DETERMINANTS OF UNDER-REPRESENTATION OF KENYAN UNIVERSITY STUDENTS IN SELECTED BALL GAMES AT THE INTERNATIONAL COMPETITIONS

 \mathbf{BY}

CHUMBA JANET MUHALIA

E88/52203/2017

A THESIS SUBMITTED TO THE SCHOOL OF EDUCATION,

DEPARTMENT OF PHYSICAL EDUCATION AND SPORT, IN

FULFILMENT OF THE REQUIREMENTS FOR AWARD OF DEGREE OF

DOCTOR OF PHILOSOPY OF THE UNIVERSITY OF NAIROBI

ii DECLARATION

This thesis is my original work and has not been presented for the award of a degree or any other qualification in this or any other university or institution of higher learning.

Name: Chumba Janet Muhalia

E88/52203/2017

Signature: ILL

Date 15-11-2019

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

Signature...

Dr. Simon P. Munayi (Ph. D)

Senior Lecturer and Chairman

Department of Physical Education and Sport University of Nairobi

Prof. Jacob Stanley Nteere (PhD)

Associate Professor

Signature...

Department of Physical Education and Sport University of Nairobi

DEDICATION

This thesis is dedicated to my dear husband Mr. Nicholas Chumba Musonye. You have been a loving and caring husband; you made sure I completed my undergraduate my masters' degree and you have journeyed with me in my PhD. May God bless and give you many more years.

ACKNOWLEDGEMENT

My sincere thanks is to the Almighty God, for walking with me and bringing me this far. For sure it is you who gave me the strength and the wisdom throughout this study.

To my employer, The University of Nairobi thanks for granting me a fees waiver and opportunity to work and study at the same time. I am humbled and thankful too

My most sincere gratitude goes to my university supervisor Dr. Simon Peter Munayi, who inspired me to complete my work. Your guidance and undying wise counseling changed and shaped my work. You are my role models.

To my loving husband Nicholas Chumba Musonye, I call you Daddy because you are a real father. Without you I wouldn't be where I am today. You inspired me from a PI teacher to a college tutor, college assistant lecturer, a university assistant games tutor and now a university lecturer, may God bless you.

Special thanks to my children Dr. Laura Chumba and Mark Chumba for encouragement understanding and prayers throughout my journey God blesses and always be your guide.

Finally I want to thank the University sports management staff, coaching departments and sports stunts who participated in responding to the questionnaires and face to face interview schedule God bless you for making my work easy

TABLE OF CONTENT

DECLARATION Error! Bookma	rk not defined.
DEDICATION	iii
ACKNOWLEDGEMENT	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	X
ABSTRACT	xi
CHAPTER ONE: INTRODUCTION	1
1.1 Background to the Study	1
1.2 Statement of the Problem	8
1.3 Purpose of the Study	10
1.4 Objectives of the Study	10
1.5 Research Questions	10
1.6 Significance of the Study	11
1.7 Limitations of the Study	12
1.8 Delimitations of the Study	12
1.9 Assumptions	12
1.10 Operational Definition of Key Terms	13
CHAPTER TWO: LITERATURE REVIEW	15
2.1 Introduction	15
2.2 Studies on Participation of University Students in Sports for Representation at	National Team
level	15
2.3 Studies on Gender and Participation in Sport at the University	20
2.4 Studies on Facility and Equipment for Sports at the University	23
2.5 Studies on Personnel Managing University Sports	26
2.6 Studies on Students' Motivation and Pull-Factors for Sports at the University	29
2.7 Theoretical Framework	33
2.8 Conceptual Framework	34
CHAPTER THREE: RESEARCHMETHODOLOGY	
3.1 Introduction	37

3.2 Research Design	37
3.3 Target Population	37
3.5 Sample Size and Sampling Procedure	38
3.6 Instruments for Data Collection	38
3.7 Validity of Research Instruments	40
3.8 Reliability of Research Instruments	41
3.9 Data Collection Procedures	42
3.10 Data Analysis	42
3.12 Ethical Concerns	43
CHAPTER FOUR: FINDINGS	45
4.1 Introduction	45
4.2 Summary Statistics of Respondents	45
4.2.1 Participation of students and personnel by gender	52
4.3 State of university infrastructure in improving students' participation in sports	53
4.4 Influence of Sports Personnel on Student Participation Qualification	62
4.5 Students' motivation for sports at the university	65
4.5.1 Reason for participation as a motivating factor	69
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	73
5.1 Introduction	73
5.2 Summary of the Study	73
5.3 Summary of Findings	74
5.4 Conclusions of the Study	76
5.5 Recommendations of the study	78
5.6 Policy Implications	80
5.7 Suggestions for further research	81
REFERENCES	82
APPENDICES	88
Appendix I: Permission to Conduct Research	88
Appendix II: Questionnaire for University Students Selected Ball Games	89
Appendix III: Questionnaire for University Sports Directors/ Coordinators, Head of Sports	
Department	93
Appendix V: An Interview Schedule for Sports Directors	. 104

Appendix VI: Universities in Kenya	106
Appendix VII: Kenya University Sports Association List of Conferences	107
Appendix VIII: Research Permit (Nacosti)	109
Appendix IX: United States International University Kenya's State of the Art Students	
Gymnasium	110

LIST OF TABLES

Table 4. 1 : Age cohorts of respondents	46
Table 4. 2: Distribution of coaches and sports tutors by category of university	48
Table 4. 3: Year of Study of Respondents	48
Table 4. 4: Type of sports student engage in by gender and university category	51
Table 4. 5: Distribution of Respondents by Gender	52
Table 4. 6: Quality of Infrastructure and Personnel at both public and private university	ties
in Kenya	54
Table 4. 7: Aspects of sports infrastructure in various universities	57
Table 4. 8: Place of sports infrastructure in various universities	59
Table 4. 9: Competition students participated in by university category	61
Table 4. 10: Qualification of Sports Management and Coaching Staff	63
Table 4. 11: Underlying competitions in which respondents participated	66
Table 4. 12: Reason for Participation in University Sport	69

LIST OF FIGURES

Figure 2 1: Conceptual Framework for the study	. 35
Figure 4. 1: University Students Participation in the Kenya National Team	. 71

LIST OF ABBREVIATIONS

ACSM American College of Sports Medicine

CUE Commission for University Education

CUEA Catholic University of Eastern Africa

EAUG Eastern Africa University Sports Games

FASU Federation of Africa University Sports

FIKA Fitness Instructor Knowledge Assessment

FISU Federation of International University Sports

JKUAT Jomo Kenyatta University of Agriculture and Technology

KEMU Kenya Methodist University

KU Kenyatta University

KUSA Kenya University Sports Association

LPM Linear Probability Model

MKU Mount Kenya University

MMUST Masinde Muliro University of Science and Technology

NACOSTI National Council for Science, Technology and Innovation

OLS Ordinary Least Square

SPSS Statistical Package for Social Sciences

UoN University of Nairobi

ABSTRACT

Kenyan universities have the potential of presenting a significant percentage of athletes to the national teams just like other countries around the world. The country has over seventy public and private universities with over half a million students currently admitted to study in various programs. Internationally, Kenya is renowned as a leading performer in world track athletics, women's volleyball and rugby sevens. The purpose of the study was to assess the factors that influence under-representation of Kenyan university sports students in selected ball games at international sporting competitions. The first objective was to identify participation by gender. Objective two sought to determine the effect of facility and equipment. Objective three was to assess the effect and quality of human resource. Objective four aimed at determining the influence of motivation and pull factors for sports. A descriptive survey research design was used to gather data from 268 students and 38 administrative staff of Kenyan universities. Research instruments included a questionnaires and an interview schedule. Data analysis utilized descriptive and inferential analytical techniques. Findings indicated that male students had a higher participation in soccer, rugby and handball, while female had a higher participation in netball. Objective two noted that a higher respondents from private universities than public universities (69% versus 44%) reported that their infrastructure was in good condition. Objective three concluded that private universities had a higher numbers of human resource compared to public universities and finally objective four concluded that majority of the students 39% participated in sports for fitness. The study concluded that university sports and management of sports is male dominated in Kenya, private universities have better sporting facility than public universities, private universities have adequate human resource compared to public universities and finally Kenyan university students participate in sports for fitness and not professionalism. Finally the study recommended that the two third gender rule should apply in management of sports, partnerships with the co-operate world should be encouraged in terms of infrastructure, and exposure of Kenyan sports students to participate in international competitions organized by universities worldwide should be encouraged.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Different social cultural agents continue to influence youth in sports (Woods, 2007). In order to excel in international sports competitions, many countries of the world have relied on educational institutions for early identification and development of sports talent (Woodruff and Schallert, 2008). This is largely attributable to the fact that the largest proportions of youth that have the potential to post outstanding performances are readily available in educational institutions. Indeed, there is abundant evidence of student-athletes from the developed world who have participated and attained impressive performances in international sports competitions, including the Olympic Games (Rintaugu, Mwisukha and Munayi, 2011). However, the available statistics show that student-athletes from educational institutions in Africa have not made much significant impact in terms of participation and performance at the major international sports events (Mwisukha and Wanderi, 2014).

Wyllen and Lavallen (2004) in their study noted that the Australian national team has been presenting students at the Olympic Games since 2004. The same research has shown that in the 2004 the team presented 112 students from 32 institutions of higher learning, these included University of Sydney 12 students, University of New South Wales 12 students and University of Technology Sydney/ University of Melbourne 9 students each. In the same year these students won 19 medals out of the 49 medals won by the whole Australian team or 39% of the total team tally. In 2008 Beijing Olympics, the Australian team selected 201 students. This was 46% of the total team. They came from 36 higher education institutions. This included University of Queensland,

University of West Australia and University of Melbourne. The students won 26 medals out of the total 46 medals won by the team these constituted to 57% of the total team tally. In London 2012 Australia presented 164 students, these were 40% of the total team. The students won 22 medals out of the 35 medals won by the team. What is the situation in Kenya? This study goes out to discover the situation in Kenya.

Team Great Britain has been tracking the performance of their University student athletes at the Olympic Games since the Barcelona Olympics in 1992. The medal standings for these teams show that 65% of the medals list has been won by university students. This compares to 31% of the general population. Universities that have made it in Great Britain include University of Oxford, University of Cambridge, Loughborough University, Oxford Brookes, University of Edinburgh and Bath University (De Bossheret all 2008).

In order to fully optimize the benefits of health and exercise the human body must have a regular pattern throughout its life span (Pender 1998). Students at university undergo great transition from teenage to adulthood, a period where maturity and novelty sets in for most individuals (Edginton, Jordan, DeGraaf, and Edignton, 2002) Team Great Britain has documented the transition of students since it has been tracking the performance of their University student athletes at the Olympic Games since the Barcelona Olympics in 1992. The medal standings show that 65% of the medals that were won in the 1992 Olympic Games in Bercelona were won by university students. This comprised of 31% of the medals. The students came from the following Universities; University of Oxford, University of Cambridge, Loughborough University, Oxford Brookes, University of Edinburgh and Bath

University (De Bosssheret et al 2008).

Universities world over encourage students to participate in activities that are recreational in nature during their time at university, in this regard they often provide a wide range of sporting opportunities in an attempt to cater for all types and levels of participants need (Blinde, Taub and Han, 1993). Blind et al further note that students are often encouraged participating in other physical and recreational activities if they are not interested in competitive sporting activities. College sports can impact students in many different ways. Experts in physical education and sport agree that athletic participation brings numerous benefits to the participants (Coakley, 2007). These include: physiological, psychological, educational and social benefits to the participants (Bucholz, 1993).

These general benefits of sports participation and spectatorship include improving health and exertion of students 'surplus energies. Further, participation in sportingactivities entails, obeying the competition or societal rules which include constraining from delinquent behaviour such as cheating, acting violently, indulgence in illegal substances, and excessive alcohol (Eitzen and Sage, 2008). Other benefits of participation in sports and recreation include promoting societal values, integrity and building character. Hudson (2000) noted that participation leads to enhancing confidence, motivation, as well as sense of empowerment, and self-esteem.

Awoma and Araina (2015) noted that having the right quality and quantity in terms of sports facilities and equipment is an integral part of sports development. They emphasized that this is partly what makes the difference between sports culture of

developed and developing nations. In the developed world, access to sports facilities and availability of equipment that is of appropriate standard helps to promote the athletes performance (Ojeme, 2000). In support of this view, Talabi (1998) states that most developing countries attempt to arrive at the level of developed countries over night. The study above suggests that while developed countries are putting significant amount of resources into providing excellent facilities, equipment and a conducive environment for sports men and women, developing countries on the other hand seem to lag behind in the provision of these amenities and yet they still expect their athletes to excel in the international arena. In this regard developing countries are not giving sufficient attention to their athletes; therefore they end up faring poorly.

Miller (2011) was of the opinion that for many users, the campus leisure and recreation facility can function as a place of the student fraternity to meet friends, hang out, and to see and be seen. While there is a shortage of research detailing potential relationship between social bonding and campus leisure and recreation, there is some evidence indicating a number of college students who perceive a connection to their on-campus programme. Some previous research has suggested that a personal bond may frequently result between people and places (Tuan, 1980; Sime, 1995; Williams & Stewart, 1998; Stedman, 2003). As such particular places, also known as place bonding, may possess such significance that individuals become emotionally involved and these places take on an identity of their own especially if the facilities are in good shape (Fishwick and Vining, 1992) This suggests a significant gap in research when it comes to looking at the impact of a student recreation center on a college

campus as a whole and its effects on student social belonging and retention on campus. What is the state of facilities in Kenyan Universities? The current study was an attempt to discover this.

Daly (2002) stated that as most university students spend most of their time on campus, their healthy lifestyle can be improved through active participation in sports, and therefore universities need to invest and have good sporting facilities. Universities need to promote sports by investing in leisure and recreation facility to promote sports time for their students. Sivan (2001) noted that good facility at the university plays an important role in shaping the students participation in sports. While studies have been conducted to determine the social-emotional development and learning outcomes associated with participation in sport clubs, very few similar studies have been undertaken on the recreational sports environment as a whole(Hall, 2006). It is important to note why college recreation facilities are important to student life as well as to understand what overall benefits students receive from the program as a whole. Miller (2011) revealed that students who used the student recreation facilities more frequently were more likely to be active students on campus for their studies. From a practical perspective, the findings provide information for the university to better understand how to attract and retain students throughout their academic careers by the presence of a student recreation centre. Moffitt (2010) stated that for years recreational sports professionals have argued that student participation in recreational sports and fitness activities positively contributes to the social identity and retention of college students. In addition, Hesel (2000) stated that a significant number of future students considered the presence of a student recreation center at campus as being a crucial factor when deciding where to attend university. Hesel further emphasized that when students are offered opportunities to participate in intramural and recreational sports it counts as more significant to prospective college students than being involved as a top-ranked national team player in major sports. Is this the same situation in Kenya? The current study was an attempt to assess if the trends are significant in universities in Kenya.

Biddle and Mutrie (2001) noted that while sports is found to be positively related to health benefits, university students are found to be sedentary with many lifestyle diseases. There is also an increased risk of morbidity and mortality. Mediation for promoting sporting activities are therefore important for student's participation in sports. Enactment of a timely intervention is critical in achieving the goal of changing sporting behaviour of campus students. Akerson (2014) noted that the fitness industry has worked to create some standards for various human performance type instructors. These include personal fitness trainers, sports performance instructors, and strength coaches. This was done through provision of exercise science degrees and certifications. However, some believe the fitness industry lacks academic rigor and validity (Boone, 2010). Further, some researchers feel that those delivering biomechanics instruction are not qualified or prepared to occupy emerging jobs in the industry (Malek, 2002).

Allen (1997) however observed that female university athletes have different influence from their trainers. The trainers of the female teams have created an environment that puts more emphasis on the importance of academic results among female university athletes. Specifically, female university athletes have a

positive influence from their trainers in both their sports and academic work. Hammitt, Backlund & Bixler (2006) noted that teams agree on academic results and this creates a positive team subculture among the female university athletes which leads to a positive influence on all team members 'academic output. Team members also display a more 'pro academic 'behavior which contributes to their positive academic results. On the other hand, university sports men are said to have a culture of not taking academic achievement seriously. Allen (1997) continues to state that University sports men and women who are exposed to sports and are practicing non-academic behavior will influence their team mates also to emulate them.

Medic, Mack and Wilson (2014) state that, research has shown that intrinsic motivation and extrinsic motivation are important concepts for understanding motivational processes in sport settings. Deci and Ryan (2002) state that intrinsic motivation refers to performing an activity for its inherent satisfactions and pleasures rather than for some separable consequence while on the other hand Ryan and Deci (2000) state that extrinsic motivation reflects behaviors that are performed not for their own sake, but to achieve some separate goal, for example receiving a reward, avoiding punishment, and maintaining contingent self-worth.

As such, it is perceived that one's actions have no control over outcomes and that forces beyond one's individual control determine behavior (Deci and Ryan, 1985). Dalgarm (2001) on the other hand stipulates that by increasing the benefits of participation, use of incentives could increase participation rates in structured walking programmes. The current study goes out to discover the incentives used to lure students to the field.

Smith (2008) noted in a study that students who participate in a recreational sports programme during their college years open themselves up to a wide range of life enhancing benefits. Such benefits include discovering ways of coping with stress, creating a sense of accomplishment, finding ways to control body weight and maintaining physical wellbeing, building friendships and close contacts, as well as improving various sport skills. Half of those who go to world championships in almost every sport are from universities, yet Kenyan University students have performed dismally on the world stage (Munayi, 2014). This study was therefore an attempt to uncover what ails the participation of students from universities in Kenya in world championships.

1.2 Statement of the Problem

The problem in this study is under- representation of Kenyan university students in the national team for international competitions. Students at university are in their golden years of athletics performance, yet in Kenya, very few students take part in national and international competitions. Is there any specific reason why universities cannot present sports men and women in the Kenya national teams? Currently Kenya has over 55 universities represented in the Kenya University Sports Association (KUSA) even as the government attempts to build a university per County. The current number of students admitted in Kenyan universities is over half a million (Gudo and Oanda2011). Kenyan universities have the potential of presenting a large percentage of athletes to the national teams like other countries do. In France, during the 2008 Olympic Games, the country presented a team with most of the athletes from the National Institute for Sport and Physical Education (INSEP). The students won 14

out of the 34 medals achieved by France; this constituted 41.2% of the medal contribution by university students (Aqullina, 2009). This percentage is significant from one genre of society. Internationally, Kenya performs well in world track athletics, women volleyball and rugby sevens. In these teams there is hardly a university student (Mwisukha and Wanderi, 2014).

Prior to entry into universities, the Kenyan students are outstanding at Kenya secondary school games. Further, at the regional level the Kenyan students continue to be outstanding to the extent of dominating the Secondary Schools East African Championships. When these students complete and join university, what happens to their prowess in sports? This study was an attempt to answer this question amongst others. In the evening after classes, the number of students seen in the field participating in sports seems to be a mismatch in comparison to the number of students 'intake (Rintaugu, Mwisukha and Munayi, 2011). What could be the factors that affect the under-representation of students to participate in sports? The number of male students that participate in university sports is higher than their female counterparts (Rintaugu and N'getich, 2012), what could be the reason for this? Is the motivation for male students different from the motivation for female students? Are there factors that hinder participation for both competitive and recreational sports? Do the Kenyan universities have facilities to support sports? Are there enough coaches qualified to take care of students interested in sports? Are there policies in particular universities that would enhance individual initiatives to participation? Do universities in Kenya allocate time for sports on their university time-table where all students have time for sports? These lingering questions needed to be addressed hence this

study.

1.3 Purpose of the Study

The purpose of this study was to assess the factors that influence underrepresentation of Kenyan university sports students in selected ball games at international sporting competitions.

1.4 Objectives of the Study

The following were the objectives of the study:

- (i) To assess gender participation of university students in selected ballgames in both public and private universities in Kenya for representation at national teams.
- (ii) To determine the effect of infrastructure for sports in selected ball games on university students in public and private universities in Kenya for representation in national teams.
- (iii) To assess the influence of quality of human resource in selected ball games on students' participation for representation in national teams.
- (iv) To determine the influence of motivation and pull factors of sports men and women in selected ball games at both public and private universities in Kenya for representation in national teams.

1.5 Research Questions

Based on the objectives the following research questions were derived.

- i) How is gender balance participation in selected ball games, recreation and competitive sports in public and private universities in Kenya?
- ii) To what extent does the quality and quantity of sports infrastructure affect

- university students' participation in selected ball games for representation in national teams, recreation and competitive sports?
- How does the quality of human resource influence university students' participation in selected ball games for representation in national teams, recreation and competitive sports?
- iv) What are the pull factors and motivation on university student participation in selected ball games for representation in the Kenya national teams, recreation and competitive sports?

1.6 Significance of the Study

Findings of this study will hopefully provide information on the disconnect between expectations on sports within Kenyan universities and what is actually going on. The findings of the study have provided information to universities that offer sports related courses like physical education, sports science, leisure and recreation and sports management courses. The study has further provided vital data to University administrations on the current patterns of students' participation in sports, the study has shown that Kenyan university students participate in sports for fitness and not professionalism and therefore all sports federations in this country will benefit from the study thus providing an opportunity that may enhance scouting and encourage university students to participation in sports for professionalism. It is also hoped that the findings of this study will also provide information to the Ministry of Education, university policy makers, Commission for University Education (CUE) and researchers on the current situation at the Kenyan universities.

1.7 Limitations of the Study

The respondents may have chosen to look at this exercise as an opportunity for public relations for their institutions and could have been guarded about the information. To mitigate this, the researcher explained the fact that this information was purely for research. This research further assured the individual institutions of maintaining confidentiality of the information provided.

1.8 Delimitations of the Study

The study was delimited to the 74 institutions in Kenya as registered by the Commission for University Education (CUE) as universities and university colleges. This include: Chartered public universities, public constituent colleges, private chartered universities, private constituent universities and institutions with letters of interim authority. The study was also delimited to sports personnel in the universities whose fundamental mandate is to manage sports in their institutions. These included: the directors of sports and games directorates, heads of departments, coordinators of sports, games tutors, assistant games tutors and coaches and in some cases deans of students or other staff identified to manage sports in the institutions.

1.9 Assumptions

The researcher made the following assumptions:

- 1.9.1 Facility, personnel, financial reward and policies allocation were factors that determine students 'participation in sport at the university.
- 1.9.2 That the answers that were given by the respondents were truthful.

1.10 Operational Definition of Key Terms

Influence - The capacity or the power that an objective has on students' participation. The force that drives sports men and women to participate in sporting activities

Influence of Motivation - This refers to behaviour driven by both external and internal factors for university students to participate in sports such as financial reward, facility provided by the university, equipment, personnel employed at the university to take care of sports students at the university, fun and enjoyment, sports for recreation and fitness.

Influence of quality personnel - What force or power does the personnel employed in both public and private university in sports directorates and department have to pull students into participation of sports

International Sporting Competitions -These are sporting competitions that students take part in beyond the Kenyan border. They include University and federation competition at the national, regional and world levels, including the Olympics.

National team- A team that represents the country in sporting national activities and competitions.

Participation by gender - Representation of men and women in the selected ball games at both public and private universities.

Quality and quantity of facility and equipment - The type of facility provided by both public and private universities compared to the students 'population. The number facility provided should be able to match the population of sports students.

Selected Ball Games – These are the games that are played using the big balls. For this study they included basketball, handball, netball, soccer, volleyball and rugby.

Sports Personnel-People employed by both public and private Universities to work in the Sports Directorates or Sport Departments. They include, sports Directors, Chairmen, Games Tutors, Assistant Games Tutors, Coaches, and Sports Officers. In some cases Dean of students.

Under-representation- Lack of university students' participation at international competitions like the Olympic Games.

University student's participation- The number of male and female representation in recreational and competitive sports in both public and private universities in Kenya.

1.11 Organization of Study

The study is presented in five chapters: Chapter one includes, background of the study, a statement of the problem, the purpose of the study, the objectives and research questions, significance of the study, limitation and delimitation of the study, assumption and operational definition of key terms. Chapter two comprises of literature review, this is followed by a discussion on the theoretical and conceptual framework. Chapter three entails the methodology, instruments used and how data was collected and analysed. Chapter four is data presentation, analysis, and interpretation and analysis. Chapter five is summary, conclusions and recommendations.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The literature review in this chapter is organized in the following manner: Literature related to students' participation in sports, followed by literature on gender and participation, followed by literature on infrastructure that supports sports, literature on the personnel managing sports and literature on motivation of sports. The chapter is finalized by the theoretical and conceptual frameworks of the study.

2.2 Studies on Participation of University Students in Sports for Representation at

National Team level

Wyllen and Lavallen (2004) in their study noted that the Australian national team has been presenting students at the Olympic Games since 2004. The same research shows that in the 2004 Olympic Games the team presented 112 students from 32 institutions of higher learning. These included 12 students from the University of Sydney,12 students from the University of New South Wales and 9 students each from the University of Technology Sydney and University of Melbourne. In the same year, university students won 19 medals out of the 49 medals won by the whole Australian team or 39% of the total team tally. In 2008 Beijing Olympics, the Australian team selected 201 university students. This was 46% of the total team. They came from 36 higher education institutions. These included University of Queensland, University of West Australia and University of Melbourne. The students won 26 medals out of the total 46 medals won by national the team constituting 57% of the total team tally. In London 2012 Australia presented 164 students, constituting 40% of the total team. The students achieved 22 medals out of the 35 medals won by the team. What is the

situation in Kenya? This study went out to discover the situation in Kenya.

Team Great Britain has been tracking the performance of their University student athletes at the Olympic Games since the Barcelona Olympics in 1992. The medal standings show that 65% of the medals were achieved by university students. This comprised of 31% of the medals. The students came from the following Universities: University of Oxford, University of Cambridge, Loughborough University, Oxford Brookes, University of Edinburgh and Bath University (De Bosssheret 2008).

There has been various studies conducted on student participation in sports and factors that encourage them to actively take part in sporting activities. In 2011, the sport England conducted a higher education sport participation and satisfaction survey to examine how sports funding influenced participation and satisfaction (TNS, 2012). The results showed that 32% of students participated in high level sports activity. Only 29% of those residing on campus use university facilities; this was attributed to convenience of local facilities. In analyzing participation of sports in England, it is observed that half of students active in sports were satisfied with the universities provision of facilities. They held in high regard for coaching, ease of participation, staff and the playing environment. In concluding the study it was observed that the students in higher education institutions are actively involved in sports and this can be improved. The universities can play a key role in boosting sports in ways like checking costs, increasing activities, providing more access and being more inclusive. These reason may explain why Great Britain presents a bigger number of students at the Olympic Games compared to the Kenyan scenario.

According to Munayi, Were and Muhanji (1997), Kenyan public Universities have occasionally been forced to shorten their normal semesters by between two and four weeks for various reasons. Consequently, students in these institutions have had to cope with a more than usual academic work load. Although this has made the importance of recreation more apparent, it is becoming increasingly evident that student's participation in sports and recreation is affected. Munayi et al, noted that an ad hoc committee set up to investigate what ails sport in Kenyan public Universities established that only 3.7 percent of students population was actively involved in sports and recreation. Munayi et al, further noted that students and games tutors from Kenya's then five public Universities and their affiliate colleges were interviewed in a bid to identify and rank the factors perceived to affect students' participation in sports and recreation. Some of the factors identified were related to: financial resources, facilities, equipment, nutrition, time constraints, students and staff attitude, academic programmes and personnel. With the increase of universities and university colleges from five to 74 recognized institutions, are these issues still apparent? This study was an attempt to find out whether some of these are still relevant.

Mwisukha, Wanderi and Wahome (2014) undertook a study on participation of university students in sports. They noted that the world over, countries identify talent by creating environmentally friendly situations. They suggest that universities are like incubation centers for breeding talents. They noted that evidence of university students winning at the Olympic Games; commonwealth games and world soccer is abundant. They however note that students in universities in Africa are yet to benefit from their universities. Universities in African countries are yet to fully embrace

this practice and identify concrete measures for producing world-class athletes. It is against this background that the current study was undertaken in Kenya. Games tutors, who are managers of sports programmes in the public and private universities, are targeted to provide information on technical factors that are critical to enabling universities in the country to nurture and produce athletes of national and international caliber. The results of the current study highlight various technical and management measures for transforming Kenya's universities into vibrant centers for developing elite athletes.

Jamil, Khan and Kareen (2012) in their study on participation in sports and academic research noted that a few studies have been carried out in this research area. They stated that sports directors, lecturers and sports coaches in education institution have alluded that students who participated in sports post very good grades, good academic achievement, are inspired in their education and sports keep them in schools and colleges. In the study though, the authors also noted that critics say that sports takes students away from class work and diverts them from concentrating in their study. Critics went further to say that it is not possible for sports men and women to achieve excellence and satisfaction in sports as well as academics. For a long time Researchers have had a debate on the role of sports and academic achievement of school, college and University students, but no consensus had been reached. That was the purpose Jamil, Khan and Kareen carried out the study to determine the association between sports participation and academic achievement of sports students. The study was carried out in Government colleges of Dera District Ismail Khan, Khyber Pakhtunkwa. A questionnaire was used in the study. It was developed by the researchers and it utilized data from 260 respondents. This were 60 teachers and 200 students selected randomly. The study concluded that there was a link between participation in sports performance and achievement in education. They also concluded that sports improved the grade point average, continuous assessment, ability of students to succeed academically and mental or cognitive development. The study also concluded that sporting activities at college and university are useful and help to enhance their academic mission.

Bokaban and Alijaralla (2015) in their study on extracurricular activities and their effect on student's grade point noted that extracurricular activities in college and university are part of a student's everyday life, they play an important part in student's lives. Like Jamil, Khan and Kareen, they also noted that few studies have addressed the question of how students engage in extracurricular activities and their effect on student's performance academically. The study sought to find out if student's academic performance in King Abdullaziz University, Faisaliah Campus was affected by their participation in extracurricular activities. The study also sort to find out student's satisfaction on extracurricular activities. The sample included 239 students randomly selected. Inferential statistics was used to analyze the data for the study. Questionnaires were used to collect data comprising 19 questions. The study concluded that students who participated in extracurricular activities posted positive results in their academics. The study also discovered that students who participated in sports posted higher grades than those who did not participate in extracurricular activities. The study further discovered that time spend on extracurricular activity did not affect students study time. This meant that there was time allocated for extracurricular activity on the timetable unlike the Kenyan situation where no time on the University time-table was allocated for sports.

According to Miller (2011), the impact of university recreation centers on social belonging and student retention, noted that college recreation centers are important to students life in campus. They are retained to participate in sports as well as to understand the overall benefits they receive from sporting activities. The study was carried out at the United States of America, in the southern part of the States. The study used questionnaire as tools for data collection on two demographic and 18 Likert scale. Questionnaires were distributed to 534 undergraduate students and 453 that is 76% of the expected target population. The study concluded that, students who used the campus recreation center more frequently were more likely to stay in campus than go out for non-campus activities. Recreation centres promoted a place for bonding, social belonging and finally interaction and integration into the campus and university retention. From a practical perspective, the findings provided information for a university to better understand how recreation centers attract and retain students throughout and therefore the importance of owning one like some private universities in Kenya.

2.3 Studies on Gender and Participation in Sport at the University

According to Hanson (2012), 30 years since Title IX legislation assured women of equal time for sports, men still have been seen to dominate the world of sports. Journalists are yet to accept this law and are seen to be more attracted to covering the male organized sports rather than the female sports. The coverage of women's sports does not get equal attention as that of men and indeed there has been more focus on

female athletes' femininity and sexuality over their achievements in the field of play. Hanson in the study noted that while female athleticism challenges gender norms, women athletes continue to be subjected to traditional roles that reaffirm their femininity - as wives, care takers of homes and mothers or sex objects. On the other hand, male athletes are framed according to power, masculine ideals that honor courage, strength, and endurance projecting men as stereotypical feminist, like the female are caretakers and thus represent the image of the female athlete. The study discovered that media coverage has diminished the importance and prominence of women in sports. Is gender a factor of consideration in Kenyan universities sporting set up? The current study was an attempt to answer this question.

Bebatunde (2005), carried out a study to examine factors that influence female participation in sports in institutions of higher learning. Some of the initial barriers to women participating in sports include religion, customs, and traditional practices. The impact of sports is the same for both men and women with various intrinsic and extrinsic motivations such as financial, social and psychological fulfilment. Women who participate in sports are healthier, more confident and feel better compared to the women who do not (Orunaboka and Nathan, 2007). In the first Olympic that took place in 776BC, women were not even allowed to be spectators. In Greece when Olympics were revived women were not allowed to participate. The women debuted in the Olympics of 1900 (Bucher, 1979). There were unspoken societal believes that women should not engage in masculine activities like sporting. No law states this but the belief is deeply rooted in prejudicial social patterns that characterize different cultures (Oworu, 2003, Okonkwor, 2011 and Ojeme, 2007). The cultures are

key to preventing women in sports participation, for example, women are forbidden to expose their body parts and as such it would be difficult to engage in sports such as swimming. Babatunde, (2005) and Okonkwor, (2007), identified other significant socio cultural factors such as age, ordinal position, parents and traditions as other factors preventing participation in sports.

Religion also continues to inhibit women from participating in sports in the Arab world. Fisher (2010) has written a book 'Muslim women and sports' that keenly describes the global challenges, experiences and achievements made by Muslim women in sports. The radical feminists argued that in encouraging women to participate in sports, it is not in order to compete and be aggressive but to foster cooperation. The Berge and Roth (2003) examines the theory that there is a connection between feminism, sports and physical liberation. The fear is that the traditionally male dominance will be challenged. There is a fear that if men give more power to women it may compromise their power and authority as the better sex (Lawler 2002). Is this the same situation in Kenya? This study sought to discover if both male and female students are given the same opportunity to participate in sports at both public and private universities.

Akinsanmi (1997) conducted a study on barriers to female sports management and participation in selected Nigerian colleges of Education, and revealed that inadequate funds, personnel, facilities, equipment, supplies and management of sports supervision and coaching were barriers to female's participation in sports and management in universities and education colleges.

Eboh (1999) on the other hand conducted a study on the nature of institutional support on motivation provided to female students participating in university sports. Against conventional expectations, the findings revealed that female students were given both moral and material support that was offered by higher institutions to promote their participation in sports.

2.4 Studies on Facility and Equipment for Sports at the University

In a study on construction and design of recreational sports facilities in the United States, Borger (2012) observed that new and renovated facilities have included and integrated features that attract students to participate in sports. This included climbing walls that are unique, rooftop swimming pools and playing fields with food courts and counseling centers. The campuses have also integrated sports and wellness in their academic university units as part of learning.

Several studies have been carried out in Nigeria on the quality of facilities and equipment and how it affects sports performance (Awoma, Okakah and Arainwa, 2015). The results observed in Nigeria duplicate themselves in other African countries. Sports are identified as a tool for national mobilization, cultural orientation and national integration. Awoma, Okakah and Arainwa, (2015) in their study titled facilities/equipment as a predicator of sport development in Edo State University-Nigeria examined the place of facilities and equipment as a major predictor of sports development in Edo State, Nigeria. The main aim of the study was to find out if sports can impact development at the state university. The expost factor design was used for the study. A questionnaire was used as a research instrument for collecting data. It was modified to a closed ended Likert type and was also validated. Data was

collected and analysed using regression statistical analysis set at 0.08 alpha level. Their findings suggested that facilities and equipment were not quite the final predictor for development of sports at institutions of higher learning. The study however concluded that sports facilities and equipment at institution of higher learning remain vital and should be enhanced in yearly planning. The study went on to suggest that the Government of Nigeria should solicit and encourage interested private individuals to develop sports facilities and equipment in institutions of higher learning. This current study looked at the facilities status in the Kenyan Universities.

According to Talabi (1998), in order to attain world class status in sports, a programme is characterized by the presence of top standard facilities and equipment. Although most developing countries want to attain overnight success in sports performance, it is important, like developed nations to invest in building excellent facilities and providing standard equipment. In the opinion of Ekpe (2001), one cannot separate a country's performance from the quality of their facilities and equipment. They posited that facilities and equipment are the greatest among all factors that affect the growth of a sport. The current study therefore sought to look at the facilities situation in the Kenyan Universities.

Robert (2012) in a research on the impact of campus recreational sports facilities and programs on recruitment and retention among African American students aimed to assess the impact of campus recreational sports facilities and program on student recruitment and retention among female and male African American students. The research noted that 60% male American students agreed that availability of recreational sports facilities were very important in their decision to attend a particular college, while

68% of their female counterpart strongly agreed that recreational facilities and programs were important in deciding their retention in campus. The male students scored higher than the female students in deciding to attend school where recreational sporting facilities were present and how important sports and fitness activities would be to them after graduating from campus; these they say would improve their participation in fitness and active sports and recreation after campus.

Zhou (2010) carried out a study on the relationship between college sports facilities and mass sports. He suggested that industrialization of college sporting facilities is a crucial problem that needs attention and should be solved in the Post-Olympic era. Zhou went on to suggest that college sporting facility should be open to the public to solve a number of problems: these include catering for scarcity of sporting facilities, to embrace the development of mass sports, to understand the characteristics of mass sports, to allow and embrace the awareness on establishment of the society with its resources that is shared by the public, to allow the public get services provided by the college in abundance and to create a new cultural community of the public and the college.

Barghchi (2010) carried out a study on sports facilities construction in Malaysia. In the study it was observed that sports in general and sporting facilities in universities in Malaysia had improved tremendously the author felt that such improvement is inadequate compared to sports and sporting facilities at the international level. The study concluded that although in the Malaysian ninth plan (2006-2010) more emphasis was put to creating a sporting culture among Malaysian university men and women, sporting facilities did not gain a new role as the world

trends yet. The researcher felt that there was room and need for Malaysia to improve the current facilities and need to give a new approach in order to improve the existing sporting facilities in the universities and for future development.

Arslan (2010) in a study on recommendations to improve sports facilities in university concludes that there were very few sporting facilities in the university. The study also concluded that there was lack of qualified sports personnel and good quality of facility in the universities separate for female sporting students and a sports budget too that caters for sports events and activities at the university.

2.5 Studies on Personnel Managing University Sports

Chuan (2012) in a study on sports involvement noted that one of the components in the university sports culture is the influence which they receive indirectly from the coach and teammates. According to a research by Allen (1997) university athletes are more likely to be influenced by the behavior of their coach and teammates. The study noted that male student athletes had the perception that lower academic achievement is acceptable and will not bar them from playing in the team as it is acceptable by the coach. The act of giving permission to such students to represent the team despite their non-satisfactory grades incorrectly sends a signal to these students and others from the coach that academic achievement is not an important consideration for them to continue playing for the university team.

According to Weathington, Alexander and Rodebaugh (2010), in their study on coaching influence on student-athlete motivation, stress and skill, noted that the athlete coach always determines the level of stress and motivation of his/her

participants. The purpose of their study was to examine the relationship between sportsmen and sportswomen evaluations of coaching characteristics, student sportsmen and women motivation, perceived stress and self-reported skill. In their study, they targeted 105 high school sports athletes representing a variety of sports like the current study. The study concluded that there was a significant relationship that existed between coach technical expertise and emotional stability, interest/enjoyment, competence and social motivation. Coaches with higher ratings were likely related to lower levels of students' perceived stress. An interaction also existed between coach evaluation and motivation for participating in sports predicting self-reported skills. The current study sought to find if university personnel are qualified in their area of study to handle sportsmen and sportswomen for selection to the Kenyan national team.

Hanie, Olutokunbo and Arif (2013) in their study on Influence of Coaches' Behavioron Athletes' Motivation: Malaysian Sports Archery Experience noted that sports is one of the most recognized activity in the world that brings people of the whole world together. In the current world of sports today, all sportsmen and sportswomen's success and failure in tournament depends on their level of motivation which serves as an essential tool for them to achieve their set goals. The study investigated the coaches behaviour on sportsmen and sportswomen's' motivation. The study was carried out in a Malaysian National Archery circuit III competition in Sabah, Malaysia. Questionnaires were used as a tool to collect data like the current study, the data was analysed using frequency counts and percentages. The study revealed that there was a high level of motivation among sportsmen and sportswomen

based on the influence of their coaches' behavior which eventually impacts on their performance to achieve the set goals.

Sports are universal activities that permeate every society in all corners of the world (Skogvang, 2000). Kenya has various sports structures in place from the institutional level up to the international level. They include the National Sports Council, Ministries and departments of sports, National Olympic Committees, Sports Associations Clubs governed Federations, **Sports** and by sports policies (Kateshumbwa, 2010). Despite these structures, there are existing challenges when it comes to governance in ensuring efficient and effective delivery of sports services. There is no clear hierarchy in coordination of roles between government and international organizations. Funding of sports programmes has been a persistent problem. Outstanding athletes are poached by other countries changing citizenship. Gender imbalance in sports and the lack of political support and proper leadership has been reported as the main challenge (Mwisukha, 2004).

Nite (2012) noted that only limited research had been undertaken to understand the challenges facing university athletic departments as games departments are referred to in the United States of America. The study was conducted at a private NCAA division II university in the United States. Interviews were used to collect data with members of the university athletic department. Nite conducted a qualitative case study as an exploratory study. The findings concluded that there were limited resources in terms of personnel and pressure to excel at competitions ended up providing quite a challenge for these institutions of higher learning. The current study also uses a qualitative research design in an attempt to address the lack of information

on sports management at universities, more so in the Kenyan situation.

Akerson (2014) on the other hand conducted a study on personal fitness trainers' qualifications for central Florida. The study investigated the qualifications for personal fitness trainers by examining the relationships and differences between variables such as level of education, quality of certification, year of experience and income as well as the trainers' attitudes, opinions and beliefs. An online questionnaire was used for the study. The study concluded that those delivering biomechanics instruction were not qualified nor prepared to occupy emerging jobs in that area of study. Akerson concluded that fitness instructors with qualifications especially a degree in sports science related courses and particular certifications were more knowledgeable than those with and without experience as fitness instructors. It was interesting to discover what kind of personnel is involved in the management of university sports in Kenya.

2.6 Studies on Students' Motivation and Pull-Factors for Sports at the University

Wylleman, Alferman and Lavalle (2004) in their study stated that Australian University Sport (AUS) has come up with an audit of elite university programmes that offer scholarships to its students who represent the country at international competitions. A typical United Kingdom student athletes' scholarship is 4,000 pounds per year which is equivalent to approximately Kenya shillings 572, 000. The average scholarship at the University of Sydney is valued at around \$2000 which is equivalent to approximately ksh200, 000 per year. The University of Sydney supports over 350 sports students a year on sports scholarships that includes free-of-charge access to national facilities.

According to Gneezy, Meier and Rey-Biel (2011) the basic law of behaviour and motivation for any human is that higher incentive will lead to more effort and higher performance. Employers often use extrinsic incentives to motivate their employees. The study revealed that in recent years, the use of incentives in behavioural interventions has become more popular. For example, monetary incentives from principals may change how tasks are perceived by agents. If incentives are not large enough, this change in perception can lead to other cases, incentives might have desired effects in the short term, but they still weaken intrinsic motivation, thus once the incentives are removed, people may pursue the desired outcome less eagerly.

Sturt and Ross (2013) undertook a study on college leisure and recreational sports. It was noted that sports at the college level serves as a vehicle for social development and interaction amongst the students which included amongst other areas of social development, time management, overall sense of happiness, a sense of belonging, fitness and a sense of self-worth.

Khan and Bakht-Yar (2014) on the other hand undertook a study to determine the role of sport in the social life of college students. They noted that there was a relationship between sports and education. It was also noted that social justice and social changes can be achieved through a sports setting. These social aspects included access and equality in aspects of politics, gender and social class. What is the situation in the Kenyan Universities? This current study was an attempt to unravel this.

Haines (2001) conducted a study to examine how undergraduate student benefit from

university recreation programs. The aim of this study was to confirm that sports impacts positively on university undergraduate students. This study used quality and importances of recreational survey tool owned by national inter- recreational sports association to measure the importance. The survey was specifically designed to assess the impact of recreational sports activity on student recruitment, retention at the university, satisfaction, educational development and involvement. The study was carried out at The Ohio State University. 67 sports clubs were used in this study. The study revealed that 75% of the surveyed participants enjoyed and benefited from campus recreational activity in the following categories: the physical well-being, being complete after recreational activity, physical fitness as a component, skill development and reduction of stress. In the study above, skill development was ranked as the most important benefit from recreation at the university and therefore the study concluded that skill development should be considered as one of the motivating factors of college sports students' participation.

Gill (1983) in their study discovered that fun and enjoyment was ranked as the number one factor that motivates students' participation in sporting programs at the university. In this study 1138 respondents considered fun as the reason to why they participated in recreational sports.

Csikszentmihayi (1975) in a study on beyond boredom and anxiety and anxiety concentrated on the term "flow" and the contribution of personal enjoyment as a motivational factor for students' participation in recreational sport. Flow was a term that described deeply enjoyable experience of doing something. The author continued to state that students who experience flow lose track of time and self-consciousness

while participating in an activity like sports. The author explains that flow is when one's mental centre is fully immersed in a feeling of energized focus, fully involved, and personal enjoyment is experienced. Coming back to the Kenyan experience, according to Munayi, Were and Muhanji (1997), Kenyan public universities have occasionally been forced to shorten their normal semesters by between two and four weeks for various reasons. Consequently, students in these institutions have had to cope with a more than usual academic work load. Although this has made the importance of recreation more apparent, it is becoming increasingly evident that student's participation in sports and recreation is affected. Munayi et al (1997), noted that an ad hoc committee set up to investigate what ails sport in Kenyan public Universities established that only 3.7 percent of students population was actively involved in sports and recreation.

In Munayi et al, students and games tutors from Kenya's then five public Universities and their affiliate colleges were interviewed in a bid to identify and rank the factors perceived to affect students' participation in sport and recreation. Some of the factors identified were related to: financial resources, facilities, equipment, nutrition, time constraints, students and staff attitude, academic programmes and personnel. It can be concluded that Kenya has a very low participation of university students in sporting activities partly due to unfavourable academic calendar and lack of suitable incentives.

Ustan (2018) in his study on participation motivation in University students who engage in different team sports noted that students engage in sports for different motives, this included physical fitness, fun, friends, team spirit, and being active. The study sampled 280 university students from Dumlupinar University School and

Sports. Random sampling method was used to select participants of the study. Respondents participated in the study voluntarily. Questionnaires were used to collect data. Descriptive and mean difference analysis techniques were applied. The study concluded that physical fitness, like the current study in Kenya was the cardinal reason students participated in sports at that particular university. Skill development was second then movement was third.

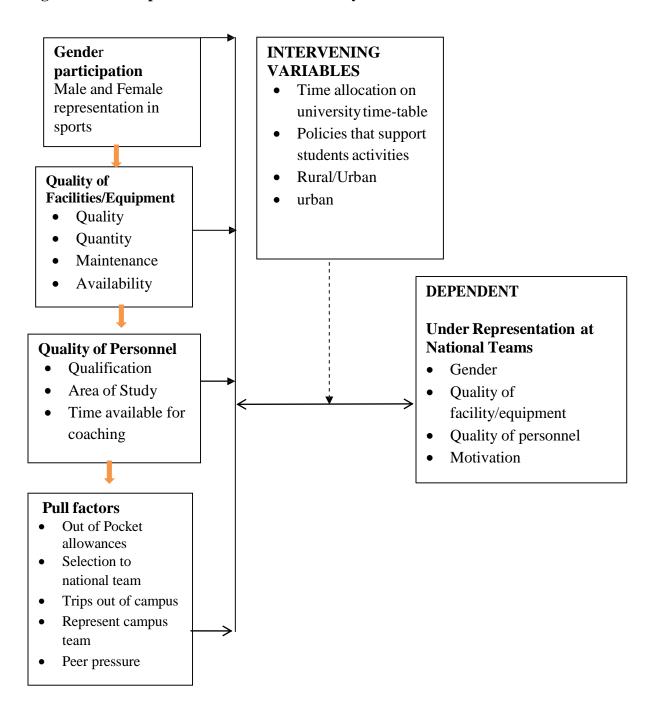
2.7 Theoretical Framework

This study borrows from the self-determination theory by Ryan and Deci (2000). This theory attempts to explain the relation between intrinsic and extrinsic motivation. They isolated three needs as the basis of self-motivation. These were competence, autonomy and relatedness. They referred to this as self-determination theory. The theory suggests that there is a relation between your needs to achieve that end up positively impacting the other needs on what will be finally achieved. The study suggests that human beings are proactive and engaged or, alternatively, passive and alienated, largely as a function of the social conditions. The theory considers the significance of psychological needs within the domains of health care, education, work, sports, religion and psychotherapy. This theory is related to this study because its objectives are aimed at finding out the factors that contribute to students' participation in sports. Motivation for instance is looking at both intrinsic and extrinsic factors. Facility and personnel both play a bigger part in motivation of students' participation in sports. Clearly this theory explains that people are curious, vital and self-motivated. At their best they are inspired and strive to perform and learn new skills if the condition is favourable and right.

2.8 Conceptual Framework

The variables for the study as stated in the conceptual frame work are: representation of Kenyan university sports students in selected ball games in national teams being the dependent variable that is affected by the factors such as gender, facility and equipment, quality of personnel and motivation as independent variables. Time allocation on the university calendar for sports, and policies that support students' activities especially sports are the intervening variables for this study.

Figure 2 1: Conceptual Framework for the study



The diagram Figure 1.1 indicates that under-representation of university students' participation in the Kenya national teams depends on various factors, these will include sports infrastructure offered by universities, qualified sports personnel,

reward given to sporting athletes that represent universities in different competitions and gender representation in sporting activities at the university. In order for our national teams, and university teams to get participants that are qualified to play and compete for teams at that level, there must be the following variables: well-maintained facilities and equipment that are up to standard, qualified personnel in different sports disciplines, financial rewards and motivation for students for example out of pocket allowances when the students go out for competitions and gender balance for all sporting activities at the university. In this regard, this study looked at the ratio of male and female participation in both public and private university sports participation. And also examined whether there is motivation for male and female Participation in University sports is the same.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section is divided into ten sub-sections. Namely: research design, target population, sampling and sampling procedures, instruments for data collection, validity of research instruments, reliability of research instruments, pilot study, data collection procedures, explanation of data was analysis and ethical issues arising out of the study.

3.2 Research Design

The study utilized a survey research design. A survey research is useful when collecting information about peoples' opinions by administering interviews and questionnaires to a sample of individuals (Kombo and Tromp, 2006; Berge and Latin, 1994). Survey research design was appropriate for the study because the views and opinions of stakeholders in Kenyan universities was sought to determine the current status of under- representation by Kenyan university students in the national teams.

3.3 Target Population

The subjects targeted for information were the 74 public and private universities and university colleges in Kenya. The study targeted students who participate in sports at both public and private universities in Kenya. About five percent of the students who enroll in universities participate in either scholastic or interscholastic sports translating to a target population of approximately 10,000 (Rintaugu, Mwisukha and Munayi 2011). In addition to students, the study targeted sports human resource who included games tutors, sports officers, and other staff members designated as coaches. The study also included heads of departments in both public and private universities; these

included dean of students where the university has no sports directors, sports directors and chairmen of sports departments, coordinators, heads of departments or sections.

3.5 Sample Size and Sampling Procedure

The Kenya University Sports Association (KUSA) which is the body mandated nationally to run university sports has divided up the universities into six regions referred to as conferences (refer to Appendix V). Three conferences (50%) out of the six were purposively sampled, namely: Nairobi conference KUSA, Western conference KUSA and KUSA Central. Further, fifty percent (50%) from each selected conference was randomly sampled as follows: ten (10) universities out of nineteen (19) from Nairobi conference, five (5) out of ten (10) universities from the Kusa central and five (5) universities out of six (6) from KUSA western conference. Five students from the six selected ball games were randomly sampled, translating to thirty (30) students per university adding up to 300 students in total. Fifty percent of the sample was purposively selected from Nairobi conference because according to the KUSA conferences, Nairobi has the majority (nineteen universities) followed by Central (ten) then Western (six). According to Mugenda and Mugenda a proportion of 50% of the population is adequate enough sample in a survey research. Twenty universities were sampled in the study. The researcher targeted six selected ball games: soccer, rugby, volleyball, netball, basketball and handball.

3.6 Instruments for Data Collection

Four instruments were used to collect data for the study. There was a questionnaire for university students who participated in the selected ball games. Secondly, a questionnaire for university sports directors, heads of sports departments and; a

questionnaire for games tutors, coaches and sports officers. Lastly the study used an interview schedule for sports directors, chairmen, deans who may be in charge of sports management at both public and private universities in Kenya.

A questionnaire is the most suitable tool of collecting data in a survey research (Berge and Latin, 1994). The essence of using three questionnaires for this study was an attempt to capture a wide variety of research questions for different respondent categories as this aided in triangulation of feedback. Once designed by the researcher the tools were assessed for content appropriateness and suitability by experienced researchers in the Department of Physical Education and Sport of the University of Nairobi.

The questionnaire for students (Appendix I) contain two sections. Question 1 to 6 consists of items seeking information on their bio-data, namely: gender and age, name of institution, area of study, year of study and sport participated in. The second section 7-14 investigates reasons for participating in sports at the university and if the responded has represented the university at any university sports activities or Kenya as a country at any national activity. Question 11 tackles infrastructure and personnel. Question 12 and 13 sought to answers on financial reward and motivation and finally question 14 tackles the intervening variable on time.

The questionnaire for directors and heads of department (Appendix II) consists of two sections. Question 1, 2 and 3 contain personal information which included: age, gender, and name of institution and question 4, 5 and 6 seeks to answer the dependent variable on participation. The heads of department indicated the activities

that students participated in to represent the university and the nation at large. The heads also confirmed reasons for students' participation in sports at their university. Question 7 and 8 tackled the issue of infrastructure and personnel qualification while question 9 and 10 looked at financial reward and motivation. Question 11 tackled the issue of gender balance at the institution and finally question 12 and 13 responded to time and policy as intervening variables.

The questionnaire on sports tutors, coaches and sports officers (Appendix III) enquired on information in the area of specialty and qualification of tutors, coaches and officers. The information derived from this questionnaire may be used to triangulate information derived from the questionnaire from the Heads of Department and Directors.

Finally the interview schedule (Appendix IV) was developed to address any emerging issues that may have been missed by the questionnaire. Further the interview schedule probes the leadership in terms of the amounts provide to sports departments, motivation for participation and about documents about policy that may be within respective universities.

3.7 Validity of Research Instruments

Validity is a degree to which an instrument measures what it purports to measure (Nachmias and Nachmias, 1996). It has also been defined by Johnson and Christensen (2014) and Creswell and Clark (2011) as the extent to which findings from research represent the actual issue under investigation. It is concerned with soundness and the effectiveness of the measuring instrument. The researcher had all instruments

appraised and amended by experts in the area of study from the Department of Physical Education and Sport at the University of Nairobi. This was followed up by a pilot study at one public university and private university, with a re-test happening after two weeks. Through the pilot study ambiguities in some questions mainly in the university students questionnaire was eliminated before the actual study was conducted. Irrelevant items on the questionnaires were discarded and others formulated to elicit the required responses.

3.8 Reliability of Research Instruments

The three questionnaires were sought for reliability by being subjected to test-retest to seek out the tools. Reliability is the extent to which an instrument contains variable errors (Nachmias and Nachmias, 1996) and the extent to which a research tool arrives at the same results on repeated trials (Creswell and Clark (2011). The piloting was performed at two universities; one public university and one private university with the retest happening after a period of two weeks. The two universities selected for the piloting were not used in the main study. A test-retest was conducted to determine the reliability of the research instrument. Fifteen (15) students were randomly sampled for the study. The students were sports students from rugby and basketball teams. In addition two games tutors and one head of department from the same institutions were involved in the pilot study. The test re-test method was used to establish reliability index of the questionnaire. The questionnaire was administered twice to the subject within an interval of two weeks. Reliability indexes of 0.5 hence an acceptable indicator of the reliability of the instrument. The findings from the two tests were compared to ascertain reliability.

3.9 Data Collection Procedures

A research permit to conduct research was sought from the National Council for Science, Technology, and Innovation (NACOSTI). After permission was granted, a letter was written to the management of the sampled Universities, requesting for permission to access the student athletes and staff, a request was made to potential respondents to participate in the study whereby for each respondent, a mark was put against the choice of response that best reflected his/her opinion on the questionnaire items. Questionnaires were personally handed over to the team managers and picked after two days. To collect data from university staff the questionnaires were handed to the directors of sports, chairmen of sports departments and deans of students in cases where there are no departments and directorates of sports. The interview was done personally by the researcher by visiting sports directors, chairmen and deans in charge of sports in specific universities.

3.10 Data Analysis

The data was analysed using both qualitative and quantitative techniques. Quantitatively data was analysed using Statistical Package for Social Sciences (SPSS). Data was collected, typed into an SPSS template and it was then cleaned before data analysis. To address all objectives, descriptive frequencies were conducted alongside inferential statistics for data analysis. Objective based analysis was done in such a way as to compare private and public universities.

To identify participation by gender of university students in selected ball games in both public and private universities in selected ball games for representation at Kenya national teams (Research Objective 1), comparison of means was done based on

gender and university category. To determine the effect of facility and equipment in selected ball games on university students in public and private universities in Kenya for representation at national teams (Research Objective 2), a test of independence was done using computed chi-square statistics. To assess the effect of quality of personnel in selected ball games on student's participation for representation in national teams (Research Objective 3), thematic content analysis was done on qualitative data largely from the interview schedule. To determine the influence of motivation given to sports men and women in selected ball games at both public and private universities in Kenya for representation in national teams (Research Objective 4), chi square statistics were computed. Finally, a binary Ordinary Least Square (OLS) regression (called Linear Probability Model or LPM) of potent determinants of participation in the Kenya national team was conducted. For report writing, a descriptive statistics percentage was used to summarize the data. Tables, graphs and charts were drawn to present the output, granted that they are important statistical tools for organizing and summarizing raw data into meaningful ways for ease of interpretation (Hinton, 1995).

3.12 Ethical Concerns

Permission to conduct this research was sought from the National Council for Science, Technology, Technology and Innovation (NACOSTI). Further permission was sought from management from each of the sampled universities where the researcher explained that the purpose for collecting data was for academic intent only. It was clarified that the information given would be treated confidentially, with no names or institution being mentioned during presentation of findings. The researcher

sought permission from each of the sampled games tutors, sports officers, designated sports staff, sportspersons, coaches and players of national teams and gave similar explanation and assurance before embarking on the data collection exercise.

CHAPTER FOUR: FINDINGS

4.1 Introduction

This chapter gives a presentation of the findings of data that was collected from private and public universities. These presentations and interpretation of findings is organized in accordance with the study objectives. Linear probability model Descriptive frequencies are presented first followed by a binary response Linear Probability Model (LPM) regression results.

The first objective sought to assess participation of university students by gender in selected ball games in public and private universities. Objective two was to determine the place of facility and equipment on university student representation at national teams. Objective three aimed at assessing the effect of quality of personnel in selected ball games on university representation in national teams. Finally objective four sought to determine the influence of motivation given to sports men and women on university representation in national teams. To address the above objectives, descriptive frequencies and mean difference statistics were calculated with respect to these objectives. Complementary information was provided by qualitative feedback from the interview schedule and field notes on sports directors from various universities.

4.2 Summary Statistics of Respondents

a). Questionnaire Response Rate

Out of a total of 300 questionnaires targeting students during data collection, 268 of the target respondents answered to the survey representing 89.3% response rate. Overall, 10 sports directors and chairmen, 28 coaches and sports tutors took

part in the study. The response rates for university heads of sports departments games tutors, coaches and sports officers, sports directors and deans in charge of sports management was a hundred percent.

b). Distribution of respondents by age

Table 4. 1 : Age cohorts of respondents

	Students		Coaches		Directors/	
			and Tutors		chairmen	
Age cohort	Frequency	%	Frequency	%	Frequency	%
Under 20	91	34.96%	0	0.00%	0	0.00%
21-30 years	175	65.30%	1	3.57%	0	0.00%
31-40 years	0	0%	6	21.43%	3	30.00%
41-50 years	0	0%	7	25.00%	4	40.00%
51-60 years	0	0%	8	28.57%	2	20.00%
Over 60	0	0%	6	21.43%	1	10.00%
No response	2	0.75%	0	0.00%	0	0.00%
Total	268	100%	28	100%	10	100%

The proportional distribution of student respondents in the study was such that, 175 of them (65.30%) were aged between 21-30 years while 34.96% (91 out of 268 students) were aged below twenty. The questionnaire allowed for selection up to the age of fifty but none of the respondents was older than thirty years. Only two respondents did not specify their age. This indicates that most students that are involved with sports are between the age bracket 21 to 30, a finding that is in agreement with Munayi, Were and Muhanji (1997) who regard this youthful age as the golden years for sports.

Age distribution for coaches and tutors was different from that of the students. Among the coaches and tutors, findings indicate that none was under the age of 20. Only one out of 28 coaches and tutors (3.57%)was aged 21-30 while 6 (21.43%) were aged between 31 and 40 years. A quarter of the officials were aged between forty one and fifty, 8 of them (28.57%) were aged between fifty and sixty while six of them (21.43%) were older than sixty years. This shows that 53.57 percent of the distribution was between 41 and 60 years while a quarter of the staff were below forty. Above the age of 30, there seems to be an even distribution of coaches at each of the brackets which is evidence of an excellent succession plan. The study established that, 6 coaches and tutors (21.43%) were aged above 60 which is considered the retirement age for staff in this cadre. Overall, this suggests that the universities recognize the issue of staff development and continuity.

Among the sports directors, all respondents in the study sample were aged above 30 years with only a tenth of them aged above 60. Four respondents which was the highest percentage of sports directors (40%) were in the 41-50 years age bracket. Another 30% (3respodents) were aged between 31 and 40 years while a fifth were aged 51-60 years.

c). Distribution of Respondents by University Category

The sample was drawn from both private and public universities. The questionnaires were given to an average of about twenty five students from each university. Twelve public universities and seven private Universities were sampled in the study.

Table 4. 2: Distribution of coaches and sports tutors by category of university

Category	Frequency	Percentage
Public	16	57.14%
Private	12	42.86%
Total	28	100

The distribution of coaches and sports tutors in the study was such that the majority 16 (57.14%) belonged to public universities while 12 of them (42.86%) were from private universities. As would be expected this implies that there are fewer coaches at the public universities than there are at private universities. This may imply that public institutions give a slightly lighter significance to games than do private universities which is tied to the amount of finances institutions invest in sports.

d). Distribution of Students by Year of Study

Table 4. 3: Year of Study of Respondents

Category	Frequency	Percentage
First year	49	18.28%
Second year	81	30.22%
Third year	73	27.24%
Fourth year	59	22.02%
Fifth year	2	0.75%
Missing response	4	1.49%
Total	268	100%

The study was inclusive of students from different academic years at all the universities with the highest proportion of respondents (81, 30.22%) being at

second year. Just over a quarter of them (73, 27.24%) were third years, (59, 22.02%) fourth years and (49, 18.28%) first years. The fewest respondents (2 respondents) were fifth years representing 1.49% of the sample and this category comprised of students undertaking medical, veterinary architectural and engineering programs at the various universities. This implies a tendency for the students to participate more in the second and third (57%) year as opposed to the final year (24%) of study. The students in the first year are probably still learning their reigns hence the small number. This suggests that students tend to participate more in the middle years of their study at the University.

e). Distribution According to Course of Study

The respondents were spread across different courses of study. The respondents who participate in sports are pursuing their bachelor's degree courses in arts, humanities, sciences and environmental programmes'. This suggests that participation in sports is not a strong hold of a particular programme but it attracts the interest of all students regardless of their area of study.

1) The asterisk "**" denotes that the statistic attains significance at 1% level of testing while "*" denotes that the statistic attains significance at 5% level of testing. In other words, this is the probability that the calculated statistic is greater than the critical statistic at the corresponding degrees of freedom

The findings reveals that 63 (23.51%) of the students who took part in the study played soccer where as an approximate equal number 64, (23.88%) played volley ball, 29 (10.82%) of them (all male) played rugby, 34 (12.69%) of the respondents (male and female) played netball. Basketball was played by 27 (10.07%) of the respondents

while only 47 (17.54%) of the respondents played handball.

The study has shown that there are specific sports in Kenyan universities that are highly dominated by the male gender these include rugby with the highest disparity with males taking up 19.01% while females were only 4.17%. This was followed by soccer with male at 32.23% while the female had only 16.67%. Handball came in third as a sport dominated by the male gender at 19.83% and females were at 15.97%. Females were seen to dominate in netball at 22.92% and male at 0.83%.

Overall the findings suggest that men tend to participate more in sport except in the case of netball. Could this be attributed to the fact that netball has been packaged as a female sport over the years? Internationally, netball is a sport played by both sexes, likewise soccer is played by both genders but this doesn't seem to be the case in Kenyan universities. Male students are seen to dominate in most of the five ball games apart from netball which means gender is still a big issue in the Kenyan university sport. The study concurs with Fisher (2010) who said that hurdles such as religion do inhibit women from participating in sports in the Arab world.

Study findings at the standard 5% level of significance indicate that the level of university student participation in soccer, rugby, netball and basketball have significant differences by sex. This finding is confirmed by significant calculated t-statistics (t_{soccer} =2.95, p<0.05; t_{rugby} =3.92, p<0.05; $t_{netball}$ =-5.67, p<0.05; $t_{basketball}$ =0.96, p<0.05). However, two ball games (volley ball and handball) did not attain significant calculated t-statistics meaning that any notable differences in participation of males and females for the two games is not consistent across different samples of university

students.

Table 4. 4: Type of sports student engage in by gender and university category

Sport	Private	e	Public		Private (%)		Public (%)	
	Frequency	%	Frequency	%	Male	Female	Male	Female
Soccer	12	21.05	43	26.22	30	36	13	19
Rugby	7	12.28	11	6.71	19	14	7	1
Netball	6	10.53	25	15.24	0	1	20	26
Volleyball	17	29.82	31	18.90	26	14	33	22
Basket ball	5	8.77	19	11.59	0	11	17	12
Handball	10	17.54	35	21.34	26	23	10	20
Total	57	100	164	100	100	100	100	100

Differences were observed with respect to the type of sports students engages in by university category. A higher proportion of public university students (26.22% or 43) played soccer as compared to 21.05% (12) among private university students. A similar pattern emerged for netball, basketball and hand ball whereby, eleven percent of private university students in the sample played netball compared to 15.24% (25) of their counterparts in public universities; only 8.77% (5) of private university students played basketball compared to 11.59% (19) of public university students; 17.59% (10) of private university students played hand ball which is lower than 21.34% (35) among public universities. For rugby and volleyball, private universities had higher student participation. Twelve percent of private university students in the sample played rugby compared to seven percent among public universities; 29.82% (17) of the sampled

private universities had their students participating in volley ball compared to 18.90% (31) of those from public universities.

The study investigated participation in different competitions whereby different sports events organized by universities into eight different categories. This was with an aim to identify the level of participation of students in different events.

Table 4. 5: Distribution of Respondents by Gender

Students		Coaches and S	Coaches and Sports Tutors		
Frequency	Percent	Frequency	Percent		
123	45.90%	26	92.86%		
145	54.10%	2	7.14%		
268	100.00%	28	100.00%		
	Frequency 123 145	Frequency Percent 123 45.90% 145 54.10%	Frequency Percent Frequency 123 45.90% 26 145 54.10% 2		

4.2.1 Participation of students and personnel by gender

From the sample, a total of 123 out of 268 student respondents (45.90%) were male while 54.10% (145) were female meaning that the study had a slightly higher representation of females participating than males. This study has revealed that the number of female representation is picking up compared to previous studies that showed low representation of female involvement in sports (Hanson, 2012).

A total of 28 coaches and sports tutors responded to the survey by structured questionnaire while ten directors of sports and chairmen of sports departments answered to the interview schedule. Among the sports coaches and tutors, 92.86% (26) of the respondents were male while only two were female. These findings go hand in hand with those of Hanson (2012) who in his study noted that the male students have been

seen to dominate the world of sports for many years. The Kenyan scenario seems to take the same trend especially in management of sports at the universities. From the interview schedule given to the ten directors and chairmen of both public and private universities in Kenya, it's evident that management of sports is dominated by the male staff since only two universities had female director and head of department.

Representation of students in the national team was random with both public and private universities having students who had been selected to participate in the national league. Some universities had as many as ten students and others as few as one. This representation included male and female students. Females dominated netball and volley ball while males dominated the rest. There was one public university which was the only one in which the female netball team of 10 played at both national and club levels. Only one private and one public university had students represented the national team for volleyball. In the public university, the volleyball team comprised girls alone while at the private university it was both the male team and female team playing at the national level.

4.3 State of university infrastructure in improving students' participation in sports

The second objective analysed the state of infrastructure in both public and private universities in Kenya. An enquiry was done on whether there was a relationship between the state of university infrastructure and students' participation in sports. Data analysis towards this investigation was done using Chi-square statistics. Chi-square is an inferential technique used to assess independence versus presence of a relationship between two nominal variables.

Table 4. 6: Quality of Infrastructure and Personnel at both public and private universities in Kenya

University infrastructure and	Yes	Private	Public	X^2
personnel	n (%)	Universities	Universities	statistic
The quality of our fields are in good	141(52.61)	69%	44%	10.27**
condition				
The number of fields provided are	148 (55.22)	70%	47%	8.62**
enough for sports men and women in my				
university				
There is enough equipment for all sports	133 (49.63)	61%	42%	5.65*
men and women in my university				
My team is well kitted for competitions	161 (60.07)	70%	53%	4.84*
My team has qualified trained coach	191 (71.27)	82%	67%	4.74*
My coach is present for training	180 (67.16)	84%	58%	12.48**
My team can access the training facility	161 (60.07)	72%	54%	5.72*
anytime they want to train				
My facility is always in bad condition	69 (25.75)	25%	31%	0.79
and not safe for training				

- 1) The Chi-square statistic is computed to establish relationship between "Yes/No" responses on elements of infrastructure and personnel and category of university of respondent;
- 2) The asterisk "**" denotes that the statistic attains significance at 1% level of testing while "*" denotes that the statistic attains significance at 5% level of testing.

A higher proportion of respondents from private universities than public universities (69% versus 44%) reported that their sports fields were in good condition which is confirmed by a statistically significant chi-square statistic at one degree of freedom (X^2 =10.27, p<0.01; 1, d.f.). These findings insinuate that private universities in Kenya have better facilities compared to public universities yet the number of students

enrolled in public university is bigger compared to the number of students in private universities. Appendix VIII shows high caliber facility at the one of the private universities though it is important to affirm that such facilities were available at only one of the universities. The photos taken by the researcher during the interview is evidence that some private universities in Kenya have better facilities compared to many public universities. This study seems to agree with a study carried out by Awoma and Araniwa (2015) who examined the state of facility in Nigeria and agreed that facility and equipment is a major predictor of development of sports in any academic institution. The state of facility in public universities seem not to impress sports men and women and these could be the reason for under representation by our university student at both national and international sports like the Olympic games.

Similarly, number of fields provided were more sufficient among private than public universities with 70% of students from private universities reporting that the number of fields provided were enough for sports men and women in their university as compared to 47% among students of public universities ($X^2=8.62$, p<0.01; 1, d.f.).

Three fifths (61%) of respondents from private universities reported that they had enough equipment for all sports men and women whereas less than half (42%) of students from public universities held a similar view. This difference was significant with a corresponding significant chi-square statistic ($X^2=5.65$, p<0.05; 1, d.f.). The pattern repeated itself consistently for availability of kits for competitions whereby a higher proportion of private than public university students respondent in the affirmative (70% versus 53%; $X^2=4.84$, p<0.05; 1, d.f.). Appendix VIII shows

photos taken by the researcher on facilities for both public and private universities and it is evident that the two cannot be compared. Private universities seem to have invested a lot in their facilities, where they have both indoor and outdoor facilities for students' participation.

Finally private universities had higher access to training facilities anytime that they wish to train than public universities. Almost three quarters of private university students (72% versus 54% of public university students) reported being able to access training facilities anytime, a difference that was confirmed by a significant chi-square statistic ($X^2=5.72$, p<0.05; 1, d.f.).

Inquiry was made on preparation for upcoming sports competition upon which nearly two thirds (60.07% or 161) expressed confidence in being well prepared. Private universities also out-performed public universities when it comes to employment of qualified staff where 82% acknowledged having a well-qualified trained coach compared to 67% among public universities ($X^2 = 4.74$, p<0.05). More students from private than public universities admitted that having the coach present for training than public universities (84% versus 58%; $X^2 = 12.48$, p<0.01; 1, d.f.).

Table 4.7 shows a cross-tabulation of aspects of sports infrastructure in various universities against status of university student participation in national teams for respective universities. Analysis is done using Chi-square test of independence between university category and various elements of facilities.

Table 4. 7: Aspects of sports infrastructure in various universities

Aspects of sports infrastructure in	Participates	Does not	Chi Square	d.f.
various universities		participate		
The quality of fields in good condition	7.3	91.97	0.8614	2
No of fields enough	7.64	92.36	6.4307	10
Sufficient games equipment	4.62	94.62	3.9973*	2
Team is well kitted	6.37	92.99	1.2351	2
Well trained/qualified coaches	6.91	92.55	0.6446	2
Coach is always present for training	6.21	93.22	1.5818	2
Team can access training facility anytime	8.28	91.08	1.0524	2
Facility is always in bad condition and not safe for training	10.14	89.86	1.3252	2

Notes

1. d.f. is short form for degrees of freedom;

The aesteric"*" denotes statistical significance at 10% level of testing From results, there is no confirmed link between quality of infrastructure and participation of university sports students in national teams. This is because the differences in infrastructure among universities whose students participate in national teams does not result in significant Chi-square statistics pointing to lack of consistency in observed differences.

1. Overall, it was confirmed is that infrastructure was better off among private

universities than public universities.

4.3.1 Place of facility and equipment for representation at national teams

The study sought to establish the connection between various aspect of sports infrastructure in various universities and the tendency of their students to participate in various ball games at national level. Chi square statistics were calculated to verify whether there was independence or relationship between infrastructure and participation in specific competitions as shown in Table 4.8.

For interpretation of results, only the cells with significant Chi square statistics are given credence because they refute existence of independence between sports facilities and participation in various competitions. This then implies there is a link between such facilities and participation in ball games at the corresponding competition.

Table 4. 8: Place of sports infrastructure in various universities

Aspect of sports infrastructure in various universities	University intramurals	Inter-campus	KUSA conferences	KUSA nationals	EAUSF	Kenya federation	FASU	FISU
	Chi-sq	uare sta	tistics (1	- 3 d.f.)				
Quality of fields is in good condition	0.98	1.62	1.12	5.02*	10.50**	3.75*	6.80*	6.78*
No of fields enough	6.22	0.55	5.06*	5.44*	13.43**	0.37	3.34	8.10**
Sufficient games equipment	2.67*	1.02	3.04*	6.24*	10.67**	2.92*	5.10*	13.01**
Team is well kitted	4.66*	1.86	3.96*	4.14*	2.62*	1.81	3.28	10.98**
Well trained/qualified coaches	1.72	2.08	4.12	0.86	2.31	3.59*	7.12*	12.15**
Coach is always present for training	5.43*	0.01	1.53	1.98	2.35	6.78**	8.69**	10.34**
Team can access training facility anytime	5.77*	0.02	0.01	4.46*	3.52*	0.54	3.61	12.07**
Facility in bad condition, not safe for training	0.78	0.44	0.28	0.34	2.67	2.03	1.26	4.49

Results indicated that, there was a link between the quality of condition of the field affected KUSA national competition; sufficiency of field was important for KUSA conference, KUSA nationals, EAUG and FISU competitions East Africa Games EAUG, Kenya federation league, FASU and FISU; Sufficiency of games equipment affected university intramurals, KUSA conference, KUSA nationals, EAUG, Kenya federations leagues, FASU and FISU competitions; The extent to which the team is well kitted affects all competitions except Kenya federation and FASU competitions. In short the

university participation in Kenya national competition is influenced by quality of fields, sufficiency of games equipment, and qualification of coaches as well as availability of coaches during training.

Table 4.9 shows a comparison of means of participation in various ball games competitions between private and public universities. For each competition, a t-statistic is computed to compare private and public universities. Again only results for significant t-statistics are given attention during interpretation.

Table 4. 9: Competition students participated in by university category

Competition	Private		Public	t- Stat.	
Competition	Frequency	%	Frequency	%	t-Stat.
University intramurals	23	40.35	83	50.61	1.8424*
Inter-campus	43	75.44	139	84.76	1.7617*
KUSA conferences activities	47	82.46	140	85.37	0.1125
KUSA nationals	48	84.21	134	81.71	0.0898
East Africa university games					-2.2285*
(EAUSF)	53	92.98	118	71.95	
Kenya federation leagues	27	47.37	28	17.07	-3.998**
Africa university championships					1.0519
(FASU)	5	8.77	22	13.41	
World university championships					0.4390
(FISU)	1	1.75	3	1.83	
Total	57	100	164	100	-

Notes:

- 1) The T-statistic is computed from the mean value of private being significantly greater than public universities;
- 2) The asterisk "**" denotes that the statistic attains significance at 1% level of testing while "*" denotes that the statistic attains significance at 5% level of testing. In other words, this is the probability that the calculated statistic is greater than the critical statistic at the corresponding degrees of freedom

Public universities had higher rates of participation in university intramurals (50.61%) than private universities (40.35%) as confirmed by a significant t=1.8424, p<0.05. Similarly, public universities had higher rates of participation in inter-campus games (84.76%) than private universities (75.44%) as confirmed by a significant

t=1.7617, p<0.05. On the contrary, private universities had higher rates of participation in East Africa University Games (EAUG) (92.98%) than public universities (71.95%) as confirmed by a significant t-statistic of -2.2285 (p<0.05). The private universities also recorded higher participation in the Kenya federation leagues than public universities (47.37% against 17.07%), t=-3.998, p<0.01.Hence overall, private universities had higher participation rates in national teams than public universities.

4.4 Influence of Sports Personnel on Student Participation Qualification

Objective three of the study was to assess the influence of the quality of sports personnel in selected ball games on students' participation for selection to national teams in Kenya. To do this, the study investigated the following dimension for both public and private universities: the number of sports management and coaching staff, designation, gender, qualification and area of specialization. Table 4.10 presents the findings.

Table 4. 10: Qualification of Sports Management and Coaching Staff

University	Designation	Male	Female	Qualification	Specialization
1	AGT, and GT	4	1	Bachelors	P.E.
2	SGT,GT, coach	3	0	Degree, Diploma	P.E. & sports management
3	Coaches	2	0	Form Four	Soccer
4	Director, Senior &assistant sports officer	2	1	MSC, BSC	P.E.& sports science
5	Sports coordinator, coaches	13	1	Bachelors, certificates	Sports science, sports
6	Senior Games Tutor, coaches, EF	6	2	Bachelors, diploma	P.E.
7	Director, coaches	9	1	MBA	Business administration
8	Coaches, sport officer	5	1	Bachelors, certificates	P.E, sports
9	Trainer, coaches	7	1	Masters, Bachelors,	Games
10	Sports tutor, coordinator	1	1	Degree	Biology, P.E.

Generally the male gender dominated in sports management and coaching staff across both public and private universities. The researcher carried out an interview in ten public and private universities, the study determined that out of ten sampled universities sports directors and chairmen, eight universities (80%) were male but that distribution of the gender of directors did not differ by university category (those two female directors were from one public and one private university respectively). Similar gender disparity exists among other members of staff in charge

of ball games with the male constituting 85% while the female constituted 15% within the ten private and public universities sampled for the interview.

The academic qualifications of the sixty one (61) coaching staff ranged from high school certificates to masters' degree levels. In terms of career training and qualifications, three had specialized in sports science and management while majority specialized in physical education (P.E). Coaching staff from two universities had specialized in biology and business administration which did not have direct relevance to games and sports. This could be the reason why they do not attend training sessions especially in public universities. Common designations of sports personnel were sports coordinators, senior and assistant sports officers, coaches, games tutors, assistant games tutors and trainers.

Comparing staffing establishment between private and public universities revealed that private universities were better staffed with two private universities having 10 and 14 members of staff respectively whereas the public university with the highest staff establishment had eight. One public university had 3 members of staff. Moreover, Table 4.8 clearly shows that private universities in Kenya have more qualified sports personnel compared to public universities whereby 82% of the students 'agreed that their sports coaches are qualified while 67% of the sports students' in the public universities agreed. On the other hand when they were asked if their coaches are always present for training, private universities outshone the public universities with 88% of the students agreeing that their coaches were always present for training, while only 58% of the public universities sports students agreed. The study has noted that one of the reasons why Kenyan university students are not presented at the national

team is lack of enough qualified personnel and especially in the public universities.

In general representation of university students at the national teams of different ball games did not seem to differ by qualification of sports personnel at both private and public universities. However, this finding could not be evaluated using statistical methods because the sample size of sports directors was small (10). These findings go hand in hand with the study by The berge and Roth (2003) where they concluded that there was a connection between feminism, sports and physical liberation. The fear was that the traditional male dominance in sports was apparent. There is a fear that if men give more power to women it may compromise their power and authority as the better sex.

4.5 Students' motivation for sports at the university

Objective four was to assess the pull factors that motivate students to participate in sports. Findings indicate that, participation in different competitions differed by category of university. Specifically, public universities had significantly more students than private universities who participated in university intramural sand intercampus games competitions. On the other hand, private universities had a higher student representation in East Africa University Games (EAUG) and Kenya federation leagues than public universities. This may be attributed to the fact that the EAUG are comparatively an expensive set of Games due to the fact that they are international. These Games are played in Kenya Uganda and Tanzania.

Table 4. 11: Underlying competitions in which respondents participated

	Students	Participa	tion by	T-statistic
Competition	participating	Gender		and p-value or
	n (%)	Males	Females (%)	Pr(T > t)
		(%)		
University intramurals	121 (57)	47	66	2.7735**
(n=209)				(0.0030)
Inter-campus (n=236)	212 (89)	88	91	0.9143 (0.1807)
KUSA conferences	202 (89)	90	88	-0.2914
activities (n=227)				(0.3855)
KUSA nationals (n=232)	203 (87)	87	88	0.3002 (0.3822)
East Africa university	205 (86)	88	85	-0.6018
games (EAUSF) (n=237)				(0.2739)
Kenya federation leagues	62 (35)	32	38	1.0791 (0.1410)
(n=175)				
Africa university	49 (26)	37	18	-2.7757
championships (FASU)				(0.9970)
(n=188)				
World university	23 (12)	18	7	-0.7530
championships (FISU)				(0.2262)
(n=186)				

Notes:

- 1) The T-statistic is computed from the mean value of males being significantly greater than that of females;
- 2) Significance p-values are recorded in parentheses;
- 3) The asterisk "**" denotes that the statistic attains significance at 1% level of testing while "*" denotes that the statistic attains significance at 5% level of testing.

Majority of the students had participated in Inter-campus competitions 90% (212) out of the possible 236 who responded in the questionnaire. The other highest attended sports activities were the KUSA conferences activities, KUSA nationals and the East Africa University Games (EAUG). Kenya federation leagues and Africa University Championships (FASU) recorded fewer attendances as observed in table 4.11. The World University Championships (FISU) came last recording a participation of 12% (23) out of possible 186 respondents. The trend of participation in sports in the Kenyan universities seems to be the same as shown in the table. Majority of the public universities compared to the private universities organise for inter-campus sports day which is an intramurals, but when it comes to KUSA, EAUSF and FISU the numbers of participants seem to go down. This may be an indication that universities do not want to spend more money on students' sporting activities that take place out of campus, and this could be the reason for under representation of university students at both national and international events. Exposure is key to representation of students at both national and international levels since this is where national and international teams scout for athletes and talent identification takes place.

It was significant to note that apparently there were more female then male participant at the local level. This included at the intramural level, at the inter campus level and so on. It is only when it gets to the African and world stages that the men tend to participate more. FISU is a world university games that take place in different continents of the world. The 23(12%) that participate in this games is low representation by Kenyan universities. This could be the reason why students are not

motivated to participate in sports for representation at the national and international sporting activities. If the numbers were bigger then students would have been motivated to participate in sports and therefore get selected for the national teams. Wyllen and Lavallen (2004) in their study noted that the Australian team presented 112 students at the Olympic games from different universities in that one country, yet Kenya at the FISU games only presented 4 students this could be the reason why students are not motivated to participating in sports.

The study investigated what motivated the students to participate in sports. Respondents were requested to rank from one to ten their primary motivation for participating in university sports events. Thus findings of Table 4.12 indicate the percentage of students rating each of the listed reason as the number one motivator for participating in sports.

Table 4. 12: Reason for Participation in University Sport

Reason for Participation in	Frequency	Percentage	Private	Public
University Sports			university	University
			(%)	(%)
Fitness (n=265)	105	39.62	35	38
Recreation (n=264)	93	35.23	18	27
Fun and enjoyment (n=263)	95	36.12	14	10
Represent university at competitions (n=259)	72	27.80	23	10
Peer pressure (n=257)	29	11.28	5	3
Financial reward (n=265)	40	15.09	4	5
Trips out of the university (n=260)	27	10.38	0	3
Popularity to be noticed (n=261)	25	9.58	2	1
Student's scholarship (n=263)	45	17.11	0	1
Selection to Kenya national team (n=263)	53	20.15	0	1

4.5.1 Reason for participation as a motivating factor

Although the students had different motivating factors and graded the reason for their participation differently, it was observed that majority of the students who participated in the study were keen on sports participation for fitness 39.62% (as rated top by 105 out of 265 respondents), with the least likely reasons being access to trips outside

the university, to be noticed, student scholarship and selection to the Kenya national team. This is a clear indication that students in Kenyan universities had scant interest in professionalism since majority of them indicated fitness as the main motivation. Kenyan universities need to rethink how to motivate sports men and women so as to get a bigger number of representations at the national level since only 1% of the students indicated that they participated in sports for selection to the national team. Feedback did not differ significantly by university category (between public and private universities).

University scholarships were on average equal to half of tuition fees, full tuition fee about Ksh 120,000. One public and one private university that sports scholarships with the private one giving full sports scholarships while the public one gave half. That meant a student on scholarship at the public university needed to pay Ksh 60,000 per year instead of the full Ksh 120,000. About half of universities lacked a policy on sports scholarships even though departments were developing proposals on the same. Feedback from one of the universities was that management was not responding positively towards participation of students in national sports. In general the university administration was open and receptive to the idea of sports scholarships nevertheless, this is a new concept that needs to be explored to identify potential sponsors that can collaborate with sports departments.

The annual vote for sports directorate ranges from Ksh. 1 million to Ksh. 40 million. In general, the value of the annual vote was viewed as too low and not adequate for the annual expenditure since the adequate budget was Ksh. 15 million to Ksh. 100 million. Most directors and chairmen felt that their vote needs to be

increased in order for sports to take a new face in Kenya. The findings go hand in hand with the study conducted by Gneezy, Meier and Rey-Biel (2011) in their study on when and why incentives were a motivating factor. They concluded that the basic law of behaviour and motivation for human beings is that the higher the incentives the more effort and higher performance. The study suggests that if incentives are not large enough, the perception of human beings changes and weakens their intrinsic motivation.

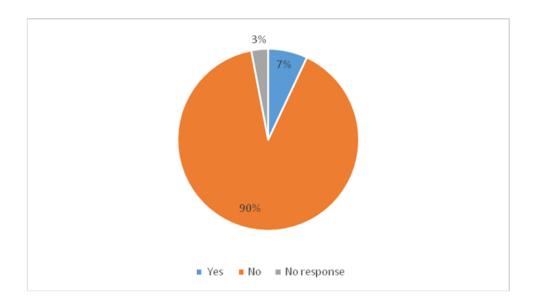


Figure 4. 1: University Students Participation in the Kenya National Team

From the findings in the figure above, it can be deduced that very few respondents 7% (20) had participated in the Kenya national team regardless of the sport they play. This finding is very important to the study because one of the objectives is to assess the effect of quality of personnel in selected ball games on students' participation in national teams and to determine the impact of motivation given to sports men and women in selected ball games at both public and private universities in Kenya for representation in national teams. This reveals that the proportion of university

students who actively participate in national games is very small and most of the students (90%) have never participated in any national team. Further, fewer females (6%) than males (10%) were observed to participate in the Kenyan national team. In a study conducted by Mwisukha, Wanderi and Wahome (2014) it was noted that world over, countries identify talent by creating an environmentally friendly situation for students to participate in competitive sports. They indicated that incubation centres for breeding talents are universities. Universities in Kenya need to embrace this finding because clearly this is not happening, if 90% of the students who participated in this study have never participated in national teams, then something needs to be done as suggested by Mwisukha et al.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Chapter five contains a summary of the study followed by a summary of findings and conclusions. The chapter ends with a presentation of recommendations of the study, policy implications and suggestions for further research.

5.2 Summary of the Study

The study sought to assess factors that influence under-representation of Kenyan university students in selected ball games at international sporting competitions. Data was gathered through the use of a researcher administered questionnaires for directors, games tutors and students who participate in sports in both public and private universities in Kenya. Data was also gathered through a face to face interview by the researcher from directors of sports departments, chairmen and deans that were in charge of sports in selected private and public universities. A sample of 300 students and 38 administration and coaching staff of Kenyan universities was drawn from both private and public universities using descriptive survey research design. Data analysis applied descriptive and inferential analytical techniques. Findings indicated that, majority (65%) students were aged between 21-30 years while 34% (91 out of 268 students) were aged below twenty. Almost all (98%) of respondents were students in different academic years at undergraduate level of university. In terms of student participation in different ball games, a quarter of the respondents played soccer whereas an equal number played volley ball, 11% of them (all male) played rugby, 13% of the respondents play netball. Basketball was played by 10% of the respondents while only 17% of the respondents played handball.

A higher proportion of public university students played soccer, netball, basketball and hand ball, whereas it was the reverse for rugby and volleyball with private universities had proportionately having higher student participation. Participation in different competitions differed by category of university so that, public universities had significantly more students than private universities who participated in university intramurals and inter-campus games competitions. On the other hand, private universities had a higher student representation in East Africa university games and Kenya federations' leagues than public universities.

5.3 Summary of Findings

Objective one of the study was to assess participation of university students by gender in selected ball games in public and private universities. From the mean difference analysis, it emerged that participation of students in soccer, rugby, netball and basketball differed by gender while participation in volleyball and handball did not differ by gender. Male students had higher participation in soccer (t=2.95, p<0.05) and rugby (t=3.91, p<0.05) while females had higher participation in netball (t=-5.67, p<0.05) and basketball (t=-1.79, p<0.05).

Objective two was to determine the effect of facility and equipment on university student representation at national teams whereby an investigation of relationship between the state of university infrastructure and students' participation in sports was conducted by the help of chi-square statistics. The study revealed that infrastructure was better off among private universities than public universities. A higher proportion of respondents from private universities than public universities (69% versus 44%)

reported that their sports fields were in good condition ($X^2=10.27$, p<0.01; 1, d.f.); the number of fields provided were more sufficient among private than public universities with 70% of students from private universities reporting that the number of fields provided were enough for sports for men and women in their university as compared to 47% among students of public universities ($X^2=8.62$, p<0.01; 1, d.f.). Private universities reported sufficient and better equipment for all sports men and women compared to public universities ($X^2=5.65$, p<0.05; 1, d.f.).

The pattern repeated itself for availability of kits for competitions whereby private universities were better off than public universities (X^2 =4.84, p<0.05; 1, d.f.). Finally, private universities had higher access to training facilities anytime that they wished to train than public universities (X^2 =5.72, p<0.05; 1, d.f.). It also emerged that the most influential infrastructural facilities and equipment for university students 'participation in Kenya national competition were quality of playing fields, sufficiency of games equipment, qualification of sports management and coaching staff as well as availability of coaches during training.

Objective three which aimed at assessing the effect of quality of personnel in selected ball games on university representation in national teams determined that the male gender dominated in sports management and coaching staff across both public and private universities with 85 percent of the staff being male. Only two out of eighteen universities had female heads of departments. Academic qualifications of the coaching staff ranged from O-levels to master's degree levels with majority having specialized in physical education (P.E) training. Coaching staff from two universities

had specialized in biology and business administration which did not have direct relevance to games. Overall, private universities had higher staffing numbers and more qualified sports personnel compared to public universities even though public universities coped with more student populations.

Finally objective four sought to determine the influence of motivation given to sports men and women on university representation in national teams. Private universities had a higher student representation in national teams than public universities while public universities had significantly more student participation in university intramural and inter-campus games competitions. Some private universities (such as Strathmore University) give full scholarships to their sports students which was not the case among public universities. It was also established that, majority of the students (39.62%) who participated in the study were keen on sports participation for fitness which was taken to indicate that students in Kenyan universities barely participate in sports for professionalism. Moreover, private universities had more adequate time allocated to university timetable (91%) for students to engage in sports without interfering with their classes timetable than private universities (27%) and vice versa.

5.4 Conclusions of the Study

- 5.4.1 With respect to gender and university student participation in ball games, it was concluded that:
 - i. There is belief and perception within Kenyan universities that soccer and rugby are male sports while netball is a female sport which has negatively affected participation by university students in various ball games at the national level hence leading to under representation at the international

level.

- ii. Kenya National Federation seem not to have a selection criterion of university students to the national teams. Also the practice of scouting forstudents seems to be centralized in Nairobi rather than done nationally.
- iii. Most universities are headed and coached by the male gender which could be attributed to a cultural norm which associates male with sports and female with family and home making. This norm has permeated among university staff and students impairing female student representation at the national and international levels.
- iv. It is concluded that the motivation given to sports men and women in selected ball games at both public and private universities in Kenya for representation in national teams is limited with great opportunities for development.
- 5.4.2 With respect to infrastructure and university student participation in ball games:
 - i. Generally, sports facilities are of inadequate standards in public universities of Kenya. Private universities have better sports infrastructure (quality of facilities and equipment) than public universities which could partially explain why private university students had higher representation in national teams.
 - ii. The number of fields provided for sports in public universities compared to private were insufficient yet the public universities admit higher number of students which implies a strain on facilities and reduced access/exposure by students to participate in various competitions.
- 5.4.3 With respect to personnel and university student participation in ball

games, it is concluded that:

- Private universities are better staffed for sports management than public universities which can influence university student participation in national teams
- ii. Coaches in private universities are easily accessible and present during training at the same time more qualified than public universities.
- 5.4.4. With respect to motivation and university student participation in ball games it is concluded that:
 - Students in Kenyan universities barely participate in sports for professionalism, but rather for sentimental goals particularly fitness, recreation, fun and enjoyment.
 - ii. Motivation of students to pursue sports subjects can encourage student participation in ball games possibly leading to higher representation in national teams.

5.5 Recommendations of the study

- a) With regard to gender and university student participation in ball games, it is recommended that:
 - The two third gender rule should be applied to university sports management and students who participates in competitive sports.
- b) With regard to infrastructure and university student participation in ball games, it is recommended that:
 - Sports being as significant as it is for wellness, then the Ministry of Education and Commission for University Education should ensure that

- all chartered universities have sports facilities proportionate to the student populations or intake.
- All universities should ensure adequate and regular maintenance of sports facilities and provide students with sufficient equipment.
- Public universities in conjunction with Kenya's Ministry of Education should encourage interested private entities to develop sports facilities and equip institutions of higher learning. This can be done through Public Private Partnerships (PPPs). Currently PPPs have been successfully tried in construction of boarding facilities for university students in some public institutions.
- c) With regard to personnel and university student participation in ball games, it is recommended that:
 - Public universities should invest in recruiting more personnel to man sports departments. The number of personnel in charge of sports in both public and private universities is too small compared to the student population.
 - All universities need to employ coaches that are qualified in their area of study. Coaching personnel should also be vetted for employment. Most personnel in sports directorates and department are not qualified in their area of study. A number of universities in Kenya offer sports related courses, this means that they are not enough for the Kenyan market.
- d) With regard to motivation and university student participation in ball games, it is recommended that:

- All universities in Kenya should have a sports scholarship program to encourage students' participation in ball games. Sports management personnel should come up with proposals on sports scholarship and share with university management. This will encourage more students to participate in sports and also take up sports related degrees to fill up the gap of personnel qualified in this area of study.
- Kenyan public universities can also create incubation centres for breeding talents in sports activities. The incubation centres should be managed by renowned national sports legends that have made a name in the international sports arena in collaboration with university sports management personnel. The Lorna Kiplagat and Kipchoge Keino high altitude training centres are just but an example in athletics. The Kenyan athletes that have made it in the big ball games like Humphrey Khayange should follow suit and start incubation centres.

5.6 Policy Implications

1. It emerged that there is lack of coordination between universities and national federation which hinders selection of university students to the national teams. At the same time, university teams cannot properly participate in national leagues because of conflict between the academic calendar and national league timetables. Line Ministries (education and sports) should ensure that there is clear coordination among government, academic institutions and sports development organizations including sports federations.

2. There is need for collaboration between public and private universities and the Kenya National Federation to find a way of harmonizing their calendars of activities since universities are a major catchment area and breeding ground for talent identification. This will allow university students' participation in sports activities at the national level.

5.7 Suggestions for further research

The study suggests the following studies conducted to investigate the following issues:

- 1. What is the ratio of male and female who get sports scholarships in Kenyan public and private universities?
- 2. A survey on what ails women participation in sports and especially the disparities in ball game sports in the country
- 3. Do federations in Kenya have checklists that allow them to identify talent at the universities?
- 4. Tracer study of employment of students who were involved in sports at the university to see whether sports created a higher employment index in the Kenyan job market.
- 5. Collaboration among Kenyan universities and Kenya National Sports Federation for talent identification.

REFERENCES

- Akerson, (2014). *Investigating Personal Fitness Trainers' Qualification*. University of Central Florida Orlando, Florida.
- Akinsanmi, T. (1997). Barriers to Female sports management and participation: the experience in Related Nigerian Colleges of Education.-InV.C Igbanugo (Ed) of Nigerian Association of Sports Science and Medicine (NASSM). Ibadan, Stiring-Horden, 100-109.
- Allen, M. S. (1997). *The academic socialization of intercollegiate athletes*. Unpublished doctoral dissertation, University of Connecticut.
- Awoma, Christopher, I., Okakah, R. O., AND Arainwa, Gabriel (2015). Facilities Equipment as Predictor of Sports Development in Edo-State Nigeria.- *Journal of Research in Social Science. Vol. 3 Article 3*.
- Awoma, Okakah & Arainwu, (2015). Facilities/Equipment as a Predictor of Sport Development in Edo State University, Nigeria. *European Journal of Research in Social Sciences Vol. 3, No. 3 2015*.
- Babatunde, S.O. (2005). "Socio-cultural Perspectives of Sports Participation". *Ilorin Journal of Health Physical Education and Recreation*. Vol 4, pp. 43-50
- Bargachi, Massoumeh et all. (2010). Explarotory Research on Sports Facilities Construction in Malaysia.- Austarlian *Journal of Basic and Applied Sciences*. 4(10): 5326-5331.
- Berge & Latin, (1994). *Qualitative Research Methods for Social Sciences*. California State University, Long Beach. Fourth Edition
- Biddle, S. J. H and Mutrie, N. (2001). *Psychology of Physical Activity. Determinants, Well-Being and Interventions*. London. Routlodge.
- Blinde, E. M., Diane E. Taub, D. E., & and Han, L. (1993). Sport participation and women's personal empowerment: Experiences of the college athlete. *Journal of Sport & Social Issues*, 17, 47-60.. Pp. 15.
- Borger, Craig, T. (2012). Trends in Collegiate Recreational Sports Facilities. *The Sports Journal*
- Bokaban, R. A & Aljarallah, S. A. (2015). Extacurricular Activities and their Effect on the Student's Grade Point Avarege; Statistical Study-Academic *Journals Vol* 10(20).
- Boone, T. (2010). Exercise Science is a Meaningless Degree: Artistry, Choice and Leadership.- San Francisco: Jossey-Bass.

- Buccholz, D, (1993). Evaluation of recreational sports facilities and programs at Arizona State University. Unpublished master's thesis, Arizona State University, 1993.
- Century and sports development in Nigeria. Abuja Federal Ministry of Sports and Social Development pp 112-122
- Chuan, (2013), Sports involvement and Academic Achievement: A Study of Malaysian University Athletes. *International Education Studies Vol.* 6, No. 2.
- Coakley, J. (2007). Sport in society: Issues and controversies (9th ed.). Boston, MA: McGraw-Hill.
- Cskszentmihslyi, M. (1975). Beyond Boredom and Anxiety. San Francisco, Jossey Bass.
- Dalgarn, M.K. (2001). The role of the campus recreation center in creating a community. *NIRSA Journal*, 25(1), 66–72.
- Daly, A. J. (2002). School Based Physical Activity in the United Kingdom: Can it Create Physically Active Adults? QUEST, 54, 21-33.
- De Bosscher, V., J. Bingham, S. Shibe, M, Van Bttenburg and De Knop.(2008). *The Global Sporting Arm Race: An International Comparative Study on Sport Policy, Factors Leading to International Sporting Success.* Oxford: Meyer and Sport.
- Deci, E, L. & Ryan, R. M (1985). *Intrinsic Motivation and Self Determination in Human Behavior*. New York: Plenum.
- Eboh, T., (1999). Instrumental Support for Female Sports Participation in Selected Nigerian Universities. In V. Igbanuga (Ed) Multi-Dimensional Approach to Youth Soccer. Lagos, Stirling-Horden Publishers, Pp 64-68.
- Edginton, C.R., Jordan, D. J., DeGraaf, D. G., and Edginton, S. R. (2002). *Leisure and Life Satisfaction-Fundamental Perspectives* (3rd Ed). New. York: McGraw. Hill.
- Eitzen, S. & Sage, G. (2008). *Sociology of North American Sport* (8th ed.). Boulder, CO: Paradigm Publishers.
- Ekpe, S. (2001). *Problems of Sports Development in Nigeria*. (Report of National Committee on Problem of Sports Development in Nigeria 3) p.p. 583-602.
- Fishbein, M., & Ajzen, I (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research, Reading* MA: Addison Wesley.
- Fishwick, L. & Vinning, J. (1992). Towards a Phenomenology of Recreation Place.-Journal of Environmental Psychology, 12, 57-63.
- Gill, D. L., Gross, J. B., & Huddlestn, S. (1983). Participation Motivation in Youth Sports.- International *Journal of Sports Psychology*. *141*(1), 1-14.

- Gneezy, Meier and Rey-Biel, (2011), When and Why incentives (Don't) Work to Modify Behavior, *Journal of Economics Perspectives Vol 25, No. 4*.
- Gudo, O, C. &, Olel, A, M. (2011). University Expansion in Kenya and Issues of Quality Education: Challenges and Opportunities. *International Journal of Business and Social Sciences*, Vol 2, No. 2
- Hall, D. A. (2006). Participation in Campus Recreation Programme and it's Effect on Student Retention.- Recreational Sports Journal, 30(1) 40-45.
- Hannie, I., Olutokunmbo, S. & Arif, S. (2013). Influence of Coaches' Behavior and Athletes' Motivation: Malaysian Sports Archery Experience.- International Journal of Research in Management. Issue 3, Vol. 5.
- Hanson Valerie (2012). The Inequality of Sport: Women<Men.The Review:- A journal of Undergraduate Student Research Vol 13 Article 5
- Hesel, R.A. (2000). Intercollegiate athletics have little influence on college choice— Intramural and recreational opportunities matter more. *Student Poll, IV*, 1–12 Art and Science Group, Baltimore, MD.
- Higher Education Sports Participation and Satisfaction © TNS 2012
- Hinton, E. G. (1995). *The EM Algorithm for Mixtures of Factors Analyzers*. University of Toronto 6 King's College Road Toronto, Canada M5S 1A4
- Hudson, A. (2000). Effects of athletic involvement on the social life: A study of 68 track and field athletes. Unpublished manuscript.
- Jamil, Khan & Kareen (2012). Association Between Participation in Sports and Academic Achievement of College Students- International *Journal of Academic Research and Social Sciences Vol 2, No 8*
- John J. Miller (2011). Impact of University Recreation Centre on Social Belonging and Student Retantion.- Recreation and Sports *Journal 35*, *117-129*.
- Kateshumbwa, E. A (2010). *Trends towards Gender Equity in Sports in Uganda*. PhD Dissertation, Kenyatta University.
- Khan and Bakht-Yar,(2014), Role of Streamlining the Social Life of the Student at the College Level: A Review, *Journal of Education and Practice*, Vol. 5, No. 3.
- Kok, G; Den Boer, D, DeVries, H., Gerards, F., Hospers, H J., AND Mudde, A N. (1992). Self-efficacy; Thought Control of Action (pp 243-246). Hemisphere Publications.
- Kombo & Tromp, (2006). Proposal and Thesis Writing; An Introduction. Nairobi, Pauline's *Publications Africa*, 10-45

- Malek, M. H., Nalbone, D. P., Berger, D.E. and Coburn, J. W. (2002). Importance of Health Sciences Education for Personal Fitness Trainne.- J. Strenght Cond. Res. 16(10. 19-24.
- Mihaly, Csikszentmihayi (2000). Flow: The Psychology of Optimal Experience. Global Learning Community 2000.
- Miller, P. S., &Kerr, G. A. (2003). The role experimentation of intercollegiate student athletes. *Sport Psychologist*, *17*(2), 196-220.
- Miller, S, (2011), Impact of University Recreation Center on Social Belonging and Student Retention, *Recreation Sport Journal*, Vol. 35.
- Moffitt, J. (2010). Recreating retention. *Recreational Sports Journal*, 34, 24–33.
- Mugenda, O. M. and Mugenda, A. G., (1999) Research Methods: Quantitative and Qualitative Approaches. African Centers of Technology Studies. Nairobi
- Munayi, S. (2014). Management of Sports in Kenyan Public Universities- Emerging Trends. Unpublished All African Games, University of Nairobi 2014.
- Munayi, S. Were, H. And Muhanji, F. (1997) Factors Affecting Student Participation in Sport and Recreation at The Kenyan Public Universities. AFAHPER-SD Third Scientific Congress
- Mwisukha, A. (2004). Towards Gender Equity in Sports. Insight into The Under Representation of Women in Social Leadership in Kenya. A Paper Presented at the 16th Workshop for Winners of the Organisation for Social Science Research in Eastern and Southern Africa (OSSREA) ON Gender Issues Research Grant Programme Held in Addis Ababa Ethiopia Between 25th and 29th July 2004.
- Mwisukha A., Njororai, W.W.S., Wamukoya, E.K. AndBoit, M. (2007). Profiles of Kenya's Athletics Coaches: Implications for the Development of Athletics in the Country. *Journal of Educational Research and Development* Vol.2, Number2, pg 191-197.
- Mwisukha & Wanderi, (2014), Participation and Performance of Student-Athletes at Olympic Games; Lesson for Universities in Africa, *International Journal of Humanities and Social Science*, Vol. 1.
- Mwisukha, Wahome & Wanderi, (2014), Transformation of Kenya's Universities in Reservoirs of Elite Athletes, *International Journal of Humanities and Social Sciences*, Vol. 1, No. 18
- Nachmias, C. F., & Nachmias, D. (1996). Research Methods in the Social Science. London: Arnold.
- Nite, (2012). Challenges for Supporting Student-Athlete Development; A Perspective

- from an NCAA Division II Athletic Development.
- Ojeme, E.O. (2000). Standard sports facilities, equipment and the new challenges 21st
- Okonkwor, O.C.N.(2011). Gender Bias in Women Participation in Sport: A serious set-back to full emancipation of the Igbo race in Alohas Nwauwa (ed) "Ofo", ISA publication Washington, DC, USA.
- Pender, N. J. (1998). Motivation for Physical Activity Among Children and Adolesencents. Annual Review of Nursing Research, 16, 139-172.
- Rintaugu, E, G., Mwisukha, A. & Munayi, S.(2011). Sports: On the right track. InS. K, Njonjo, A. Kitonga& P. Awour (eds). *Youth research compendium*, Institute of Economic Affairs, Nairobi.
- Rintaugu, E.G. & Ngetich, E.D.K. (2012). Motivational gender differences in sport and exercise participation among university sport science students. Journal of Physical Education and Sport (JPES) 12,2: 180-187.
- Robert, Lindsey, (2012). Impact of Campus Recreational Sports Facilities and Programms on Recruitment and Retention Among African American Students: A Pilot Study.- Recreational Sports *Journal*, 33(1) 25-34.
- Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55, 68-78. doi: 10.1037110003-066X.55.1.68
- Sime, J. D., (1995). Creating Places of Designing Spaces?- In L. Groaf (Ed). Reading in Environmental Psychology; Giving Places Meanings (Pp. 27-41). New York: Harcourt Brace.
- Sivan, A, (2001). Leisure Education and Physical Wellbeing of Young People. In F. H. FU and Ruskin (Eds), Physical Fitness and Activity in Context of Leisure Education (pp.111-122). Hong Kong; Hong Kong Baptist University.
- Smith, (2008), Motivational Factors for Student Participation in Collegiate Club Sports at Indiana University.
- Stedma, R. C. (2003). Is it Really Just a Social Construction? The Contribution of the Physical Environment to Sense of Place.- society and Natural Resources. 16. 671-685.
- Sturts & Ross, (2013), Collegiate Intramural Sports Participation; Identified Social Outcomes, International *Journal of Sports Management Recreation and Tourism*, Vol. 11.
- Theberge, N., & Roth, N. (2003). "No Fear Comes." Adolescent Girls, Ice Hockey, and the Embodiment of Gender.- Youth and Society, 34 (4) 497-516.

- Talabi, A.E (1998). Poor facilities: A deterrent to skill excellence in sports journal of Nigeria Academy of sports Administration vol5. No 1.pp 39-96.
- Tuan, Y. F. (1980). Rootedness Versus Sense of Place: Landscape, 24, 3-8.
- Ustan, U. D (2018). PARTICIPATION Motivation in University Students Team Sports-Journal of Education Vol 8 No 3.
- Weathington, Alexannder and Rodenbaugh (2014). Coaching Influence on Student-Athlete Motivation, Stress and Skill.- Athletic Insight Journal vol 2, Issue 2, pp. 1-8 Nova Science Publications.
- Williams, D. R., and Stewart, S., (1998). Sense of Place: an Elusive Concept that is Finding a Home in Ecosystem Management.- Journal of Forestry. 96, 18-23.
- Woodruff, A. L., & Schallert, D. L. (2008). Studying to play, playing to study: Nine collegestudent-athletes' motivational sense of self. *Contemporary Educational Psychology*, 33(1), 34-57.
- Woods, R. B. (2007). Social issues in sport. Champaign, IL: Human Kinetics.
- Wyllenman, P. & D. Laelle, (2004). 'Athtic Retirement: A Cross- National Comparison of Elite French and Swedish Athletes.'- Psychology of Sports and Exercise 8(2007): 101-108.

APPENDICES

APPENDIX I: PERMISSION TO CONDUCT RESEARCH

Dear Sir/Madam,

RE: Conducting a Research on Factors Contributing to Under-Representation of

University Sports Students in Selected Ball Games at International Sporting

Competitions

I am a student at the University of Nairobi pursuing a Doctor of Philosophy degree in

Physical Education and Sport. I am currently preparing to carry out a research based on

Effects of Intrinsic and Extrinsic Motivation on Students' Participation in Kenyan

Universities in Specified Sports for Selection to Club and National Teams.

I hereby request for permission and support to be able to carry out this study by

administering questionnaires to Public and private Universities in Kenya. The findings

will enable the government of Kenya, national teams and clubs tap talent from the

Kenyan universities that have sporting students to represent them locally and

internationally. They will also be able to partner with universities in the running of sports

to achieve higher outcomes at national and international sports events.

The researcher here gives assurance that all the data collected will be treated

confidentially and be used for the research purpose only.

Thank you.

Yours faithfully,

CHUMBA JANET MUHALIA

BEd, MEd

APPENDIX II: QUESTIONNAIRE FOR UNIVERSITY STUDENTS SELECTED BALL GAMES

Please put a mark against the response that best represent your view on each item.

	1 8	
1.	Gender	
a)	Male	
b)	Female	
2.	Please indicate your age (years)	
a)	Under twenty	
b)	21-30	
c)	31-40	
d)	41-50	
3.	Name of university	
4.	Year of study	
5.	Course pursued at university	
6.	Name of sport participated in	
a)	Soccer	
b)	Rugby	
c)	Netball	
d)	Volleyball	
e)	Basketball	
f)	Handball	

7. My team participates fully in the following competitions

	YES	NO
University intramurals		
Inter-campus		
KUSA conferences activities		
KUSA nationals		
East Africa university games (EAUSF)		
Kenya federation leagues		
Africa university championships (FASU)		
World university championships (FISU)		

8.	. In order of preference rank the following as the main reason for participating in sports at				
	the university				
a)	Recreation				
b)	Fitness				
c)	Fun and enjoyment				
d)	Represent the university at competitions				
e)	Peer pressure				
f)	Financial reward				
g)	Trips out of the university				
h)	Popularity to be noticed				
i)	Students' scholarships				
j)	For selection to the Kenya national team				

9.	Have you ever participated in the Kenya national team?		
a)	Yes		
b)	No		
10.	If your answer above is yes provide the name of the team and	sport	
	participated		
11.	The following infrastructure and personnel has been provided by my univer	rsity to)
	improve my participation in sports		
		YES	NO
	The quality of our fields are in good condition		
	The number of fields provided are enough for sports men and women in my		
	university		
	There is enough equipment for all sports men and women in my university		
	My team is well kitted for competitions		
	My team has qualified trained coaches		
	My coach is always present for training		
	My team can access the training facility anytime they want to train		
	My facility is always in bad condition and not safe for training		

12. Indicate the amount of out of pocket given to you by the university during the following

13. Competitions when you represent your university in sports.

	Amount
Inter-campus	
KUSA conferences activities	
KUSA nationals	
East Africa university games (EAUSF	
Kenya federation leagues	
Africa university championships (FASU)	
World university championships (FISU)	

14. Indicate the type of motivation reward given to your team after posting good results in any of the following competitions

	Trips	Party	Financial	New kit	None of the
			reward		above
Inter-campus					
KUSA Conferences					
KUSA Nationals					
EAUSF					
FASU					
FISU					

15.	My	university	has	time	allocated	on	the	university	time-table	for	students	to	fully
participate in sports without interfering with their nor							their norma	al classes					

V	NT -
Yes I	NO I
1001	

APPENDIX III: QUESTIONNAIRE FOR UNIVERSITY SPORTS DIRECTORS/ COORDINATORS, HEAD OF SPORTS DEPARTMENT

Please put a mark against the response that best represents your opinion on each item.

	Item.						
1.	Indicate t	the name of your university		••••			
a)	Public						
b)	Private						
2.	Gender						
a)	Male						
b)	Female						
3.	Please in	dicate your age					
a)	Under tw	venty					
b)	21-30						
c)	31-40						
d)	41-50						
e)	51-60						
f)	Over 60						
4.	. My teams participate fully in the following competitions						
				YES	NO		
		University intramurals					
		Inter-campus					
		KUSA conferences activities					

KUSA nationals	
East Africa university games (EAUSF)	
Kenya federation leagues	
Africa university championships (FASU)	
World university championships (FISU)	

5. How many of your students have participated in the Kenya national team or club in the following ball games since 2010.

	Male	Female	Club	National team
Soccer				
Rugby				
Netball				
Volleyball				
Basketball				
Handball				

6.	In order of preference rank the following as	the main reason for your students	
	participation in sports at your university		
a.	Recreation		
b.	Fitness		
c.	Fun and enjoyment		
d.	Represent the university for competition		
e.	Peer pressure		

f.	Financial reward					
g.	. Trips out of the university					
h.	Popularity to be notice	eed				
i.	Students' scholarship	os				
j.	For selection to the K	Kenya na	ntional tear	m		
7.	Indicate the designat	ion of	your coacl	hing staff, qualification	on and area of specializat	ion
	below					
	Designation	Male	Female	Qualification	Area of specialization	
8.	8. The following infrastructure and personnel has been provided by my university t					
improve my students' participation in sports						

	YES	NO
The quality of our fields are in good condition		
The number of fields provided are enough for sports		
men and women in my university		
There is enough equipment for all sports men and		

women in my university	
My team is well kitted for competitions	
My team has qualified trained coach	
My coach is present for training	
My team can access the training facility anytime they	
want to train	
My facility is always in bad condition and not safe	
for training	

9. Indicate the amount of out of pocket given to your students by the university during the following competitions when you represent the university in sports.

	Amount
Inter-campus	
KUSA conferences activities	
KUSA nationals	
East Africa university games (EAUSF	
Kenya federation leagues	
Africa university championships (FASU)	
World university championships (FISU	

10. Indicate the type of motivation reward given to your teams after posting good results in any of the following competitions

	Trips	Party	Financial		None of
			reward	kit	the above
Inter-campus					
KUSA Conferences					
KUSA Nationals					
EAUSF					
FASU					
FASU					

11. Please indicate if your University has teams for male and female in the following disciplines

	Male	Female
Soccer		
Rugby		
Netball		
Volleyball		
Basketball		
Handball		

12.	. My university has	a policy that enhances individual initiatives for students to participate
	in sports.	
	Yes	
	No	
13.	. My university has	time allocated on the university time-table for students to fully
	participate in sports	s without interfering with their normal classes
	Yes	
	No	

APPENDIX IV: QUESTIONNAIRE FOR UNIVERSITY GAMES TUTORS, COACHES, AND SPORTS OFFICERS

Please put a mark against the response that best represents your opinion on each

tem.			
1. Indicate the name of your university		••••••	
Public			
Private			
2. Gender			
Male			
Female			
3. Please indicate your age			
Under twenty			
21-30			
31-40			
41-50			
51-60			
Over 60			
4. My teams participate fully in the follo	wing competition	ons	
		YES	NO
		ILS	NO
University intramurals			
Inter-campus			
KUSA conferences activi	ities		

KUSA nationals	
East Africa university games (I	EAUSF)
Kenya federation leagues	
Africa university championship	os (FASU)
World university championship	os (FISU)

5. How many of your students have participated in the Kenya national team or club in the following ball games since 2010.

	Male	Female	Club	National team
Soccer				
Rugby				
Netball				
Volleyball				
Basketball				
Handball				

6. In order of preference rank the following a	as the main reason for your s	students
participation in sports at your university		
Recreation		
Fitness		
Fun and enjoyment		
Represent the University for Competition		

Peer pressure	
Financial reward	
Trips out of the university	
Popularity to be noticed	
Students' scholarships	
For selection to the Kenya national team	

7. Indicate your designation, qualification and area of specialization below

Designation	Male	Female	Qualification	Area of specialization

8. The following infrastructure and personnel has been provided by my university to improve my students' participation in sports.

	YES	NO
The quality of our fields are in good condition		
The number of fields provided are enough for sports men and		
women in my university		
There is enough equipment for all sports men and women in my		
university		
My team is well kitted for competitions		
My team has qualified trained coach		
My coach is present for training		
My team can access the training facility anytime they want to		
train		
My facility is always in bad condition and not safe for training		

9. Indicate the amount of out of pocket given to your students by the university during the following competitions when you represent the university in sports.

Competition	Amount
Inter-campus	
KUSA conferences activities	
KUSA nationals	
East Africa university games (EAUSF	

Kenya federation leagues	
Africa university championships (FASU)	
World university championships (FISU)	

10. Indicate the type of motivation reward given to your teams after posting good results in any of the following competitions

	Trips	Party	Financial reward	New kit	None of the
					above
Inter-campus					
KUSA					
Conferences					
KUSA					
Nationals					
EAUSF					
FASU					
FISU					

11. University h	as a policy	that enhanc	es individual	initiatives fo	or students to	participate
in sports.						
Yes		No				
12. My universa	ity has time	allocated of	on the univer	sity time-tal	ole for stude	nts to fully
participate in sp	orts without	interfering	with their nor	mal classes		
Yes		No \sqsubset				

APPENDIX V: AN INTERVIEW SCHEDULE FOR SPORTS DIRECTORS

This Schedule will also work for Chairmen, Deans who may be in charge of Sports or Managers whichever the case maybe at both Public and Private Universities in Kenya

QUESTIONS:

- 1a. How much is the vote for your directorate/department annually?
- 1b. Is the vote ideal for sports activities?
- 1c. If your answer is No, what do you think is ideal?
- 2a. What is your opinion on students allowances in terms of sufficiency?
- 2b. What do you think can be done to improve the above?
- 3a, Does your university offer any sports scholarships?
- 3b. What criteria guides the awards?
- 3c. What is the spread of the existing scholarships across the sports disciplines?
- 3d. Can the scheme be improved?
- 3e. How much are the scholarships worth per year?
- 3f. If no scholarships, why?
- 3g. What is the position of the University about sports scholarships?
- 3h. What about you as the in charge of sports in your University?
- 4a. Does your University have a documented sports policy?
- 4b. If yes; what areas does the policy address? (Your specific guidelines, issues).
- 4c. If No? why? And are you doing anything about it?
- 5a. What do you think hinders adequate university representation at the Kenya national teams?

5b. What measures if put in place would improve the inclusion/selection of university students to the national teams?

APPENDIX VI: UNIVERSITIES IN KENYA

COMMISSION FOR UNIVERSITY EDUCATION ACCREDITED UNIVERSITIES - NOVEMBER 2017

NO	UNIVERSITY	YEAR OF ESTABLISHMENT	YEAR OF AWARD OF CHARTER
	PUBLIC CHARTERS	D UNIVERSITIES	CHILINA
1.	University of Nairobi	1970	2013
2.	Moi University	1984	2013
3.	Kenyatta University	1985	2013
4.	Egerton University	1987	2013
	Jomo Kenyatta University of	1994	2013
6.	Maseno University	2001	2013
7.		2007	2013
8.	Dedan Kimathi University of	2007	2012
9.	Kisii University	2007	2013
	Masinde Muliro University of Science and Technology	2007	2013
11.	Pwani University	2007	2013
12.	Technical University of Kenya	2007	2013
13.		2007	2013
14.	Maasai Mara University	2008	2013
15.	Meru University of Science and	2008	2013
16.	Multimedia University of Kenya	2008	2013
17.	South Eastern Kenya University	2008	2013
	Jaramogi Oginga Odinga University of Science and Technology		2013
19.	Laikipia University	2009	2013
20.	University of Kabianga	2009	2013
21.	Karatina University	2010	2013
	University of Eldoret	2010	2013
23.	Kibabii University	2011	2015
24.	Kirinyaga University	2011	2016
	Machakos University	2011	2016
26.	Murang'a University of Technology	2011	2016
	Rongo University	2011	2016
28.	Taita Taveta University	2011	2016
29.		2011	2016
30.	University of Embu	2011	2016
31.	Garissa University	2011	2017
	TOTAL 31		
	PUBLIC CONSTITU		
	Alupe University College	2015	
	Kaimosi Friends University College	2015	
	Tom Mboya University College	2016	
	Turkana University College	2017	
	Bomet University College	2017	
37.		2017	
	TOTAL 6		
	PRIVATE CHARTERI University of Eastern Africa, Baraton Catholic University of Eastern Africa	ED UNIVERSITIES	1881
38.	University of Eastern Africa, Baraton	1989	1991
39.	Catholic University of Eastern Africa	1989	1992
40.	Daystar University	1989	1994
	Scott Christian University	1989	1997
	United States International University	1989	1999
	Africa Nazarene University	1993	2002
	Kenya Methodist University	1997	2006
45.	St. Paul's University	1989	2007
	Pan Africa Christian University	1989	2008
	Kabarak University	2002	2008
	Strathmore University	2002	2008

APPENDIX VII: KENYA UNIVERSITY SPORTS ASSOCIATION LIST OF CONFERENCES

KUSA NAIROBI:

University of Nairobi , Kenyatta University, Jomo Kenyatta University of Agriculture And Technology, United States International University-Africa, Strathmore University, Africa Nazarene University, Catholic University of East Africa, Mount Kenya University, Gretsa University, Kenya College of Accountancy University, Daystar University, St. Pauls University, Presbyterian University of East Africa, Technical University of Kenya, Africa International University, Umma University, Cooperative University College, Zetech University, Machakos University

KUSA WESTERN:

Kibabii University, Maseno University, Rongo University, Masinde Muliro University of Science and Technology, Jaramogi Oginga Odinga University of Science And Technology, Kisii University, Great Lakes University of Kenya

KUSA RIFT VALLEY:

University of Eldoret, Laikipia University, Maasai Mara, University of Kabianga, Egerton University, Moi University

KUSA CENTRAL:

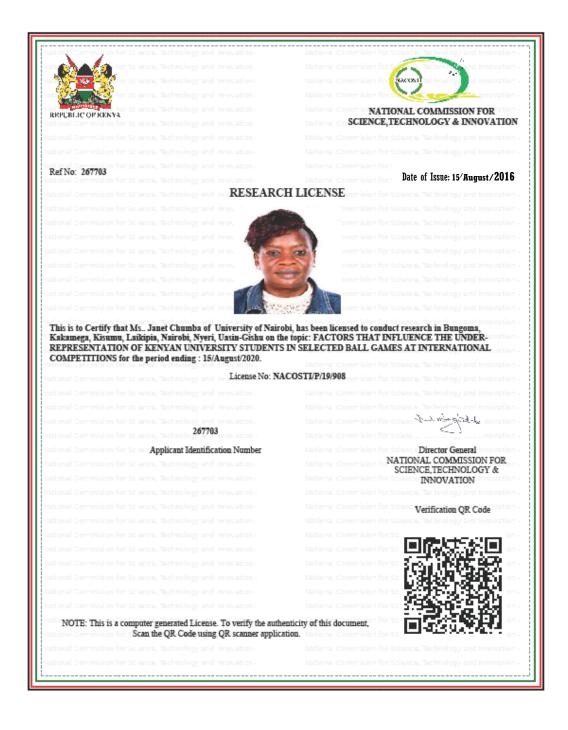
South Eastern Kenya University, Dedan Kimathi University of Technology, Murang'a University College, Kenya Methodist University, Meru University, Chuka University,

Karatina University, Garissa University, Embu University College, Kirinyaga University College

KUSA COAST:

Technical University of Mombasa, Pwani University, Taita Taveta University College.

APPENDIX VIII: RESEARCH PERMIT (NACOSTI)



APPENDIX IX: UNITED STATES INTERNATIONAL UNIVERSITY KENYA'S STATE OF THE ART STUDENTS GYMNASIUM

