ADOPTION OF E-LEARNING IN TOURISM AND HOSPITALITY TRAINING IN KENYATTA AND MOI UNIVERSITIES

BY

BERNARD GICHANA OMBATI

SBE/PGT/13/11

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF TOURISM MANAGEMENT IN THE DEPARTMENT OF TOURISM MANAGEMENT, SCHOOL OF TOURISM, HOSPITALITY AND EVENTS MANAGEMENT, MOI UNIVERSITY.

AUGUST, 2019

DECLARATION

Declaration by Candidate

This thesis is my original work and has not been submitted for any degree award in any other university. No Part of this thesis may be reproduced without the prior permission of the author and/or Moi University. All other sources of information cited herein have been duly acknowledged.

Bernard Gichana Ombati Signature ……Date…….

SBE/PGT/013/11

Declaration by Supervisors

This thesis has been submitted for examination with our approval as University Supervisors.

Prof. Bob E.L Wishitemi Signature……..Date……..

Department of Tourism Management

Moi University

Prof. Noah Sitati Signature ……..Date…….

Department Tour and Operations Management

Moi University

DEDICATION

To my supervisors, family and Friends. All that I am I owe it to you.

ACKNOWLEDGEMENT

I am indebted particularly to my supervisors, Prof. Bob Wishitemi, Prof. Noah Sitati, Prof. Joyce Agalo and Dr Nehemiah Kipruto for their thoughtfulness, inspiration encouragement and their tireless Academic Support and guidance that they have been giving me throughout this period of preparing this thesis.

My deepest thanks and gratitude go to my classmates and friends who gave me the motivation to work on this thesis. My Wife and Sons for their encouragement and support throughout this process.

May God's blessing be with you all.

ABSTRACT

The use of Information Communication Technology (lCTs) has permeated every aspect of human life, in education, health, financial, governance and entertainment sectors. ICT has increased the supply of information and overcome the constraints of distance and geographical barriers making the world a Global Village. Hence the use of e-learning systems is slowly being adopted in institutions of learning. However, as an emerging current delivery approach that auguments learning experiences by integrating multimedia and network technologies, effective use of the method along with instructor attitudes, e-learning facilities particularly in Kenyatta and Moi Universities remains a challenge. The purpose of this study was to examine the extent to which e-learning has been adopted as a mode of delivery in two public Kenyan Universities. The objectives were to establish the extent of adoption of e-learning in the teaching of tourism and hospitality programmes in Kenyatta and Moi Universities, determine stakeholder aspirations on the use of e-learning as a mode of instruction in the teaching of Tourism and Hospitality Programmes in the two Universities, establish challenges facing the implementation of e-learning in the teaching of Tourism and Hospitality programmes, and determine the attitudes and perceptions of tourism students towards e-leaning as a mode of instruction in the teaching of Tourism and Hospitality. The study was guided by Diffusion and Innovation theory. A sample size of 120 students and six key informants Directors Institute Of Open and Distance Learning (IODL), ICT and the Deans from the two Universities were used in the study using questionnaire surveys and interview. Both purposive and stratified sampling techniques were used to select the respondents' students and staff. Data was analyzed using Statistical Package for Social Sciences (SPSS) where descriptive and inferential tests were undertaken including percentages, t-tests and chi squares tests to compare between variables. The results showed that adoption of e-learning in the teaching of tourism and hospitality was effective, accurate, relevant information and provision of adequate e-learning materials, easy login and access to modules and communication online has helped learning experience. According to the stakeholders' aspirations, the use of e-learning will make studying easier, cheaper and increase interaction among students, and will improve relationship between students and lecturers were issues of concern. As for the attitudes and perceptions of tourism students towards e-learning, the platform has increased student/lecturer interaction, the platform is user friendly, learning experience is flexible, bandwidth sustains all the online activities, convenience is an important feature of E-learning and gives opportunity to acquire new knowledge were the issues addressed. In conclusion, the adoption of e-Iearning in the teaching of tourism and hospitality is a crucial issue in the world today. Key recommendations include embracing e-learning for both staff and students and development of ICT infrastructure to benefits from this unique digital technology in Kenyan universities.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

DEFINITION OF OPERATIONAL TERMS

Internet	- An International Computer network connecting Universities, research Institutions, Government agencies and business.
E-learning	- A mode of delivering content to students learning through the Internet.
Pedagogy	- This is the art or science of teaching.
Usability	- The measure of a product's potential to accomplish the goals of the user.
Interactivity	- This is the level to which users of software or website can Communicate for specific purpose.
Moodle	- Modular Object-oriented Dynamic Learning Environment.
Multimedia content	- Multimedia represents various types of media content, used together.
E-learning platform	- Container that delivers the content to the student for learning through the Internet.
E-Learning	– Electronic learning

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter gives an overview of the study, where it covers the background of the study, statement of the problem, general and specific study objectives, research questions, significance of the study, scope of the study and the conceptual framework.

1.1 Background of the Study

The development of skills within Kenya's tourism sector is important for both economic and social reasons (Tubey, 2009). Improving the skills and knowledge of the workforce can assist tourism competitiveness and help to establish and maintain a viable industry that is closely related to local and international needs. Information communication technologies (ICTs) can thus act as fundamental driver for tourism-driven development in developing as well as in developed countries. The significance of ICTs is realized in many aspects such as improved access to learning by all (Kaino, 2012), creation of conducive learning environment quality of knowledge delivery, expanded secondary and post-secondary education and reduction of expenditure on training. Thus University research has a potential in the contribution to achievement of Millennium Development Goals such as Education for All (EFA) goals and expanded access to secondary, vocational and higher education by 2015 (Lahti, Hätönen, & Välimäki, 2014)

There has been an unprecedented growth in demand for university education in Kenya; unparalleled anywhere in the East African region. A large number of people are

enrolling for university education today than any other time in the recent past (Makokha & Mutisya, 2016) Thus, the demand for university education continues to surpass the supply. Among the measures public universities are putting in place to cope with increasing demand for higher education and enrol more students is a change in the method of delivery of content from the traditional face-to-face (F2F) to e-learning, which involves the use of computer and network-enabled transfer of skills and knowledge. E-learning is preferred because it is flexible and suited to distance learning.

E-learning is becoming an increasingly popular emerging new approach to teaching and learning in most institutions of higher learning worldwide. (Hong et al., 2009) have pointed out, e-learning is becoming more and more popular with learners as they can combine their learning experience together with the advancement of information technology. ICT technologies provide a distinct advantage to e-learning by revolutionizing every aspect of the learning. (Wanjala, Khaemba, & Mukwa, 2011) advise institutions to adopt ICT utilization in education because these technologies have been recognized worldwide as tools that facilitate and enhance the teaching and learning process through various ways like providing universal access to learning resources. Adoption and use of ICT in Universities can promote collaborative, active and lifelong learning, increase students' motivation, offer better access to information and shared working resources, deepen understanding, help students think and communicate creatively (Khan, Hasan & Clement, 2012). (Ariwa & Rui, 2005) point out that e-learning has become the protagonist for change in education sector. Thus, stark ultimatums continue to be made by education technologists that universities must either 'transform or die' in the face of technological progress (Tarus, Gichoya, & Muumbo, 2015a) points out that promoting e-learning provides a potential and comparative ladder for developing

countries to leapfrog to the knowledge economy. It is seen as a cost effective approach to facilitating learning to large groups using information and communication technology.

The trend towards virtual applications gamifications, social collaborations and bite-size E-learning indicates a shifts away from traditional, text-heavy courses to a more dynamic, fun learning experience containing fewer limitations and greater opportunities for engagement and participation, thus incorporating these trends into traditional t raining methods (McMurray, Horst, & Samuelson, 2012).

While ICT based innovations can occur in classrooms, their linkage to national policies i s essential to achieve intended social and economic outcomes. The emerging E-learning environment as one that is "adapted and developed for intellectual partnership", suggesting that rich learning activities allow students to learn with computers rather from computers according to (Okafor, 2017). This is to make E-learning experience richer, engaging and more interactive and that it provides faster learning at reduced costs, dramatically expands access to learning, and assures clear accountability for all parties in the learning process. Tools that are coupled to digital information and support the possibility of designing real-world objects and physical structures on which the learner later will reflect (Dror, 2007).

Significantly, these technologies and platforms encourage new forms of learning. For example, students exchange knowledge via Facebook groups. Similarly, people share knowledge at no cost via YouTube videos which anyone anywhere in world can watch, so long as there is a stable internet connection to permit it. The new technology also boosts students' ability to learn whenever and wherever they want.

Part and parcel to this advance is the proliferation of smartphones This, coupled with robust internet access, helps explain why platforms like YouTube and Facebook are now daily visited by millions. Effective technology and changing customer needs are creating vibrant opportunities for University education, (e-Learning) Universities are striving to become a standout in the already highly competitive market (Urh, Vukovic, & Jereb, 2015).

While the benefits of ICT have been acknowledged there have been some constraints including access to computers (email and internet), affordability of computers and connectivity, telephone and electricity infrastructure, computer literacy and expertise (Urh et al., 2015). However, the main reasons behind the slow pace of adoption have been identified as lack of effective policies on ICT (Kaino, 2004). Many countries have outlined the significance of these technologies and much of these policies have remained on paper without committing enough resources to policies. The issue of utilizing a fraction of the capacity of existing ICT facility in developing countries has been noted in past studies (Okafor, 2017).

E-learning is becoming an increasingly popular emerging new approach to teaching and learning in most institutions of higher learning worldwide. As (Tarus, Gichoya, & Muumbo, 2015b) have pointed out, e-learning is becoming more and more popular with learners as they can combine their learning experience together with the advancement of information technology. ICT technologies provide a distinct advantage to e-learning by revolutionizing every aspect of the learning. Wanjala, Khaemba and Mukwa (2011)

advise institutions to adopt ICT utilization in education because these technologies have been recognized worldwide as tools that facilitate and enhance the teaching and learning process through various ways like providing universal access to learning resources. Adoption and use of ICT in schools can promote collaborative, active and lifelong learning, increase students' motivation, offer better access to information and shared working resources, deepen understanding, help students think and communicate creatively (Khan, Hasan & Clement, 2012). Ariwa and Rui (2005) point out that e-learning has become the protagonist for change in education sector. Thus, stark ultimatums continue to be made by education technologists that universities must either 'transform or die' in the face of technological progress (Tsegaye & Ababa, 2014). points out that promoting e-learning provides a potential and comparative ladder for developing countries to leapfrog to the knowledge economy. It is seen as a cost effective approach to facilitating learning to large groups using information and communication technology.

1.2 Statement of the Problem

The importance of education is increasing because of increasing pressure to catch up with the developed world regarding, for example, global competitiveness (Hawkins, 2006).

At a time when rapid technological change and context, complex concepts associated with globalization, becoming a primary factor of production in a global economy, Universities are facing macro challenges of responding to the exponential demand for higher education. The need to train people in remote and workplace locations, to train large numbers of students and employees to lessen the pressure that has been mounting

over space and quality of higher education. In order to create economies of scale and allow greater customization of training programs and greater flexibility of use in terms of methodology and time. The advancement in the use of internet for E- learning span both geographical and temporal barriers.

Students are competing for the few places that are offered by the public universities. Those offered places have to apply for study leave as they have to go through the traditional learning system especially the working class in remote areas and consequent removal from their places of work for the duration of their study. Currently students spend a lot money buying learning materials, time limitation in terms of student lecturer interaction thus not serving the student well. Educational institutions have found the capacity of existing classrooms limited and the cost of building new ones is sometimes Prohibitive. In addition, today's learners, especially younger ones, expect to use computers in their learning, while adults have begun to heavily use the Internet for just-in-time learning (Wanner & Palmer, 2015).

These require new skills, infrastructure, and internet connectivity that allow creativity a nd ability to interact with students in synchronous and real time learning methods. Adoptions and use of the new and advancing methods for higher education which shall allow students access to learning and mobility across the continent, the need to redesign curriculums remains complex and challenging. Lack of rapid shift to embrace and adopt the great issues of our time which are increasingly global, and to manage universities so they can successfully respond to changing demands in rapidly changing technological

environments is a challenge that is yet to be realized. While ICT continues to advance in western and Asian countries, African countries still experience a lag in its implementation. Thus the purpose of this study was to investigate the factors affecting the implementation of E-learning in tourism and hospitality training, using the case of Kenyan Universities.

Currently the influence of mobile technology, s martphone tablets and similar devices have been used in various platforms be either marketing, shopping, home appliances to farming techniques. Amongst these areas, it is information knowledge age that has spread so fast across the world (Wanner & Palmer, 2015).

Globally, especially within the developing countries, the respective government and institutions of higher learning have made strides in embracing Information skills within their domain. And in learning aspect and it has started to impact methodology of content delivery through flipped classrooms to blended learning approaches being implemented in early education and institutions of higher learning settings all over the world now that the technology is available to make it possible. In so doing, these institutions are in the process of embracing E-learning that is revolutionizing the face of universities across the globe by helping create a process of facilitating easier, faster, convenient and transparent delivery of content to the students fraternity. As far as E-learning is concerned, especially in most African countries including Kenya, this is a very new concept that is yet to be fully developed or even appreciated (Ellis, Ginns, & Piggott, 2009).

Adoptions

In Kenya, a number of universities today have started e-learning programs, a measure considered to have a high likelihood of increasing accessibility to university education.

At a time when rapid technological change and context, complex concepts associated with globalization, becoming a primary factor of production in a global economy, Universities are facing macro challenges of responding to the exponential demand for higher education. The need to train people in remote and workplace locations, large numbers of students and employees to lessen the pressure that has been mounting over space and quality of higher education. In order to create economies of scale and allow greater customization of training programs and greater flexibility of use in terms of methodology and time. The advancement in the use of internet for E- learning span both geographical and temporal barriers.

Thus the adoption of E-learning in this study will breach the gap for the workers and trainees in the Hotel and tourism industry by offering an alternative avenue in terms of training without necessarily attending the traditional lecturers and breaching physical barriers by promoting collaborative, active and lifelong learning E-learning will offer better access to information and shared working resources, deepen understanding, help students think and communicate creatively (Khan, Hasan & Clement, 2012). Ariwa and Rui (2005) point out that e-learning thus become the protagonist for change in education sector.

Challenges

Universities that are planning to implement e-learning in their institutions should be prepared to respond to the challenges that are likely to arise in the course of

implementation. Kenyan universities are being compelled by the government within the framework of kenya Vision 2030 to introduce e-learning as an alternative delivery system to increase accessibility to higher education in Kenya (Murphy, 2013). Kenyan Vision 2030 is the nation's new development blueprint for 2008 to 2030 which aims at making Kenya a newly industrializing, "middle income country providing high quality life for all its citizens by the year 2030". Implementation of e-learning alongside other strategies for education in Kenya Vision 2030 is anticipated to address the strategic areas, namely, access by tramping the barrier of location by opening new doors to students who may already by working, who may have disabilities or who may be classified as traditional student in one way or the other, quality, equity, technology and innovation. The vision for the education sector for 2030 is "to have globally competitive quality education, training and research for sustainable development" (Murphy, 2013).

Attitudes

Student attitudes towards e-learning have been identified as critical to the success of e-learning (Zhang & Bhattacharyya, 2008). (Bhuasiri, Xaymoungkhoun, Zo, Rho, & Ciganek, 2012) found that in developing countries the most significant factors were related to increasing technology awareness and improving attitude toward e-learning, enhancing basic technology knowledge and skills, improving learning content, requiring computer training, motivating users to utilize e-learning systems, and requiring a high level of support from the university.

Student levels of access to technologies represent an initial factor that would shape their attitudes towards e-learning, and their willingness to use it, the availability of reliable ICTs and the convenience of accessing these technologies reflect student attitudes toward

e-learning. Access to the necessary ICT infrastructure is one of the most important issues that come into focus in the assessment of how developing countries have progressed in e-learning.

According to (Muriuki, 2011) University Administrations need to improve E-learning infrastructure and technology and improve attitude of academic staff through training to sustain and improve adoption of E-learning in higher institutions. Connectivity high bandwidth technical support staff, adequate infrastructure, reliable power supply and acceptance to technological change are essential elements in the adoption and implementation of e-learning.

1.3 Research Objectives

1.3.1 General Objective

The main objective of this study was to investigate the adoption of E-learning in tourism and hospitality training in Kenyan Universities and the role of stakeholders and perceptions of students towards E-learning and establish the challenges hindering its implementation.

1.3.2 Specific Objectives

The specific objectives of the study were;

(1) To establish the extent of adoption of E-learning in the teaching of tourism and hospitality programmes in Kenyatta and Moi Universities.

(2) To determine stakeholder aspirations on the use of E-learning as a mode of instruction in the teaching of Tourism and Hospitality Programmes in Kenyatta and Moi Universities.

(3) To establish challenges facing the implementation of E-learning in the teaching of Tourism and Hospitality programmes in Kenyatta and Moi Universities.

(4) To determine the attitudes and perceptions of tourism students towards E-learning as a mode of instruction in the teaching of Tourism and Hospitality.

1.4 Research Questions

a. What is the extent of adoption of E-learning in the teaching of tourism and hospitality programmes in Kenyatta and Moi Universities?

b. What are stakeholder aspirations on the use of E-learning as a mode of instruction in the teaching of Tourism and Hospitality programmes in Kenyatta and Moi Universities?

c. What are the challenges facing the implementation of E-learning in the teaching of Tourism and Hospitality programmes in Kenyatta and Moi Universities?

d. What is the attitude and perceptions of tourism students towards E-learning as a mode of instruction in the teaching of Tourism and Hospitality?

1.5 Significance of the Study

E-learning has definite benefits over traditional classroom training in so many aspects whereby, classwork can be scheduled around work and family, reduce travel time cost for campus students have options to select learning materials that meets their level of knowledge interest. E-learning enables a learner to study anywhere with access to computer and internet connectivity. Self-paced learning modules allow students to work

at their own pace, there is flexibility to join discussions in the bulletin board threaded discussions areas at any hour or visit with classmates and instructors remotely in chartrooms.

The present study has great significance. First of all, the study findings will provide an idea about the adoption of e-learning and in order to provide key information for either adoption and implementation or to further research work in such areas. In the same way, the study provides knowledge and guidelines to that may be of help to policymakers. The research is therefore of importance for planners, and other social scientists. Finally, this study provides an input to the students, teachers and researchers in the areas of e-learning.

The findings of the study can be useful in policy review by governments and universities towards e-learning. The results of the study will be instrumental in addressing the challenges and win support of students and stakeholders in the utilization of e-learning.

1.6 Scope of study

The study was conducted in Kenyatta and Moi Universities. These study sites were selected through purposive sampling since they are in advanced stage in offering E-learning courses in Kenya. The study confined to measuring the extent of E-learning usage, the implementation process and the challenges the students and lecturers are facing in the E-learning delivery and examining the attitudes of students towards the approach of E-learning training and the role of stakeholders.

1.7 Assumptions

The study made the following assumptions;

a) That Universities today are in the midst of a change process more rapid evolution.

b) Meeting public expectation in terms of time and quality through E-learning mode of training in Universities.

c) Several constraints including insufficient facilities and lack of enough skills in utilizing learning resources have hindered the effectiveness of internet usage by Universities.

d) Respondents will be willing to participate in the study.

e) The universities will allow the study to be undertaken.

1.8 Limitations of the study

A limitation is an aspect of a research that may influence the results negatively but over which the researcher has control Mugenda, O. & Mugenda A.(2003) The first limitation experience d by the researcher is that the study was focused only two universities. That meant stud y could produce different results if the research was to cover all the universities i n the country. Secondly, the generalization will come from data between two universities namely Moi and Kenyatta which are different in structure and infrastructure. So this generalization can skew the results especially when one university is more technologically advanced compared to the other.

Therefore, it is hoped that future research may additionally focus on how student understandings about learning are influenced in the context of everyday learning environments. The results could enable educational practitioners to encourage the

adoption of student learning models which invoke a deep oriented and self-regulated study strategy.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents the literature reviewed on various aspects of the study. Guided by the objectives of the study, it covers the aspects of E-learning and origin models that have been adopted and to be adopted to guide the study.

2.1 Origins of E-learning

E-learning has evolved in different ways in Business, Education, the Training sector, and the Military, and currently means quite different things in different sectors. In the University, 'E-Leaning' refers to the use of both software-based and online learning, whereas in Business, Higher-Education, the Military and Training sectors (Campbell, 2004).

In the context of the wider education community, the use of the term E-learning has historically had wider connotations that embrace a diverse range of practices, technologies, and theoretical positions. It is not only focused on online contexts, and includes the full range of computer-based learning platforms and delivery methods, genres, formats and media such as multimedia, educational programming, simulations, games and the use of new media on fixed and mobile platforms across all discipline areas. It is often characterized by active learner-centred pedagogies (Fernández-Manjón, Sánchez-Pérez, Gómez-Pulido, Vega-Rodríguez, & Bravo-Rodríguez, 2007).

The origins of E-learning as currently practiced in Business, Higher Education and the Military stem from the insightful work of Patrick Suppes at Stanford and Don Bitzer at the University of Illinois. While others such as (Nicholson, 2007) were also active early in this field (Fletcher, 2002), only Suppes and Bitzer clearly situated the use of technology within a broader educational agenda (e.g., Suppes, 1964, 1966, 1986).

Since its inception, E-learning has assimilated a diverse range of pedagogical practices, but the defining aspect of E-Learning the trend towards collaborative online learning environments is not only a result of the increasing adoption of constructivist paradigms, but is also a consequence of the affordances of ubiquitous global networks that have facilitated the realisation of individualised learning and interpersonal interactivity on a large scale, perhaps far exceeding the expectations of Suppes and Bitzer in its scale and scope.

E-Learning is a very broad term for internet-based learning in general. Distance education, online learning, E-learning all of these terms are becoming synonymous with the latest approach to providing high quality educational offerings. E-learning can be defined as technology-supported learning and the delivery of content via all electronic media. E-learning sometimes called distance learning is a formalized teaching and learning system specifically designed to be carried out remotely by using electronic communication. Popular distance learning technologies include: voice-centered technology, such as CD or MP3 recordings or webcasts, video technology, such as instructional videos, DVDs, and interactive videoconferencing, computer-centered technology delivered over the Internet or corporate intranet.

E-learning and distance learning are not quite the same thing. The basic thing that distinguishes distance education is the physical separation of the student from the instructor and the class room. E-learning, however, became part of the classroom environment from the beginning. The early use of computers was geared to help the classroom instructor. Gradually, as more and more personal computers became available, the idea o f online classes was explored by some pioneering colleges and universities. The early attempts at distance education were hampered by resistance from traditionalist within the education field.

Change is always difficult to accept and e-Learning is no exception. E-Learning changes the concept of learning as employees know. Very often they are not aware of the benefits it brings to them as individuals and to the organization as a whole. Often, Subject Matter Experts or trainers feel threatened by e-Learning thinking they are likely to be replaced. It is important to get the buy-in for e-Learning at the initial stages of e-Learning implementation from all stakeholders.

If employees were to go to a traditional training program, they do so during their workday and time. However, sometimes, there is ambiguity as to when employees are expected to complete the online courses assigned to them. If they are not given time off during work hours to complete them and are expected to use their personal time, it is not going to down well with them.

These days, everyone has a smartphone or tablet. Therefore, it's now a requirement to build e-Learning courses that work properly on all devices, not just desktop or tablet computers. Instructors will discover how to easily create a responsive e-Learning course that works on any device, any screen size, and any orientation. Exploring about the

distribution options available from today's modern cloud-based authoring tools; these are options that allow the Lecturers to get content into the hands of learners –on any device– instantly.

Even though, with the involvement of electronically-based technological learning, E-learning started in the early 1960s. From the 1960s through to the early 1980s, technology was mostly used to replace existing one-to-one or face-to-face traditional classes. During the 1980s through to early 1990s a few different approaches were tried out but they did not survive long, as they only transferred existing paper-based teaching materials into digitally-based course formats such as cassettes, CDs and video (McDonald & McDonald, 2012). With the growth of the World Wide Web, advancements in network technologies clearly created an environment that the first wave of E-learning systems supported. For example, synchronous and live online discussions, which had not been possible before then, were of great use in technologically-based learning systems. Although the telephone line had almost replaced the offline types of collaborative paper-based discussions, the cost was usually a burden on the users of E-learning systems at both ends.

From 1994 to 1999, the development of E-learning systems with the support of internationally interconnected computers, the progression of multimedia and media players, the capabilities of streaming audio and video, and the use of email, which is counted as a major breakthrough in the use of technology in education, generated a vacuum for researchers in the field of instructional design to study further the use of hypermedia in the field of education. These studies guided the development of online

learning environments into the second wave of E-learning systems (Wiley, 2000; Taylor, 2002). From 2000 to 2005, researchers studied, designed and developed hypermedia-embedded learner-centred and personalised E-learning environments which tried to get more involvement of learners learning styles into existing E-learning systems (Carver, 2014), (Morris & Rippin, 2002). Crystallize origins of e-learning within institutions and the implications these origins have for E-learning development. Their research indicates four categories of institutions as illustrated in Table 2.1.

Table 2.1: Origin of E-learning model

Explorer and enthusiasts 1900	Individuals of groups of staff with prior interest in using technology for learning, gain financial backing for projects using technologies. A frequent outcome is that institutional policy develops from their lead.
Entrepreneurs 1930	Seek to make money from E-learning initiatives at the onset and develop courses as fully online from outset
Efficiency seekers 1950	Enter into a paradigm of making teaching and administrative materials available rather than using technology specifically for learning purposes
Emulators 1990	Enter into E-learning to stay ahead of competitors little vision for E-learning development beyond this boundary

Source: Morris & Rippin (2002)

Their findings, reflecting the literature, indicate the prevalence of E-learning to originate from the explorer and Enthusiast category. Often the Enthusiast development will lead to the formation of institutional policy, however institutional policy Enthusiasts development do not align, forcing back-tracking and loss of enthusiasm for these early innovators.

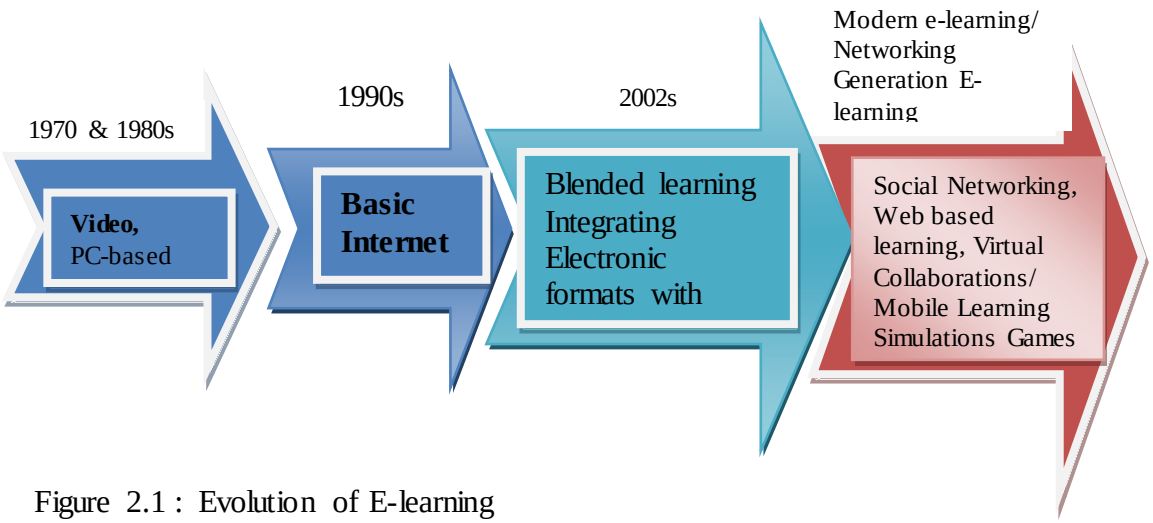


Figure 2.1 : Evolution of E-learning
Source: Thambala (2013)

Transforming education for future is an excellent introduction to how digital culture is influencing visions of education. The argument is that the current educational system exists to prepare people for the 21st century and beyond, and that must be recreated in order to prepare students for future. This goes beyond reading, writing, math, and science. It explores the role of digital literacy; critical thinking and problem solving; and new approaches to collaboration, communication and creation.

Thus e-learning will provide avenues for human development and bridges the digital divide thus enabling participants to fit in the global economy and to be up to date with the

advanced countries, by availing educational opportunities, providing access to quality open educational resources and allowing equitable access to information, which helps to foster information exchange and sharing. To enables lecturers to invest in more innovative teaching, whereas students are active in their own learning thus bridging the gap between the learner and facilitator, which help to improve the teaching methods and reduce pressure on resources (Owino, Ogachi, & Olel, 2011).

According to Tambala (2013), the visualization begins by looking at some familiar technologies: tablet computers, interactive whiteboards, digital projectors, educational games, video-based lessons, E-learning, and open courseware. These tools and innovations are then linked to larger trends in the field such as "Digitized Classrooms," "Gamification," and the "Opening of Information." There is also an increasing recognition of the importance of informal learning. With the easy availability of new social media tools, individuals are already managing their informal learning. This trend is only likely to catch up more in the future as the users increasingly search for and access learning resources freely available on the web, such as, podcasts, videos, and blogs, whenever needed.

2.3 E-learning system as Social entity

Social learning is learning that takes place through social interaction between peers and it may or may not lead to a change in attitudes and/or behavior. More specifically, to be considered social, a process must; demonstrate that a change in understanding has taken place in the individuals involved; demonstrate that this change goes beyond the individual and becomes situated within wider social units or communities of practice; and

occur through social interactions and processes between actors within a social network (Reed et al., 2010).

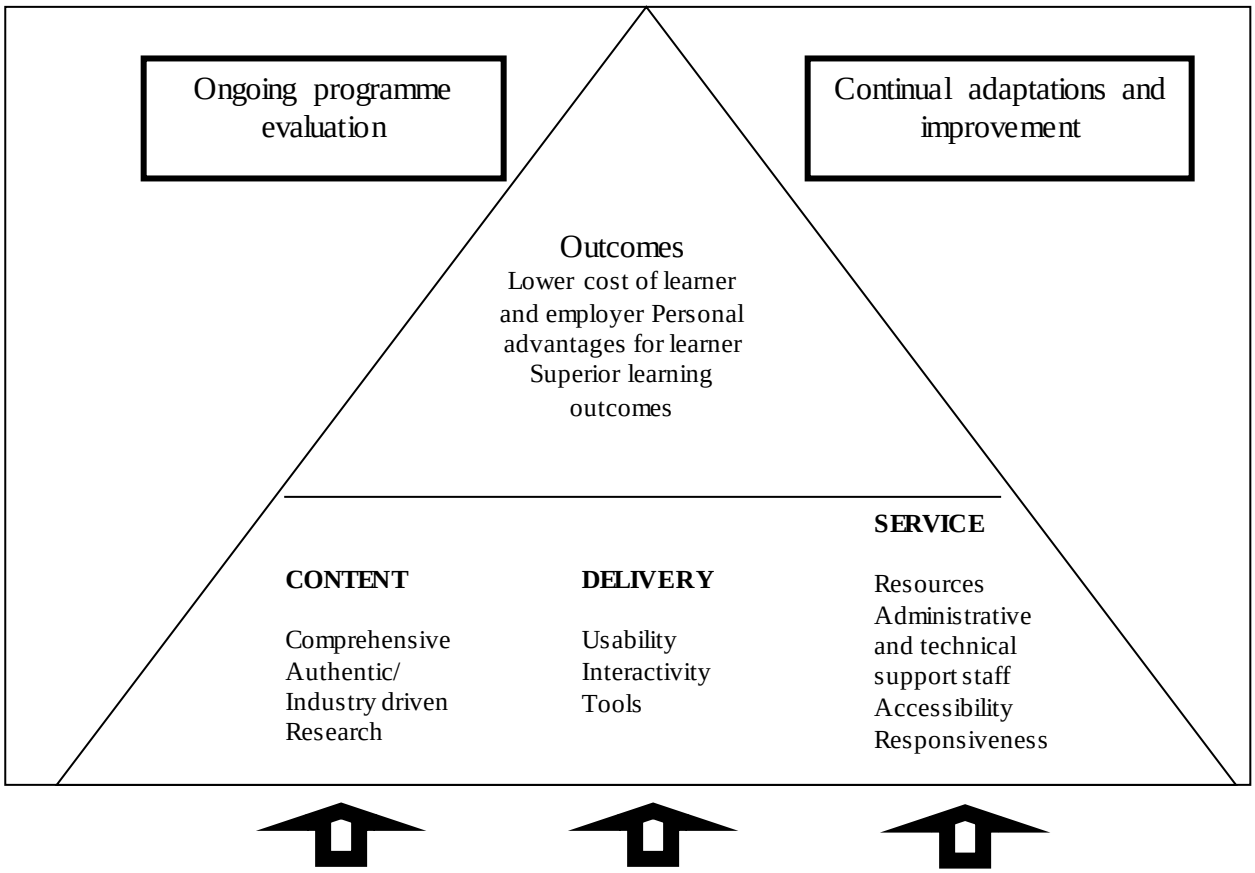
2.4 E-Learning system as a technical entity

As mentioned in social issues, there are technical issues such as system quality and internet quality that have a significant effect on the effectiveness of an E-learning system. Quality has two components, the E-learning software and the peripherals, like hardware, the software while quality involves stability, security, reliability, pace, responsiveness, ease of use, user-friendliness, well organized design and personalization. The quality of the peripherals involves wellness of microphones, earphones, electronic blackboards, electronic mail, online threaded discussion boards, synchronous chat, and desktop videoconferencing. The higher the quality and reliability of used technology, the higher the learning effects will be. Content quality in E-learning depends on how well the learning setup is designed and managed. Learners place great value on content where content is well organized, effectively presented, interactive, clearly written, in the right length, useful, flexible, and provide appropriate degree of breath (Sejzi & bin Aris, 2012). Their study highlighted the importance of up-to- datedness and usefulness of the content. In addition, effective course management, for example by processing students' marks in time, making necessary announcements on time, pre-defined structured exam evaluation criteria, enables learners to feel more comfortable with the course content, resulting in higher retention and satisfaction rate (Leimeister & Balaji, 2015)

Other issues when delivering courses via an E-learning can be grouped under service quality, which includes administrative affairs such as, student tracking, course/instruction authorization, providing E-learning design tools, course management, budgeting, institutional funding and resources for delivering and maintenance. Technology drivers, pedagogical advances and changing learning patterns, the demands of corporate training and the business aspect of E-learning as windows of opportunities are determining factors. Therefore, E-learning represents the convergence of many factors from different fields, for example technological drivers, changes in society, changing corporate training and the new learning paradigm which describes the shift from training to learning (Bates, 2005).

2.4 The demand-driven E-learning model

Although this model is based on the technology learning management system vendors' model of technology, content and service, the technology is seen as support or a tool to achieve the desired learning outcomes in a cost-effective way (Figure 2.1). The primary purpose of the model is to encourage academics to take a proactive role in the development and use of emphasizes the three consumer demands: high quality content, delivery and service (*Content)* should be comprehensive, authentic and researched. *Delivery* is web-based and the interface of E-learning programmes should be user-friendly with communication tools to support interactivity. *Service* should include the provision of resources needed for learning as well as any administrative and technical support needed.



SUPERIOR STRUCTURE			
Learner needs	Learning environment	Pedagogical strategies	Learners evaluation
Learner motivation	Programs goals		Learner convenience

Figure 2.2 : The demand-driven learning model
Source: (Cook & McDonald, 2008).

As technology is fundamental to E-learning, this model provides a valuable framework f or understanding the importance of investing in ICT infrastructure to support content, delivery and service. However, this model also highlights the importance of realizing the changing needs of learners and their employers and the pedagogical changes that must be

made to content and services to meet these needs.

2.5 Constructivist Approach in Virtual University

Constructivism can be employed as a design teaching approach which includes the facilitation of the emerging information and communication technologies. Constructivism characterizes how individuals construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences (Sejzi & bin Aris, 2012). According to the constructivist view, the learning process involves the followings: knowledge is obtained and understanding is expanded through active (re) constructions of mental frameworks and learning is an active process involving deliberate progressive construction and deepening of meaning (Spady, 2001). An awareness of these patterns helps to anticipate and respond to students understandings (Brooks, 2010).

The constructivism approach relies on an understanding of how students interact with courseware; the assumption is that, knowledge is constructed by the students themselves, not through the delivered of the courseware, In this constructivist view, the knowledge is constructed, not transmitted and the students actively learn (Leimeister & Balaji, 2015)

To enhance learning, students should be given opportunity for exploration and manipulation within the environment as well as opportunities for discourse between students (Leimeister & Balaji, 2015). Within this content, students have an opportunity to apply new knowledge and skills in a collaborative shared environment (Übeyli, 2007). In learning as constructivist activity, the role of teachers is “to help and guide the student in the conceptual organization of certain areas of experience” (Glasersfeld, 1983).

Communication technologies must do more than enhance the private learning process. Interactive communication does more than merely conveying information (Stacey, 2007) Constructivism suggests creating environments where learners are required to examine thinking and learning processes; collect, record, and analyze data; formulate and test hypotheses; reflect on previous understandings; and construct their own meaning.

According to constructivist approach like complexity, diversity is one of the characteristics of life which is to be reflected into the constructivist learning environments. General principles and single models do not always apply to all situations and cases in life. People differ in their social backgrounds thus their perceptions about the matters they encounter may be multiple. Multiple perspectives are widely accepted among constructivists (Grabinger, Dunlap, & Duffield, 1997). By applying the constructivist approach in virtual university can provide the opportunities for exploration and manipulation in the virtual environments, and provide opportunities for discourse between students and other users of the environment as well as providing opportunities to actively build skills and knowledge in relation to their interest. Focusing on what participants want is very important to designing any type of learning environment, so researchers should study the personality characteristics of users who find virtual university of value.

2.5.1 The Main Aspects of the Constructivist Approach

1. Active learning: Knowledge is actively constructed rather than passively acquired by the individual (Honebein, 1996).

2. Context-specific learning: Knowledge construction is an adaptive process affected by the specific context and by the environment (Jermann, Soller, & Lesgold, 2004)

3. Social learning: Knowledge is rooted not only on biological and neurological mechanisms, but also on social and cultural interactions among people who agree on a common perception of a given subject (Gardner, 2005).

4. Formative evaluation: While summative evaluation is performed at the end of the learning process with the only purpose of verifying that teaching objectives are met, formative evaluation is carried out during courses and it is integral part of the learning process (Screven, 1967; Yorke, 2003). Constructivism learning is the key to education in the 21st century. With the rapid developments in technology and availability, there is a need for a generation of people who can analysis and reason in this age of technological growth (Bransford et al., 2000).

With adopting the constructivist approach into the virtual university and online learning, students will earn the opportunities to construct their own knowledge by using their different cognitive abilities to learn and interact with others.

In considering the constructivist approach in virtual university, information and communication technologies are employed in teaching to allow students to design and collabor ate within learning, and teaching and learning need to be consistent with meeting students' future needs. Also students can develop some capabilities including: self-managed learning ability, critical thinking, analytical skills, and communication skills. And students can understand fundamental concepts, relevance, challenging beliefs, active learning and flexibility in the process of teaching and learning (Abdoli Sejzi, 2012).

2.5.2 Virtual Universities

The term "virtual university" is often not clearly defined and is used to refer to both "conventional" campus-based universities offering online courses ("hybrid" institutions, "brick-and-mortar") and virtual universities in a "pure" form in the sense that all their activities are delivered online via the Internet. A virtual university may be defined as an institution which is involved as a direct provider of learning opportunities and uses the internet to deliver its programs and courses while receiving tuition support (Ryan et al., 2000). Virtual universities belong to the academic sector, are often accredited and their core activities are the same as those of conventional universities. The business actors are the universities and their students, privately employed people, who are mainly studying part-time. The benefit for the universities is that they can unite the whole program of conventional universities under one "virtual roof". Students benefit from virtual universities because they can learn anytime and anywhere in a very flexible way to guarantee their continuing professional education And thus embracing adoption at the point of interaction.

E-learning environments guarantee access to digital libraries and to student teams and tutors to support their learning processes. Sources of revenues are similar to traditional universities and are mainly universities fees and tuition fees for online courses. The purpose of this research is to develop a comprehensive E-learning assessment model using existing literature as a base, to identify gaps opportunities and how these can be utilized to enhance and adopt technology in teaching tourism and hospitality courses in the Kenyan public Universities.

2.7.2 Scenario of E-learning

There needs to be a reason or motivation to undertake an educational activity if the learning is to be memorable and considered valuable. An interesting context or scenario can assist the activity to have meaning. In some situations, the context will either be evident or require little explanation, for example, in relevant workplace training situations or in situations where student motivation is known to be high. In other contexts, possibly the majority, where the learning agenda is largely institutional, students are encouraged and assisted by an interesting scenario into which the activities are placed. Scenarios are usually provided by a story, role play, or simulation, within which the activity plays a pivotal role in helping students to contextualize content (Brodsky, 2003). The scenario will most likely be fictional; however, there is an assumption that the learning or skill gained through the activity will be transferred to future real world situations example bed tending, table laying practices in the hospitality industry. This transfer is assisted if the learning scenario raises issues and problems similar to those in the re al world, scenarios with this real world correspondence are often referred to as being 'authentic'.

An interesting scenario will make extensive use of humor, imagination, reward, anticipation, or drama to enhance the activity. It will have topics and themes likely to be relevant and interesting to the target audience. It will make the learning activity seem like an obvious or necessary thing to undertake, given the situation presented by the scenario. Designers of entertainment products have long understood this requirement, and the study of their techniques is of increasing interest to educators such as Gee. In his book *What*

Video Games Have to Teach Us About Learning and Literacy(Gee, 2003) suggests that learners participate in extended engagement. For the effective design of E-learning materials, the target audience must be clearly identified in order to develop scenarios that are likely to engage and stimulate the learning.

2.7.3 Feedback in E-learning

Experience becomes knowledge through reflection, which is enhanced by timely and appropriate criticism. Effective E-learning design will include provision for feedback that amplifies the learning from the experience, and enables students to increase their level of skill and knowledge. The range of available feedback strategies is vast, including reflective responses to prescribed questions, semi-automated responses by the system to student actions and work, shared comments in online forums and blogs, and personal responses via email, telephone and post.

The technologically mediated nature of E-learning is perhaps most apparent in the element of feedback, and the challenges are significant for E-learning in domains that have traditionally relied heavily on interpersonal communication, in particular, psychological counseling and the performing arts where one-to-one is the traditional norm (Brown & Voltz, 2005a). Timeliness of feedback is also a consideration, timeliness may be enhanced through automation in some cases, or it might be delayed, such as where email responses replace tutorial question and answer sessions. Effective use of feedback enables E-learning design to set up a dialogue within which the student participates, without which designs may simply become plans for broadcasting content.

2.7.4 Delivery of E-learning Involves

This means that good educational design relies on appropriate delivery to reach its full potential, there is often a design tension between the practicalities of electronic production or delivery on the one hand (such as data transfer rates, file size, security, and cost) and the requirements of the learning activities on the other (for example, timely interaction, rich media content, and a desire for social communication and communal distribution). The appropriate delivery of E-learning should aim to maximize the engagement of the student with the activity, enable the communication of stimulating contexts, and maximize opportunities for feedback and reflection. At times, this may stretch the technical boundaries of E-learning systems, which presents an opportunity for new solutions and technologies, but, at other times, it may mean that simpler delivery strategies are most appropriate, perhaps even ones that are not electronic.

2.7.5 Context of E-learning

The situation within which the E-learning resources are to be used has a significant influence on the design, but may only be partially predictable. Some aspects of the usage context are implied by the elements previously described; however, the broader context is also relevant to addressing learning needs (Brown & Voltz, 2005b). Elements of activity, scenario, and feedback need to take into account the users' profiles and the delivery element needs to consider the technical infrastructure. However, additional contextual considerations include the institutional objectives of the E-learning program, the role and skills of any instructor, longevity of the resources, and cultural sensitivities. The connection between context and delivery methods is highlighted by Silverman and (Saxena, 2010), who notes that different systems of communication seem to be at the

heart of many of the cultural and ethnic differences that affect the learning environment. Bearing this in mind, it is clear that the broader context within which the learning activity is delivered can influence many elements of E-learning design.

2.7.6 Influence of E-learning

The influence of the E-learning design can be assessed from a number of perspectives, including the way that it will affect the learner, the ramifications that it will have for the learning community into which it will be implemented, and the environmental influence of its development and use. Considerations about the personal influence of the E-learning design might consider the extent of learning that is likely to take place compared to the effort required to produce the resource. They might also consider the potential effect of the content and its presentation on a person's self-esteem and other psychological states (Hutchins & Hutchison, 2008), (Raskin, 2000) the extent to which the content benefits the user. Considerations about the social influence of the E-learning design might include the cultural appropriateness of the material, the extent to which the design makes demands on others working with or supervising the learner, the way that it may influence cultural capital in the educational setting, and the ethical values implicit in the design or content (Stahl, 2011). Considerations about the environmental influence of the design include the use of resources required to develop and deliver the E-learning materials, and the influence on the environment of activities required by institution using or administering the learning materials, the extent to which the institution will benefit from the design. As (Brown & Voltz, 2005a) concludes, sensibilities regarding people and nature seem central to what technology ought to be about. Considering the influence of

the design requires designers to appreciate their relationship with, and influence upon, the learner and the learner's social and physical context. Designers need to act in a responsible and ethical manner to ensure that the impact of their E-learning design is of benefit to the learner, society, and the environment.

2.8 Education and Training in Kenya's Vision 2030

Under education and training, Kenya will provide globally competitive quality education, training and research to her citizens for development and enhanced individual well-being. The overall goal for 2012 is to reduce illiteracy by increasing access to education, improving the transition rate from primary to secondary schools, and raising the quality and relevance of education. Other goals include the integration of all special needs education into learning and training institutions, achieving an 80% adult literacy rate, increasing the school enrolment rate to 95% and increasing the transition rates to technical institutions and universities from 3% to 8% by 2012.

Public and private universities will be encouraged to expand enrolment, with an emphasis on science and technology courses. Kenya intends to have international ranking for her Institutions achievement in mathemathetics, science and technology. The specific strategies will involve; (i) integrating early childhood into primary education; (ii) reforming secondary curricula: (iii) modernising teacher training; and (iv) strengthening partnerships with the private sector. Kenya is develop key programmes for learners with special needs, rejuvenate ongoing adult training programmes, and revise the curricula of university and technical institutes by including more science and technology subjects. In

partnership with the private sector, the Government will also increase funding to enable all these institutions to support activities envisaged under the economic pillar. Kenya aims to be a regional centre of research and development in new technologies (GoK, 2012). ICT lecturer competency framework and e-resource centre have been developed with the aim of expanding open and distance learning programmes, develop a digital evaluation framework and integrate element of digital literacy in all curricula for higher institios and TVET (Mwenzwa, 2014).

2.8.1 Feature of effective E-learning

To be effective, E-learning must meet certain criteria. As noted by (Angeliki, Asimina and Eleni, 2005), in general effective E-learning has the following characteristics: successful in reaching learning objectives, easy accessibility, consistent and accurate message, easy to use, entertaining. Memorable, relevant and reduced training costs.

The learning process is organized in a way that the individual takes on their studies in a self-paced manner. There is no rush in the program and therefore no pressure whatsoever as the student can fasten their studies or slow it down to their preference. Other than going in a manageable pace, there is also provision of self-direction so that the student can select what they want in the course. The program allows for choosing specific tools and content that is appropriate for the differing interests, levels and skills a student may have. With E-learning, there is also the privilege of choosing from different learning styles and picking from a variety of delivery methods. This is a great opportunity to students of different learning abilities to get effective teachings. In short, the learning process is made around the student. One other great feature of learning online is the fact

that a student does not have to worry about any geographical barriers or constraints. This means that there is a more broad option for learning and access to the learning facilities is available full time. Scheduling and balancing between work and study can be made easy because there is an opportunity to attend classes on demand.

2.8.2 E-learning benefits

The primary purpose of any Institution/organization is to survive. In order to succeed in this effort, they all strive to utilize the most cost–effective and efficient methods. How best to address the training needs, as noted by (Allen, 2007). Reduced overall cost is the single most influential factor in adopting E-learning. The elimination of costs associated with instructor's salaries, meeting room rentals, and student travel, lodging, and meals are directly quantifiable. The reduction of time spent away from the job by employees may be the most positive offshoot. Learning times reduced by an average of 40 to 60 percent, as found by Brandon Hall (Web-based Training Cookbook, 1997). Increased retention and application to the job averages an increase of 25 percent over traditional methods, according to an independent study by Fletcher (1991). Consistent delivery of content is possible with asynchronous, self-paced E-learning. Expert knowledge is communicated, but more importantly captured, with good E-learning and knowledge management systems. Proof of completion and certification, essential elements of training initiatives, can be automated.

Along with the increased retention, reduced learning time, and other aforementioned benefits to students, particular advantages of E-learning include: on-demand availability enables students to complete training conveniently at off-hours or from home, self-pacing

for slow or quick learners reduces stress and increases satisfaction, Interactivity engages users, pushing them rather than pulling them through training and confidence that refresher or quick reference materials are available reduces burden of responsibility of mastery.

2.9 Theoretical framework

A theoretical framework is a theory which answers the problem and why the used approach is a feasible solution. Furthermore, a theory is a basic explanation of some aspect of the natural world, an accepted knowledge applied in most circumstances to certain specific set of phenomena (Princeton University WorldNet, 2006). Several researchers have found out the importance of a scientific theory. According to Kemoni (2002), a theory shows commonalities in phenomena that may be isolated. It helps in making predictions and controlling events; organizes isolated findings from different research studies into an explanatory framework and assists researchers to maintain consistency in field of study.

According to Cozby (2001), theories have four purposes in scientific research such as description, explanation, prediction and control. The author argues that theories produce new knowledge and hypotheses about behaviour which could be confirmed or rejected after research and this one could show the weakness in a theory and force researchers to elaborate or modify a new comprehensive theory. In this case, it will show the main use of E-resources including E-journals E-learning materials, its purpose such as to seek, search and retrieve relevant, reliable, up-to-date and current information for solving or discovering the solutions of problems which are surrounding the world. The study, hence,

was based on Borgman (2003), three elements of accessing information in networked world which include:

a. **Connectivity** - which is a prerequisite for using a computer network and the resources and services it supports.

b. **Content** - is very fundamental for documents to be used, it plays an important role in learning and research and motivates the usage of a document;

c. **Usability**- is the ability to manipulate the computer and the computer networks, for this, three elements are required such as features of the computer, skills and utilization of the content. This model has been chosen because it shows the basic elements to access and use E-resources. They are important, fundamental and crucial to support access and use of E-learning.

Accessibility needs some elements which support it. Borgman (2003) enumerated a number of elements which characterize accessibility in defining access to E- Learning content in the context of information infrastructure which include:

a) **Connectivity** - is crucial for using computer, a computer network, the resources and the services it supports.

b) **Content and services** - here the connectivity doesn't have sense without the above device (computer, computer network and resources) which facilitates the downloading of the documents.

c) **Usability** - for the facility to manipulate the computer and the computer network, its achievement necessitates aspects such as features of the computer which include must be accessible, the network must be usable by users instead of being designed for technical specialists and skills or literacy where the users must be able to manipulate the system or be trained.

When the users are not capable of accessing the information they need in order to fill the gap or to resolve a particular problem, the usage will be low and it will be high when the users are capable of manipulating the materials available for their use. People's ability to access can limit the use of the technology and access to the E-journals available. This leads to the importance of training before the implementation of new technology or policy in every domain. Without this, they intended implementation of the innovation will fail.

2.9.1 Diffusion of Innovation Theory: Two Research Streams

Rogers (2003), who developed the first model of diffusion, defined diffusion of innovation as, the process by which an innovation is communicated through certain channels over time among the members of a social system. For its adopter, an innovation could be any idea, practice, or object that is perceived as new by an individual or other unit of adoption (Rogers, 2003). The diffusion process consists of four key elements: innovation, the social system which the innovation affects, the communication channels of that social system and time (Rogers, 2003). As one of the most influential theories of communication in marketing, the focus of diffusion theory is on the means by which information about an innovation is disseminated. Although Rogers' model is classic and widely established, it has several limitations regarding its predictive power related to the dissemination of an innovation (Bass, 1969). Bass, therefore, proposed the Bass model to explain his discovery that the number of adopters during a time period is almost identical to the number of sales throughout most of the diffusion process.

The model suggests that the number of adoptions in a time period serves as a good proxy for sales. Thus, the Bass model has been revised and implemented in forecasting innovation diffusion in multiple fields (Mahajan, Muller & Bass, 1990). While the Bass model has potential to predict the distribution of the adoption curve, Rogers' model serves as a comprehensive framework for understanding diffusion process of an innovation and its underlying factors driving the diffusion thus a suitable model in e-learning since it can be adopted as a new product and mode of delivery that can be effective, efficient and easy to delivers in well-established setup in form of E-learning.

2.9.2 Components in the Diffusion of Innovation Adoption

To most people, compared with the traditional face-to-face teaching environmental, E-learning is undoubtedly a new concept and can be regarded as an innovative way of being engaged in learning and teaching. It can be considered as an alternative channel to provide training and education to meet the ever growing demand for higher education. To achieve this, Rogers theory on innovation diffusion has been adopted to study the E-learning intention a major focus. Therefore, it is considered as appropriate to apply innovation diffusion theory into the study of E-learning adoption.

Rogers (1995) has identified five attributes of an innovation acceptance, these characteristics include: relative advantage, compatibility, complexity, triability and observability and the relationship between the five attributes and innovation acceptance.

Relative advantage: this is the extent to which people believe that the innovation is better than the traditional one, according to (Rogers, 1995), It does not matter if the

innovation has objective advantage or not. What matters is how people see the innovation and if they perceive the innovation "to be advantageous" the relative advantage can be measured in " economic terms" social prestige; convenience and satisfaction" (Rogers, 1995:15) the greater the perceived relative advantage of an innovation the more rapid it's rare of adoption will be.

Compatibility: This is the extent to which institution believe that the innovation is compatible with the traditional idea in terms of "existing values, past experiences and needs of the potentials adopters". An idea that is incompatible with the values and norms and a social system will not be adopted as rapidly as an innovation that is compatible.

Complexity: This is the extent to which institution finds the innovation difficult to use and understand. As Rogers (1995) explains, some innovations might be easier for people to understand and others if not example they involve additional level of knowledge might be more difficult for people to understand.

Trialability: This is the extent to which people believe that there are chances for the innovation to be experienced before decided whether to adopt it not an innovation that is trialable represents less uncertainty to the individual who is considering it for adoption, who can learn by doing (Rogers, 1995).

Observability: Refers to the level of which "the results of the innovation are visible to others" (Rogers, 1995:16). The easier it is for people to visibly observe those results then the more likely the adoption of the innovation world be, such visibility stimulus peer discussion of a new idea, as friends and neighbours of an adopter often request innovation evaluation information about it (Rogers, 1995).

2.10 Conceptual Framework

E-learning perspective builds on existing learning theories that emphasise in particular the relationships between the differing perspectives (Figure 2.3). The Internet supported learning environment allows in principle greater transferability of learning techniques and methods. All users including academic staff and students are able to access all learning content as a member of the learning community.

The dynamic and interactive nature of the web is realizing a shift in learning styles towards a more collaborative and interactive perspective.

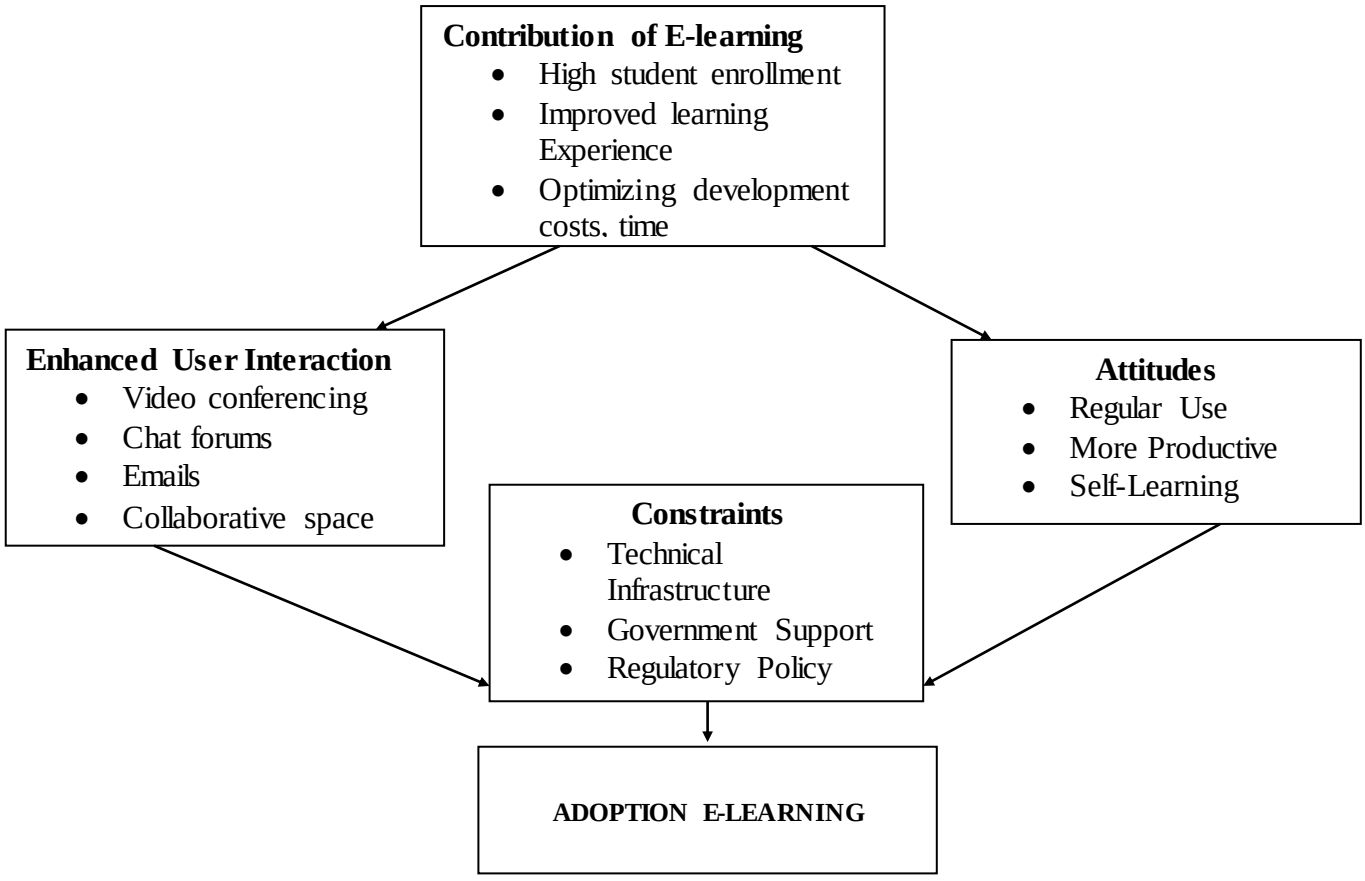


Figure 2.3 : The adoption of e-learning in universities
Source: Researcher, 2013

The design and implementation of an Internet based learning environment at the university requires web based and applications software to follow both an open and flexible approach, allowing the transferability and integration of diverse software products.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter gives an overview of the research design, research methodology that was used in the study. It covers the study area, target population and sampling techniques, sample selection, data collection methods and instruments, data analysis and presentation techniques, quality control of data collection instruments and ethical considerations.

3.1 Research Design

Kombo and Tromp (2006) explains research design as the specific ways on how the researcher conducts the study, he states that, research design is the structure that holds together the research and enables one to address research questions in ways that are appropriate, efficient and effective. Basing the inquiry on the assumption that collecting diverse types of data best provides an understanding of research problem, the study used a mixed methods approach. This is a type of research design which focuses on collecting, analysing and mixing both quantitative and qualitative data in a single study or series of studies.

According to (Tashakkori & Teddlie, 2010), qualitative approach draws data from the context in which events occur and attempts to describe occurrences, as a means of determining the process in which events are embedded and the perspective of 55 respondents, using induction to drive possible explanation of a phenomena. Qualitative

research allows respondents to give much richer answers to questions put to them by the researcher, and may give valuable insights which might have been missed by any other method. Not only does it provide valuable information to certain research questions in its own right but there is a strong case for using it to complement quantitative research methods. On the other hand Tashakkori and Teddlie (2008) described quantitative approach as "the numerical representations to quantify occurrences". This is done by designing research instruments aimed specifically at converting phenomena that does not naturally exist in quantitative form into quantitative data, which can be analyzed statistically.

Descriptive survey was adopted since is it concerned with describing, recording analyzing and reporting conditions that exist. The survey described the status of E-learning and analysed the challenges of this type of education.

3.2 Study Area

This study was undertaken in Kenyatta and Moi Universities. This is due to the fact that the universities have embraced Virtual learning and Moi University System for Managing Instruction (MUSOMI) respectively. (Nasieku, Kemoni, & Otike, 2011)

3.2.1 Kenyatta University

Kenyatta University is located on the Nairobi-Thika dual carriageway in Kiambu County. The long journey to University status started in 1965 when the British Government handed over the Templer Barracks to the Kenya Government. These were converted into an institution of higher learning known as Kenyatta College. The institution has other centers that offer both academic and administrative support to students taking open

learning/distance education programmes. The centres are located in: Mombasa, Nairobi, Embu, Nyeri, Garissa, Nakuru, Kisumu, Kakamega counties.

The increased interest in tourism hospitality training both by public and private institutions, the outcome of which is the vast mushrooming of middle level and tertiary academic and training institutions that were originally not keen in offering tourism as an area of study due to its perceived low status as an academic discipline. These institutions started to perceive the introductions of new tourism training programs and education courses as a means of increasing student enrolment and enhancing capitation. Thus initiated a mode of training to capture wide accessibility to large audiences via the internet thus through E-learning as a tool for independent learning where learners can research, summarise and present findings using internet communication resources (Nasieku et al., 2011).

Kenyatta University (KU), the second largest public university in Kenya, is situated about 23 kilometres from Nairobi, Kenya's bustling capital city. The university has a student population of 23,000, with 14 departments and schools, six campuses, and eight regional centres offering support to distance education students. Using Information and Communication Technologies (ICT), the university has embarked on a rapid expansion strategy aimed at making it a world-class university and expanding its course offerings. Partnership for Higher Education (PHEA) (Mugenda & Mugenda, 2012), offered an opportunity to engage with the ICT initiatives particularly intrigued by discussion around fibre-optic cables. It was at this point that the idea began to be explored on what this technology could mean for universities. Thus recognition of the strategic importance of

ICT, as well as the necessity of allocating requisite funding. The appointment of a highly committed Directorate of ICT staff in 2007, an annually reviewed ICT strategic plan containing clearly articulated strategies and timeframes and supportive management style, has resulted in KU implementing a number of E-learning initiatives to enhance its management, teaching, learning, and research environment. The university has since developed a multi-pronged approach to Virtual learning, with the initial focus of enhancing ICT infrastructure, hardware and administration systems of the university evolving into a broader focus on using technology for e-learning.

3.2.3 **An Overview of the E-learning Situation in Kenyatta University, Kenya**

Kenyatta University, started as a teacher training institution, became a fully-fledged university in 1985 (Kenyatta University, 2005). With a blended mode philosophy of e-learning, the University opened its doors to e-learning students in June 2005 (Mutabari 2009). The University adopted blackboard (Learning Management System) software at the time very little was known about e-learning software. However, in 2009, the management brought experts from United Kingdom to the university to install the Moodle platform. The experts trained a few IT personnel of the IT session of ODeL-KU and 250 lecturers to upload their course unit materials on the platform (Daily Nations 2011). As at 2012, about 50% of the trained lecturers were conveniently using the Moodle platform to deliver on-line teaching.

3.2.2 Moi University

Moi University is located in Eldoret, 310 kilometres northwest of Nairobi, the Capital City of Kenya. It was established as the second University in Kenya by an Act of

Parliament, the Moi University Act of 1984. The first cohort of 83 students was admitted in 1984 through a transfer from the Department of Forestry, University of Nairobi. Since then, the University has experienced phenomenal growth from its initial one faculty in 1984, to a total of Thirteen (14) Schools, four (7) Directorates and Two (2) Institutes by 2012. The total student population currently stands at 31, 723, offering over 266 in programmes in various disciplines. The University currently operates Four (4) campuses, namely: Main Campus, Town Campus, Eldoret West Campus and Odera Akang'o Campus. The Town campus hosts the College of Health Sciences (Medical complex), School of Aerospace Sciences (Rivatex) and School of Law (Annex) while the Eldoret West Campus is home to PSSP programmes. Moi University is proud have Three (3) Satellite Campuses in Nairobi, Kitale, and Coast (Mombasa).

3.3 Population and sampling procedures

3.3.1 Sampling Techniques

Sampling involves the process of selecting a number of individuals for a study in such a way that the individuals selected represent the large group from which they were selected (Tashakkori and Teddlie, 2008). The goal of sampling is to obtain the results from part of the population that can be generalized to the entire population with as much accuracy as possible. Two main sampling techniques were used namely purposive and convenience. Purposive sampling was used to select the two Universities, the only ones with major components of e-learning having upload and offering some courses online institute of Open and Distance learning namely Kenyatta and Moi Universities. Purposive sampling was also used to select two key administrators, the Directors of the Institute of Open and

Distance Learning one from each of the universities for interview, since they are more versed and equipped with knowledge challenges faced on the day-today running and delivery of content in their respective institutes Lecturers who arewere trained and having uploaded their module/Lecture materials for teaching and training.

Using convenient sampling, the students enrolled in Open and distance learning institutes were selected to participate in the study from the target population targeting those people who have the knowledge on computers and having interacted with the e-learning platform. According to Mugenda and Mugenda (2003), in convenient sampling respondents are selected due to their convenient accessibility to the researcher.

3.3.2 Research Instruments

Data was collected through questionnaires for students and lecturers (Appendix I), interviews schedules (Appendix II) for senior university administrators and analysis of documents. The survey was carried out in two universities with major components of e-learning in Kenya, Kenyatta and Moi Universities to establish adoptions, attitude, aspirations and challenges encountered in e-learning platform. Questionnaires are chosen because the data generated is amiable and enough to meet the objectives.

3.4 Determination of the Sample Size of the respondents

A table was used to determine the sample size that is widely used in research using the approach by (Krejcie & Morgan, 1970). This was applied to participants who use e-learning platform for learning and teaching Tourism programme in the respective universities. A sample size of 160 was derived comprising of a total of 120 where 3rd and

4th year undergraduate students, 60 from each university, 10 masters students and 10 teaching staff was derived (Table 3.1). The researcher chose the undergraduate third and fourth years and masters students because the assumption of the study is that this group is better placed to experience the adoption of ICT.

Sample Size of the respondents

University	**Undergraduate 3rd years**	**Undergraduate 4th years**	**Masters**	**Staff**	**Total**
Kenyatta University	30	30	10	10	80
Moi University	30	30	10	10	80
Total per University	60	60	20	20	160

3.5 Criteria for Recruiting Respondents

Generally, the research participants were required to meet the following requirements aimed to ensure that they were sufficiently familiar with their working environment in terms of being technology savvy, the Technical personnel who supports and maintains the platform, teaching staff and students who in one way or the other have interacted with the platform in the respective institutions. Secondly, participants were conversant with the actual daily activities involving e-learning platform as a means to disseminate knowledge. Thirdly, those participants were actively involved in training, maintenance and applicability of the E-learning facilities in their respective universities.

3.6 Data Collection Instruments

Both primary and secondary sources of data were utilized. Primary data were obtained using questionnaire surveys (Appendix I) and structured interviews (Appendix II) in order to determine the variables influencing e-learning, distance learning on various indicators that enhance or inhibit the implementation of e-learning in the institutions to enable the smooth teaching and training. Secondary data were gathered from published and unpublished sources such as journals, books, and internet.

In order to enhance the reliability of the questionnaires a pilot study was undertaken to pre-test the questionnaire (De Vaus, 2002). The sample size was derived using a formula by De Vaus (2002) which recommends a 5 – 10% sample size of the study sample size. The questions were reviewed and refined in the light of the results of the study to make them clear to the respondents. In addition, they were invariably re-examined and technical defects were scrutinized and removed. Pre-testing was crucial in detecting any problem with the questionnaire design to avoid ambiguity of words, misinterpretation of questions, inability to answer a question, sensitive questions, and errors associated with the survey research, problems associated with the questionnaire as well as the process of administering the survey.

Questionnaires were therefore piloted to iron out any ambiguities and tested and purged using the SPSS Cronbach Alpha technique for reliability. The Pearson product moment correlation coefficient of 0.79 while the teaching staff questionnaire yielded a half test coefficient of 0.81. The subjects scores were then corrected using the spearman-brown

prophecy formula for the full test questionnaire respectively. The instruments were therefore considered reliable since the general rule of thumb in research, a rule that allows one to estimate quickly whenever large calculation is required, is that the reliability should be at least 0.70 (Orodho, 2005).

3.6.1 Questionnaires

The study utilized semi-structured questionnaires, the questions covered items on the factors affecting the implementation of e-learning in the universities (Appendix I). The questionnaires were self-administered in the two institutions all the respondents were administered with the same set of questions.

3.6.2 Interview Schedules

The study used structured interviews, which was guided by an interview guide (Appendix II). Interview schedules covered items on the E-learning and facilities that are in place aided the implementation of the program. All the respondents were administered with the same set of questions during the interviews. The researcher interviewed the head of departments of the various areas of specializations. More importantly, the interviewer listened carefully and maintained good rapport, respect and curiosity during the interview session.

3.7 Data collection

Information from university administrators on developments, available students, facilities, and challenges in offering e-learning was obtained by direct interview. Information from lecturers and students in e-learning was obtained by administering lecturers' and students' questionnaire respectively and interview schedules arranged and grouped accordingly to individual research questions. Data from the questionnaire were

then entered into appropriate categories in the computer worksheet using the statistical Package for social sciences (SPSS) version 20 and Microsoft Excel. Frequencies, percentages and cross-tabulation were then used to analyse data. Information from the interview schedule was interpreted as per the study objectives.

3.8 Data Analysis

Quantitative data analysis procedures will used to analyze data collected using Statistical Package for Social Sciences (SPSS) software Version 20 was used for both descriptive and inferential analysis. Descriptive analysis included frequencies and percentages while inferential tests included t-test and Chi square test to compare between variables.

The t-test assesses whether the means of two groups are statistically different from each other. The test was appropriate because there was the comparison of the means of two groups (Moi University and Kenyatta University), and especially appropriate as the analysis for the post test-only two-group randomized experimental design (Trochim, 2016).

3.9 Ethical Considerations

The following ethical issues were observed in the course of the research. Firstly, the researcher adhered to individual privacy and voluntary participation. Secondly, the researcher treated information collected with confidentiality and used it for the purpose of the research only. Thirdly, the researcher provided all respondents in the study with clear information on the nature and the purpose of the study before embarking on data

collection. Fourthly, the researcher obtained research permit and clearance from relevant authorities. Finally the required legal and social issues in the study areas were adhered to (McLeod, 2007).

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATIONS

4.1 Demographic information of students

From the study as shown in Table the study population comprised of 4.1, 52.1% of students from Moi University and 47.9% from Kenyatta University and this did not differ between the respondents (χ^2=0.207, p=0.649). Concerning gender, 51.2% were males and 48.8% were females and this did not vary between the respondents (χ^2=0.074, p=0.785).

On the highest level of education, majority (69.4%) of the students had diploma while 27.3% had bachelors and masters had 3.3% and this varied significantly between the respondents (χ^2=81.338, p=0.001). On age, majority (40.5%) of the students were in the age category of 18 – 30 years and 31 – 40 years and 41 – 50 years were 33.9% and 25.6%, respectively and this did not vary between the respondents (χ^2=4.033, p=0.133).

From the study, majority (61.2%) of the respondents were single and married were 38.8%. The marital status of the respondents varied significantly (χ^2=6.025, p=0.014). On the total income level per month, less than Kshs. 10,000 had 33.1%, Kshs. 10,000 - Kshs. 20,000 had 26.4%, Kshs. 20,001 - Kshs. 30,000 had 19.0%, Kshs. 40,001 - Kshs. 50,000 had 0.8% and above Kshs. 50,000 had 20.7% and this varied significantly between the respondents (χ^2=35.157, p=0.001). This meant that a majority of the respondents earned

less than Kshs. 10,000. On the area of specialization, communication had 27.3%, public relations had 6.6%, tour operations had 11.6%, tourism had 47.1% and 7.4% and this varied significantly between the respondents (χ^2=14.342, p=0.002).

Table 4.1: Demographic information of the respondents

Variable	**Frequency**	**Percentage**	**Chi square**	**p-value**
Institution				
Moi University	63	52.1	0.207	0.649
Kenyatta University	58	47.9		
Gender				
Male	59	47.9	0.074	0.785
Female	62	51.2		
Highest level of education				
Diploma	33	27.3		
Bachelors	84	69.4	81.338	0.001
Masters	4	3.3		
Age				
18 - 30 years	49	40.5		
31 - 40 years	41	33.9	4.033	0.133
41 - 50 years	31	25.6		
Marital status				
Single	74	61.2	6.025	0.014
Married	47	38.8		
Total income level per month				

Less than Kshs. 10,000	40	33.1		
Kshs. 10,000 - Kshs. 20,000	32	26.4		
Kshs. 20,001 - Kshs. 30,000	23	19.0	35.157	0.001
Kshs. 40,001 - Kshs. 50,000	1	0.8		
Above Kshs. 50,000	25	20.7		
Area of specialization				
Communication	33	27.3		
Public Relation	8	6.6		
Tour operations	14	11.6	14.342	0.002
Tourism	57	47.1		
Wildlife	9	7.4		

Source: Researcher, 2015

4.2 Extent of adoption of e-learning in the teaching of tourism and hospitality programmes

On adoption of e-learning in the teaching of tourism and hospitality, majority (72.7%) of the students disagreed that there is an effective e-learning program and this varied significantly between the respondents (Table 4.2; χ^2=15.333, p=0.004). Accurate and relevant information had disagree of 66.1% and this varied significantly between the

respondents (χ^2=14.600, p=0.002). Accurate and relevant information had 33.1% and this did not vary between the respondents (χ^2=3.333, p=0.504). Provision of adequate e-learning materials had 27.3% of the respondents strongly disagreeing and this did not vary between the respondents (χ^2=2.000, p=0.736). Easy login and access to modules had 27.3% strongly disagreeing and this did not vary significantly between the respondents (χ^2=2.123, p=0.706). Whether communication online has helped learning experience had 33.1% strongly disagreeing and this did not vary between the respondents (χ^2=3.454, p=0.456).

Table 4.2: Adoption of E-learning in the teaching of tourism and hospitality programmes

Adoption of E-learning	**SA% (f)**	**A% (f)**	**N% (f)**	**D% (f)**	**SD% (f)**	**χ^2**	**p**
Effective e-learning program	5.8 (7)	14.0 (17)	7.4 (9)	60.3 (73)	12.4 (15)	15.333	0.004
Accurate and relevant information	5.8 (7)	21.5 (26)	6.6 (8)	66.1 (80)	0 (0)	14.600	0.002
E learning systems have links	5.8 (7)	27.3 (33)	33.1 (40)	20.7 (25)	13.2 (16)	3.333	0.504
Provision of adequate e-learning materials	5.8 (7)	21.5 (26)	19.8 (24)	25.6 (31)	27.3 (33)	2.000	0.736
Easy login and access to modules	5.8 (7)	26.4 (32)	19.8 (24)	20.7 (25)	27.3 (33)	2.123	0.706

Communication online has helped learning experience	5.8 (7)	26.4 (32)	13.2 (16)	21.5 (26)	33.1 (40)	3.454	0.456

Source: Researcher, 2015.

SA=Strongly Agreed, A=Agreed, N=Not sure, D=Disagree and SD=Strongly disagree

4.3 Stakeholder aspirations on the use of e-learning as a mode of instruction in the teaching of Tourism and Hospitality Programmes

On the stakeholder aspirations on the use of e-learning as a mode of instruction in the teaching of Tourism and Hospitality Programmes as depicted in Table 4.3, e-learning will make studying easier had 62% of the respondents strongly agreeing with the matter and this varied significantly between the respondents (χ^2=11.400, p=0.030).

E-learning will make studying cheaper had 38.8% of the respondents strongly agreeing and this varied significantly between the respondents (χ^2=5.533, p=0.010). On the issue that e-Learning will increase interaction among students and will improve relationship between students and lecturers, both had 38.8% of the respondents agreeing and this did not vary between the respondents (χ^2=2.333, p=0.506). On whether e-learning will link the university with other university, it had 33.9% of the respondents agreeing and this did not vary between the respondents (χ^2=3.400, p=0.334). Finally, on whether e-learning will increase revenue of the university, 46.3% of the respondents strongly agreed.

Table 4.3: Stakeholder aspirations on the use of e-learning

Stakeholder aspirations on the use of e-learning	**SA% (f)**	**A% (f)**	**N% (f)**	**D% (f)**	**SD% (f)**	**χ^2**	**p**
E-learning will make studying easier	62.0 (75)	24.0 (29)	6.6 (8)	0.0 (0)	7.4 (9)	11.400	0.030
It will make studying cheaper	38.8 (47)	25.6 (31)	20.7 (25)	0.0 (0)	14.0 (17)	5.533	0.010
It will increase interaction among students	25.6 (31)	38.8 (47)	20.7 (25)	0.0 (0)	14.0 (17)	2.333	0.506
It will improve relationship between students and lecturers	27.3(33)	38.8 (47)	13.2 (16)	32.2 (39)	7.4 (9)	3.333	0.504
It will link the university with other university	33.9 (41)	26.4 (32)	0.8 (1)	13.2 (16)	13.2 (16)	3.400	0.334
It will increase the revenue of the university	46.3 (56)	25.6 (31)	12.4 (15)	0.0 (0)	15.7 (19)	4.467	0.215

Source: Researcher, 2015.

SA=Strongly Agreed, A=Agreed, N=Not sure, D=Disagree and SD=Strongly disagree

4.4 Challenges facing the implementation of e-learning in the teaching of Tourism and Hospitality programmes

The respondents were inquired on the challenges facing the implementation of E-learning in the teaching of Tourism and Hospitality programmes (Table 4.4). Lack of technical facilities had 41.3% and this varied significantly between the respondents (χ^2=5.333, p=0.255). Lack of adequate space for learning had 33.9% and this varied significantly between the respondents (χ^2=2.000, p=0.736).

Lack of sufficient access points had 54.5% agreeing and this varied significantly between the respondents (χ^2=7.667, p=0.053). Unreliable technology had 40.5**%** of the respondents agreeing with the issues and this varied significantly between the respondents (χ^2=15.333, p=0.004). Lack of enough system security had strongly agreeing 26.4% and this did not vary between the respondents (χ^2=0.667, p=0.995). Low bandwidth had 32.2% of the respondents strongly agreeing with the issues. The findings of the study reveal that lack of sufficient access points stood out as the main challenge facing the implementation of e-learning in the teaching tourism and hospitality programs.

Table 4.4: Challenges facing the implementation of e-learning in the teaching

Challenges facing the implementation	**SA% (f)**	**A% (f)**	**N% (f)**	**D% (f)**	**SD% (f)**	χ^2	**p**
Lack of technical facilities	27.3 (33)	41.3 (50)	12.4 (15)	5.8 (7)	13.2 (16)	5.333	0.255
Lack of adequate space for learning	12.4 (15)	33.9 (41)	22.3 (27)	18.2 (22)	13.2 (16)	2.000	0.736
Lack of sufficient access points	0.0 (0)	54.5 (66)	26.4 (32)	5.8 (7)	13.2 (16)	7.667	0.053
Lack of enough system security	26.4 (32)	22.3 (27)	19.8 (24)	12.4 (15)	19.0 (23)	0.667	0.995
Low bandwidth	32.2 (39)	28.1 (34)	20.7 (25)	5.8 (7)	13.2 (16)	3.333	0.504
Unreliable technology	25.6 (31)	40.5 (49)	7.4 (9)	0.0 (0)	13.2 (16)	5.333	0.255

Source : Researcher, 2015.

SA=Strongly Agreed, A=Agreed, N=Not sure, D=Disagree and SD=Strongly disagree

4.5 Attitudes and perceptions of tourism students towards e-learning as a mode of instruction in the teaching of Tourism and Hospitality

On the attitudes and perceptions of tourism students towards e-learning as shown in Table 4.5. Availability of sufficient learning materials online had 46.3% and this did not vary between the respondents (χ^2=4.467, p=0.215). Platform has increased student/lecturer instructiveness had 51.2%, and this varied significantly between the respondents (χ^2=7.667, p=0.053). The platform is user friendly had 46.3%, and this varied significantly between the respondents (χ^2=10.667, p=0.031). Learning experience is flexible had 33.9% and this varied significantly between the respondents (χ^2=3.333, p=0.504). Bandwidth sustains all the online activities had 38.8%, and this varied significantly between the respondents (χ^2=5.333, p=0.004). Convenience is an important feature of e-learning had 46.3% of the respondents agreeing and this varied significantly between the respondents (χ^2=8.200, p=0.042). E-Learning gives the opportunity to acquire new knowledge had 46.3% of the respondents agreeing with the issue and this varied significantly between the respondents (χ^2=10.608, p=0.027).

Table 4.5 : Attitudes and perceptions of tourism students towards e-learning

Attitudes and perceptions	**SA% (f)**	**A% (f)**	**N% (f)**	**D% (f)**	**SD% (f)**	χ^2	**p**
Availability of sufficient learning materials online	26.4 (32)	46.3 (56)	13.2 (16)	13.2 (16)	0.8 (1)	4.467	0.215
Platform has increased student instructiveness	13.2 (16)	51.2 (62)	0.8 (1)	28.1 (34)	6.6 (8)	7.667	0.053
The platform is user friendly	31.4 (38)	46.3 (56)	7.4 (9)	7.4 (9)	7.4 (9)	10.667	0.031
Learning experience is flexible	19.0 (23)	33.9 (41)	27.3 (33)	5.8 (7)	14.0 (17)	3.333	0.504
Bandwidth sustains all the online activities	5.8 (7)	38.8 (47)	13.2 (16)	28.9 (35)	13.2 (16)	5.333	0.255
Convenience is an important feature of e-learning	39.7 (48)	46.3 (56)	6.6 (8)	0.0 (0)	7.4 (9)	8.200	0.042
E-learning gives the opportunity to acquire new knowledge	33.9 (41)	46.3 (56)	6.6 (8)	5.8 (7)	7.4 (9)	10.608	0.027

Source: Researcher, 2015.

SA=Strongly Agreed, A=Agreed, N=Not sure, D=Disagree and SD=Strongly disagree

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter comprises of discussion, conclusion and recommendations.

5.1 Discussions

5.2 Adoption of E-learning in the teaching of tourism and hospitality programmes

On adoption of E-learning in the teaching of tourism and hospitality, there was effective E-learning program, accurate and relevant information, accurate and relevant information, provision of adequate e-learning materials, easy login and access to modules and communication online has helped learning experience. This is in agreement with findings by Panayiotou (2012) which states that E-learning has been identified as a key source of competitive advantage for businesses, especially for the hotel and tourism industry, which relies upon people to provide services. The need to reduce costs and increase quality, has demonstrated e-learning technology's importance on training personnel. E-learning technology in tourism sector is associated with knowledge being delivered online to learners who in this case are the employers and employees of the enterprise (Panayiotou, 2012).

There are several barriers that can impede the adoption of e-learning in higher learning institutions. (Kisanga & Ireson 2015) conducted a study in Tanzania, the barriers of adoption of e-learning include poor infrastructure, financial constraints, inadequate support, lack of e-learning knowledge and teachers' resistance to change.

5.3 Stakeholder aspirations on the use of E-learning

The research also dealt with the stakeholder aspirations on the use of E-learning as a mode of instruction in the teaching of Tourism and Hospitality Programmes. From the findings, it was realized that e-learning will make studying easier and cheaper. This findings are in agreement with findings by Sekiwu and Naluwemba (2014) who reiterated that there are many students today who are pursuing studies in many universities overseas but do not need to leave their mother country to be fulltime students in foreign countries. Instead, the E-learning methodology has made it easy for such interaction to be possible because academic promoters can share smoothly with students via emails and with the aid of the online library (Sekiwu & Naluwemba, 2014).

ELearning will increase interaction among students and will improve relationship between students and lecturers were issues of concern. Sekiwu and Naluwemba (2014) also realised that e-learning could also cultivate online interactions among participants, even when may be many miles apart. There are many students today who are pursuing studies in many universities overseas but do not need to leave their mother country to be fulltime students in foreign countries (Sekiwu & Naluwemba, 2014).

Kisanga and Ireson (2015) recommended that training in e-learning needs to be provided to teachers and administrators; provide financial, technical and managerial support geared towards adoption. Successful adoption of e-learning requires a strategic approach that factors out barriers identified in this study and, which involve all education stakeholders (Kisanga & Ireson, 2015).

The study also looked at whether E-Learning will link the university with other university and on whether will increase the revenue of the university. It was realized that e-learning can be a great bridge that can link universities. Students' social construction of knowledge in terms of facilitating sharing of ideas in the online discussion groups could be an immense possibility (Sekiwu & Naluwemba, 2014).

5.4 Attitudes and perceptions of tourism students towards E-learning

Concerning the attitudes and perceptions of tourism students towards eLearning, the study looked at the availability of sufficient learning materials online and platform has increased student/lecturer instructiveness.

Findings by Adewole-Odeshi (2014) showed that students have a positive attitude towards e-learning because they find the system easy to use and useful for their course work

The study also looked at whether the platform is user friendly, learning experience is flexible, bandwidth sustains all the online activities, convenience is an important feature of e-learning and eLearning gives the opportunity to acquire new knowledge were the issues addressed. The study from Kar, Saha, and Mondal(2014) revealed that students' have high attitude towards e-learning and their attitude scores did not differ significantly with their personal variables such as, gender, stream of study and residence.

5.5 Conclusions

In conclusion, the adoption of e-learning in the teaching of tourism and hospitality is an important issue in the contemporary world. The effective e-learning program, accurate and relevant information, accurate and relevant information, provision of adequate E-learning materials, easy login and access to modules and communication online has helped learning experience were issues that were posed to the respondents.

Moreover, on the stakeholder aspirations on the use of e-learning as a mode of instruction in the teaching of Tourism and Hospitality Programmes, e-learning will make studying easier, E-learning will make studying cheaper, e-Learning will increase interaction among students and will improve relationship between students and lecturers, eLearning will link the university with other university and will increase the revenue of the university were issues in question.

Furthermore, on the attitudes and perceptions of tourism students towards E-learning, the availability of sufficient learning materials online, platform has increased student/lecturer instructiveness, the platform is user friendly, learning experience is flexible, bandwidth

sustains all the online activities, convenience is an important feature of e-learning and eLearning gives the opportunity to acquire new knowledge were issues at hand.

E-learning enables the development of knowledge of the internet and computers skill that will help learners throughout their lives and careers to successfully compute online of computer based courses builds self-knowledge and self-confidence and encourages students to take responsibility for the learning. Students can test out of or skim over materials already mastered and concentrate effort areas containing information and or s kills this reduce time taken to complete a course and/or courses within the duration envisaged. Content is quickly and easily updated online, since materials are simply uploaded to a server. It can lead to increased retention and stronger grasp on the subject since many elements are combined in E-learning to reinforce the message, such as video, audio, quizzes interactions, there is also the ability to replay sections of training that might not have been clear for the first time during delivery of the lecture.

5.6 Recommendations

5.6.1 Policy recommendations

New developments in learning sciences and technologies provide opportunities to develop well- designed, learner-centered, engaging, interactive, affordable, efficient, effective, easily accessible, flexible, and meaningful e-learning environments. However, institutions development and deployment of online programs should be increasingly interested in investigating the return-on-investment of their e-learning products. These institutions must use a comprehensive review system to get a real picture of what works, what doesn't and where needs improvement (Khan, 2007). Future research must focus on developing new E-learning models that are suitable for them. E-Learning players have developed mostly by deconstructing the traditional educational value chain.

From the research findings, the researcher recommends the following:

a) **Staff Training –** There should be the training of staff to ensure the adoption of eLearning.

b) **Provision of incentives -** Incentives should be availed to provide a better and friendly avenue for the adoption of eLearning.

c) **Development of ICT infrastructure –** there should be systematic and sustainable development of ICT infrastructures to ensure that eLearning is effectively and efficiently adopted.

d) The Universities should consider rolling out all courses online since student and lecturer have embraced the e-learning, e-learning infrastructure and technology and

improve attitude of academic staff through training to sustain and improve adoption of E-learning in higher institutions.

5.6.2 Areas for further research

The study recommends a research to be conducted to assess further on whether there is a correlation between training and performance of the students as a result of e-learning.

References

Ariwa, E., & Rui, L. (2005). The impact of e-learning on China Education and Research (CERNET). *The International Journal of the Computer, the Internet and Management*, 1–28.

Bates, A. T. (2005). *Technology, e-learning and distance education*. Routledge.

Bhuasiri, W., Xaymoungkhoun, O., Zo, H., Rho, J. J., & Ciganek, A. P. (2012). Critical success factors for e-learning in developing countries: A comparative analysis between ICT experts and faculty. *Computers & Education*, *58*(2), 843–855.

Brooks, C. F. (2010). Toward 'hybridised' faculty development for the twenty-first century: blending online communities of practice and face-to-face meetings in instructional and professional support programmes. *Innovations in Education and Teaching International*, *47*(3), 261–270.

Brown, A. R., & Voltz, B. D. (2005a). Elements of effective e-learning design. *The International Review of Research in Open and Distributed Learning*, *6*(1).

Brown, A. R., & Voltz, B. D. (2005b). Elements of effective e-learning design. *The International Review of Research in Open and Distributed Learning*, *6*(1).

Campbell, K. (2004). *E-ffective writing for e-learning environments*. IGI Global.

Carver, D. L. (2014). *Analysis of student perceptions of the psychosocial learning environment in online and face-to-face career and technical education courses*. Old Dominion University.

Cook, D. A., & McDonald, F. S. (2008). E-learning: Is there anything special about the" e"? *Perspectives in Biology and Medicine*, *51*(1), 5–21.

Dror, I. E. (2007). Perception of risk and the decision to use force. *Policing: A Journal of Policy and Practice*, *1*(3), 265–272.

Ellis, R. A., Ginns, P., & Piggott, L. (2009). E-learning in higher education: some key aspects and their relationship to approaches to study. *Higher Education Research & Development*, *28*(3), 303–318.

Fernández-Manjón, B., Sánchez-Pérez, J. M., Gómez-Pulido, J. A., Vega-Rodríguez, M. A., & Bravo-Rodríguez, J. (2007). *Computers and education: E-learning, from theory to practice*. Springer Science & Business Media.

Gee, J. P. (2003). What video games have to teach us about learning and literacy. *Computers in Entertainment (CIE)*, *1*(1), 20–20.

Glasersfeld, E. von. (1983). Learning as a constructive activity (Vol. 1, pp. 41–101). Presented at the Proceedings of the 5th annual meeting of the North American group of psychology in mathematics education, PME-NA.

Grabinger, S., Dunlap, J. C., & Duffield, J. A. (1997). Rich environments for active learning in action: problem-based learning. *ALT-J*, *5*(2), 5–17.

Hawkins, D. E. (2006). Transferring tourism knowledge: the role of higher education institutions. *Journal of Quality Assurance in Hospitality & Tourism*, *7*(1–2), 13–27.

Honebein, P. C. (1996). Seven goals for the design of constructivist learning environments. *Constructivist Learning Environments: Case Studies in Instructional Design*, 11–24.

Hong, J.-C., Hwang, M.-Y., Lu, C.-H., Cheng, C.-L., Lee, Y.-C., & Lin, C.-L. (2009). Playfulness-based design in educational games: a perspective on an evolutionary contest game. *Interactive Learning Environments*, *17*(1), 15–35.

Hutchins, H. M., & Hutchison, D. (2008). Cross-disciplinary contributions to e-learning design: a tripartite design model. *Journal of Workplace Learning*, *20*(5), 364–380.

Jermann, P., Soller, A., & Lesgold, A. (2004). Computer software support for CSCL. *What We Know about CSCL*, 141–166.

Kaino, L. M. (2012). The use of ICT in achieving the Millennium Development Goals (MDGs) in Universities. *South African Journal of Higher Education*, *26*(3), 503–514.

Lahti, M., Hätönen, H., & Välimäki, M. (2014). Impact of e-learning on nurses' and student nurses knowledge, skills, and satisfaction: a systematic review and meta-analysis. *International Journal of Nursing Studies*, *51*(1), 136–149.

Leimeister, J. M., & Balaji, R. (2015). *Virtual Communities: 2014*. Routledge.

Makokha, G. L., & Mutisya, D. N. (2016). Status of E-Learning in Public Universities in Kenya. *The International Review of Research in Open and Distributed Learning*, *17*(3).

McDonald, L., & McDonald, A. (2012). Motivation of the E-Learner: Theories, Practices, and Perceptions. *Virtual Mentoring for Teachers: Online Professional Development Practices: Online Professional Development Practices*, 243.

McMurray, B., Horst, J. S., & Samuelson, L. K. (2012). Word learning emerges from the interaction of online referent selection and slow associative learning. *Psychological Review*, *119*(4), 831.

Morris, H., & Rippin, A. (2002). E-learning in business and management: The current state of play (Vol. 202002). Presented at the BEST 2002 Conference, Supporting the Teacher, Challenging the Learner, Edinburgh, http://www. business. ltsn. ac. uk/events/BEST.

Mugenda, O. M., & Mugenda, A. G. (2012). Research methods dictionary.

Muriuki, W. J. (2011). School of computing and informatics.

Murphy, H. C. (2013). An investigation into the use of digital technology in adult education-how does it affect roles in adult education?

Mwenzwa, E. (2014). Kenya's Social Development Proposals and Challenges: Review of Kenya Vision 2030 First Medium-Term Plan, 2008-2012.

Nasieku, A. P., Kemoni, H., & Otike, J. (2011). Management of E-records at Moi University Eldoret, Kenya. *ESARBICA Journal*, *30*, 177.

Nicholson, P. (2007). A history of e-learning. *Computers and Education*, 1–11.

Okafor, U. P. (2017). Dimension for Assessing E-Learning Programmes of Technical and Vocational Education and Training (TVET) in South East Universities of Nigeria.

Owino, G. C., Ogachi, O. I., & Olel, M. A. (2011). Role of Institutional Managers in Quality Assurance: Reflections on Kenya's University Education. *Australian Journal of Business and Management Research*, *1*(2), 113.

Reed, M., Evely, A., Cundill, G., Fazey, I., Glass, J., Laing, A., … Raymond, C. (2010). What is social learning? *Ecology and Society*, *15*(4).

Saxena, M. (2010). *Learner analysis framework for globalized e-learning*. Capella University.

Sejzi, A. A., & bin Aris, B. (2012). Constructivist approach in virtual universities. *Procedia-Social and Behavioral Sciences*, *56*, 426–431.

Stacey, E. (2007). Collaborative learning in an online environment. *International Journal of E-Learning & Distance Education*, *14*(2), 14–33.

Stahl, G. (2011). Theories of cognition in CSCW (pp. 193–212). Presented at the ECSCW 2011: Proceedings of the 12th European Conference on Computer Supported Cooperative Work, 24-28 September 2011, Aarhus Denmark, Springer.

Tarus, J. K., Gichoya, D., & Muumbo, A. (2015a). Challenges of implementing e-learning in Kenya: A case of Kenyan public universities. *The International Review of Research in Open and Distributed Learning*, *16*(1).

Tarus, J. K., Gichoya, D., & Muumbo, A. (2015b). Challenges of implementing e-learning in Kenya: A case of Kenyan public universities. *The International Review of Research in Open and Distributed Learning*, *16*(1).

Tashakkori, A., & Teddlie, C. (2010). *Sage handbook of mixed methods in social & behavioral research*. Sage.

Tsegaye, A., & Ababa, A. (2014). The Implementation of Learner Support Services in Alpha And Select Secondary Level Distance Education Centers.

Tubey, R. (2009). University Tourism Training and Career Success In the Tourism Industry in Kenya: The Case of Moi University Tourism Training Programmes.

Übeyli, E. D. (2007). Comparison of different classification algorithms in clinical decision-making. *Expert Systems*, *24*(1), 17–31.

Urh, M., Vukovic, G., & Jereb, E. (2015). The model for introduction of gamification into e-learning in higher education. *Procedia-Social and Behavioral Sciences*, *197*, 388–397.

Wanjala, M., Khaemba, E., & Mukwa, C. (2011). Significant factors in professional staff development for the implementation of ict education in secondary schools: A case of schools in Bungoma District, Kenya. *International Journal of Curriculum and Instruction*, *1*(1), 30–42.

Wanner, T., & Palmer, E. (2015). Personalising learning: Exploring student and teacher perceptions about flexible learning and assessment in a flipped university course. *Computers & Education*, *88*, 354–369.

Appendix 1: Questionnaire for Students of Kenyatta and Moi Universities

Letter of Introduction

Dear Participant,

I am Mr. Bernard Gichana Ombati, a Master of Science in Tourism Management Candidate in the School of Tourism, Hospitality and Events Management, Moi University, Registration Number PGT/SBE/013/11. As part of the Programme, Candidates are required to identify a problem and carry out research with the aim of recommending sustainable solutions that could be implemented to increase the impact to the Community/Institution.

This study is part of Moi University requirements for the award of Master of Philosophy degree in Tourism Management. The aim of the study is to find out more about key issues in '*The Adoption of E-learning in Tourism and Hospitality Training in Kenyan Universities, the case study of Kenyatta and Moi Universities'*. I very much appreciate your participation in this research, and all responses will be treated confidentially and used only for academic purpose.

May I take this opportunity to thank you so much for your time to read this note and for being part of this academic exercise.

Sincerely

Mr. Bernard Gichana Ombati
Moi University
PGT/SBE/013/11
TEL:+254 721569048
Email: ombatigichana@gmail.com

PART A: General Information

1. Name of the University …….

2. What is your gender?

01) Male ☐ 02) Female ☐

3. What is your age?

01) 18 – 30 years ☐ 02) 31 – 40 years ☐

03) 41 – 50 years ☐ 04) 51 – 60 ☐

05) Over 60 ☐

1. Highest Level of Education

01) Diploma ☐ 02) Bachelors ☐

03) Masters ☐ 04) Doctorate ☐

4. Marital status

01) Single ☐ 02) Married ☐

03) Divorced /Separated ☐ 04) Widowed ☐

5. What is your religion?

01) Christian ☐ 02) Muslim ☐

03) Traditional ☐ 04) None ☐

6. What is your monthly expenditure in kshs?

01) < 10,000 ☐ 02) 10,000 - 20,000 ☐

03) 20,001 - 30,000 ☐ 04) 30,001 - 40,000 ☐

05) 40,001 - 50,000 ☐ 06) Above 50,000 ☐

7. Which is your home county? …….

8. What is your nationality? …….

9. What is your area of specialization?……

10. **Part B. Adoption of E-learning**

Use the 5-level point likert scale given to indicate your answer in the table below (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree. Tick where appropriate).

1) Strongly disagree 2. Disagree 3. Neither 4. Agree and 5.Strongly Agree

B	**Adoption**	1	2	3	4	5
i	Our school has an effective E-learning programme					
ii	Our E-learning courses ensure accurate and relevant information to address the tourism/Hospitality learning objectives					
iii	Our E-learning systems have links that we just click on in order to learn more about the topic and create stories that we need to interact with					
iv	Our University has provided adequate E-learning materials					
v	Our university has E-learning platform which are easy to login and access modules					
vi	Communication on-line with students and staff has helped my learning					
vii	My on-line experiences helped me engage actively in my learning					

C. The stakeholders' aspirations on the usage of E-learning as a mode of instruction in the teaching of Tourism and Hospitality Programmes

The following are stakeholders' aspirations on the usage of E-learning as a mode of instruction in the teaching of tourism and hospitality courses. Tick Appropriately

1) Strongly disagree 2. Disagree 3. Neither 4. Agree 5.Strongly Agree

C	**Aspirations**	1	2	3	4	5
	E-learning will make studying easy					
	It will make studying cheaper					
	It will increase interaction among students					
	It will increase relationship between students and Lecturers					
	E-learning will link the university with other universities					
	E-learning will increase the revenue of the university					

Part D: Does your institution experience E-learning Adoption Challenges that hinders its implementation?

1) Strongly Disagree 2.Disagree 3. Neither 4. Agree 5.Strongly Agree

D	**Challenges**	1	2	3	4	5
I	Lack of technical facilities					
ii	Lack of adequate space for learning					
iii	Lack of sufficient access points					
iv	Lack of enough system security					
v	Low bandwidth					
vi	Lack of convenience					
vii	Unreliable technological that is frequent internet network failure					

Part E: Attitudes and Perception of Tourism Students towards E-Learning as a Mode of Instruction in the Teaching of Tourism and Hospitality

1) Strongly Disagree 2.Disagree 3. Neither 4. Agree 5.Strongly Agree

E	**Attitudes**	1	2	3	4	5
I	There is availability of sufficient learning material on-line					
ii	The platform has increased student/lecturer instructiveness					
iii	The is platform user friendly					
iv	The learning experience is flexible in terms of question and answer sessions					
V	The bandwidth sustains all the online activities					
vi	I believe that convenience is an important feature of E-learning					
vii	I believe that E-learning gives me the opportunity to acquire new knowledge					

4.Comments on any other information you deem relevant on this study that has not been captured above.

.....

.....

5. What are your recommendations that are necessary for improvement of this mode of Learning?

……

……

……

Thank you for your time

Appendix II: Interview Guide for Lecturers and Technical Staff

Letter of Introduction

Dear Participant,

I am Mr. Bernard Gichana Ombati, a Master of Philosophy Candidate in the School of Tourism, Hospitality and Events Management, Moi University, Registration Number **PGT/SBE/013/11**. As part of the Programme, Candidates are required to identify a problem and carry out research with the aim of recommending sustainable solutions that could be implemented to increase the impact to the Community/Institutions.

This study is part of Moi University requirements for the award of Master of Philosophy degree in Tourism Management. The aim of the study is to find out more about key issues in 'The ***Adoption of E-learning in Tourism and Hospitality Training in Kenyan Universities, the case study of Kenyatta and Moi Universities'***. I very much appreciate your participation in this research, and all responses will be treated confidentially and used only for academic purpose.

May I take this opportunity to thank you so much for your time to read this note and for being part of this academic exercise.

Sincerely

Mr. Bernard Gichana Ombati
Moi University
PGT/SBE/013/11
TEL:+254 721569048
Email: ombatigichana@gmail.com

BACKGROUND INFORMATION

1. Name of the University …….

2. Gender 01) Male ☐ 02) Female ☐

3. Highest Level of Education

01) Diploma ☐ 02) Bachelors ☐

03) Masters ☐ 04) Doctorate ☐

4. What is your age?

01) 18 – 30 ☐ 02)31 – 40 ☐

03) 41 – 50 ☐ 04) 51 – 60 ☐

Over 60 ☐

5. What is your marital status?

01) Single ☐ 02) Married ☐

03) Separated/ Divorced ☐ 04) Widowed ☐

6. What is your religion?

01) Christian ☐ 02) Muslim ☐

03) Traditional ☐ 04) None ☐

7. What is your monthly income in kshs?

01) < 30,000 ☐ 02) 30,000 - 59,999 ☐

03) 60,000 - 99,999 ☐ 04) 100,000 or more ☐

8. Which is your home county? …….

9. What is your nationality? …….

10. What is your area of specialization?……

Use the 5-level point likert scale given to indicate your answer in the table below (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree. Tick where appropriate).

B. The extent to which E-learning has been adopted in the teaching of tourism and hospitality courses

1. Strongly disagree 2. Disagree 3. Neither 4 Agree. 5. Strongly Agree

How has your institution Adopted E-learning Platform?

B	**Adoption**	1	2	3	4	5
i.	Are there up-to-date and relevant modules/notes on the University Portal for students access					
ii.	Are learning/teaching equipment sufficient to the students faculty					
iii.	Is E-learning infrastructure sustainable in terms maintenance and upgrade					
iv.	Is the system bandwidth sufficient to support students and staff numbers					
v.	Does the system offer sufficient security on the database and modules available online					
vi.	Does E-learning enhance student Lecturer interactivity?					
vii.	Are more Lecturers embracing E-learning by uploading more modules on the platform?					
Viii	Do Lecturers need pedagogical training to teach E-learning courses online?					

4.Comments on any other information you deem relevant on this study that has not been captured on the objective above.

…….....

C. What has been the staff and students aspirations/expectations on the use of E-learning as a mode of instruction/delivery

Using the Guide responses given below, please tick as appropriate the answer that best describes your opinion on the statement given.

1. Strongly disagree 2. Disagree 3. Neither 4 Agree. 5. Strongly Agree

C	**Aspirations/expectations**	1	2	3	4	5
i.	Increased completion rates for postgraduate students					
ii.	Increased enrolment rates for distance learning students					
iii.	Increased flexibility in content delivery					
iv.	Enhanced student instructor interaction					
v.	Increased number of courses offered					
vi.	High chances of Job opportunities for graduands					

4.Comments on any other information you deem relevant on this study that has not been captured on the objective above.

……

……..

D. Does your institution experience E-learning challenges towards its implementation?

1) Strongly Disagree 2.Disagree 3. Neither 4. Agree 5.Strongly Agree

D.	Challenges	1	2	3	4	5
i.	Lack of technical infrastructure					
ii.	Lack of adequate funding					
iii.	Lack of pedagogical support					
iv.	Lack of skilled instructors					
v.	Lack of favorable regulation policy					
vi.	Lack of adequate governmental support					
vii.	Lack of partnership and collaborations with other universities and stakeholders					
viii.	Negative attitude towards E-learning					

4.Comments on any other information you deem relevant on this study that has not been captured on the objective above.

……

……

Part E: Indicate in your view the Attitudes and perceptions of Instructor/ Lecturer(s) towards E-learning in your institution?

1) Strongly Disagree 2.Disagree 3. Neither 4. Agree 5.Strongly Agree

E.	**Attitudes and Perceptions**	1	2	3	4	5
i.	Providing continuing education (or "lifelong learning") to persons in the Tourism and Hospitality sector					
ii.	Teaching international students					
iii.	Innovation in teaching and learning					
iv.	Has helped faculty member to improve on job performance					
v.	Has enabled better and faster submissions of assignments/ term papers					

4. Comments on any other information you deem relevant on this study that has not been captured on the objective above.

……

……

5. In your view what are the measures put in place to improve E-learning in your institutions?

……

……

6. Any other information you feel is necessary for this study?

……

……

7. What are your recommendations that are necessary for this study?

……

……

Thank you for your time