents

Gender	Frequency	Percent
Female	**66**	**49.25%**
Male	**68**	**50.75%**
Total	**134**	**100%**

From the findings on the respondent gender, the study found that most of the respondent as shown by 50.75% indicated that they were male whereas 49.25% of the respondent indicated that they were females, this is an indication that both genders were well represented in the study.

Field summary for Q2

What is your gender?

Answer	Count	Percentage
Female (A1)	66	49.25%
Male (A2)	68	50.75%
No answer	0	0.00%

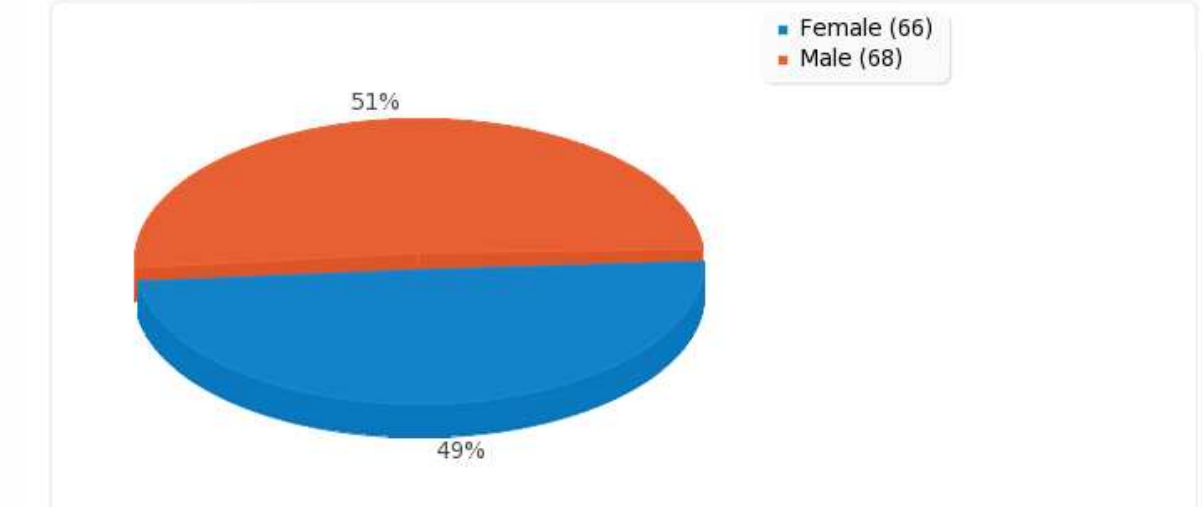
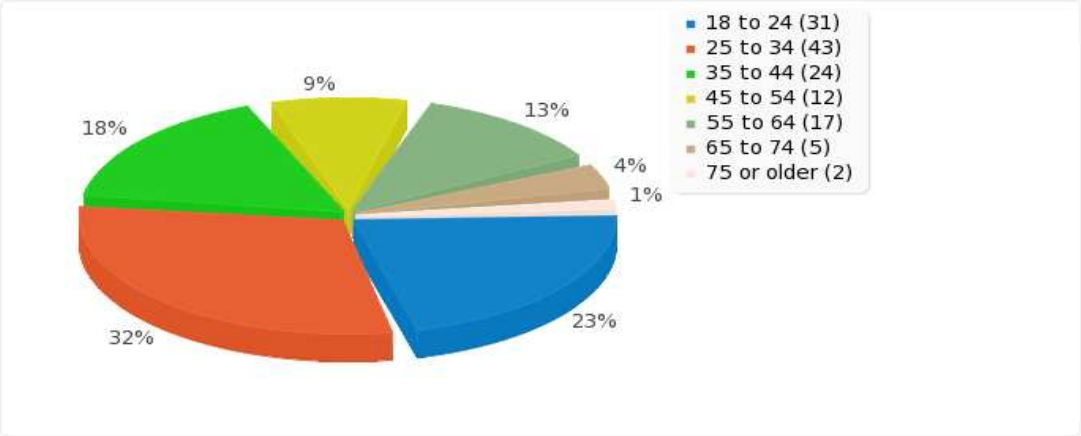


Table 2: Distribution of respondent by age

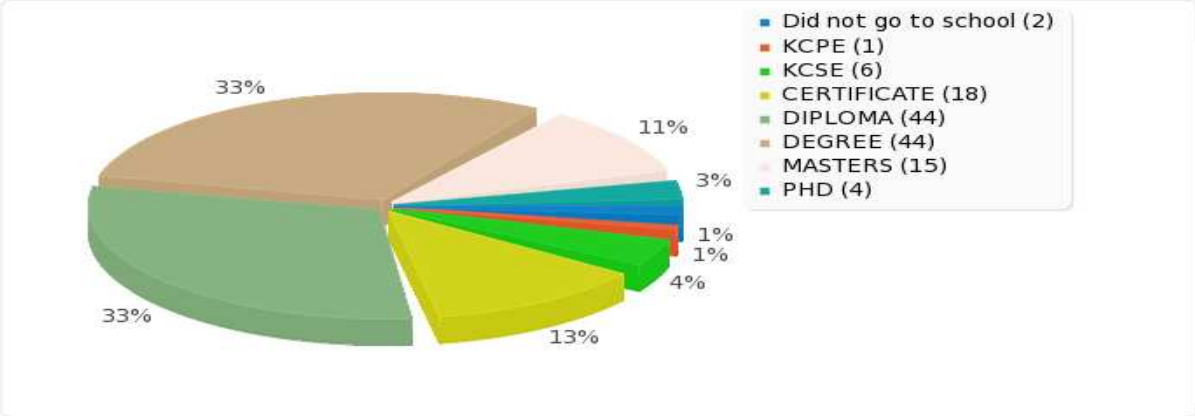
What is your age?		
Answer	**Count**	**Percentage**
18 to 24 (A1)	31	23.13%
25 to 34 (A2)	43	32.09%
35 to 44 (A3)	24	17.91%
45 to 54 (A4)	12	8.96%
55 to 64 (A5)	17	12.69%
65 to 74 (A6)	5	3.73%
75 or older (A7)	2	1.49%
No answer	0	0.00%



From the results shown in the above tables on the age of the respondent the study found that most of the respondent as shown by 32% indicated that they were aged between 25 to 34 years, 23 % indicated that they were between 20 to 24 years 17% of the respondent indicated that they were aged between 35 to 44 years, 12% of the respondent indicated that they were aged between 55-64 years ,9% indicate 45-55 years whereas 3% and 1% indicated that they were aged between 65 and above 75years old.

Table 3: Respondent education level

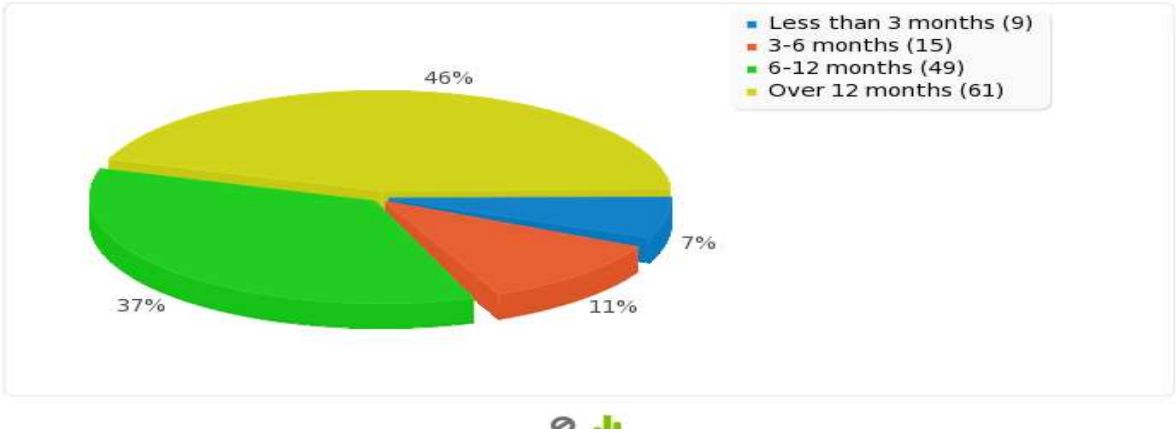
What is the highest level of education you have completed?		
Answer	**Count**	**Percentage**
Did not go to school (A1)	2	1.49%
KCPE (A2)	1	0.75%
KCSE (A3)	6	4.48%
CERTIFICATE (A4)	18	13.43%
DIPLOMA (A5)	44	32.84%
DEGREE (A6)	44	32.84%
MASTERS (A7)	15	11.19%
PHD (A8)	4	2.99%
No answer	0	0.00%



On the respondent level of education, the study found that majority of the respondent as shown By 33% indicated that they were on diploma and degree level,13% of the respondent indicated that they were on Certificate level whereas 11% indicated that they were masters level while the rest were kcpe,kcse and phd level

Table 4: Internet usage experience

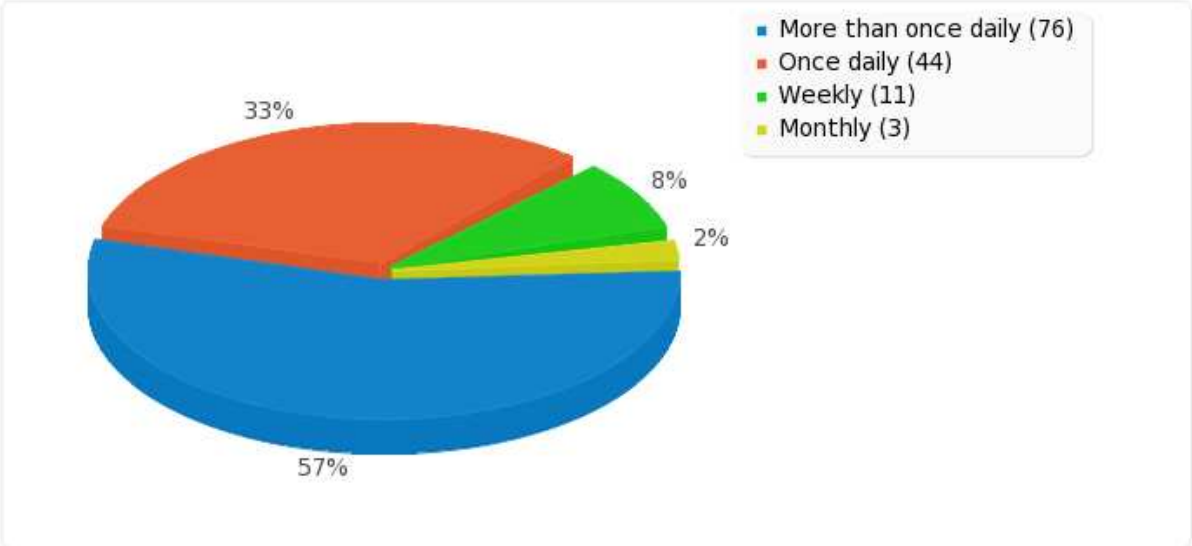
For how long have you been using the Internet?		
Answer	**Count**	**Percentage**
Less than 3 months (A1)	9	6.72%
3-6 months (A2)	15	11.19%
6-12 months (A3)	49	36.57%
Over 12 months (A4)	61	45.52%
No answer	0	0.00%



From the findings on the respondent internet usage and experience the study found that 46% indicated that they had been using internet for over 12 months, 37% of the respondent indicated that they had been using internet for 6 to 12 months, 11% indicated that they had been using internet forto 6 months 3 whereas7% indicated that they had been using internet for less than 3 moths.

Table 4: Frequency of internet usage

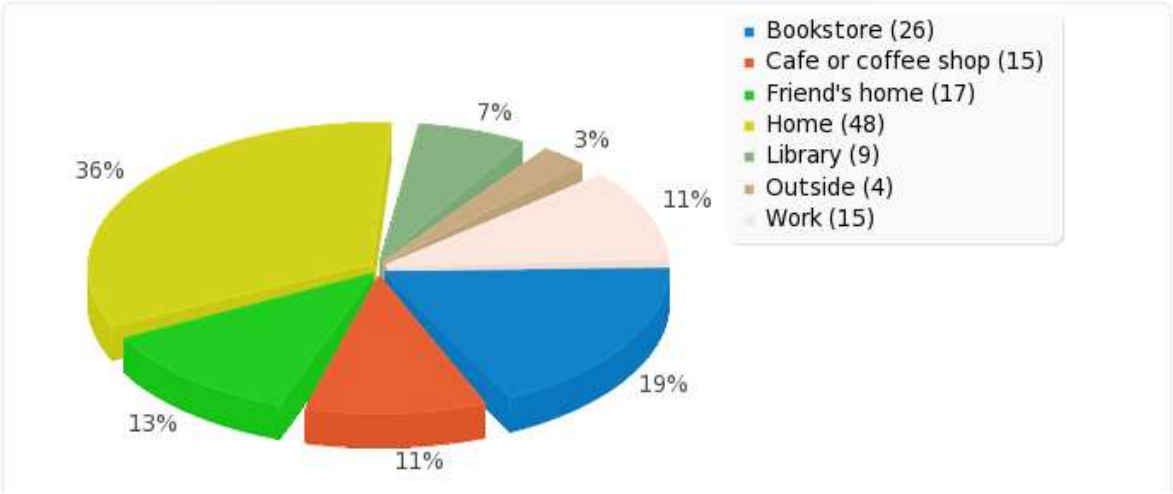
How frequent do you access the Internet?		
Answer	**Count**	**Percentage**
More than once daily (A1)	76	56.72%
Once daily (A2)	44	32.84%
Weekly (A3)	11	8.21%
Monthly (A4)	3	2.24%
No answer	0	0.00%



On the respondent frequency of internet usage , the study found that 57% of the respondent indicated that they had been using internet more than once daily , 33% of the respondent indicated that they had been using internet once daily , 8% indicated that they had been using internet weekly whereas 2% of the respondent indicated that they were using internet monthly.

Table 5: Place of internet access

Where are you most often when you use the internet?		
Answer	**Count**	**Percentage**
Bookstore (A1)	26	19.40%
Cafe or coffee shop (A2)	15	11.19%
Friend's home (A3)	17	12.69%
Home (A4)	48	35.82%
Library (A5)	9	6.72%
Outside (A6)	4	2.99%
Work (A7)	15	11.19%
No answer	0	0.00%



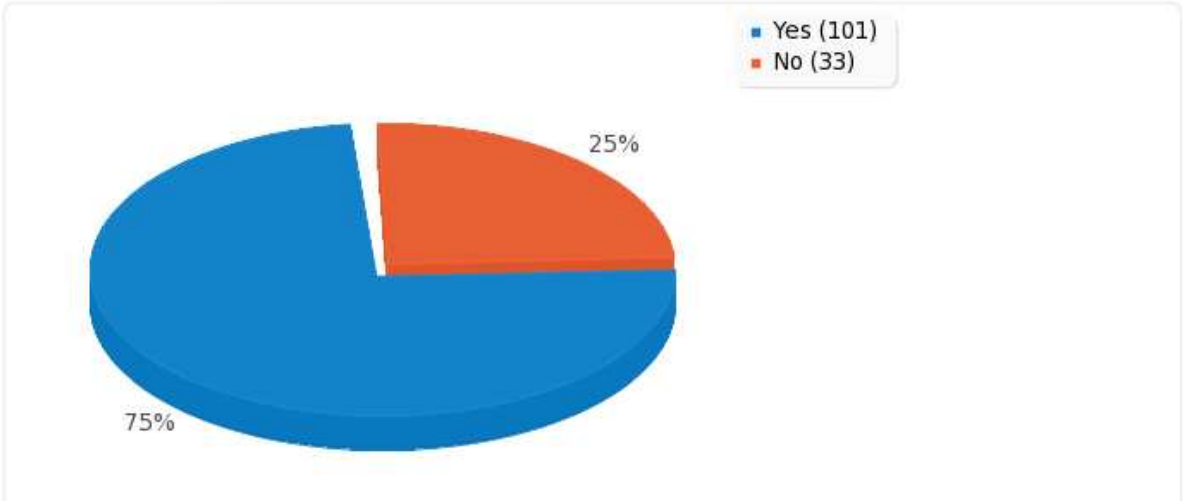
From the results in the above table on the place of internet access, the study found that 36% of the respondent indicated home, 19% indicated bookstore , 13% indicated friends home,11% of the respondent indicated cafe/work whereas 7% and 3% of the respondent indicated at library and outside.

5.1.4 Online shopping frequency Analysis

The objective of this analysis was to conclude the frequency and percentage of the respondents who have ever shopped online, the number of times they have shopped and how much the respondents spent on the online shopping.

Table 6: If the Respondents have shopped online

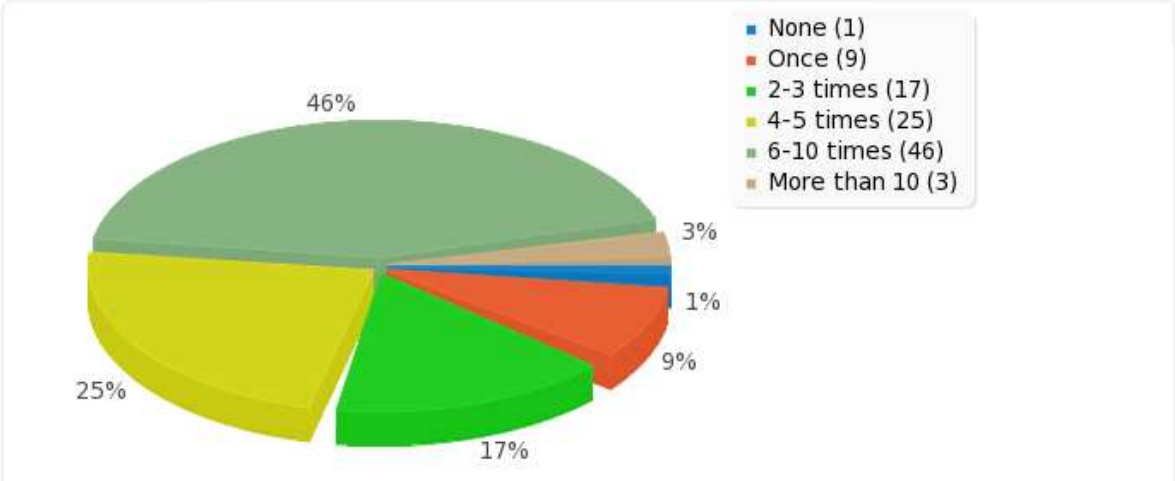
Have you ever shopped online?		
Answer	**Count**	**Percentage**
Yes (Y)	101	75.37%
No (N)	33	24.63%
No answer	0	0.00%



On whether the respondent had ever shopped online the study found that majority of the Respondent as shown by 75% indicated that they had shopped online, whereas 25% of the respondent indicated that they have never shopping online.

Table 7: Numbers of times shopping online for the last 6 months

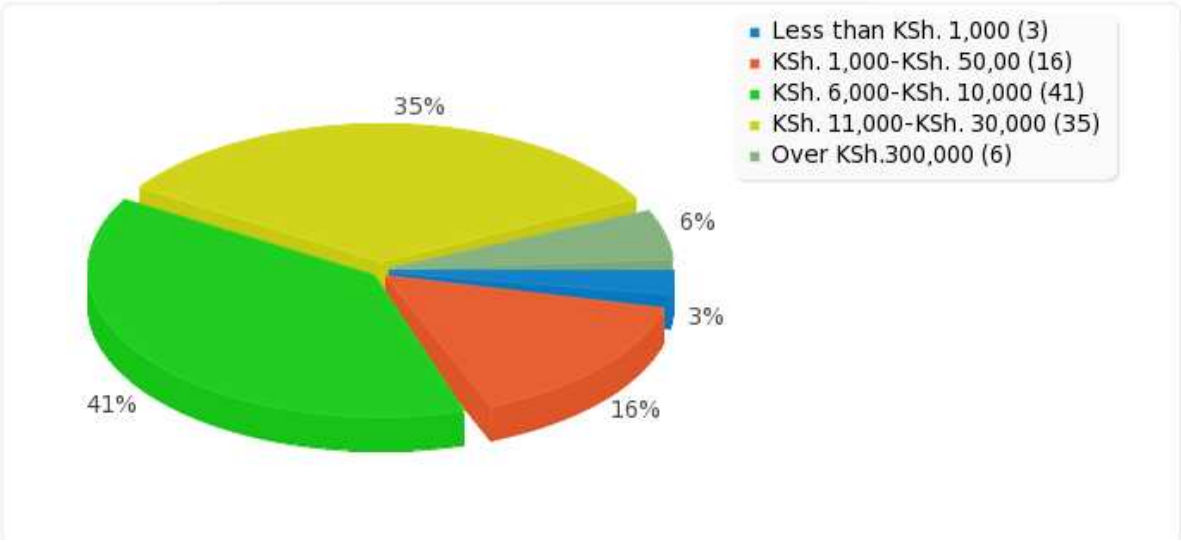
How many times have you shopped online in the last 6 months?		
Answer	**Count**	**Percentage**
None (A1)	1	0.99%
Once (A2)	9	8.91%
2-3 times (A3)	17	16.83%
4-5 times (A4)	25	24.75%
6-10 times (A5)	46	45.54%
More than 10 (A6)	3	2.97%
No answer	0	0.00%



On the numbers of time the respondent had shopped online for the last 6 months, the research found that 46% of the respondent indicated more than 10 times,25% of the respondent indicated 4-5times, 17% of the respondent indicated 2 to 3 time whereas 9% of the respondent indicated once

Table 8: Amount spent in online shopping in the last 6 months

How much have you spent in online shopping in the last six months?		
Answer	**Count**	**Percentage**
Less than KSh. 1,000 (A1)	3	2.97%
KSh. 1,000-KSh. 50,00 (A2)	16	15.84%
KSh. 6,000-KSh. 10,000 (A3)	41	40.59%
KSh. 11,000-KSh. 30,000 (A4)	35	34.65%
Over KSh.300,000 (A5)	6	5.94%
No answer	0	0.00%



From the findings on the amount of money they spend on online shopping , the study found that 41% indicated 6000 to 10000, 35% indicated 11000 to30000, 16% indicated 1000 to 5000 whereas 6% over 3000000 and lastly 3% indicate less than 1000

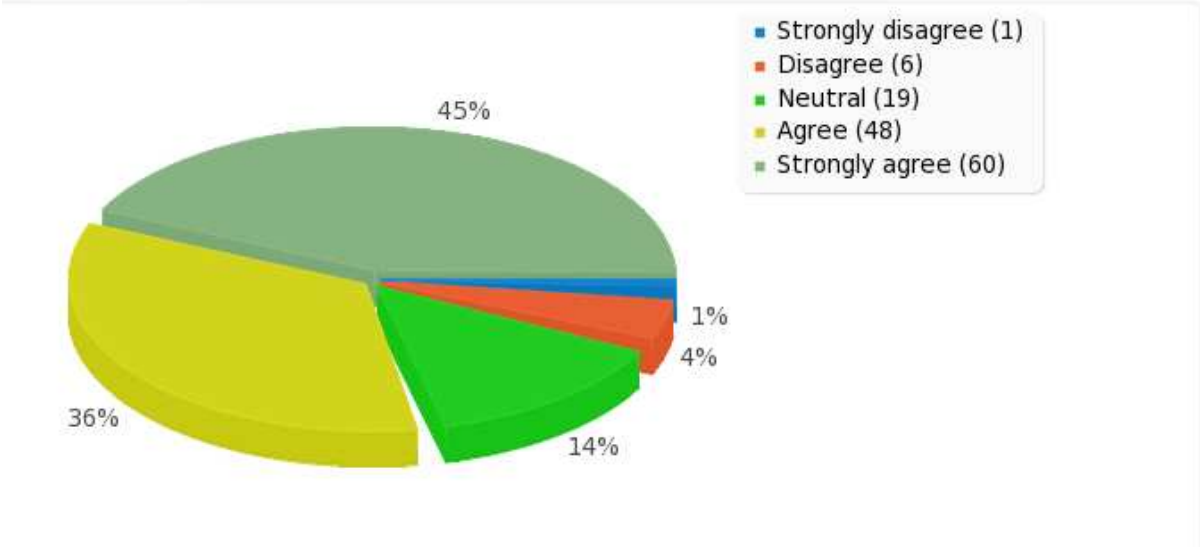
5.1.6 Factor Analysis on website quality factors

Dynamic analysis shots to identify fundamental variables that illustrate the design of associations inside a set of pragmatic variables. Factor scrutiny is regularly used in data decline to detect the key component features that describe most of the change that is detected in a much larger number of evident variables. The aim of factor scrutiny is to reveal the latent structure of a set of variables, i.e., to reveal any latent variables that explain the correlations among the variables, called dimensions. Hence, dynamic investigation is recognized on the assumption that all variables are linked to some level. Therefore, those variables that share similar underlying dimensions should be highly interconnected, and those variables that measure different

dimensions should yield low correlations. In context of web quality factors and ecommerce adoption factors, factor analysis was implemented in directive to determine the level correlation and significance of various quality factor aspects or variables in influencing e-commerce adoption in Kenya. The analysis provides level of importance of each factor in e-commerce adoption.

Table 9: Responsiveness & Empathy

What is your opinion on responsiveness and empathy? [The internet technology is readily accessible to me]		
Answer	**Count**	**Percentage**
Strongly disagree (A1)	1	0.75%
Disagree (A2)	6	4.48%
Neutral (A3)	19	14.18%
Agree (A4)	48	35.82%
Strongly agree (A5)	60	44.78%
No answer	0	0.00%



On responsiveness and empathy the study found that respondent 45% strongly agreed that Online companies have good response whereas 36% agree,14% are neutral and the rest disagreed.

5.1.7 Level of E-commerce Adoption among the respondents

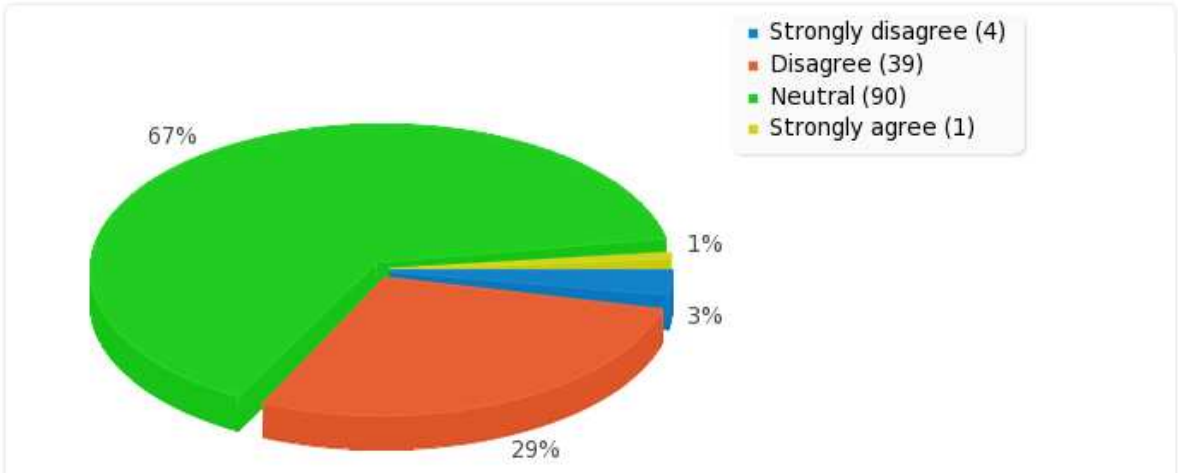
From the 134 respondents, only few ever shopped online for the last 6 months and was using small amount of money which show a lot of lack of trust in online shopping.

On the respondents who have been shopping for the last 6 months, on 12 respondents who have shopped more than 10 times. The rest have shopped up to five times. This indicates that the level

of online shopping adoption among the Kenyan internet users is still low, Further majority of the online shoppers spent little amount on their shopping, less than Kshs.1000 in last 6 months.

Table 10: Level of Ecommerce adoption: Adoption level of E-commerce by Kenyans.

What is your opinion on ease of internet use? [Web site offers services requested by consumers promptly]		
Answer	**Count**	**Percentage**
Strongly disagree (A1)	4	2.99%
Disagree (A2)	39	29.10%
Neutral (A3)	90	67.16%
Agree (A4)	0	0.00%
Strongly agree (A5)	1	0.75%
No answer	0	0.00%



5.1.8 Discussion

The aim of this section is to provide discussion of the research findings based on set objectives and findings of the research. The research used extensive literature review and questionnaires as sources of the research outcome. *The aim of the research was to investigate the extent to which web quality of service influence the adoption of eservice technologies among Kenyans with specific focus on business to consumer ecommerce*.

The most specific goals of the study were:

(i) To identify web quality of service factors that affects e-commerce adoption.

(ii) To establish the range to which each web quality of service feature that affect the adoption

of ecommerce in Kenya.

(iii) Identify the key web quality of service features that affect the adoption of ecommerce in Kenya.

(iv) Identify the non-quality of service factors that influence the adoption of ecommerce in Kenya.

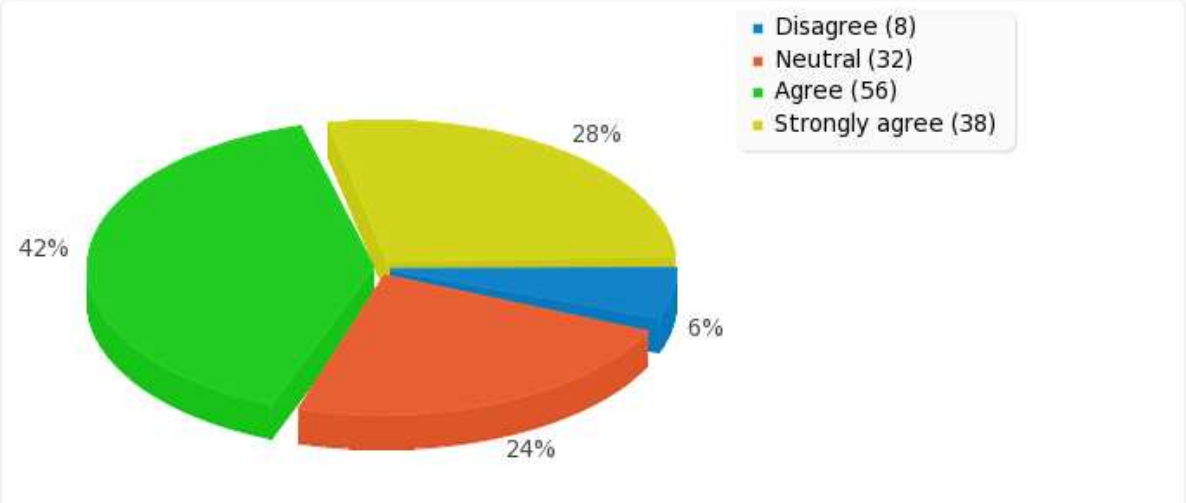
5.1.9 Web quality of service factors that affects e-commerce adoption

From the findings, various eservice quality factors that affect adoption of eservice technologies such as business to consumer (B2C) ecommerce were identified through extensive literature review. Since Electronic service quality is illustration on the whole service delivered through the online service source, the research outcome confirmed the electronic service quality is extremely related to users. Fulfillment. Thus it is a vital to have a connection between e-service quality and e-service adoption in general. The eservice quality factors well-known were simplicity of use, web design, reliability, availability, responsiveness, privacy, security, empathy and e-trust. In order to determine the relevance and the level of importance of each factor to ecommerce adoption in Kenya, these factors were used in the web questionnaire research and the results analyzed.

5.1.10 Web quality of service factor affect the adoption of ecommerce in Kenya

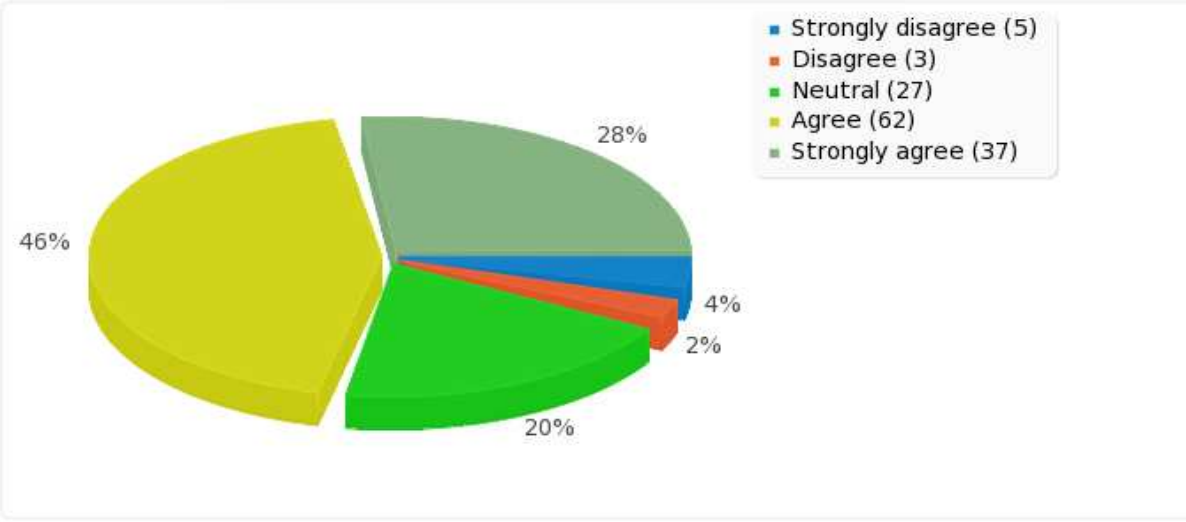
After analysis of the various eservice quality factors, the research findings established that some factors are more critical in terms of importance to ecommerce adoption in Kenyan context than others. This was achieved through comparison of the difference of the eservice quality factors. The factors were ranked based on level of importance to ecommerce adoption in Kenya. Through this, the research established the extent to which each eservice quality factor affects the adoption of ecommerce in Kenya. In terms of importance, the each eservice quality factors were ranked as follows: E-trust, Security & Privacy, Responsiveness & Empathy, and Availability and Reliability and Ease of Use from most important to least important.

What's your opinion on the compatibility of online shopping? [I have a positive attitude towards online shopping]		
Answer	**Count**	**Percentage**
Strongly disagree (A1)	0	0.00%
Disagree (A2)	8	5.97%
Neutral (A3)	32	23.88%
Agree (A4)	56	41.79%
Strongly agree (A5)	38	28.36%
No answer	0	0.00%

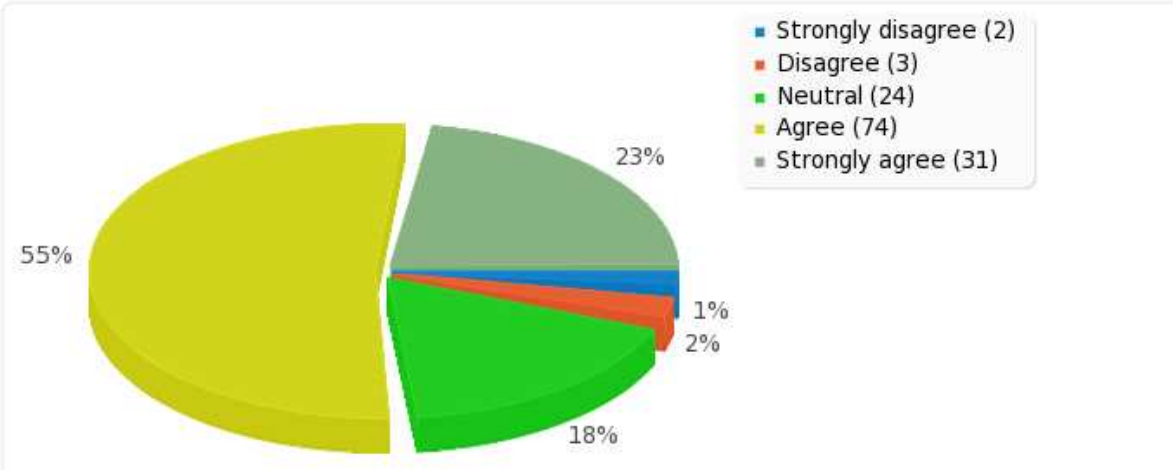


Availability, reliability and ease of use

What's your opinion on online shopping? [I believe online shopping would offer more quality and products choice to me]		
Answer	**Count**	**Percentage**
Strongly disagree (A1)	5	3.73%
Disagree (A2)	3	2.24%
Neutral (A3)	27	20.15%
Agree (A4)	62	46.27%
Strongly agree (A5)	37	27.61%
No answer	0	0.00%



What is your opinion on responsiveness and empathy? [I believe doing online shopping would be easy for me]		
Answer	**Count**	**Percentage**
Strongly disagree (A1)	2	1.49%
Disagree (A2)	3	2.24%
Neutral (A3)	24	17.91%
Agree (A4)	74	55.22%
Strongly agree (A5)	31	23.13%
No answer	0	0.00%



E-Trust

Responsiveness & Empathy

Availability and Reliability

Ease of Use

Chart 1: Ranking of Web quality factors graphically

Simplicity of Use

From the outcome on the simplicity of web site use, the study found that most of the online users are able to use web sites without much difficult. It is easy for them to look for information they need on the web site. Majority have no difficulty in navigating around website and filling online forms. The research further established that most web sites do not present products and services clearly and accurately. Also most of the web sites' web pages do not load quickly. There are web design issues which need to be improved in order to make ease of use fully acceptable by internet users. Therefore it can be concluded that ease of use is not a challenge toward adoption of e-commerce by most Kenyan internet users.

Availability and Reliability

On availability and reliability of website, the study found that the websites offer confirmation to the users on completion of the service process, however majority of internet users are sure on whether service is delivered accurately and web sites run without letdown. The most vital aspect of availability and reliability is whether websites' services are available whenever users need services. Therefore availability and reliability still has considerable impact on the user perception toward adoption of ecommerce.

Security and Privacy

From the findings on privacy and security of E-commerce, the study revealed that respondents believe websites do not provide secure services to online customers, they believe websites do not protect customers' credit card information in case of online shopping, they feel privacy of their online information is not protected on the website and they believe websites owners do not share customer information with others. This means a lot of need to be done by the service providers in terms of improving security status of these web sites. This will in turn win customer confidence toward adoption of ecommerce.

E-Trust

Findings on E-trust, indicate that majority of the online users are unwilling to give their credit card numbers and private information to online companies. They also do not trust services offered by websites and they will mind to pay in advance for product/services purchased online.

Responsiveness and Empathy

On responsiveness and empathy, the study found that online companies offer incentives to its regular online customers and online companies address customers' complaints friendly and promptly, The online users are however neutral on whether online companies provide prompt feedback to its customers and websites offer services requested by customers promptly.

5.1.11 The key web quality of service factors that affect the adoption of ecommerce in Kenya

From eservice quality influences the effect the adoption of the ecommerce in our country Kenya, this research was able to identify the key quality factors and their important variables/aspects. From the data analysis, eservice quality aspects related to E-trust, Security & Privacy; and Availability& reliability were in the top ten most important aspects. E-trust is the most significant eService quality factor, followed by security and privacy then availability and reliability.

5.1.12 COMPARISON OF THE PROPOSED SURVEY AND OTHER SURVEY

FEATURES	DESCRIPTION	OTHER SURVEY	PROPOSED SURVEY
Quotas Management	Restrict the answer that people enter to a style	NO	YES
Option for participants to buffer answers to continue survey at a later		NO	YES
User-Mangement	Manage the other users that use the same survey	NO	YES
WYSIWYG HTML Editor	What you see is what you get	NO	YES
integration of pictures and movies into a survey		NO	YES

CHAPTER SIX

6.0 SUMMARY FINDINGS, CONCLUSIONS AND RECOMMEDATIONS

6.1 Overview

The chapter of the research offers summary findings of the research carried out, conclusions and Relevant and suitable recommendations based on findings of the research.

6.2 Summary findings

The aim of this paper was to scrutinize the range to which web quality of service influence the adoption of eservice technologies among Kenyans with specific focus on business to consumer ecommerce. Its goal was to come up with the key quality factors (KQFs) of web site quality and the extent to which they influence adoption of eservices such as ecommerce. The research further attempted to identify the other non-quality of service factors that influence positively or negatively the adoption of ecommerce. The motivation of this research was necessitated by the fact that adoption of internet technology has been received very well by most Kenyans. Currently there are approximately over twenty million internet users in Kenya. However, despite the fundamental benefits to internet users on embracing eservices such as online shopping such as avoiding crowd, lower prices, ease of comparing prices and products, avoiding the inconvenience of traveling to shops and wider selection of products on the internet very few internet users have adopted online shopping. Instead most online Kenyans use web technology for services such as information searching, emails, news and social network. Previous researches and literature had shown that perceived quality of service in online context is an important factor of ecommerce adoption. Therefore this research was to determine the importance of eservice quality factors on influencing the adoption of ecommerce in Kenyan context. The research findings indicate that eservice quality factors related to risk are the most critical to adoption of ecommerce in Kenya. These factors are e-trust, security and privacy. This is an indication that Internet security and privacy remains major threat to adoption of ecommerce by Kenyan internet users. By increasing internet security and privacy, this reduces perceived risk hence increasing e-trust among the internet users. Consequently this will encourage internet users to adopt online shopping. Legal and legislation environment was identified as a key ecommerce adoption factor following perceived risk by this research. Generally majority of the

internet users have the perception that government does not demonstrates strong commitment to promote electronic commerce through establishment of relevant legislations to tackle cybercrime and ensure safe electronic payments. The finding from this study reveals that government has a main part to accomplish in attaining a secure environment for e-commerce activities. In its struggles to attain this, the government should offer related technical training to the regulatory authority to allow them to impose the laws effectively. Lastly the research outcome found that simplicity of use is no longer a task of ecommerce adoption. This is an indication that majority of Kenyan internet users have the relevant computer skills to use the internet technology. Other factors found to be currently not a challenge to ecommerce adoption in Kenya are availability, reliability, responsiveness and empathy.

6.3 Conclusions

Based on the outcomes of this study finding, eservice quality is key ecommerce adoption factor in Kenya. However this study shows that the eservice quality factors driving the B2C ecommerce adoption among the Kenyan internet users can be viewed from two categories: risked correlated eservice quality factors and non-risk correlated eservice quality factors. It is the eservice quality factors that are correlated to perceived risk which are more critical to ecommerce adoption. These factors include e-trust, security and privacy. Factors not related to risk such as availability, reliability, responsiveness and empathy are no longer key determinant factors of ecommerce adoption in Kenyan scenario. In context of non-eservice quality ecommerce adoption factors, the research conclusions revealed that perceived risk is the most significant ecommerce adoption factor followed by legal and legislation environment. Other factors relevant for ecommerce adoption are perceived compatibility, perceived usefulness and complexity in that order.

6.4 Recommendations for E-commerce Service Providers

The findings and conclusion of this paper have substantial implications in the perspective of online companies which offer on ecommerce based services. The study provides evidence that eservice quality has significant influence on consumer’s adoption of ecommerce in Kenya. The important factors identified for ecommerce adoption are perceived risk, e-trust, security; and legal and legislation environment. The findings of the research illustrate very vital concrete ideas for companies presently offering services on the Internet as well as those arrangements to do so. It is apparent from the study that to translate Internet users into real buyers, seeming risk

connecting to product and online transaction must be minimized. From the view of a user's perceived risk, the client is willing to purchase product/service from an internet vendor that is alleged low risk, even if the clients' perceived simplicity of use or usefulness on ecommerce is relatively minimal

6.5 Recommendations for the Government

The research findings shows that the government has a strong role in promoting and spreading the benefits of electronic commerce in Kenya. Government has the responsibility to provide an enabling legal and legislation environment in which ecommerce can realize its full potential. Through established legal framework, the government can help address the problems and challenges affecting both ecommerce service providers and potential online customers. Potential online shoppers need to be assured of existence of laws to fight cybercrime and laws to solve disputes that arise in context of online shopping. The government of Kenya needs legislations in place with respect to secrecy with an opinion to ensure that online companies honour and protect their users' privacy rights. Customers need assurance that the online businesses they are working with honored individual privacy on the Internet. The government could authorize relevant authority bodies such as CCK to develop, manage and monitor privacy policy guidelines for online companies.

6.6 Limitations of the research

Firstly, due to the fact that e-commerce penetration in Kenya is very low currently, majority of the respondents were potential adopters rather than actual ecommerce consumers. Due to this, did not have any idea about different online services offered by ecommerce web sites information required by the research questionnaire, and therefore they had to be aided. Also the results of the research are based more on user perception of the internet handlers. Their opinionof eservice quality could be having some level of variation with a scenario where majority of the respondents are ecommerce adaptors.

Secondly, the research was time consuming because each web quality and ecommerce adoption factors several variables which had to be evaluated.However, despite these limitations, this research shows foundation for future research and study in this area.

Suggestions for further research

The following recommendations are for further research:

Further research need to be done later evaluate differences of the impact of website

quality factors based on actual ecommerce adaptors instead of information searchers or potential online buyers in order to provide practical implications of website quality factors .

Further research need to be prepared to determine the readiness of businesses on adoption of ecommerce as a tool of doing their businesses. This is because majority of the businesses have not included ecommerce components on their web portals. Lack of ecommerce enabled web sites has direct impact of consumer adoption of ecommerce.

To use other models in order to confirm the results of this study.

REFERENCES

1. Bigley, G.A. & Pearce, J.L. (1998). *Straining for shared meaning in organization science: problem of Trust and Distrust*. The Academy of Management Review, 23(3 July), 405-421.

2. Bitner, M.J., Booms, B.H. & Tetreault, M.S. (1990). *The service-encounter: diagnosing favorable and unfavorable incidents*. Journal of Marketing, 54, 71-84.

3. Brady, M.K. & Cronin, J.J. (2001). *Some new thoughts on conceptualizing perceived service quality: a hierarchical approach*. Journal of Marketing, 65(3). Chisnal, P.M. (19997). Marketing Research (5th Ed), Cambridge (UK): University Press.

4. Cao, M., Zhang, Q. & Seydel, J. (2005). *B2C e-commerce website quality: An empirical examination. Industrial Management & Data Systems*, 105(5), 645 –661.

5. Carman, J.M. (1990). *Consumer perceptions of service quality: an assessment of the SERVQUAL dimensions*. Journal of Retailing, 66, 33-55.

6. Caruana, A. (2002). Service *loyalty-the effects of service quality and the mediating role of customer satisfaction*. European Journal of Marketing, 36(7/8), 811-828.

7. Caruana, A. & Ewing, M.T. (2006). *The psychometric properties of e-tail quality: An international investigation across product categories*. International Marketing Review, 23(4), 353-370.

8. Chellappa, R. K. & Pavlou, P. A, (2002). "Perceived information security, financial liability and consumer Ttust in electronic commerce transactions", *Journal of Logistics Information Management*, Vol. 15, No. 5/6, pp. 358-368.

10. Chen, Q. & Wells, W.D. (1999). *Attitude toward the site. Journal of Advertising Research*, 39(September/October), 27-37. Chen, P.Y. & Hitt, L. (2000). Switching cost and brand loyalty in electronic markets: evidence from on-line retail brokers. ICIS Proceedings.

11. Chia Chi Lin (2003). *A critical appraisal of customer satisfaction and e-commerce.* Managerial Auditing Journal, 18(3).

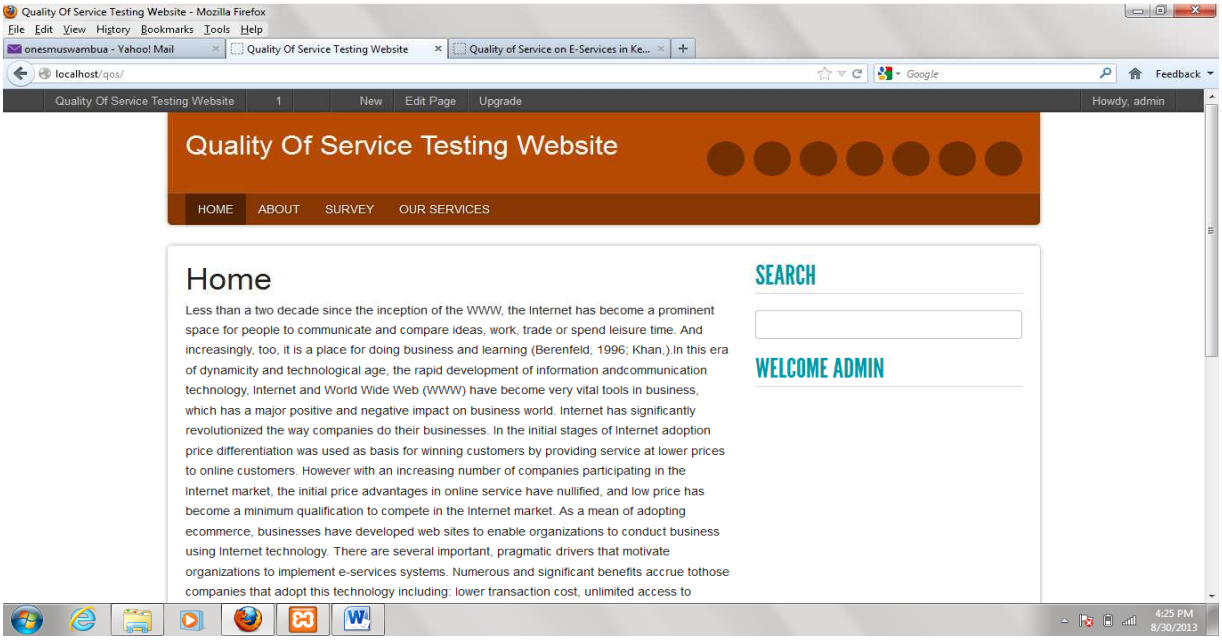
12. Corritore, S., Kracher, B. & Weidenbeck, S. (2003). *On-line trust: concepts, evolving themes, a model*. International Journal of Human-computer Interaction, 58(6),737-758.

13. Cox, J. & Dale, B.G. (2002). Key *Quality factors in Web site Design and use: an*

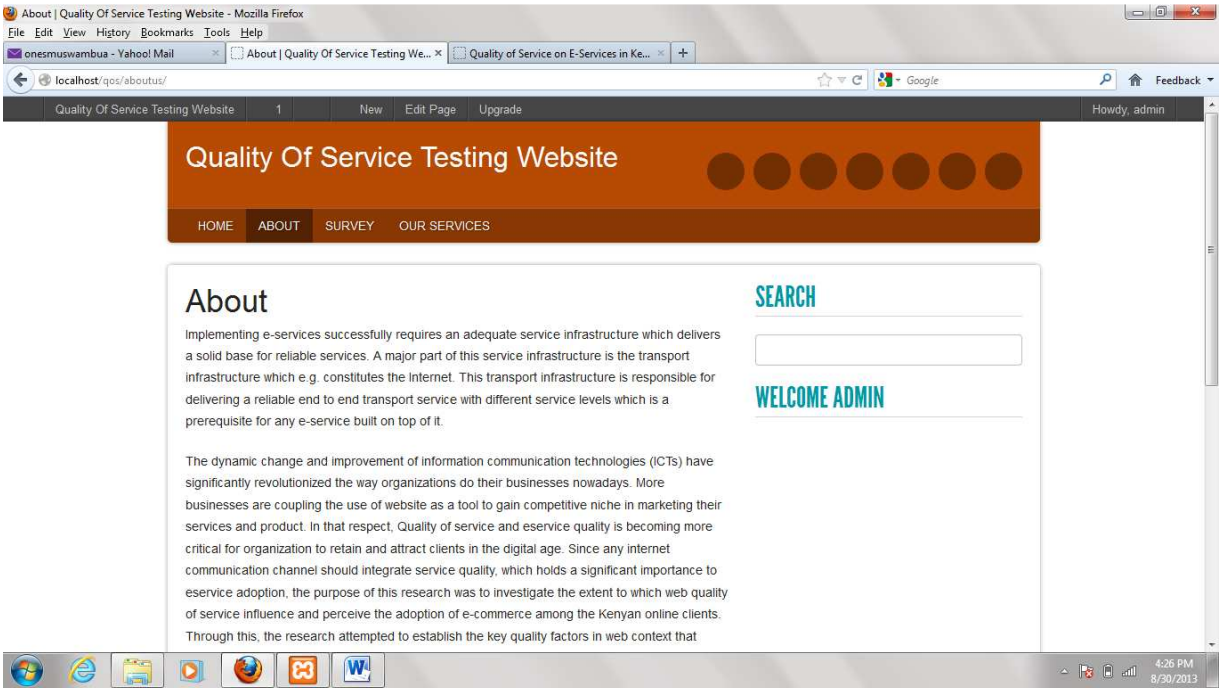
examination. International Journal of Quality & Reliability Management, 19(7), 862-888.
14. Creativegood.com, (2000). *Statistics for online purchases*.
http://www.epaynews.com/statistics/purchases.html
15. Delone, W.H. & Mclean, E.R. (2003). *The Delone and Mclean Model of information Systems success: A ten year update*. Journal of Management Information Systems, 19(4 Spring), 9-30.
16. *The Electronic Journal on Information Systems in Developing Countries*
http://www.ejisdc.org EJISDC (2010) 40, 1, 1-32 7
17. Ghobadian, A., Speller, S. & Jones, M. (1994). *Service quality: concepts and models*. International Journal of Quality & Reliability Management, 11(9), 43-66.
18. Kenya's ICT Board on eCommerce, (2010) Available on http://www.ict.go.ke
19. McKinney, V., Yoon, K. & Zahedi, F.M. (2002). *The Measurement of Web- Customer Satisfaction: An Expectation and Disconfirmation Approach*. Information System Research, 13(3 September), 296-315.
20. McKnight, D.H. & Chervany, N.L. (2001). What *trust means in e-commerce customer relationships: an interdisciplinary conceptual technology*. International Journal of Electronic Commerce, 6(2), 35-59.
21. Mugenda and Mugenda, (2003). *Research methods: Quantitative and qualitative*
26. *approaches.* African center for technology studies (ACTS) Nairobi, Kenya.
27. Oliver, R.L. (1980). *A cognitive model of the antecedents and consequences of satisfaction decisions.* Journal of Marketing research, 17(4 November), 460-9.
28. Oliver, R.L. (1981). *Measurement and evaluation of satisfaction processes in retail setting*. Journal of Retailing, 57(3), 25-49.

APPENDIX A

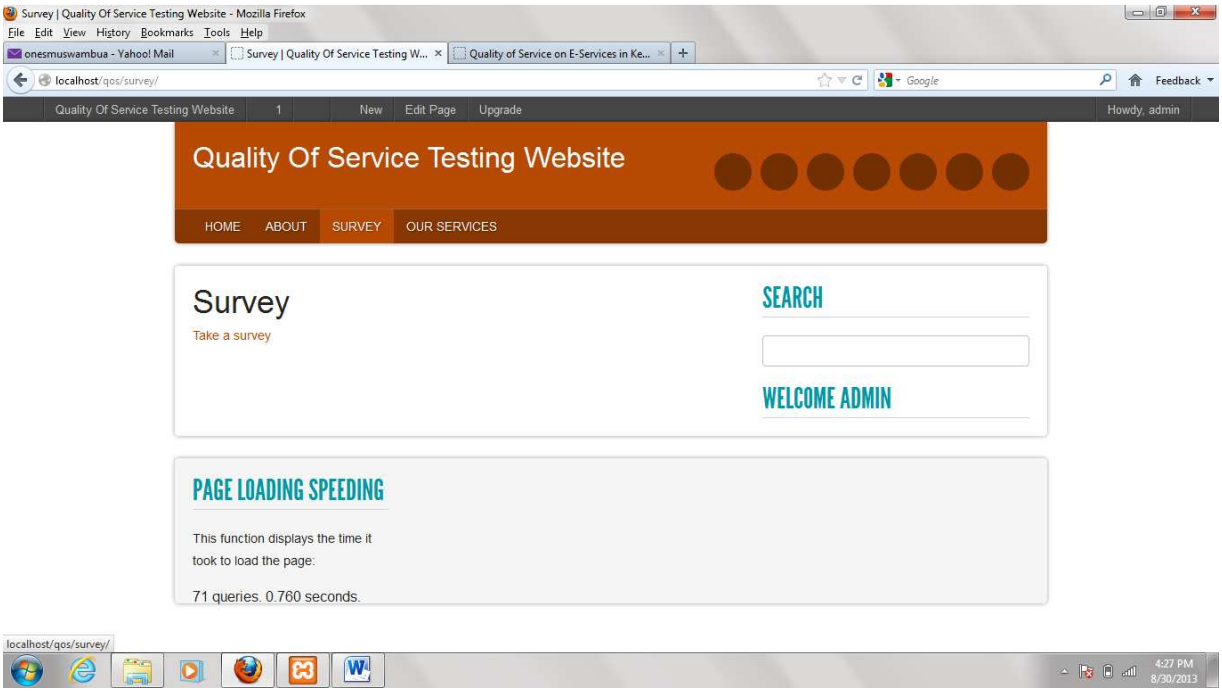
The following is the home page



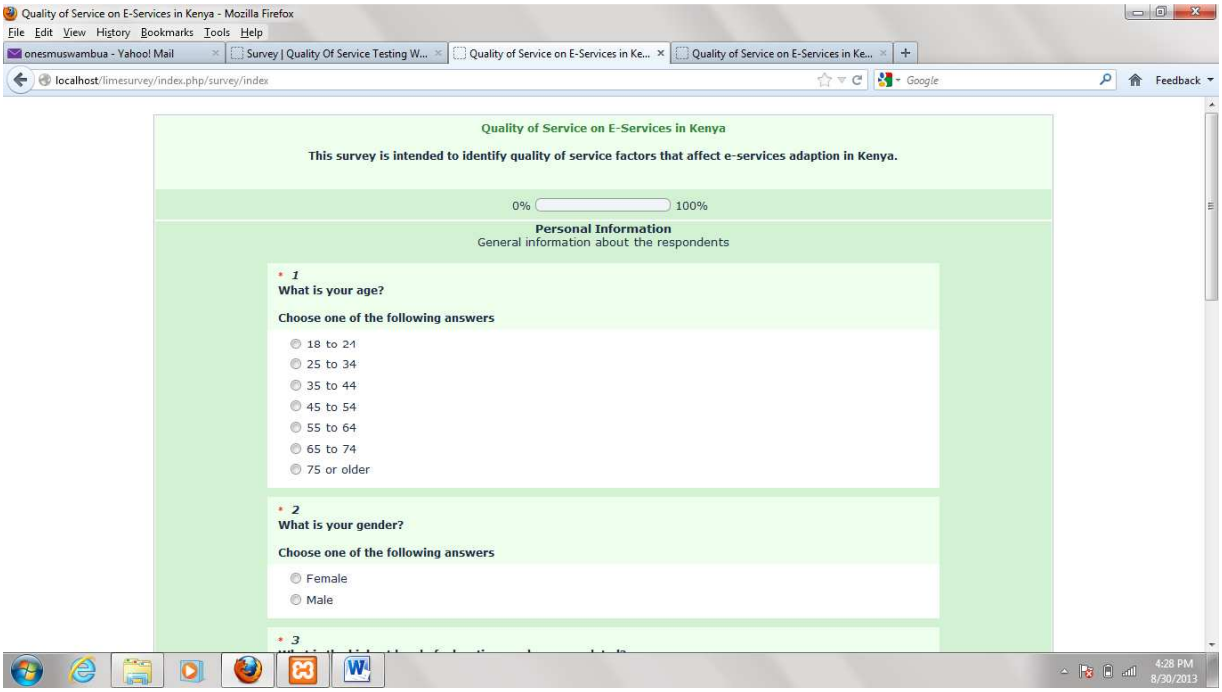
The following is a home page showing about us



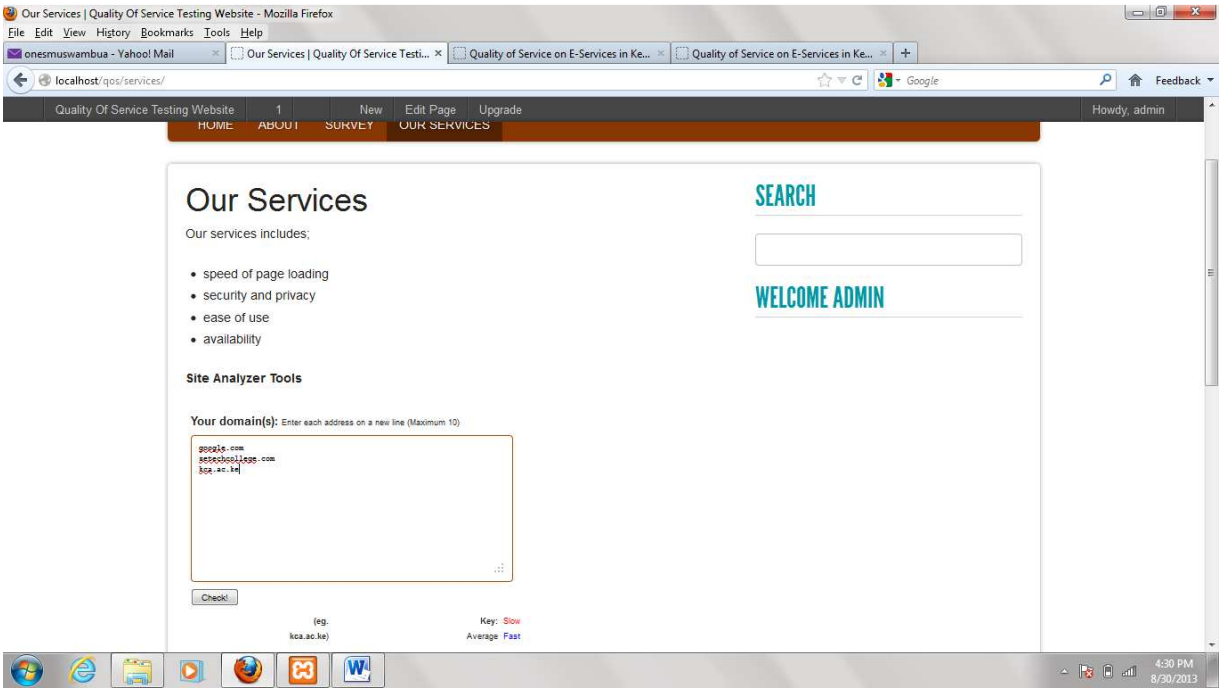
Web page showing the survey page



Web page showing question for questionnaire



The page displaying the services offered eg testing the loading time of a website



Page displaying the results