ASSESSMENT OF RISK MANAGEMENT PRACTICES AND SAFETY PREPAREDNESS IN SELECTED UNIVERSITIES IN WESTERN REGION, KENYA

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ABSTRACT

University risk managers are faced with daunting challenge of identifying and managing the complex risks across their campuses. The present study perceived that poor risk management practices among universities in Kenya and the far wide could reduce if there is an all-inclusive risk management practice structures. The aim of this study was therefore to assess the risk management practices among universities located in western region, Kenya. The study explored the University risk management practices of selected Universities in Western Kenya, to find out the significant difference between the practices of risk management in public and private Universities and to find out the risk management challenges that face universities in western region of Kenya. The study was guided by risk management theory, theory of planned behaviour and disaster theory. This research used a descriptive study design where primary data was collected through self-administered questionnaires from 78 key respondents (administrators, school deans, heads of departments, and security teams) in two public and two private universities. Major findings revealed that Security, Fire, Natural, and Transportation risk management is practiced but not to a great extent that is expected in universities with means of (2.914, 2.772, 2.8837 and 2.9551), which are due to challenges of education and training, resources, cost, and commitment. From independent t-test to compare the risk management practices in public and private universities, there was no significant difference between the practice of management of security risk, fire risk, and natural risk in public and private universities with *p* values of 0.066, 0.697 and 0.263. Public universities managed transportation risk better than private universities with a *p* value of 0.005. It is recommended that the universities develop strategies towards excellent implementation of security risk, fire risk, natural risk and transportation risk.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS AND ABBREVIATED ENTRIES

COSO	Committee of Sponsoring Organizations
ISO	International Organization for Standardization
ERM	Enterprise Risk Management
BSC	Balanced-Score Card
NACUBO	National Association of College and University Business Officers
UGGI	University Good Governance Index
MDGs	Millennium Development Goals
NACOSTI	National Council of Science and Technology

CHAPTER ONE

INTRODUCTION

Background of the Study

Today every organization faces uncertain events that occur in different environments and with different characteristics and impacts. These uncertain events can generate more or less severe consequences for the organization (Aven, 2011). Uncertain events with negative impacts are called risks. Universities are no exception in being exposed to these uncertainties, which are complex and diverse risks (Zhao et al., 2014).

Risk is a term that has long been studied in different areas. Hillson (2013) defines risk as the uncertainty that can be measured, and uncertainty is a risk that cannot be measured. To try to mitigate or eliminate the risk, we count on risk management, which is an integral part of university management. Risk management is a positive and proactive process intended to reduce the likelihood of unsatisfactory consequences to the university (Rohaninejad & Bagherpour, 2013).

Risk management is an important area of university management because it allows anticipating the occurrence of events that could adversely affect the operations of the university and to define actions that could minimize their impacts. It is well known that one of the major roles undertaken by any university management is to deal with contingencies or risks that occur continuously. To make risk management an effective and efficient function, it is necessary to have a proper and systematic methodology and, more importantly, knowledge and experience of various risk management practices.

Risks to an organization can come from various sources including Security risks, transportation risks, natural causes and disasters, deliberate attack from an adversary, uncertainty in financial markets, threats from project failures for instance at any phase in design, development, production, or sustainment life-cycles, legal liabilities, credit risk, or events of uncertain or unpredictable root-cause. Risks are classified into two types of events as negative events can be classified as risks while positive events are classified as opportunities Hubbard (2009).

According to a study done by University of Adelaide in 2016, the University's Risk Management Framework connects the University's governance structure and the management structure so that the two work together to provide a combined commitment, set of expectations, and organizational and personal accountabilities and responsibilities (Tohidi, 2017).

According to a study done by Prifysgol Bangor University in 2016, risk management is fundamental to good management practices and forms part of the corporate governance arrangements. It is an integral part of the University's decision-making and routine management, and will be incorporated within the strategic and operational planning processes at all levels across the University (Tohidi, 2017).

Ruzic-Dimitrijevic and Dakic, (2014) posit that risk management enables organizations to increase goal-achieving probability, by identifying dangers, and coordinating internal norms and requirements with reality. Organizations need to set goals and define external and internal parameters which are important for risk management. The external parameter can be social, cultural, political, legal, technological, economical, natural, and competitive surroundings. The internal parameters include organizational structure, policies, culture of the organization, information system, data flow and process of decision making, standards, regulations

adopted in the organization, form and level of communication, as well as, goals and strategy by which it is possible to realize capacities (in terms of resources and knowledge).

It is of crucial importance to identify all risks. They should be classified in a certain way. The work of Huber (2012) with English universities showed it was possible to find a wide variety of ways of grouping and ranging. Frequently, the risks are ordered by the severity of impact on the university. Financial and reputational risks ranked at the top of those lists. Some university group risks, according to areas of responsibility or functionality; some risks were seen as layers of an onion, distinguishing core risks, organizational risks, and external risks. The core risks were concerned with teaching and research. Organizational or delivery risks emerge when managing the provision of teaching and research. External risks are beyond the influence of universities (Ruzic-Dimitrijevic & Dakic, 2014).

Universities in Kenya are not immune to risks and their management practices will help them survive and thrive in case of any risk. Risk management is a key factor which determines the level of progress of organizations. Thus, proper mechanism and system of risk control should be put in place to establish, prevent and mitigate the risks encountered in operations of the organizations. An efficient risk management practices in risks could greatly reduce the costs of maintaining operations in organizations (Kirigia, 2008).

Risk Assessment practices is needed to act as an authoritative statement regarding the principles and process of institutional risk management and what they mean to institutional planning and execution. It is intended as the capstone policy on Risk Assessment practices for the Universities in Western Region, Kenya. Furthermore, Risk Assessment practices will serve as foundational document

supporting Universities risk management efforts. There are a number of risks that universities face which include: Security Risks, Fire risks, Natural Disaster risks, Transportation risks just to mention a few (Kirigia, 2008).

Risk Assessment practices is intended to help institutional Administrative Board, School Deans, Department Heads, Student Affairs, and even students, faculty and staff to make risk management an integral part of planning, preparing, and executing university missions. The development of institutional risk management policy is an essential element in promoting a risk informed culture enabling training, capability, and integration across institutions to strengthen and improve the institutional risk management and planning (Tohidi, 2017).

Statement of the Problem

The main goal of risk management is to save money and protect the future of institutions such as the Universities. This is because a robust risk management practices will help Universities establish procedures to avoid losses such as loss of life and property when there is fire outbreak and landslides occurrence in the institution and also road accidents which eventually leads to loss in assets, revenue and also brand image. minimize their impact should they occur and cope with the results. This ability to understand and control risk will allow Universities to feel more confident about their management. Furthermore, strong corporate governance principles that focus specifically on risk management practices can help the universities reach their business goals which are profitability and solvency.

These includes ensuring effective reporting and compliance with laws and regulations, and helps avoid damage to the university's reputation and associated consequences. Effective risk management plays an important role in daily operations

of university entities to avoid financial insolvency and bankruptcy (Otuya, Kivunga & Mwavali, 2017).

The main challenge facing university management is to estimate extent of risk, also to estimate whether the management is aware of the risk and if they apply their knowledge in avoiding risks. Top management should investigate various types of risks in the university, and how they can manage them, via education or experience and other sources. It is always a multi-faced problem to understand risk management practices, as it requires knowledge of economics, engineering, mathematics and many more disciplines. Accordingly, this research sets sights on introducing the assessment of risk management practices in selected universities in Western Region, Kenya.

Universities face many risks which ranges from student and staff safety to students apparently behaving badly, fee protests to governance issues, university managers have their hands full battling many risks they face. Some of the scariest risks on campus remain hidden until the moment students, lecturers, and even staff experiences them (Otuya, Kivunga & Mwavali, 2017).

The researcher points out that risk is the main cause of uncertainty in any university. Thus, universities increasingly focus more on identifying risks and managing them before they even affect the management. The ability to manage risk will help universities act more confidently on future management decisions. Their knowledge of the risks they are facing will give them various options on how to deal with potential problems.

Kenya has shown considerable increase in the higher education sector over the last few years. Especially universities have increased in numbers in the country targeting the vast young population graduating from secondary schools. The universities are faced with more risk and uncertainty than ever before. In fact, many

operations been stagnated even after approval from the management. One of the reasons behind this can be the associated risks and uncertainties. In addition, stakeholders expect more.

Universities do not want surprises, and are more likely to engage in litigation when things go wrong. These things make university management think about the relationship between such new risks and uncertainties and about the success of the university and are forced to ask if Risk Management contributes to university success. In this context, difficulty is assured and doubt exists as to if it works. Perhaps formal practice of risk management is not followed but almost all the universities intuitively practice it for fulfilment of their objective.

There have been challenges on practising risk management in Universities in Western Region of Kenya due to competing and pressing needs in their budgets. Therefore, the fundamental question is how significant is the risk management practices on the safety preparedness of these institutions. As a result, this study assessed the risk management practices and safety preparedness of selected universities in western region of Kenya, Kenya.

Research Questions

1. To what extent is risk management practiced in universities in the western region of Kenya on the following risks?

    a. Security Risk

    b. Fire Risk

    c. Natural Risk

    d. Transportation Risk

2. Is there a significant difference between the practices of risk management in public and the practices of risk management in private universities in the Western region of Kenya?

3. What risk management challenges are faced by universities in the western region of Kenya?

Hypothesis

The study tested the null hypothesis:

H_0: There is no significant difference between the practice of risk management in public and private universities in the Western region of Kenya.

Significance of the Study

The findings of the study will benefit university stakeholders that include Administration, security and parents by identifying the risks their universities are facing. The study also assessed the state of the management of the risks, which ranges from Security risks, Fire risks, Natural Disaster risks and Transportation risks. This is very important to the institution as a whole. Management and students who face the same risks are able to identify and mitigate the above-mentioned risks. Parents who sponsor students with one aim of realizing their dreams are able to get awareness of the above-mentioned risks. This helps them to identify the above-mentioned risk and therefore take recommended measures for the management of the risks. The study is of importance to the Government in that it reveals whether the institutions have a policy on risk management that are important to the government and hopefully help in developing policies for various institutions.

Justification of the Study

It has been evidenced that university projects fail due to many factors, however poor risk management is the major cause. Poor risk management practices result to unrealized benefits, late-running projects, project failure, injury, sickness and even reputational damage. Risk management practices have a relationship with performance of an institution (Otuya, Kivunga & Mwavali, 2017). In 2017, the Commission for University Education explained that a number of universities in Kenya face the risk of closure (Mutegi, 2017). Risks can only be avoided if risk management practices are in place and implemented. Otuya et al. (2017) studied assessment of higher education institutions' risk Preparedness and divulged that 59% of the institutions only in Nairobi County were not ready to manage any risk in case such happens. In 2017 according to Mutegi (2017) higher education crisis looms as 11 public universities face cash crunch due to poor management of security, fire, transportation and natural risks. These risks can only be avoided if the concerned universities are made to understand their level of awareness and risk management practices. The present research was determined to achieve this goal.

Conceptual Framework

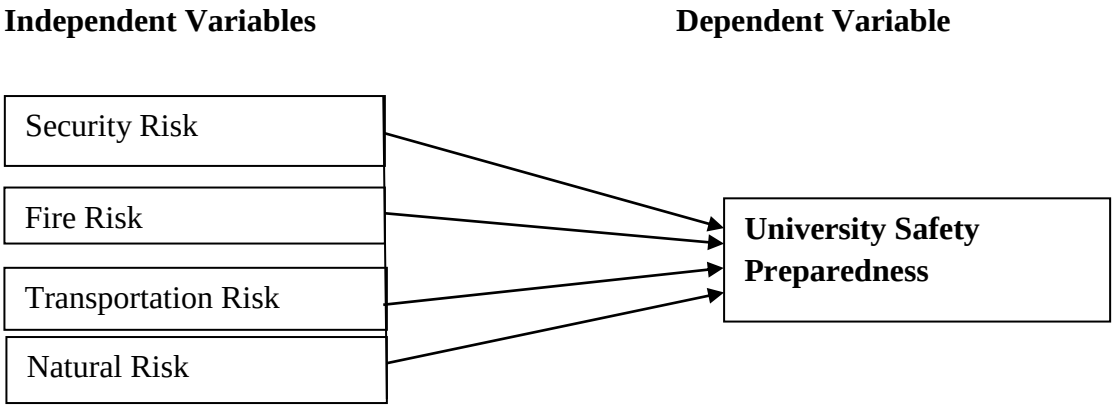

Figure 1. **Conceptual framework**

Figure 1 above shows the conceptual framework of the study. There was one dependent variable and five independent variables. The dependent variable is University risk preparedness while independent variables are the university level of preparedness in terms of (Security Risk, Fire risk, Natural Risk and Transportation Risk), the extend of risk management in terms of (Security Risk, Fire risk, Natural Risk and Transportation Risk) and Risk management challenges faced by universitiesin western Kenya. The study perceived that the dependent variable is influenced by the five independent variables. The study collected data to ascertain the perception.

Theoretical Framework

Decision Theory

Decision theory is a body of knowledge and related analytical techniques of different degrees of formality designed to help a decision maker choose among a set of alternatives in light of their possible consequences (Raiffa & Schlaifer, 1961).The components of this theory are acts, events, outcomes, and payoffs. Acts are the actions being considered by the agent, events are occurrences taking place outside the control of the agent, outcomes are the result of the occurrence (or lack of it) of acts and events and payoffs are the values the decision maker is placing on the occurrences. Decision theory can apply to conditions of certainty, risk, or uncertainty. The hypothesis of this theory is that the ranking produced by using a criterion has to be consistent with the decision maker's objectives and preferences. The theory offers a rich collection of techniques and procedures to reveal preferences and to introduce them into models of decision. This theory can be applied in exploiting criteria of choice where we choose the alternative such that the

worst possible consequence of the chosen alternative is better than (or equal to) the best possible consequence of any other alternative (Murphy & Gardoni, 2012).

Theory of Planned Behavior

Theory of Reasoned Action in 1980 to predict an individual's intention to engage in a behaviour at a specific time and place. This theory was developed by Icek Ajzen (1985) through his article, "From intentions to actions: A theory of planned behaviour. The hypothesis of this theory states that individuals make logical, reasoned decisions to engage in specific behaviours by evaluating the information available to them. Intentions to prepare for risk can be predicted from attitudes, subjective norms, and perceived behavioural control with respect to the behaviour; and that actually preparing for risk can be predicted from intentions and perceptions of behavioural control. The theory has been used to study the institution’s intention to engage in risk management. The components of this theory are attitudes, social support, self-efficacy and intention. The theory can be directly applied in the domain of risk reduction. The behaviour of interest for present purposes is risk preparedness. Kumar (2012) identified risk preparedness as a category of behaviour and mentioned. The theory is relevant to the study because it affects the practice of risk management.

Disaster Theory

This theory was developed by David Etkin in 2014. The hypothesis of this theory states that Interdisciplinary Approach to Concepts and Causes offers theoretical background needed to understand what disasters are and why they occur. The main component of this theory is critical thinking in understanding disasters and their causes by synthesizing a wide range of information on theory and practice (Etkin, 2014). The theory has been applied on related disciplines, including sociology, risk theory, and seminal research on disasters and emergency management. The

theory clearly lays out the conceptual framework of the emerging field of disaster studies. The theory is relevant to the study because it affects the practice of disaster management which are the determinants of university safety preparedness.

Risk Management Framework

Review on ERM implementation in service industry indicated that integrated frameworks of risk management (Duffie & Singleton, 2012) is widely employed by service firms. These frameworks of risk management describe principles, practices, generic guideline and processes involved in managing risks. ERM is capable of unifying concerted effort and risk management practices to establish risk context and parameter, identify risks, analyse the risk and develop the profile for the risks, and determine risk treatment strategy. However, a tested model of risk management through academic researches and procedures for the higher education is nonexistence. Contributed to the development of the risk management practices in higher education. Risk governance, risk policy, risk context, risk identification, risk analysis, risk evaluation, risk treatment, communication and consultation, monitoring and review of risk management process, tools and technology, and continuous improvement have been referred to in this paper. These processes of risk management practices are part of the overall framework of managing risk.

The risk management practices of risk management framework that should be considered include (i) risk governance, (ii) risk policy, (iii) risk context, risk identification, risk analysis, risk evaluation, risk treatment, communication and consultation, and monitoring and review of risk management process, (iv) tools and technology, and (v) continuous improvement. Risk management tools, and approaches have been developed to implement proper risk management practices and increasing success (Kwak & Stoddard, 2004). Therefore, in Malaysia's public autonomous

universities, all of these risk governances; policy, risk management processes, tools and technology, and continuous improvement are hypothesized to have positive and significant effect on risk management practices.

Scope

This study was conducted in public and private (universities owned and operated by an individual or non-governmental organization) universities in Western Kenya. The officers of the university who are directly involved in risk management as well as the school deans and department chairs were involved in the study. Management of security, natural disasters, and fire and transportation risks were assessed through questionnaires and interviews. This study was carried out from June to December 2019.

Definition of Terms

Risk: Risk in this study is the threat or possibility that an action or event adversely or beneficially affect University's ability to achieve its goals (Glendon & Clarke, 2015).

Transportation Risk: In this study, transportation risk assess the risk associated to a variety of road and rail transportation cases representative of hazardous materials and people transport by land (Fowler & Sørgård, 2013).

Security Risks: This is an individual or situation which poses a possible threat to the security of a university (Brodkin, 2008).

Risk Management: In this study, risk management is the systematic application of management policies, procedures and practices to the tasks of communicating, establishing the context, identifying, analyzing, evaluating, treating, monitoring and reviewing risk (Aven, 2016).

Fire risk: This is a material, substance, or action that increases the likelihood of an accidental fire occurring in a University (Watts, 2016).

Natural Risk: This is the attribute of a natural hazard, the consequences of which with human heritage can be harmful to the University (Cristi & Romanescu, 2016).

Safety Preparedness: These are steps taken by the University in readiness to respond to and survive during an emergency (Longest & Darr, 2014).

Risk Practices: These are activities applied by the University in identifying, measuring and analyzing those risks to reduce material, reputation, opportunity and other costs (Longest & Darr, 2014).

CHAPTER TWO

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter the researcher reviews related literature in the areas of overview of Risk Assessment preparedness and risk management practices to determine the existing body of knowledge on the research topic.

Security Risk

Bubka and Coderre (2010) conducted a study in Produce Marketing Association (PMA) Companies (USA) and found out that the Virginia Tech tragedy demonstrated how devastating threats to personal safety on campus could be. Thirty-two people, nearly all of them students or professors, died after a student went on a shooting spree. Since then, many universities have boosted the risk control measures to help protect students and employees from violence. Threats to personal safety from unforeseen exposures on campus also include hostage situations, bomb threats and/or other incidents in which individuals look to cause harm to themselves or others.

In creating a plan to address these exposures, the university risk control committee needs to consider issues such as the school's proximity to the local police; crime rates and gang activities within the local area; local police response capabilities and on campus police or public safety capabilities. The risk manager must evaluate all scenarios when considering the level of security or response needed versus available resources (Bubka & Coderre, 2010).

O'Neill, Massachusetts and Applied Risk Management (2017) in their study concluded that the risk manager, risk management committee and campus public safety office professionals must consider the degree of authority to give campus security personnel. If there is a perpetrator on campus, will the officers be authorized

to conduct high-speed pursuit or apprehensions, or will they have to call upon local authorities. College administrators and risk managers need to weigh the risks either way. Some urban universities have assumed responsibility for police response “off campus” due to the high density of students within those areas. Administrators must consider new liability exposures assumed in these situations.

Some universities have established their own rapid response teams that will respond to hostage situations or violent assaults. Before allocating resources to response teams, universities must be fully aware of the exposures associated with these commitments. University representatives should work closely with local authorities in modelling possible threats and response scenarios. Though time-consuming and difficult; types of drills such as mock hostage situation can help everyone prepare for a worst-case scenario (O'Neill et al., 2017).

O’Neill et al. (2017) continues that an Emergency Response Plan that addresses the “What Ifs,” universities should provide and regularly update on “Emergency Response Guide” that prepares students, faculty and the public as to how they should respond to a violent situation. College websites are an ideal way to provide this information. Several universities capitalize on student cell phone usage for emergency response. Some service providers notify the campus community via bulk text messages in emergencies. Other services are activated by students, and provide public safety and police with open communication, a description, personal information about the caller, and a GPS-based location of the individual. These services open the lines of communication between the campus and police services, and can provide life-saving information quickly.

In crowds, trivial events can have unexpected and tragic consequences, causing stampedes, crushes or riots. In 2006, a child stopping in a Chinese school's stairwell to tie his shoe spurred a crush that killed six people. A few Italian soccer fans in 2007 evoked riotous behaviour among thousands of other fans. According to G. Keith Still, a world-leading expert on crowd management, some facilities and stadiums built today are designed to maximize profit, potentially at the expense of safe crowd conditions. Understanding the social and psychological risks posed by large gatherings including sports events, concerts, graduation ceremonies and orientation days is essential for universities that have a high risk for unsafe crowd conditions. Large sporting events may often provoke passionate responses by fans. Universities must consider that if their fans act out or cause property damage or personal injury, the media may capture and publicize the incidents. Such unwanted media attention can influence the school's image (Moloi, 2016).

Fire Risk

Universities should maintain a fire safety program that involves all members of the campus safety committee and local emergency responders. In order for the fire safety programs to be effective, the support of the campus community is essential. Fire risk management has been studied by many researchers across the globe (Chen et al., 2012; John, 2012; Kong, 2011). This is because fire risk managers have recognized the importance of good fire management to reduce the vast increase in accidental fires (Woon & Suleiman, 2015). A survey of the statistics available in the Republic of Ireland about the number of fires including fire causes and consequences during the last ten years was undertaken to identify issues relevant to fire safety in nursing homes. The statistics for fatalities fires in nursing homes/hospitals in Ireland 2000 – 2007 indicated that only one fatality from a fire occurred in nursing and that

was in a hospital in which a fire occurred in a ward (Moore, 2012). The suspected cause of the fire was not available at Department of the Environment, Heritage and Local Government website (Moore, 2012).

Addai, Tulashie, Annan and Yeboah, (2016) in their study mentioned that there had been many fire outbreaks in Ghana. These outbreaks had involved business premises, markets and educational facilities. Institutional fires have affected both senior high and tertiary institutional buildings. Though these incidences do occur most often, very little is done to bring the situation under control. However, where efforts are made to put the situation under control, many challenges are encountered (Addai, Tulashie, Annan & Yeboah, 2016).

A study by the Fire Disaster Prevention & Safety Awareness Association of Nigeria (Onuoha, 2009) revealed that there is significant low level of awareness on fire risk in Nigeria. About 2% of 140 million people in the country have basic fire risk knowledge, while 80% lack such knowledge. Abraham and Asodike (2011) in their survey of safety practice in some schools in Port Harcourt opined that perhaps the rare incidence of fire outbreak in schools in Nigeria accounts for the lack of acquisition of fire extinguishers and organized periodic safety training for staff. A study on fire safety practice by Anyanwu, Akaranta and Nwaogazie, (2016) in Ile-Ife, Nigeria revealed that majority (62%) of the respondents had good to excellent knowledge of preventing fire outbreaks in offices. Only 28% of the premises had functioning wall fire extinguishers. Less than 10% of the premises had smoke detector, fire alarm, fire exits and emergency lighting system, respectively. Their study concluded that there was poor practice of fire safety in offices in Ile-Ife.

In Kenya, it is the responsibility of the Government to assure fire safety in the Country. However, Nabutola (2004) notes that the county authorities have a poorly equipped fire station. Additionally, its management and staff are not motivated and are ignored except when there is a fire incidence. Over the years, the inadequacies of the County authorities in fire disaster management have been manifested in the handling of various incidences in the Counties.

For instance, In April, 2012, a fire broke out at Kimathi House located right opposite the Nakumatt down town site in Nairobi. According to KARA, (2012), the city fire brigade arrived late and ill equipped to handle the fire. At first, none of the fire trucks, including those from private firms, had hydro-cranes to lift fire fighters to the fifth floor where the fire had started, and none could pump water beyond the third floor. Later, the city brigade's fire truck with cranes arrived but fire brigade personnel had to refer to its manual to operate it. It was also established that fire hydrants around the building were also dysfunctional. The fire thus consumed the entire fifth floor and spread to the sixth and seventh floors. This incident clearly shows the glaring inadequacies of the county authorities in fire disaster preparedness. Similarly, in Universities, these fire incidents raise issues to do with land use planning in terms of location of the students and staff residence and offices. These incidents can be mitigated if the Universities enforce planning.

Transportation Risk

When evaluating exposures, obvious risks like vehicle use can be overlooked. A university's vehicle operations can range from business use of personal vehicles by campus recruiters to route buses manoeuvring around the campus and community, and transportation of sports teams. Emergency services related to public safety and on-campus ambulance services create vehicle loss potentials from a liability and

employee injury standpoint. The risk manager and transportation manager must remember that university drivers are not only transporting themselves, often they have students in their vehicles. A strong fleet safety policy will help prevent injuries to students resulting from vehicle accidents. Keep in mind that managing transportation exposures involves not only vehicles, but also drivers. Verifying a driver's qualifications can help ensure that only qualified drivers are operating university vehicles, and limit the university's liability.

Claims data from one of the largest transportation insurance providers in Europe was analysed. The sample consisted of 7,284 claims made in four years (2005 – 2008) because of incidents in transportation. The average loss given incident was US$ 19,265. The five largest incidents accounted for a loss of US$ 4 to 11 Million; all of these five incidents involved trucks. Still, it provides some clues for the identification of the current major pain points in transportation (Shen, Hermans, Brijs, Wets, & Vanhoof, 2012).

As discussed by Reynolds, Winters, Ries and Gouge, (2010) in their study, the transportation sector is prey to both old and new risks. The more informed an institution is to the specific vulnerabilities, the more prepared you can be. Many factors play into increased risks including advanced technology and driver shortages. The roads are increasingly dangerous for vehicles. Problems ranging from asphalt deterioration to signage issues to construction causes delays and vehicle and personal injuries. Traffic congestion wastes roughly $3.1 billion in fuel, according to the American Society of Civil Engineers (Reynolds et al., 2010).

Unfortunately, this risk is for the most part out of the control of transportation industry officials. Road repairs will take as long as they take, and budgetary cuts will not help to put more construction crews back on the road. Driver shortages continue

to plague the transportation industry. The American Trucking Association estimates that by the year 2022, the shortage will grow to a whopping 100,000. Shortages have come about due to an aging population, increased demand from e-commerce growth and challenges acquiring new recruits. Driver shortages inevitably lead to secondary risks like increased pressure to deliver on time, driver fatigue from extra hours on the road and subsequent risk of accidents and injuries (Lim, Vos, Flaxman, Danaei, Shibuya, Adair-Rohani & Aryee, 2012).

The results of a study done by Balas (2013) revealed that the transportation challenges facing colleges and universities are complex. Universities face rising enrolments that bring rising demand for parking and transportation, as well as increasing congestion in surrounding areas. In addition, the university campus integrates a wide variety of transportation types, including pedestrians, bicyclists, cars, and buses. Traffic from these various modes of transportation often creates bottlenecks, and the intersection of jurisdictional authority further complicates matters (Balsas, 2013).

In considering the organizational structure for transportation at and around a university campus, there are three main areas of consideration, in addition to the cross cutting considerations of transportation demand management. These three areas include transit, parking, and fleet services. While identified separately here, the integrated approach should therefore be promoted which considers each component in the context of transportation at the university as a whole (Ozbay, & Kachroo, 2011).

A population-based survey study on road transport accidents conducted in Nigeria, by Libinjo et al. (2009) revealed that road transport accidents was a significant problem claiming approximately 200,000 Nigerian lives annually and injuring 4 million more. The loss to the economy was also considerably high at $25

million per annum. The study also found that men were more at risk of being involved in road accidents than women, while younger people, especially those aged 18- 44 years, formed the bulk of road accident victims (Barkan, Dick & Anderson, 2013).

Kim et al., (2015) utilized a log-linear model to explain the role of driver behaviors in the causal sequence that led to more severe injuries. They showed that behaviors of alcohol use and lack of seat belt use greatly increased the odds of more severe crashes and injuries. This was also employed by Akomolafe (2017), when he utilized the Artificial Neural Network using Multilayer perceptron to predict likelihood of accident happening at a particular location between the first 40 kilometres along Lagos-Ibadan Express road.

Agoki (2012) indicates that transportation risks may be traced to the road users, vehicles or the road environment; and in Kenya the proportion is 80% traceable to road users, 6% to vehicle and 14% to road environment. In Nairobi County the contribution by road user factors is as high as 94% and an analysis of road traffic accident characteristics revealed four major groupings of factors influencing transportation risk namely; pedestrian factors; land use factors; road layout factors, vehicle factors and traffic control device factors (Agoki, 2012).

Natural Risk

Western Kenya experiences a number of natural hazards. The most common hazards include: floods, landslides, lightening/thunderstorms, wild fires, and strong winds. Other hazards experienced in the region include HIV/AIDS and conflict. In the recent past these hazards have increased in number, frequency and complexity (Nyakundi, Mwanzo & Yitambe, 2010).

Globally, nearly all hazards carry a higher risk of culminating in a disaster, a fact that reveals the inseparable human influences in disaster creation. Between 2010 and 2017, the United Nations recorded that the highest death tolls and economic losses occurred in more concentrated geographic areas, evidence that the worst impacts are felt where exposure and vulnerability to hazards are intensified within smaller but more populated areas (UNISDR, 2017).

Kapucu, Hawkins and Rivera, (2013) from their study considered that natural disaster management should attempt to develop disaster resistant, resilient and sustainable communities. Natural disaster resistance is achieved through land-use regulations, building codes, engineering works and other mitigation programmes. Natural disaster resilience is achieved by developing the necessary medical facilities, social services, public education and other capabilities useful in disasters and crises. Sustainable communities are achieved by incorporating disaster management into their economic, environmental and social programmes.

Strömberg (2007) however notes that until very recently, natural disaster response has been the only form of disaster management carried out in many countries. This is very unfortunate since natural disaster response alone is not sufficient, as it yields only temporary results at a very high cost. It is worth noting that management of disasters cannot be an add-on, chaotic set of actions during a disaster which result to crisis management.

Noffsinger, Pfefferbaum, Pfefferbaum, Sherrieb, & Norris (2012), discussed that disasters hurt the poor and vulnerable the most. From 1995 through 2014, 89% of storm-related fatalities were in lower-income African countries, even though these countries experienced just 26% of storms. Over the past 30 years, more than 2.5 million people and almost $4 trillion have been lost to disasters caused by natural

hazards, with global losses quadrupling from $50 billion a year in the 1980s to $200 billion in the last decade (Noffsinger et al., 2012).

According to Eshghi and Larson (2008), human activities may not cause natural disasters which are supernatural in nature. These are acts of nature such as earthquakes, floods, hurricanes and volcanic eruptions. Others include biological disasters under which communicable disease and epidemics appear (Apte & Yoho 2011). Human caused disasters result from destructive activities that create havoc and terror in organizations (Dilley, Chen, Deichmann, Lerner-Lam & Arnold, 2015). Examples of such include civil war, terrorist attacks and air pollution caused by chemical spills through human negligence.

Kenya is a particularly disaster-prone country and the disaster risks often affect the most vulnerable people disproportionately (Mortimore, 2009). In the pursuit of effective preparedness and timely response to disasters, the Government of Kenya through National Disaster Operations Centre has formulated a National Disaster Response Plan (Nyakundi, Mwanzo & Yitambe, 2010) that seeks to advance the activities that fall under Priority Area Number Five of the Hyogo Framework for Action 2005-2015 (Ibid.). This is geared towards strengthening disaster preparedness for effective response at all levels.

Safety Preparedness

The more prepared people are the less harm they will suffer when disaster strikes. Yet anecdotal and empirical evidence shows that people overestimate their preparedness and are underprepared. While a robust literature has moved around hazards, risk, and vulnerability, and disaster policy, politics, and management, the existing literature about individual university in the western region in Kenya is not well explained.

As a result, university managers lack proper guidance on how to design effective preparedness programs. The comparison on the views of risk and preparedness held by individuals and government officials drawing on insights from a 4-year study that involved three national surveys and intensive studies in two universities. Reveal that the level of preparedness is very low among the selected universities (Eckel, 2013).

The demands of today's ever-changing work environment often require that employees engage in intellectual risk taking by being resourceful, trying new things, and asking questions even at the risk of making a mistake or feeling inadequate. Controlling for individual differences in motivation known to affect self-efficacy and learning goal orientation, the perceptions of work methods autonomy and high instructor expectations increase student risk preparedness. Autonomy students perceive they were given and the higher they perceive instructor expectations, the more met cognitive behaviours they will engage in, and ultimately, the more intellectual risks they will take. These results had important implications for the university educators who seek to prepare students to succeed in their careers in terms of risk preparedness (Brunetto, 2013).

Concept of Risk and Risk Management

Risk is defined as 'effect of uncertainty on objectives and it aids decision making by taking account of uncertainty and its effect on achieving objectives and assessing the need for any action. Risk management refers to the culture, processes and structures that are directed towards realizing potential opportunities whilst managing adverse effects. ERM is a process, affected by an entity's board of

directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives (Duffie & Singleton, 2012). In the context of higher education, ERM is a university-wide risk management process applied in strategic setting across the university, designed to identify potential events that may positively or negatively affect the university, and designed to manage the risks so they are within the university's risk appetite, thus contributing to the achievement of university's mission, key performance indicators and objectives.

Critique of Existing Empirical Literature

Very limited number of authors writes about the risks inherent to universities. Even the small number of works that deal with this subject explicitly all are almost centered on the financial risks involved in the institutions' management, as indeed there are financial risks in running an organization – for profit or not-for-profit - that must be addressed and managed, usually by the institution's chief financial officer. Longest & Darr, (2014) also deals with what may be termed "insurable risks", and lists accidents, sexual harassment, student drinking, drug abuse, employment liability practices, student lawsuits and more - but does not mention many of the risks mentioned above, which may be called "academic-specific risks".

University Good Governance Index (UGGI) introduced in 2011 requires Malaysian public universities to implement an organized risk management. The purpose was for the universities to be given an autonomy status. Five public universities, Universiti Teknologi Malaysia, Universiti Kebangsaan Malaysia, Universiti Sains Malaysia, Universiti Malaya and Universiti Putra Malaysia were granted the autonomy status since 2012 (Ariff et al., 2014). They further stated that

being awarded the autonomous status; the universities will be competing intensely in higher education market, resulting in greater exposure to multi-dimensional risks. In addition, Ahmad et al. (2016) stated public universities cannot avoid in managing risks. Therefore, in Malasia, a comprehensive risk management frame work has been made as one of the requirements in the award of autonomous status for public universities (Ariff et al., 2014).

Research Gap

According to the findings of the reviewed literature, there is need to research more on risk management practices in the universities which will play a role in minimizing the losses incurred by the university's aftermath of risks. In addition, the above discussion of the theoretical and empirical literature, limited research has been conducted on security, transportation, fire and natural risk in universities. Most of the existing studies have been done in other economies, which have different operating environment from the Kenyan. With the attention to the risk management, few studies in this field has been conducted which reveals the importance of risk management on the management of institutions. Therefore, this study sought to fill this knowledge gap by assessing the practices of risk management in selected universities in western region Kenya.

Summary

Risk management, governance, policy and procedures for predicting, evaluating and managing risk is important before implementation for socio economic benefits. Risk management process involves establishing the context, risk assessment, risk treatment, monitoring and review, and communication and consultation. The management of the premises and the way people use it will have an effect on evaluation of risk. Management may be your responsibility alone or there may be

others, such as the building owners or managing agents, who also have responsibilities. University management and especially those who are responsible for risk should be in forefront in assessment and putting measures that can reduce or proper management in the event that it occurs. There should be training for all workers, student, faculty and staff so that they can be better prepared to handle.

CHAPTER THREE

RESEARCH METHODOLOGY

This section discusses the research design that was used in the study, population sampling, research instruments, and feasibility of the questionnaires, data gathering and statistical treatment of the acquired data.

Research Design

These are the overall strategies that the researcher chose to integrate the different components of the study in a coherent and logical way, thereby, ensuring effective address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data (Maxwell, 2012). This study used descriptive cross-sectional research design where data was gathered at a particular point in time with the intention of describing the nature of existing conditions, identifying the standards against the existing conditions, comparing and determining relationship that exists between the specific events. The research was about describing university administrators' perceptions on the state of the risk management practices. The perceptions of respondents in the public and private universities were also compared.

Population and Sampling Techniques

The statistics of the universities in Western region were thirteen. It covered the following counties: Uasin Gishu, Nandi, Kericho, Kakamega, Siaya, Kisii, Kisumu, Migori, Nakuru, Nyamira, Busia and Bungoma. The overall target population was 225, which comprised of the administrators, supervisors, chairs of departments, and school deans.

Sampling Techniques/Sample Size

The study used a purposive sampling technique of 2 public and 2 private universities in western Kenya. Purposive sampling technique was adopted from Mugenda and Mugenda (2013) who stated that this technique relies on the judgement of the researcher when choosing who to ask to participate. The researcher adopted purposive sampling on Universities for convenience.

Cluster sampling technique was used to sample the research participants where subgroups of the population were used as the sampling unit, rather than individuals. The population was divided into subgroups, known as clusters (School deans, Head of Departments and Security Team). It was a two-stage cluster sampling where a selection of individuals from each cluster were then randomly selected and included in the study. Ninety-nine (37 from private and 62 from public) employees of the universities participated in the study. This was adopted from Mugenda and Mugenda (2003), who stated that at least 30% of the population is a representative of the population.

Table 1

Population Frame

County name	**Public Universities**	**Private Universities**	**Total Universities**	**Sample Size**
UG	2		2	1
Nandi		1	1	1
Bungoma	2	-	1	1
Kakamega	1		1	
Siaya	1		1	
Kisumu		1	2	
Kericho	1		1	
Nakuru	1	1	2	1
Kisii	1		1	
Homabay			0	
Nyamira			0	
Migori	1		1	
Total	**10**	**3**	**13**	**4**

Table 2

SamplingFrame

County	Name of university	School Deans	HODs	Security Team	Total population	Sample Size (30% of the population)
NANDI	BARATON	5	13	15	33	13
NAKURU	KABARAK	19	30	4	53	24
UASIN GISHU	ELDORET	20	33	51	104	46
BUNGOMA	KIBABII	14	16	5	35	16
TOTAL		**29**	**92**	**75**	**225**	**99**

Research Instruments

The study employed questionnaires that were intended to access important information that was useful to this study and the research questions that are set in the present research. The questionnaire development was based on the variables of the study and literature review. It has three sections: Demographic Information, Evaluation of Risk Management Practices, and Challenges in Management of Risks (open-ended). The demographic information was measured descriptively through calculation of frequencies. Risk management practices were measured descriptively through calculation of means and standard deviations. Challenges of risk management were measured through the calculation of frequencies of the response collected from the respondents.

The researcher modified the scale with help of supervisors who designed four-point scale of strongly agree, agree, strongly disagree and disagree. This level of agreement based on modified Likert scale indicated correspondents' level of agreement or disagreement with the particular item. The scale is a psychometric response scale used in questionnaires to obtain participant's preferences or degree of agreement with a statement or set of statements. Respondents were asked to indicate

their level of agreement with a given statement by way of an ordinal scale (Mugenda, 2013).

Validity

Validity is the degree to which the tool measures what it purports to measure. Content validity pertains to the degree to which the instrument fully assesses or measures the concept of interest (Mugenda, 2013). The questionnaire developed were offered to the supervisors and other specialists in the Universities for content validation and grounded on their remarks and advice, adjustment and necessary changes needed were made. The appropriateness of questions and correctness of sentences was also determined.

Reliability of the Questionnaire

Before actual data collection, a pilot study was carried out at one of the universities located in Eldoret where DVC finance, academics, registrar, DVC student affairs, Development officer, auxiliary enterprise manager, security heads, procurement officer, and all deans of schools and department chairs. The data was collected, coded and analysed to test its reliability. The Cronbach's alpha equals to or greater than 0.6 was well-thought-out significant or meaning that the questionnaire was attainable in acquiring the required data for this study. The Cronbach's alpha coefficient obtained for each section of the questionnaire is as follows: Security Risk - .602; Fire Risk - .764; Natural Risk - .775; and Transportation Risk - .901. The analysis is shown in the appendix 2.

Data-Gathering Procedures

The researcher visited the universities personally. Before visiting, the researcher got a letter of introduction from the director of graduate studies and research ethical committee of UEAB. This proposal was submitted to NACOSTI a legal body which grants permission to gather data within the republic of Kenya. The researchers ought permission from the university administration to collect data. Upon approval, the researcher sought direction from the administration to the deans and department chairs of a university. The investigator administered questionnaires personally to the respondents after introducing himself. The respondents were required to respond to the items and return back the questionnaire the same day. University administrators were approached to by the researcher in their respective officers after administering questionnaires to the deans and department chairs. They also responded to the questionnaire and submitted it back to the researcher the day they were done. Upon permission, the researcher introduced himself to the respondents via their heads who then explained the way of responding to the items in the questionnaires. The acquired data was coded into excel as a means to transform it into quantitative data; this was analyzed using appropriate software where conclusion and comparison were made.

Statistical Treatment of Data

Analysis of data was done using SPSS. The analysis to address research question 1 was descriptive statistics analysis. The respondent's level of agreements based on four-point scale was used to calculate means, standard deviation and finally overall mean to make conclusions on specific variable. Data to address research question 2 was analysed using independent sample T-test. The level of significance was set at .05. The qualitative data that was gathered to address research question

3was content analysed to identify the emerging themes on challenges in management of risks.

Ethical Considerations

The proposal was presented to the Research Ethics Committee of UEAB and NACOSTI and sought research permit. The director of graduate studies issued the researcher with introductory letter.

Informed Consent

The respondents of the study were required to read and understand the informed consent at the beginning of each questionnaire. This is because they were entitled to freedom for clarification before engaging in the study. The researcher introduced himself and the purpose of the study.

Volunteer Participation

Respondents were not coerced to participate in the study. They were free to withdraw from the study and were required to sign the consent form. At nowhere in the questionnaire was required for a respondent to indicate his/her name or identity number.

Privacy

It was only the researcher who has the access to the information provided by the respondents, and the same information was not used to victimize the respondents in any way or to reveal any information to their supervisors. Honesty and sincerity in responding to the questionnaire was very important in this study.

Confidentiality

There was high level of confidentiality when treating the information for this study. No section of the questionnaire revealed respondent's privacy. This gave the respondents the confidence of participation.

CHAPTER FOUR

PRESENTATION OF FINDINGS, ANALYSIS AND INTERPRETATION

This portion of the thesis presents the methods used to analysed data, which was descriptive and inferential statistics. The interpretation and presentation of the data is presented in form of tables and analysed using descriptive statistics such as frequency and means while intended sample t test was used to determine whether there is any statistically significant difference between private and public universities in risk management practices.

Demographic Information

Table 2

Age Bracket

	Frequency	Percent
18-30 years	13	13.13
31-40 years	27	27.27
over 40 years	56	56.57
No response	3	3.03
Total	99	100.0

Table 1 above shows that 13.13% of the respondents are between the age of 18-30 years, 27.27% fall between the bracket of 31-40 years and 56.57% were over 40 years of age. Hence, majority of the security officers working in private and public universities are over 40 years of age.

Table 3

Gender

	Frequency	Percent
Female	30	30.30
Male	67	67.67
No Response	2	2.02
Total	99	100.0

Table 3 above presents the data analysis on gender of the respondents. The data shows that 30.30 % of the respondents were female and 67.67 % were male while 2.02% did not indicate their gender. Majority of the respondents were male.

Table 4

Level of Education

	Frequency	Percent
Certificate/Diploma	20	20.20
Bachelor's degree	20	20.20
Master's degree	47	47.47
Doctorate	11	11.11
No Response	1	1.01
Total	99	100.0

The level of education of the respondents was also studied during the study. From the acquired data, it was evident that 20.20% of the respondents have certificates or diploma, the same percentage also has bachelor's degree and 47.47% have master's degree while 11.11% had their highest level of education as doctorate. During the study, 1.01% did not indicate their level of education. In this study, it was revealed that majority of the respondents had master's degree.

Table 5

Position in the University

	Frequency	Percent
Administrators/Deans	33	33.33
Head of Department	48	48.48
Security Team	15	15.15
No Response	3	3.03
Total	99	100.0

The current study also wanted to determine the position of the respondents at the university. The study found out that 33.33% of the respondents were administrators/deans, 48.48% are the head of the departments, 15.15% are security team and 3.03% did not make any response. Therefore, majority of the respondents are heads of departments.

Table 1

Number of Respondents

	Frequency	Percent
Private	33	33.33
Public	66	66.66
Total	99	100.0

The table above shows that 33.33% of the participants during the study were from private university while 66.66% were from public university.

Evaluation of Risk Management Practices

Research question 1. To what extent is risk management practiced in universities in the western region of Kenya on the following risks?

a. Security Risk

b. Fire Risk

c. Natural Risk

d. Transportation Risk

For the study to examine the practice of risk management, respondents were asked to indicate their level of agreement on a scale of 1 to 4, with 1 representing disagree, 2 representing tend to disagree, 3 representing tend to agree and 4 representing agree. The mean scale (practice of risk management) was interpreted in a range of 1-4 where 1.00 – 1.49 disagree (Poor Implementation), 1.50 – 2.49, tend to disagree (Fair Implementation), 2.50 – 3.49 tend to agree (Good Implementation) and 3.50 – 4.00 agree (Excellent Implementation).

Security Risk Management

From table 7, respondents tended to agree that the university is proximal to the government security agencies, there is a security check at the main entrance of the university, the university security agency carries regular surveillance within the university jurisdiction and there is a specific communication network for security matters only with means of 3.17, 3.13, 3.05, 3.00 and standard deviations of 0.785, 0.873, 0.847, and 0.761 respectively. Respondents tended to disagree that the university land has perimeter fence, the university has engaged trained personnel on specific security matters e.g. Terrorism, Theft, Drugs related cases and the security personnel have up to date security gear with means of 2.70, 2.69, 2.68 and standard deviation of 0.872, 0.887 and 0.969 respectively.

Table 2

Security Risk Management

	Minimum	Maximum	Mean	Std. Deviation
There is a security check at the main entrance of the university	1	4	3.13	.873
The university has engaged trained personnel on specific security matters e.g. Terrorism, Theft, Drugs related cases	1	4	2.69	.887
There is a specific communication network for security matters only	1	4	3.00	.761
The university is proximal to the government security agencies	1	4	3.17	.785
The security personnel have up to date security gear	1	4	2.70	.872
The university security agency carries regular surveillance within the university jurisdiction	1	4	3.05	.847
The university land has perimeter fence	1	4	2.68	.969
Security Risk Management	**1.00**	**4.00**	**2.9140**	**.60254**
N = 78				

For risk management, the range for all means was from 2.68-3.17. The results gave a mean of 2.9140 and a standard deviation of 0.60254. The standard deviation yielded was below 1 indicating that the individual scores are closer to the mean. This result shows that the implementation of security risk management practices was good (2.50 – 3.49 Good implementations).

The result of this study implies that the universities have a good practice of security risk management. This agrees with the conclusion of O'Neill, Massachusetts and Applied Risk Management (2008) that the risk manager, risk management committee and campus public safety office professionals must consider the degree of authority to give campus security personnel adequate facilities for implementation of risk security management practices.

Fire Risk Management

Table 3

Fire Risk Management

	Minimum	Maximum	Mean	Std. Deviation
The university has water hydrants	1	4	2.60	.779
There are enough portable fire extinguishers	1	4	2.83	.733
The university has fire assembly points	1	4	3.12	.776
Classrooms and offices have fire exit points well indicated	1	4	2.75	.802
The university conducts seminar training on firefighting techniques	1	4	2.77	.925
There are smoke detectors in all major buildings within the university	1	4	2.62	.871
Classroom windows do not have window grills	1	4	2.75	.802
Fire Risk Management	**1.40**	**3.71**	**2.7720**	**.46912**
N = 78				

From table 7 above, respondents tended to agree that the university has fire assembly points with a mean of 3.12 and a standard deviation of 0.776. Respondents tended to disagree that there are enough portable fire extinguishers, classroom windows do not have window grills, the university conducts seminar training on firefighting techniques, classrooms and offices have fire exit points well indicated, there are smoke detectors in all major buildings within the university and the university has water hydrants with means of 2.83, 2.77, 2.75, 2.75, 2.62, 2.60 and standard deviations of 0.733, 0.972, 0.802, 0.802, 0.871 and 0.779 respectively.

For fire risk management, the range for all means was from 2.60-3.12. The results gave an average of 2.7720 and a standard deviation of 0.46912. The standard deviation yielded was below 1 indicating that the individual scores were closer to the

mean. This result shows that the implementation of fire risk management was good (2.50 – 3.49 Good implementations).

Based on the good implementation of fire risk management practices, it implies that the universities have a good practice of fire risk management. The result of this study confirms the results of a study done by Xin and Huang (2013) on fire risk analysis of residential buildings based on scenario clusters and its application in fire risk management that institutions should maintain a fire safety program to ensure good fire risk management practices.

Natural Risk Management

Table 4

Natural Risk Management

	Minimum	Maximum	Mean	Std. Deviation
There are lightning arrestors in all buildings	1	4	2.94	.833
The university carries out training on natural disaster preparedness and awareness	1	4	2.54	.871
The buildings within the university are built to meet the standards of the building and construction act.	1	4	2.95	.804
The university is prepared to handle floods by constructing proper drainage system	1	4	2.81	.898
The university planted trees for windbreaks	1	4	3.19	.859
Natural Risk Management	**1.60**	**4.00**	**2.8827**	**.54587**
N = 78				

From table 8, respondents tended to agree that the university planted trees for windbreaks with a mean of 3.19 and a standard deviation of 0.859. Respondents tended to disagree that the buildings within the university are built to meet the standards of the building and construction act, there are lightning arrestors in all

buildings, the university is prepared to handle floods by constructing proper drainage system and the university carries out training on natural disaster preparedness and awareness with means of 2.95, 2.94, 2.81 and 2.54 with standard deviations of 0.804, 0.833, 0.898 and 0.871 respectively.

For the natural risk management, the range for all means was from 2.54-3.19. The results gave a mean of 2.8827 and a standard deviation of 0.54587. The standard deviation yielded was below 1 indicating that the individual scores are closer to the mean. This result shows that the implementation of natural risk management was good (2.50 – 3.49 Good implementations).

The result of this study implies that the universities have a good management of natural risk practices. These results are in line with the discussion of Achoka and Maiyo (2008) in their study that good natural risk management practice cannot be achieved without education. It is therefore an implication that the universities have embarked on education and other strategies in managing natural risk.

Transportation Risk Management

Table 5

Transportation Risk Management

	Minimum	Maximum	Mean	Std. Deviation
The university has a workshop for repair and maintenance of its vehicles	1	4	2.41	.973
The university carries out regular mechanical maintenance of cars and buses	1	4	2.83	.889
All the university drivers have driving licenses	1	4	3.41	.813
The university has employed trained mechanics to handle vehicles	1	4	2.61	.994

All the university vehicles are insured	2	4	3.51	.639
Transportation Risk Management	**1.60**	**4.00**	**2.9551**	**.55518**

N = 78

From table 9, respondents tended to agree that all the university vehicles are insured and all the university drivers have driving licenses with means of 3.51, 3.41 and a standard deviation of 0.639 and 0.813. Respondents tended to disagree that the university carries out regular mechanical maintenance of cars and buses, the university has employed trained mechanics to handle vehicles and the university has a workshop for repair and maintenance of its vehicles with means of 2.83, 2.61, 2.41 and standard deviations of 0.889, 0.994 and 0.973 respectively.

For transportation risk management, the range for all means was from 2.41-3.51. The results gave a mean of 2.9551 and a standard deviation of 0.55518. The standard deviation yielded was below 1 indicating that the individual scores are closer to the mean. This result shows that the implementation of transportation risk management was good (2.50 – 3.49 Good implementations).

The result of this study implies that the universities are able to manage and practice transport risk management. This is in line with the statement made by Bubbico, Maschio, Mazzarotta, Milazzo and Parisi (2006) from their study on risk management of road and rail transport of hazardous materials that managing transportation risk involves not only vehicles, but also drivers. The universities therefore had qualified drivers operating university vehicles, and limit the university's liability.

Comparison of Risk Management Practices in Public and Private Universities

Research Question 2. Is there a significant difference between the practice of risk management in public and private universities in the Western region of Kenya?

For the study to examine if there is a significant difference between the practice of risk management in public and private universities, an independent sample T-test was used.

Table 6

Descriptive Statistics

Group Statistics

	Type of University	N	Mean	Std. Deviation	Std. Error Mean
Security Risk	Private	33	2.7678	.63466	.11048
Security Risk	Public	45	3.0212	.56092	.08362
Fire Risk	Private	33	2.7964	.40407	.07034
Fire Risk	Public	45	2.7541	.51537	.07683
Natural Risk	Private	33	2.8015	.58557	.10193
Natural Risk	Public	45	2.9422	.51334	.07652
Transportation Risk	Private	33	2.7515	.50998	.08878
Transportation Risk	Public	45	3.1044	.54437	.08115

Management

The above table shows the means and standard deviations of the risk management in both private and public universities. As indicated, security risk management in public university had a mean of 3.0212 and a standard deviation of 0.56092, security risk management in private university had a mean of 2.7678 and a standard deviation of 0.63466. Fire risk management in private universities had a mean of 2.7964 and a standard deviation of 0.40407, fire risk management in public had a mean of 2.7541 and a standard deviation of 0.51537. Natural risk management in public universities had a mean of 2.9422 and a standard deviation of 0.51334,

natural risk management in private universities had a mean of 2.8015 and a standard deviation of 0.58557. Transportation risk management in public universities had a mean of 3.1044 and a standard deviation of 0.54437, transportation risk management in private universities had a mean of 2.7515 and a standard deviation of 0.50998.

Table 7

Independent Samples T-Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
						Sig. (2-tailed)	Mean Diffe-	Std. Error Diffe-
Security Risk Management	Equal variances assumed	.001	.981	-1.864	76	.066*	-.25334	.13593
Security Risk Fire Risk Management	Equal variances assumed	1.990	.162	.391	76	.697*	.04232	.10811
Fire Risk Natural Risk Management	Equal variances assumed	.089	.766	-1.127	76	.263*	-.14071	.12489
Natural Risk Transportation Risk Management	Equal variances assumed	.144	.706	-2.905	76	.005**	-.35293	.12150

*Difference is not significant

**Difference is significant at .05 level

The above table presents the test of statistical significant difference between the means of practice of management of security risk, fire risk, natural risk and transportation risk in public and private universities. Statistical significant difference was determined at 0.05 level.

There is no significant difference between the practice of management of security risk, fire risk, and natural risk in public and private universities. The results of this study imply that the management of security risk, fire risk, and natural risk is similar in both universities.

From the table, there is a significant difference between the practice of management of transportation risk in public and private universities. The management of transportation risk in public universities is better than the management in private universities. This implies that the way public universities manage transportation risk differs with the way private universities manages transportation risk and the public universities have better strategies for managing their transportation risk. This is shown in table 13.

Table 8

Comparison of Transportation Risk Management Practices

	Private (N = 33)		Public (N = 45)	
	Mean	Std. Deviation	Mean	Std. Deviation
The university has a workshop for repair and maintenance of its vehicles	2.21	.893	2.56	1.013
The university carries out regular mechanical maintenance of cars and buses	2.52	1.004	3.07	.720
All the university drivers have driving licenses	3.18	.846	3.58	.753
The university has employed trained mechanics to handle vehicles	2.52	1.034	2.67	.969
All the university vehicles are insured	3.33	.736	3.64	.529
Total	**2.752**	**0.9026**	**3.104**	**0. 7968**

From Table 13 above, the range for the means for private universities was from 2.21-3.33 and for public universities was from 2.56-3.64. The results gave an average of 2.752 and a standard deviation of 0.9026 for private universities and

3.104 and 0.7968 for public universities. The standard deviation yielded were below 1 indicating that the individual scores were closer to the mean. These results show that the implementation of transportation risk management in public universities was better compared to private universities since public universities had higher mean in all areas of transportation risk management than private universities. In particular, the private universities lack workshop for repair and maintenance of its vehicles and trained mechanics to handle vehicles, therefore, mechanical maintenance of cars and buses are not regularly carried out. These results also support the statement made by Bubbico et al. (2006) that managing transportation risk involves not only vehicles, but also drivers.

Challenges in Risk Management

Research question 3. What risk management challenges that are faced by universities in the western region of Kenya?

The study went ahead to find out the challenges of risk management faced by the universities in western region of Kenya. Respondents were asked to list the challenges of managing risks in their universities in the open-ended question of the questionnaire. These are presented in table 13.

Table 9

Challenges

Challenge	**Frequency**	**Percentage**
Cost	15	19.2
Adherence to the risk	2	2.6
Communication	4	5.1
Inadequate mitigation measures	1	1.3
Risk identification	3	3.8
Resources	18	23.1
Commitment	8	10.3
Education and training	19	24.4
Overpopulation	2	2.6
Implementation	3	3.8
Motivation	1	1.3
Negligence	2	2.6

From table 13, majority of the respondents (24.4%) indicated that the major challenge faced in risk management in their universities was lack of adequate education and training on risk management. 23.1% of the respondents indicated that lack of resources is a major challenge of risk management in their universities. 19.2% of the respondents indicated that lack of finance is a major challenge in managing risk in their universities. 10.3% of the respondents of the study indicated that lack of commitment is a challenge for risk management in their universities. 5.1% of the respondents of this study indicated that poor communication is a challenge for risk

management in their universities. 3.8% of the respondents of this study indicated that lack of risk identification and implementation is the major challenges of risk management in their universities. 2.6% of the respondents indicated that lack of adherence to the risk; overpopulation and negligence are the challenges of risk management in their universities. 1.3% of the respondent indicated that lack of adequate mitigation measures and motivation are the challenges of risk management in their universities. The results of this study therefore reveal that the challenges that are faced in risk management practices in both public and private universities are; lack of adequate education, training, resources, finance, commitment, risk identification, implementation, adherence to the risk, adequate mitigation measures, motivation, poor communication, overpopulation and negligence. The result of this study implies that risk management practices have challenges and universities needs to have strategies of overcoming the challenges to have better risk management practices. These challenges are faced in managing any kind of the above risks. These results further agree with the results of Purdy (2010), on his study on setting a new standard for risk management, he highlighted a number of challenges with finance, education and training, implementation and motivation of those implementing the risk management practices.

Hypothesis Testing

For the study to test the null hypothesis that there is no significant difference between the practice of risk management in public and private universities in the Western region of Kenya, an independent sample T-test was used. From the results of T-test as indicated in table 11, there is no significant difference between the practice of management of security risk, fire risk, and natural risk in public and private universities implying that the management of security risk, fire risk, and natural risk is

similar in both universities. From the results of T-test as indicated in table 13, there is a significant difference between the practice of management of transportation risk in public and private universities. The management of transportation risk in public universities is better than the management in private universities implying that the way public universities manage transportation risk differs with the way private universities manages transportation risk.

Therefore, the study was in position to accept the null hypothesis that there is no significant difference between the practice of management of security risk, fire risk, and natural risk in public and private universities and reject the null hypothesis that there is no significant difference between the practice of management of transportation risk in public and private universities.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

This chapter presents the summary of the study, conclusions and finally the recommendations made based on the research questions of the study. This study was aimed at assessing risk management practices in selected universities in Western region, Kenya.

Summary

Risk Management helps ensure effective reporting and compliance with laws and regulations, and helps avoid damage to the university's reputation and associated consequences .Universities face many risks which ranges from student and staff safety to students apparently behaving badly, fee protests to governance issues, university managers have their hands full battling many risks they face. University risk managers face the daunting challenge of identifying and managing the complex risks across their campuses. This study perceived that a University may not operate in a risk-free environment; similarly, risk management process does not create risk free environment. Therefore, advancement in the procedures on risk management practices will assist the University to achieve its goals and objectives in service delivery targets. The present study perceived that poor risk management practices among universities in Kenya and the far wide could reduce if there is an all-inclusive risk management practice structure. And therefore, this study was set to carry out a study to assess the risk management practices among universities located in western region, Kenya.

This research operated under the risk management principle cycle. The study perceived that for a successful risk management, with steps of identifying, assessing, planning and implementing risk management practices. This research used a descriptive study design. On thirteen Universities in the Western Region of Kenya as the population. The target population comprised of the administrators, security teams, chairs of departments, and school deans. The study was a purposive sample of four universities, 30% of the total number of universities in western Kenya, 2 public and 2 privates. Questionnaires were used for primary data collection for this study. Analysis of data was done using SPSS.

Summary of Findings

The following were the major findings of this study based on the research questions of the study:

1. The implementation of security risk, fire risk, natural risk and transportation risk in the universities is acceptable with overall means ranging from 2.77 to 2.91 on a scale of 1 to 4.
2. There is no significant difference between the practice of management of security risk, fire risk, and natural risk in public and private universities. There is a significant difference between the practice of management of transportation risk in public and private universities.
3. The study established that lack of adequate education, training, resources, finance, commitment, risk identification, implementation, and adherence to the risk, adequate mitigation measures, motivation, poor communication, overpopulation and negligence are the challenges in managing risks in universities.

Conclusions

Based on the results of the study, it can be concluded that:

1. There is good implementation of security risk, fire risk, natural risk and transportation risk in the universities.
2. The management of transportation risk in public universities is better than the management in private universities. However, the management of security risk, fire risk, and natural risk is similar in both universities.
3. The major challenges in risk management in universities are education and training, resources, cost, and commitment.

Recommendations

It is recommended that the universities develop strategies towards excellent implementation of security risk, fire risk, natural risk and transportation risk. Private universities to improve their management of transportation risk. Universities to invest in education and training, resources, finance, commitment, risk identification, implementation, and adherence to the risk, mitigation measures, motivation, communication, population control and negligence to minimise their effect on the management of risk.

Recommendation for Further Studies

This study was done on selected risk management practices; similar studies are recommended to be conducted on other risk management practices in other parts of the country to confirm the findings of this study. Studies that in include colleges, secondary schools and even primary schools need to be done so that comparison of the findings can be seen. Also, further study that involves other members of the university community like the faculty, staff and even students is highly recommended

to find their understanding of risk management practices and compare. Lastly, future studies to be done on private and public Universities independently.

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APPENDICES

APPENDIX 1. QUESTIONNAIRE

PART A: DEMOGRAPHIC INFORMATION

Tick the appropriate answer

1. What is your age bracket?

18-30 years ☐

31-40 years ☐

Over 40 years ☐

2. What is your gender?

Female ☐

Male ☐

3. What is your level of education?

Certificate/Diploma ☐

Bachelor's Degree ☐

Master's Degree ☐

Doctorate ☐

Others, please specify……

4. What is your position in the university?

Administrator ☐

School Dean ☐

Head of Department ☐

Security Team ☐

RISK MANAGEMENT PRACTICES

INSTRUCTION: Indicate the extent of your agreement or disagreement to the statements using the following scale:

1 = Strongly Disagree (SD) 2 = Disagree (D) 3 = Agree (A) 4 = Strongly Agree (SA)

a. Security Risk

No.	Item	Rating			
		SD	**D**	**A**	**SA**
1	There is a security check at the main entrance of the university	1	2	3	4
2	The university has engaged trained personnel on specific security matters e.g. Terrorism, Theft, Drugs related cases	1	2	3	4
3	There is a specific communication network for security matters only	1	2	3	4
4	The university is proximal to the government security agencies	1	2	3	4
5	The security personnel have up to date security gear	1	2	3	4
6	The university security agency carries regular surveillance within the university jurisdiction	1	2	3	4
7	The university land has perimeter fence	1	2	3	4

b. Fire Risk

No.	Item	Rating			
		SD	**D**	**A**	**SA**
1	The university has water hydrants	1	2	3	4
2	There are enough portable fire extinguishers	1	2	3	4
3	The university has fire assembly points	1	2	3	4
4	Classrooms and offices have fire exit points well indicated	1	2	3	4
5	The university conducts seminar training on firefighting techniques	1	2	3	4
6	There are smoke detectors in all major buildings within the university	1	2	3	4
7	Classroom windows do not have window grills	1	2	3	4

c. Natural Risk

No.	Item	Rating			
		SD	**D**	**A**	**SA**
1	There are lightning arrestors in all buildings	1	2	3	4
2	The university carries out training on natural disaster preparedness and awareness	1	2	3	4
3	The buildings within the university are built to meet the standards of the building and construction act.	1	2	3	4
4	The university is prepared to handle floods by constructing proper drainage system	1	2	3	4
5	The university planted trees for windbreaks	1	2	3	4

d. Transportation Risk

No.	Item	Rating			
		SD	**D**	**A**	**SA**
1	The university has a workshop for repair and maintenance of its vehicles	1	2	3	4
2	The university carries out regular mechanical maintenance of cars and buses	1	2	3	4
3	All the university drivers have driving licenses	1	2	3	4
4	The university has employed trained mechanics to handle vehicles	1	2	3	4
5	All the university vehicles are insured	1	2	3	4

CHALLENGES IN MANAGEMENT OF RISKS

What are the challenges of managing risks in your university? Please list on the space below.

_____

_____

_____

_____

_____

_____

APPENDIX 2. RELIABILITY ANALYSIS

Reliability (Security Risk)

Reliability Statistics

Cronbach's Alpha	N of Items
.602	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
There is a security check at the main entrance to the university	15.86	9.363	.627	.456
The university has engaged trained personnel on specific security matters e.g. Terrorism, Theft, Drugs related cases	15.00	11.077	.261	.583
There is a specific communication network for security matters only	15.00	10.308	.456	.519
The university is proximal to the government security agencies	15.36	10.709	.297	.571
The security personnel have up to date security gear	15.21	11.566	.162	.618
The university security agency carry regular surveillance within the university jurisdiction	15.29	10.374	.475	.516
The university land has a perimeter fence	15.00	11.846	.080	.655

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
17.79	13.720	3.704	7

Reliability (Fire Risk)

Reliability Statistics

Cronbach's Alpha	N of Items
.764	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The university has water hydrants	13.69	17.897	.462	.739
There are enough portable fire extinguishers	14.38	14.423	.802	.655
The university has fire assembly points	14.69	16.064	.706	.687
Classrooms and offices have fire exit points well indicated	13.92	16.244	.515	.729
The university conducts seminar training on firefighting techniques	13.62	17.256	.553	.720
There are smoke detectors in all major buildings within the university	13.38	21.090	.266	.770
Classroom windows do not have window grills	14.15	20.308	.141	.807

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.31	23.064	4.803	7

Reliability (Natural Risk)

Reliability Statistics

Cronbach's Alpha	N of Items
.775	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
There are lightening arrestors in all buildings	7.80	13.314	-.020	.871
The university carries out training on natural disaster preparedness and awareness	7.47	9.124	.565	.728
The buildings within the university are built to meet the standards of the building and construction act.	8.07	9.067	.613	.711
The university is prepared to handle floods by constructing proper drainage system	8.00	8.000	.786	.644
The university planted tree for windbreaks	8.13	7.267	.832	.617

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
9.87	13.838	3.720	5

Reliability (Transportation Risk)

Reliability Statistics

Cronbach's Alpha	N of Items
.901	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The university has a workshop for repair and maintenance of her vehicles	5.21	4.643	.734	.884
The university carries out regular mechanical maintenance of her cars and buses	5.21	4.335	.698	.899
All the university drivers have driving licenses	5.50	4.731	.752	.880
The university has employed trained mechanics to handle vehicles	5.57	4.725	.812	.868
All the university vehicles are insured	5.64	4.863	.830	.868

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
6.79	7.104	2.665	5

APPENDIX 3. ETHICS CLEARANCE

OFFICE OF THE DIRECTOR OF GRADUATE STUDIES AND RESEARCH

UNIVERSITY OF EASTERN AFRICA, BARATON

P. O. Box 2500-30100, Eldoret, Kenya, East Africa

B442019

April 3, 2019

Korir Peter
Department of Management
School of Business
University of Eastern Africa Baraton

Dear Korir,

Re: ETHICS CLEARANCE FOR RESEARCH PROPOSAL (REC: UEAB/04/04/2019)

Your master thesis proposal entitled "***Assessment of Risk Management Practices in Selected Universities in Western Region, Kenya***" was discussed by the Research Ethics Committee (REC) of the University and your request for" for ethics clearance was granted approval.

This approval is for one year effective April 3, 2019 until April 2, 2020. For any extension beyond this time period, you will need to apply to this committee one month prior to expiry date.

Note that you will need a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI) and clearance from the study site before you start gathering your data.

We wish you success in your research.

Sincerely yours,

University of Eastern Africa, Baraton
03 APR 2019
Research Ethics Committee

Prof. Jackie K. Obey, PhD
Chairperson, Research Ethics Committee

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CHARTERED 1991

APPENDIX 3. AUTHORIZATION FOR PILOT STUDY

OFFICE OF THE DIRECTOR OF GRADUATE STUDIES AND RESEARCH
UNIVERSITY OF EASTERN AFRICA, BARATON
P.O. Box 2500, Eldoret, Kenya

9 April 2019

TO WHOM IT MAY CONCERN

Re: PILOT STUDY OF RESEARCH INSTRUMENT

Mr. Peter Korir is a graduate student pursuing **Master of Business Administration in Management** at the University of Eastern Africa, Baraton. He is currently writing his thesis entitled *Assessment of Risk Management Practices in Selected Universities in Western Region, Kenya*.

To establish the reliability of his research instrument, Mr Korir is conducting a pilot study. Please allow him to administer his questionnaires to selected respondents in your institution.

Any assistance you will grant him will be greatly appreciated. May God richly bless you in all your undertakings.

Sincerely yours

UNIVERSITY OF EASTERN AFRICA DIRECTOR 09 APR 2019 Graduate Studies BARATON

Prof. Korso Gude
Ag. Director

Cc: Chair Department of Management
Office file

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CHARTERED 1991

APPENDIX 4:NACOSTI AUTHORIZATION LETTER

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone +254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref No. **NACOSTI/P/19/58658/30950** Date: **4th June, 2019.**

Peter Kipkemboi Korir
University of Eastern Africa Baraton,
P.O. Box 2500-30100
ELDORET.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Assessment of risk management practices in selected universities in Western Region, Kenya."*** I am pleased to inform you that you have been authorized to undertake research in **selected Counties** for the period ending **4th June, 2020.**

You are advised to report to **the County Commissioners, and the County Directors of Education, selected Counties** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:
The County Commissioners
Selected Counties.

The County Directors of Education
Selected Counties.

APPENDIX 5. NACOSTI RESEARCH PERMIT

THIS IS TO CERTIFY THAT:
MR. PETER KIPKEMBOI KORIR
of UNIVERSITY OF EASTERN AFRICA
BARATON, 4926-30100 ELDORET,has
been permitted to conduct research in
Bungoma , Nakuru , Nandi ,
Uasin-Gishu Counties

on the topic: *ASSESSMENT OF RISK MANAGEMENT PRACTICES IN SELECTED UNIVERSITIES IN WESTERN REGION, KENYA*

for the period ending:
4th June,2020

.....
Applicant's
Signature

Permit No : NACOSTI/P/19/58658/30950
Date Of Issue : 4th June,2019
Fee Recieved :Ksh 1000

.....
Director General
National Commission for Science,
Technology & Innovation

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
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REPUBLIC OF KENYA

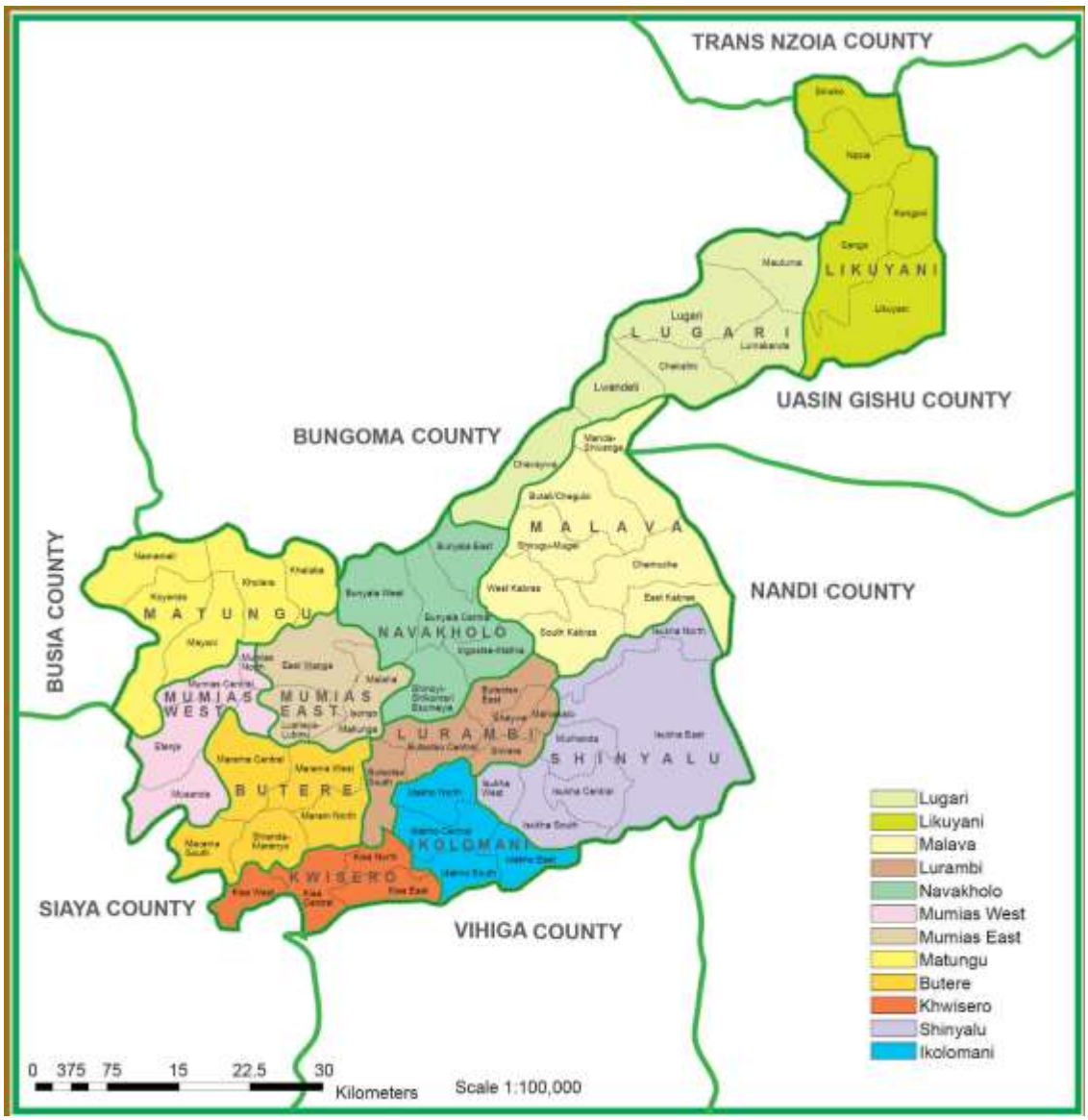
National Commission for Science, Technology and Innovation

RESEARCH LICENSE

Serial No.A 25137

CONDITIONS: see back page

APPENDIX 6. MAP OF WESTERN KENYA



Korir Peter Kipkemboi

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PERSONAL INFORMATION

I am 47 years old, male and married Kenyan. I am currently a MBA Management and Human Resource student at the University of Eastern Africa Baraton and a BBA Management graduate from University of Eastern Africa Baraton.

EDUCATIONAL BACKGROUND

2016 to Date	University of Eastern Africa Baraton. Masters of Business Management (Management and Human Resource). In progress.
2009-2015;	University of Eastern Africa Baraton. Bachelor of Business Administration (Management). 2nd Class honors, lower division.
1988-1991;	Olenguruone Mixed Secondary School. Kenya Certificate of Secondary Education. Mean Grade C-
1978-1987;	Kitoben Primary School. Kenya Certificate of Primary Education.

SKILLS

Language	Very good in Written and spoken English and Kiswahili.
Computer	Good training in computer, Microsoft office package, and web programs, graphic design, keyboarding techniques, introduction to computer tools and Statistical analysis program.
Driving	Driving License class ABCE with over five years' experience.

WORK EXPERIENCE

2009 to Date **University of Eastern Africa Baraton**

Chief Security Officer

I work as the Head of Security at University of Eastern Africa Baraton reporting to DVC- Finance.

January 2004-March 2008 **Kenya Police**

- Providing protection to the Kenyan president plus very important persons.
- I worked at Nandi hills police station crime branch, Koitabut Police Post and kibabet patrol base as the in-charge.

August 1996 to December 2004 **Kenya Police**

Presidential escort unit

- Providing protection to the Kenyan president plus very important persons.
- Security of very important installations and buildings.

March 1993 to December 1996 **General Service Unit**

G.S.U, Elite Recce company Ruiru

- Hostage rescue services.
- Anti-terrorism and crime prevention in the urban areas in the country.
- Provide security to very important installation.
- Provide security to very important personalities and state guest.

October 1992 to July 1993 **General Service Unit**
Recruit at G.S.U Training School, Embakasi

AWARDS

2006 Certificate of attendance; Kenya Union of co-operative societies (KUSCO) at Paradise hotel Kikambala.

HOBBIES

1. Playing football.
2. Reading.
3. Hiking.
4. Nature walk.
5. Participating in Church activities

REFEREES

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Officer commanding Station

P.O. Box Meru

Tel. 0722942650