QUALITY MANAGEMENT SYSTEMS AND QUALITY IN UNIVERSITIES IN KENYA

PRESENTED BY;

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DECLARATION

STUDENT

I, the undersigned, declare that this research project is my original work and that it has not been presented in any other university or institution for academic credit.

SIGNED   DATE

…………………………………..   ..…………

PETER OLINGO OSUMBA

SUPERVISOR

This proposal has been submitted for examination with my approval as a university supervisor.

SIGNED   DATE

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DEDICATION

I sincerely dedicate this research proposal to my family members especially my wife for the unrelenting support during my time of study. In addition, the entire fraternity of University of Nairobi both lecturers and fellow MBA comrades for their encouragement throughout the entire period of my academic endeavor.

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A lot of people deserve my appreciation and salute for their continual assistance and support throughout the entire course of study.

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Special thanks to my MBA comrades for their brotherly assistance whenever I requested them.

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LIST OF ABBREVIATIONS

CUE   **Commission for University Education**

QMS   **Quality Management System**

ISO   **International Organization for Standardization**

SPSS   **Statistical Package for the Social Sciences**

ICT   **Information Communication Technology**

IMF   **International Monetary Fund**

GDP   **Gross Domestic Product**

LIA   **Letter of Interim Authority**

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ABSTRACT

This research sought to analyze Quality Management Systems and quality in Universities in Kenya.

In this study a descriptive survey design was used. According to Owlia and Aspinwall (1996), descriptive research portrays an accurate profile of persons, transactions/events, or situations. Surveys allow the collection of large amount of data from a sizable population in a highly economical way. It allows one to collect quantitative data which can be analysed quantitatively using descriptive and inferential statistics.

The data collected and analyzed was gathered from chartered universities. The total sample was 21 respondents which represented 53.85% of the population of 39 chartered universities. These respondents included the Directors of quality assurance, the administration staff (DVC, Registrars, management representatives) and lecturers. The data is presented by use of descriptive data analysis tools which include tables, graphs, charts as well as other percentage scores. The questionnaires were analyzed in order to establish the relationship between the independent variables and the dependent variables

From the analysis 90.5% of the respondents indicated they had a quality management system whereas 9.5% of the respondents claimed they lacked a quality management system this was a clear indication that most universities have put up quality control mechanisms.

The regression model revealed a positive relationship between various elements of QMS and ranking of selected universities. For instance, a unit increase in quality policy would result to 1.757 times increase in the quality ranking. A unit increase in the suitability of the QMS would result to 1.64 times increase in the quality ranking of the universities.
From the model, it is also clear that, a unit increase in the curriculum implementation policies would result to 0.507 times increase in the quality ranking of the universities while a unit increase in the quality management audit would result to a 0.282 times increase in the quality ranking of the universities.

CHAPTER ONE: INTRODUCTION

1.1. Background of the study

Quality assurance and management in higher institutions of learning is of concern due to the many stakeholders affected by services from these institutions and the high rate at which various institutions of higher learning are achieving ISO Certification in Kenya. The primary beneficiary being the student who needs assurance, that what they get in a course meets their expectation. The parents who are mostly the sponsors of these students as well as the taxpayers who meet part of the costs need to be assured that they are getting value for their investments. The government's concern is whether the services from these institutions meet the national development agenda. The employers, who are mainly consumers of the skills acquired, are interested in the qualifications of the graduates entering the job market (Khatri and Sharma, 2011). The Commission for University Education is seeking to standardize quality across different institutions of higher which is a change from the autonomy formerly enjoyed by universities as granted in the Acts of parliament which established them. In most cases, Lecturers are assigned course units according to their areas of expertise. Frazer (1992) disagrees stating that training in higher education should be standardized so that quality standards in a similar faculty in a different University should be comparable. Nigvekar (1996) believes that standardizing education would discourage excellence reducing high performers to average performers. However, Commission for University Education (CUE) is currently seeking to regulate quality assurance and management in institutions of higher learning to make quality standards in different universities measurable and comparable.

Kenya has experienced rapid expansion in the number of institutions offering higher education in the recent past. Similar trend has also been realized in the number of these institutions receiving

ISO Certification as a mark of quality in their processes, procedures as well as the provision of services. This expansion has raised concerns among stakeholders from within and without the education sector regarding the quality of services offered by these institutions. This research therefore seeks to analyse the relationship QMS and quality in universities in Kenya.

1.1.1. Quality Management Systems

Quality is an unusually slippery concept; many people may have problem defining quality but they recognize it when they see it in goods without defects and services without mistakes (Kettunen, 2008). Several definitions of quality have been offered by different scholars. Key among them includes the American W. Edward Deming who defined quality as a predictable degree of uniformity and dependability at low cost and suited to the market (Deming, 1986). Joseph Juran defines quality as "fitness for use" meaning quality is when a service or a product satisfies the intended use. According to the American Society for Quality, quality is defined as the totality of features and the characteristics of a product or service that bears on its ability to satisfy stated or implied needs (Heizer et al, 2008).

A according to Reichheld et al (1990), quality management system (QMS) is a management technique used within an organization to communicate to employees what is required to produce the desired quality of products and services and to influence employee actions to complete tasks according to the set specifications.

An organization seeking to establish a Quality Management system can be guided by the quality management principles underlying the ISO 9000 series. These principles are generic guidelines that can be adopted by an organization in setting up an internal quality management system depending on its nature and operating industry influences and challenges. According to ISO 9000:

2000, there are eight quality management principles that an organization can put to use. These are customer focus, leadership, involvement of people, process approach, system approach to management, continual improvement, factual approach to decision making and mutually beneficial supplier relationships. According to ISO9000:2000, clause7.1. Customer focus principle requires organizations to identify and meet present and future needs of their customers as well as strive to exceed these expectations. Top management is expected to exercise visionary leadership intended to bring unity of purpose and inspire employees at all levels to achieve to their best towards the mission and vision of the organization (Dilworth, 1992). An organization's human resources are its greatest asset hence should genuinely be involved in the achievement of its objectives. An involved employee feels appreciated on his/her contribution to the organization. Process approach to managing activities is based on the fact that when these activities are managed as a process, chances of achieving results effectively are increased (Costin, 1999). Therefore, key activities should be clearly defined, measured and responsibility of achievement assigned to specific individuals. Adequate resources should be availed to realize the achievement of the process.. Achieving the desired level of quality for an organization is not a onetime event but continuous. According, Continual improvement principle, continual improvement of products, service, processes and procedures should be a permanent objective of any organization seeking to excel in quality management, an organization must ensure that data and information to act upon is available, accurate and accessible to those who need it. This data should be analyzed using valid methods to provide facts for decision making. The relationship between a supplier and the organization should be mutually beneficial as the inputs taken up by an organization determine the performance of the process and the final output (Kathryn et al, 2011).

Like any other system, QMS is an open system which receives inputs from the environment transforms the inputs into processed outputs and releases the outputs into the environment. The inputs into an education system are human resources (students/teachers) and physical resources (infrastructure and financial resources). The transformation sub system comprises of the educational processes and activities related to curriculum, management, co-curriculum activities and support. The system output is comprised of employable graduates, growth in knowledge by way of research, publications and other innovations by graduates

Figure 1:   Education as a system
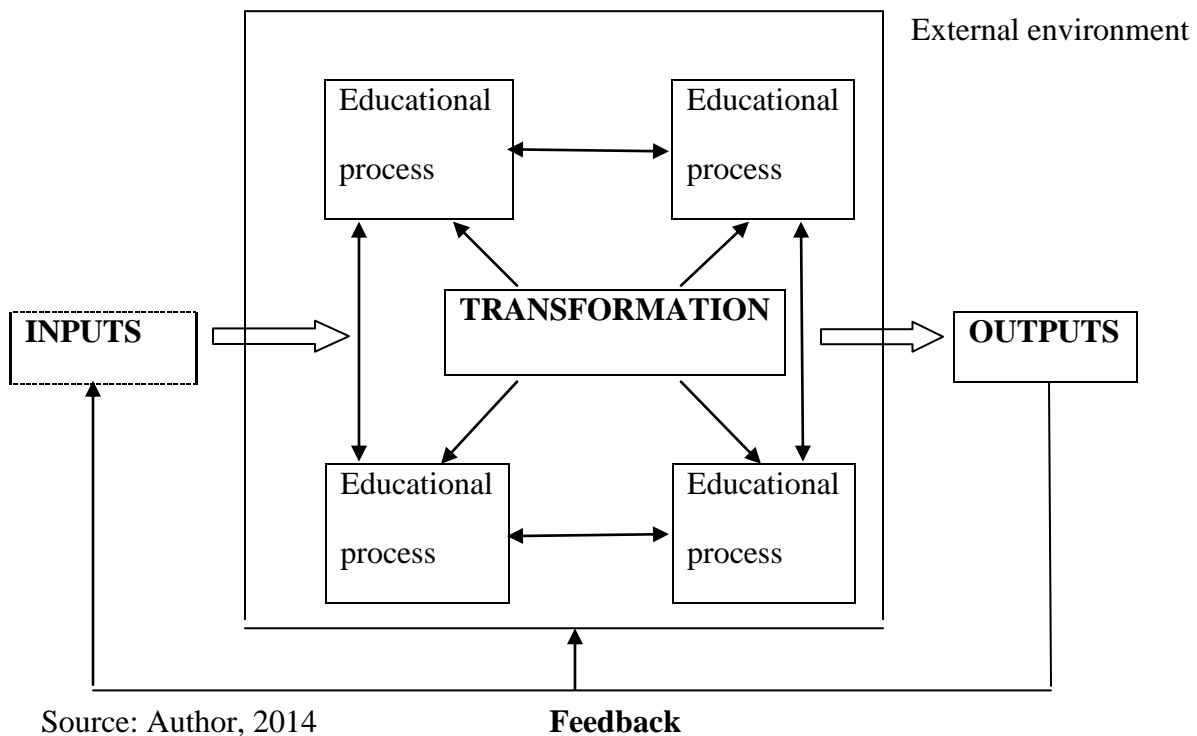
Source: Author, 2014   **Feedback**

1.1.2. Higher Education in Kenya

This study considers higher education as made up of Universities established by Commission for higher education. For the sake of this study we are basing our studies on the Universities. Currently, the Commission for University Education (CUE) established under section 4 of the Universities Act 2012 is charged with the accreditation of institutions with University status. Accreditation is the procedure by which the Commission formally recognizes an institution as a university under part III of the Universities Act 2012. The revised CUE regulations requires a University to maintain linkages with accredited institutions offering similar disciplines for benchmarking purposes (Commission for University Education, 2014), . These can either be private or public universities. Private universities are those established with funds other than public funds while public universities are these established and supported by public funds. Currently CUE is in charge of both public and private universities. This body sets the standards and guidelines for universities in Kenya relating to facilities, academic programmes, student matters and governance issues. Kenya has experienced rapid expansion in the number of institutions offering higher education currently there are 22 public universities, 9 public universities constituent colleges, 17 chartered private universities, 5 private universities constituent colleges, 9 universities with LIA and 2 registered private universities.   Higher education supplies the much needed human resource in a country's development through technological advancement, research and extension in agriculture, food security, service sector as well as growth in other industrial areas.

1.2.   Research Problem

Several studies have been carried out before in the area of Quality management systems. Lawrence (1998) in his study to identify customers and stake holders of higher education in UK pro-

posed a more comprehensive model using a systems approach which identifies 12 stakeholders who contribute to, or benefit from higher education. His initial two models based on customer and product analogy were inadequate as each identified a different customer. Magutu, Mbeche, Nyaoga, Nyamwange, Onger and Ogoro (2010), carried out a study focused on the University of Nairobi's academic services in conjunction with the main quality management features. From the findings they concluded that the University of Nairobi has applied quality management and to a very great extent has ensured that the Quality Management Policy is appropriate to its purpose. Andolo (2012) in her findings revealed that training and empowerment, strategic planning, top management support, Effective communication and organizational infrastructure as an aspect of quality management system had a relationship and significant influence on service provision in the University of Nairobi. The results further revealed that there is a positive relationship between quality management systems and service provisions. Other studies carried out by Cua et al (2001) and Kaynak (2003), found out that there is underlined importance and causal relationship between quality management practices and competitive advantage. These studies suggested positive relationship between quality management practices and organizational performance. Cao and Li (2011) in their research provide empirical insights about how quality and quality assurance issues have impacted on private higher education. This resulted in quality assessment framework classifying quality into academic quality, administration quality and relationship quality. Despite previous studies on the concept of quality and quality management systems in higher education, none has focused on the analysis of quality management system in the Kenyan Universities. This research therefore seeks to bridge the knowledge gap by analyzing Quality Management Systems and quality in Universities in Kenya.

1.3.   Objectives of the Study

The key objective of this study is to analyze Quality Management Systems and quality in Universities in Kenya. The study will achieve this through the following specific objectives;

1. To determine the typology of quality management systems in universities in Kenya

2. To establish the relationship between quality management systems and quality ranking in universities in Kenya.

1.4.   Value of the study

Knowledge from this research will be of great value to various stakeholders in their areas of operation.

To the academicians, the research adds to the body of knowledge available in this area of study. It also forms the basis upon which further research will be carried out or use the study for academic reference purposes.

The research provides the management with the knowledge on conformity to established quality management systems. This knowledge can be applied by relevant institutions in the same sector or different sectors to improve the quality of products or services. The knowledge will also assist managers of various organizations to set up and manage quality management Systems for their organizations.

The outcome of this study can be used in order to quantify internal quality assessment of higher institutions of learning especially for assessing quality in higher institutions of learning as perceived by students.

CHAPTER TWO: LITERATURE REVIEW

2.1.   Introduction

This chapter introduces the literature review adopted by the researcher where it captures the theoretical review and empirical review. The study will examine higher education in Kenya in relation to quality regulation and ranking, QMS in services and QMS in higher education.

2.2.   Higher Education in Kenya

The Commission for University Education (CUE) and the Inter University Council for East Africa requires Universities within their mandate to establish Academic Quality Assurance initiatives. The policy assists to develop guidelines and procedures to develop, monitor, maintain and review academic standards of programmes. It assures and enhances the quality of teaching, learning, and research opportunities and the student experience at the delivery points. It also seeks to safeguard academic standards, assurance and enhancements of quality of all University awards offered (Kathryn, 2011). Various Universities have therefore developed their own Quality Assurance Models with most of them achieving ISO certification. However, whether these Quality Assurance Models are developed to secure certification or strengthen internal structures for operational efficiency is debatable hence the need for research.

Quality in education is a vital element of education at all levels of the education system. However, it is not very simple to tell on an education system that delivers quality outputs in the form of students as quality assessment in an education system is very tasking and intricate with diverse metrics to be assessed. To understand quality of an education system, the whole process of input, processing and output should be thoroughly evaluated. This would look at the admission process,

training, evaluation and examination process and finally the output in form of a graduate joining the job market (Nigvekar, 1996).

According to Broaden (1992), an increasingly competitive world demands quality, capability, creativity, and leadership not merely a certificate and high grades without practical competence and professional ethics. Quality in higher education can be looked at in different forms. The amount of research work from an institution of higher learning and their impact in real life is a reflection on an institution's service quality. The numbers of manpower graduating from an institution of higher learning as well the classes of degrees attained reflect on the quality of services experienced by the trainees. Service quality can also be derived from the facilities put in place to aid in the service delivery. The number of publications being produced by an institution's academic staff also serves to portray the quality of its services. Internal structures and processes charged with the processing and delivery of services directly determine the quality.

Various reasons have been advanced why educational institutions should be concerned with quality. First, due to globalization institutions are now competing within and across their national boundaries hence quality provides a competitive edge to wither this completion. Second, customer satisfaction as students, parents and sponsoring agencies have become more aware of quality and they demand value for their money. Third, institutions keen on maintaining standards must ensure quality services and processes. Fourth, accountability, credibility, prestige and status these values are earned when an institution consistently delivers quality services. Fifth, a concern for quality from top leadership improves employee morale and motivation in achieving customer satisfaction. The institution is also likely to improve its image and visibility hence attracting the best students, grants and support from reputable stakeholders (Nigvekar, 1996)

2.3.   Higher Education in Malaysia

Since the Asian economic crisis of 1997, Malaysia as well as other countries in the region, have devised innovative ways to encourage students to pursue, rather than having to go overseas. The strategy pursued for growth and development of education has been to encourage the private sector to meet the needs of tertiary education. A market sensitive educational system has evolved in Malaysia. To gain a competitive advantage, efforts to adopt the quality management systems philosophy are fast spreading within the higher education institutions in Malaysia (Sohail, Rajadurai, Azlin and Rahman, 2003).

In 1996, the Ministry of Education launched a customer charter, formalizing the inception of TQM in the Malaysian education system (Sohail et al, 2003). The ministry formed a policy and quality section to monitor the implementation of the country's education policy at all levels, based on TQM principles, with a vision that all schools and universities will eventually adopt TQM principles. In addition, to control the standards of public higher education institutions, the National Higher Education Council was formed in 1996. A grading system was put in place to assess the effectiveness of each department and faculty. In 1997, the ministry launched the national accreditation committee to assess the quality of higher education institutions (Sohail et al, 2003).

2.4.   Quality Ranking in Higher Education

According to Cybermetrics Lab, it is prudent to highlight that universities like Harvard, Massachuteus Institute of Technology and Stanford University continue to lead due to a number of reasons. They have given priority to the publication of large volume of quality contents under Open

Access type models revealing their activities, adequate resources and global performance. They also encourage and support large numbers of their researchers, scholars and students to undertake publications.

Webometrics ranks institutions of higher learning in the world annually based on openness, impact, presence and excellence. Consequently, it is possible to access ranking of universities in Kenya based on similar parameters. Webometrics uses link Analysis for quality evaluation as it is a far more powerful tool than citation analysis or global surveys. This is link Analysis not only include bibliographic citations but also third parties involvement with the universities (Kettunen, 2008). Webometrics research is based on correct, comprehensive, deep evaluation of the university global performance, taking into account its activities and outputs and their relevance and impacts. From the recent ranking of Kenyan universities, it is evidenced that some of the universities positioned by their public relations departments are not necessarily the best in quality considering top ten universities in Kenya. Currently, there is no local quality ranking of universities in Kenya hence the decision to use Webometrics ranking.

2.5. Quality Management System in Services

A service can be defined as an economic activity in which the output is neither a product nor a construction. It can also be viewed as an activity or a benefit that one party bestows on another that is essentially intangible and does not result in the ownership of anything (Mukhopadhyay, 2005). A number of characteristics distinguish Services from good or products. First, a service as defined above is neither a product nor a construction hence it is intangible. The customer can only experience it without touching the physical evidence. However, there are degrees of tangibility. Services like hair dressing are completely intangible while a service like education has

issued books as tangible element and knowledge transfer as the intangible element. Second, production and consumption of a service occurs simultaneously which also makes services perishable. Third, unlike in a manufactured product where a good is a product of designed internal processes. The consumer provides an input into the production process. Fourth, services are also highly heterogeneous. This is due to a customer involvement into the process, simultaneity, surrounding and external factors like weather and type of customers (Kistan, 1999). Quality coordination and control generally includes settling a policy concerning quality and quality objectives, planning, control, assurance and improvement. The main task of service quality management is ensuring that services are provided at the quality standards requested or expected by the clients (Mukhopadhyay, 2005).

Gronroos (1988) developed Service Quality Model in his contribution to management of quality in the service industry. This was based on consumer perception and expectations. He studied three main dimensions of quality .i.e. technical quality, functional quality and the image. In technical quality, the consumer evaluates quality based on what he/she receives after interaction with the service provider (Kathryn et al, 2011). The functional quality aspect is assessed based on how the service was delivered. This evaluation is based on the designed technical standards for delivering quality. Finally, the image held by the customer affects the quality experienced from the service provider. This affects tolerance towards negative experience and may deteriorate with any negative experience. The diagram below illustrates service quality model.

Figure 2: Service Quality Model

```
                    ┌─────────────┐        ┌─────────────┐
                    │  Technical  │        │  Functional │
 Marketing activities│  Quality   │        │   Quality   │
                    └─────────────┘        └─────────────┘
 Traditions                   \              /
 Ideology                      \            /
 Communication with other   ┌─────────────┐
 Consumers                  │    Image    │
                            └─────────────┘
 Previous experience               │
                    ┌──────────┐   ▼
                    │          │ ┌──────────────────────┐
                    ▼          │ │ Perceived    Service │
              ┌──────────────┐ │ │ Quality              │
              │ Expectations │─┼─│                      │
              └──────────────┘   └──────────────────────┘
```
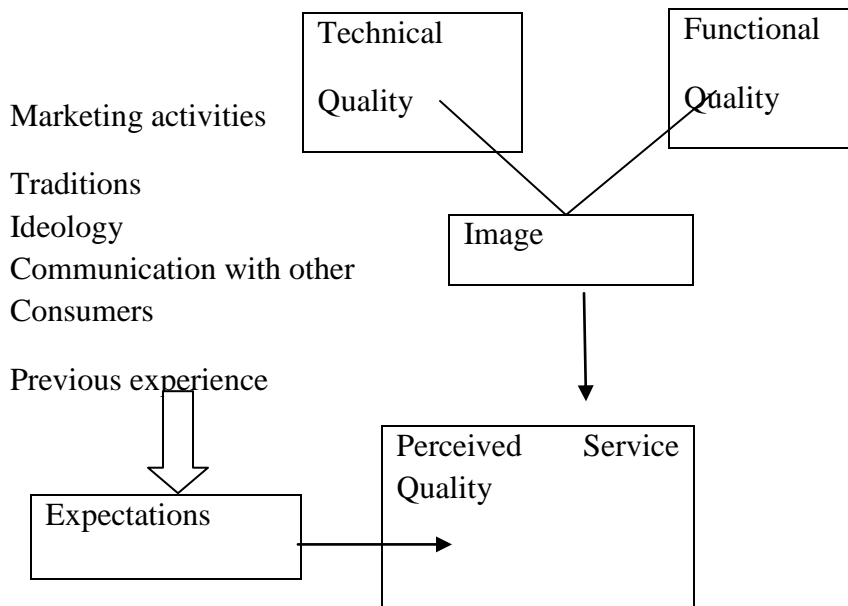
Source: Berry et al, (1990)

2.6. Quality Management Systems in Higher Education

Quality is a concept which originated from the manufacturing sector. However, increased com-
petition, adoption of technology, customer awareness and the desire by service providers to meet
customer expectations has challenged the service sector to lay emphasis on quality.

Subsuming a wide range of discussion, Barnett (1992) quotes a suggestive definition by Borrow
(1991) to define "quality" in Higher education.

……a high evaluation accorded to an education process where it has been demonstrated that,
through the process, the student's educational development has been enhanced.not only have
they achieved the particular objectives set in the course, but in doing so, they have also fulfilled

the general educational aims of autonomy of the ability to participate in reasoned discourse, of critical self evaluation, and of coming to proper awareness of the ultimate contingency of all thoughts and action.

ISO 9000:2000 eight quality management principles which provide the generic basis for setting a policy regarding Quality are; customer focus, continual improvement, leadership, involvement of people, process approach, system approach to management, factual approach to decision making as well as mutually beneficial supplier relationships (Colling and Harvey, 1995). Higher education system is in the service sector and a student comes in as an input, is processed through impartation of knowledge is later output into the external environment as an employee, researcher or further studies. The aspects of quality to be managed in Higher education range from the admission process to student clearance. The system in place for the admission should ensure only applicants who meet the minimum qualifications should be admitted into the University. It should also eliminate unnecessary errors and delays. The academic processes like examination, training and student activities should be designed to enable the student achieve the best education. The system should also ensure that skills acquired by the students are relevant to the labour market and research upon graduation (Boaden and Dale 1992).

 Higher education, quality control has been superficial and diluted by exercise of the academic freedom (Largosen et al, 2004). The University culture of individual autonomy which is zealously guarded (Colling and Harvey 1995). This has made it difficult to achieve teamwork required to achieve quality in Higher Education. According to (Awlia and Aspinwall 1996), dimensions of quality in Higher Education can be categorized into three; product, software and Service.

In Garvin (1987) Model, he proposes eight dimensions of quality that can be used to manage quality in higher education. These are performance, features, reliability conformance, durability,

serviceability, aesthetics, perceived quality. In Higher education, performance is the ability expected of a graduate, features refers to the characteristics that supplement the basic performance function like flexible mode of learning, reliability is the extent to which the knowledge learnt is correct, accurate and up-to-date, conformance is the degree to which the courses offered meet established plans, standards and promises, durability in this case represents the depth of learning, serviceability relates to how well customer complaints are handled. Aesthetics would relate to the desirable experience through an institution and as the name suggest perceived quality relies on the expectation of the customers.

The software quality dimensions widely used in software engineering can be applied to quality in Higher education. These are: correctness, reliability, efficiency, integrity, usability, maintainability, testability, expandability, portability, reusability and interoperability (Watts, 1987). Owlia and Aspinwall (1996), has applied this quality dimension in Higher education.

Correctness refers to the extent to which a programme complies with the specified requirement, efficiency relates to how relevant is the knowledge applicable to the future career of graduates. Integrity relates to how secure is the personal information from unauthorized access. Usability which concerns the ease of learning and the degree of communicativeness in the classroom, maintainability which relates to how well the institution handles customer complains, testability which measures how well examination represent a subject of study and portability, reusability and interoperability measures the degree to which knowledge learnt is applicable to other areas.

Of all the three dimensions of quality, Service quality dimension is the most relevant to higher education. This is because education is a service hence direct relationship exists. Parasuraman et al (1985) identified the following dimensions of service quality: reliability which measures

whether a service is carried out as promised, responsiveness relates to prompt delivery of services, competence as a measure of the staff is knowledgeable in the service they are delivering, access which concerns the location or time, courtesy which defines how respectful and friendly the service providers are, communication which is ability to listen and exchange information by the service providers, credibility which relates to how trustworthy, credible and honest a service provider is, security which relates to freedom from danger, risks or doubt, understanding the customers and tangibles which are the physical objects used to deliver the services (Kathryn et al, 2011).

After extensive review of literature on the three different approaches to quality in higher education, Owlia and Aspinwall (1996), developed six criteria to depict quality dimensions. These are tangibles, competence, attitude, content, delivery and reliability. These dimensions stipulate areas of concern addressing quality in higher education as presented in a conceptual framework below.
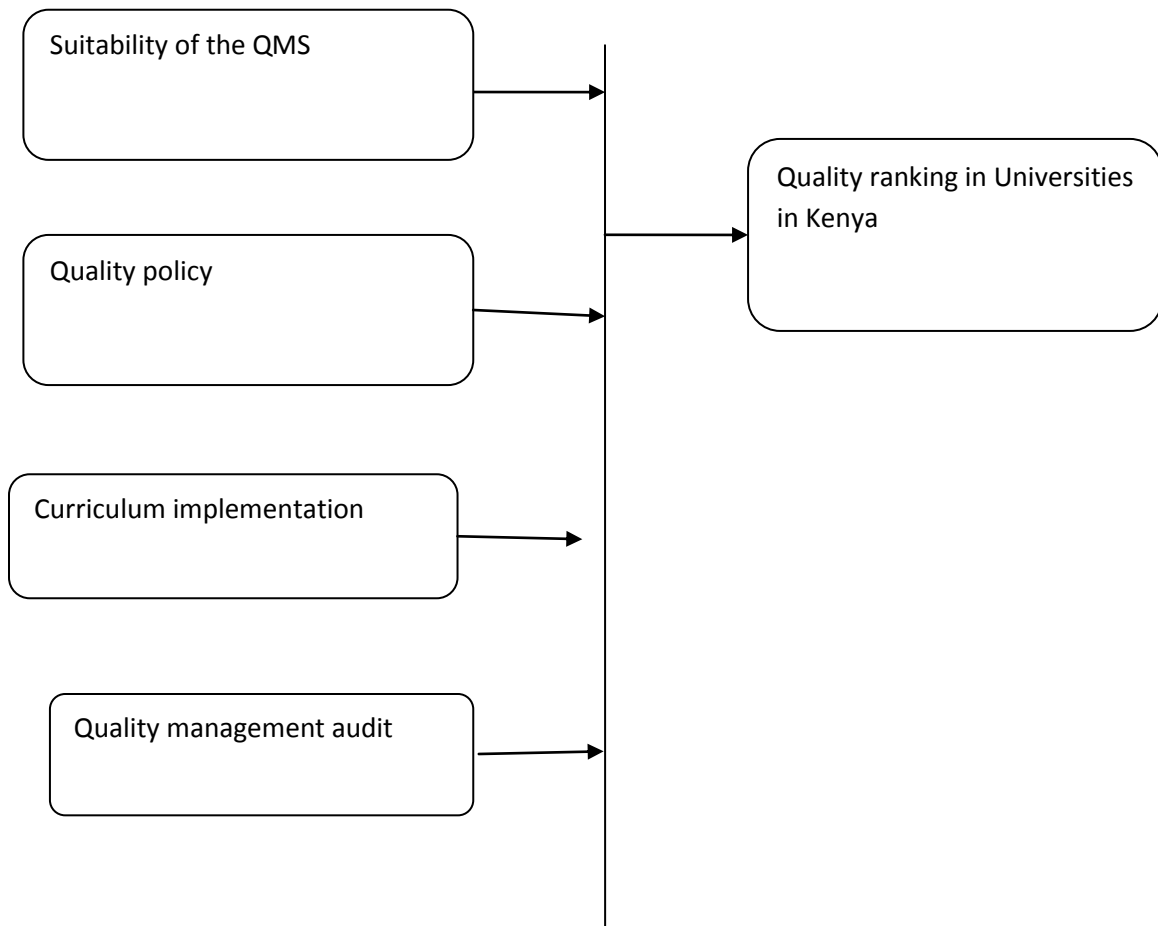
Figure 3: Quality measurements in Higher education (Source: Owlia and Aspinwall, 1996))

Dimensions	Characteristics
Tangibles	Modern and Sufficient equipment/facilities
	Ease of access
	Visually appealing environment
	Support services (Accommodation, sports..)
Competence	Sufficient academic staff
	Theoretical knowledge/qualifications
	Practical and up-to-date knowledge
	Teaching expertise/communication
Attitude	Understanding students' needs
	Willingness to help, Giving personal attention
	Availability for guidance and advice
	Emotional, courtesy
Content	Relevance of curriculum to future jobs of students
	Effectiveness, Completeness, use of computers
	Containing primary knowledge and skills
	Communication skills and team working
	Flexibility of knowledge, being cross-disciplinary
Delivery	Effective presentation, Sequencing, timeliness
	Consistency, fairness of examinations
	Feedback from students, encouraging students
Reliability	Trustworthiness, giving valid award
	Keeping promises, match to the goals
	Handling complaints, solving problems.

2.7.   Summary

From the literature review, various quality perspectives and dimensions have been put forward. This study examines the relationship between QMS features and quality ranking of universities in Kenya. The variables in this study are therefore categorized into dependent and independent variables. The independent variable is the quality ranking in universities in Kenya. While independent variables will include the various elements of QMS as shown in the conceptual model below.

Figure 4: Conceptual Model

Suitability of the QMS	→	
Quality policy	→	Quality ranking in Universities in Kenya
Curriculum implementation	→	
Quality management audit	→	

Independent variable   Dependent variable

Source: Author (2014)

CHAPTER THREE: RESEARCH METHODOLOGY

3.0. Introduction

This chapter describes the research methodology that was be used in the study. This includes the research design, population, data collection, and data analysis techniques.

3.1. Research Design

In this case a descriptive survey design was used. According to Owlia and Aspinwall (1996), descriptive research portrays an accurate profile of persons, transactions/events, or situations. Surveys allow the collection of large amount of data from a sizable population in a highly economical way. It allows one to collect quantitative data which can be analysed quantitatively using descriptive and inferential statistics.

3.2. Population

The population of the study was the chartered universities in Kenya during the time of study. A census was be used in the study hence the population was the 39 chartered universities in Kenya as per the commission for higher education (see appendix). The respondents in this study were the quality assurance directors or their equivalents.

3.3. Data Collection

The study was based on primary and secondary data. Primary data was collected using self-administered questionnaires which were distributed to the respondents and collected later. It consisted of open and closed ended questions. The main advantage was that the researcher could collect all the completed responses within a short period of time. Any doubts that the respondent

might have on a question could be clarified on the spot. The questionnaire contained two sections where sections A contained background information and section B addressed research objectives focusing on features of quality management systems (Magutu et al, 2010). The researcher collected secondary data by analyzing quality policy of the selected universities.

3.4.   Data analysis

The research was quantitative in nature. Descriptive statistics was used to describe the basic features of the data in the study. The main computer package that was employed in data analysis was Statistical Package for the Social Sciences (SPSS).

A multiple linear regression analysis was used in the study because the dependent variable is independently affected by various independent variables in the study hence the model describes the extent of linear relationship between the dependent variable and a number of other independent variables.

$Y = A + B1X1 + B2X2 + B3X3 + B4X4 + E$

Y = Quality ranking of universities in Kenya

A = Constant

B1, B2, B3 & B4 = Coefficients of the various features of QMS

X1 = Quality policy

X2 = Suitability of the QMS

X3 = Quality management audit

X4 = Curriculum Implementation.

E = Random Error Term

CHAPTER FOUR: PRESENTATION, DISCUSSION AND INTERPRETATION OF FINDINGS

4.1 Presentation of findings

This chapter presents, discusses and interprets the data which is obtained from the selected sample population of the chartered universities. The data collected and analyzed was gathered from chartered universities in Kenya. The total sample was 21 respondents which represented 53.85% of the population of 39. These respondents included eight Directors of quality assurance, the administration staff (one DVC, one Registrar, and ten management representatives) and one lecturer. The data is presented by use of descriptive data analysis tools which include tables, graphs, charts as well as other percentage scores. The questionnaires were analyzed in order to establish the relationship of the independent variables with the dependent variables.

4.2 Data Presentation and Discussion of findings

4.2.1   QMS Typologies

The respondents were asked which typologies best described the quality management systems available in the university. The responses are presented in Table 4.1.

Table 4.1 QMS Typologies

Typologies	Responses		Percent of Cases
	N	Percent	
INTERNAL	11	21.6%	73.3%
EXTERNAL	2	3.9%	13.3%
CUSTOM_MADE	8	15.7%	53.3%
ADOPTED	2	3.9%	13.3%
UNIVERSITY_WIDE	7	13.7%	46.7%
FUNCTIONAL	8	15.7%	53.3%
SELF_IMPOSED	7	13.7%	46.7%
REGULATOR_IMPOSED	6	11.8%	40.0%
Total	51	100.0%	340.0%

Source: Author (2014)

The typology of quality of management systems present in the university was described in four categories as follows. First, the respondents were asked whether their QMS was internal or external, the results revealed that 21.6% had internal QMS while 3.9% had external QMS. Secondly, 15.7% of the universities have custom made QMS while 3.9% have adopted QMS. Thirdly, 13.7% of the respondents selected university wide typology whereas 15.7% of the respondents indicated that their universities had functional typology. Lastly, of the selected respondents, 13.7% indicated that their university had self imposed typology while 11.8% had regulator im-

posed typology. This means chartered universities have different typologies of QMS as indicated above.

4.2.2Gender of Respondents

The sampled University administration staff included a mix of both male and female respondents. The Male respondents represented 52.5% of the filled questionnaires whereas the female respondents included 47.6%. This information is represented in Table 4.2 as well as the pie chart indicated below.

Table 4.2: Gender of the respondents

		Frequency	Percent	Valid Percent
Valid	Male	11	52.4	52.4
	Female	10	47.6	47.6
	Total	21	100.0	100.0

Source: Author (2014)

GENDER_OF_RESPONDENT

Male
Female

47.62%   52.38%
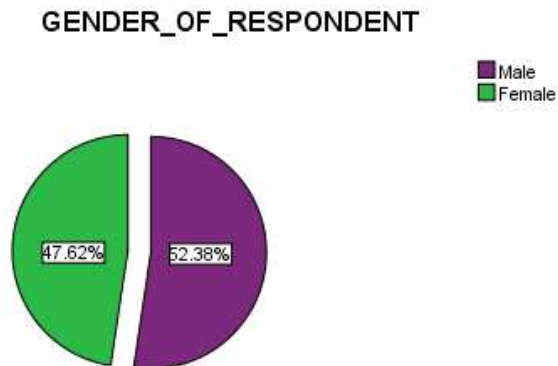
This disproportionate gender representation does not have effect on either the relationship between quality management system and university ranking or existing typologies as the response was not affected by gender. This is because the information provided by the respondents was informed by their knowledge of the QMS in place.

4.3 Certification Of University

Among the sampled respondents, they were required to indicate whether the university they represented was ISO certified. 57.1% of the respondents said their Institution was not ISO certified whereas 42.6% said their institution was ISO certified. The results of the research indicates that ISO certification is not necessarily the universal standard of quality as all the selected chartered universities had systems of ensuring quality other than certification. ISO certification therefore does not influence ranking but complement universities' effort in ensuring quality. 57.1% of the chartered universities therefore had internal QMS while 42.6% had external QMS. This also

For those institutions which had certification, the oldest was certified in the year 2002 while the new certification was awarded in the year 2013. This therefore means more universities continue to seek ISO certification as a mark of quality. This can be well represented in the pie chart given below.
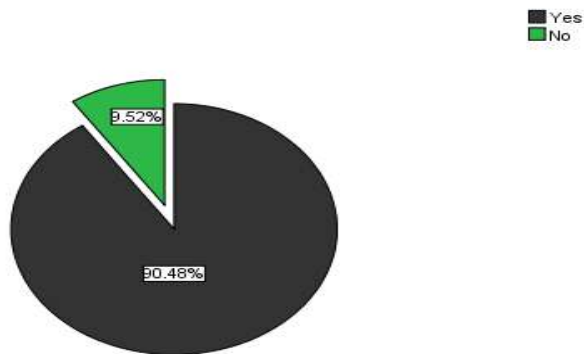
CERTIFICATION_OF_UNIVERSITY
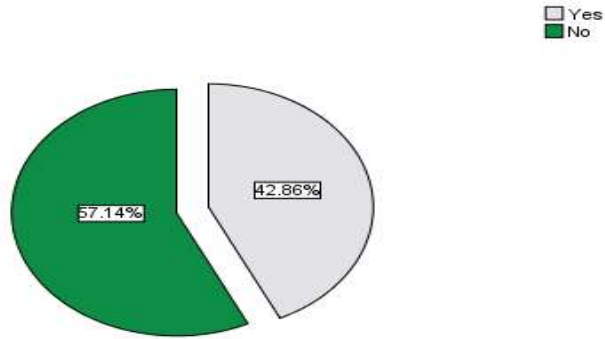
4.4 Quality Management system in University

Among the sampled university respondents, different responses were given on whether they had any quality management system. 90.5% of the respondents indicated they had a quality management system whereas 9.5% of the respondents claimed they lacked a quality management system. . This is well represented by the pie chart indicated below.

**QUALITY_MANAGEMENT_SYSTEM_IN_UNIVERSITY**

A 90.5% existence of QMS among selected chartered universities is an indication of a strong relationship between QMS and quality ranking of universities.

96% of the selected institutions indicated that quality management systems were under the Directorate of Quality Assurance. The Deputy Vice Chancellors (DVCs) in these institutions were charged with the mandate of overseeing the implementation of QMS (Quality Management Systems) in the University. This underscores the fact that QMS in these institutions are university wide and internal with specific office in charge.

4.4.1 Review of Quality Policy

The sampled respondents were required to indicate how often the quality policy is reviewed in the Universities they represented. 14.3% of the respondents indicated that the review was conducted semi annually whereas 38.1% indicated the review was done annually. The remaining 47.6% of the respondents said the review was conducted on an "As need arises" manner. This can well be represented in the pie chart indicated below.

REVIEW_OF_QUALITY_POLICY

Semi Annually
Annually
Others
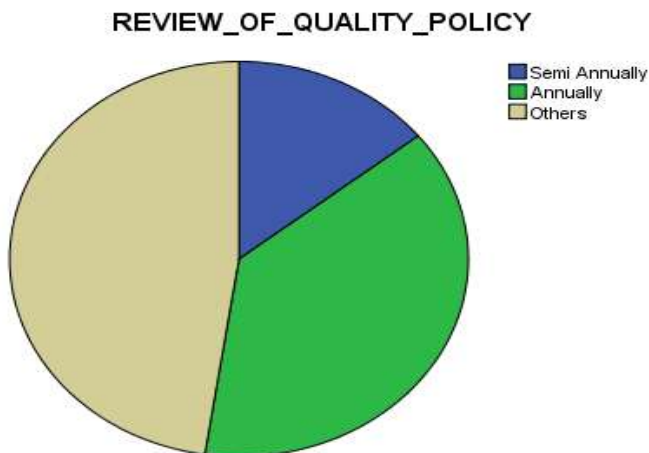
Irrespective of the frequency of review, all the selected universities reviewed their quality policy. This provides a guarantee that the quality offered is up to date. Better still a large proportion,

47.6% reviewed their quality policy as need arises which means the policy reflect the current requirements to meet quality needs. Whether annually, semi-annually or "as need arises", up to date quality policy is an indication that the institutions meet the threshold for quality ranking.

4.4.2 Descriptions of University Quality Objectives

The different respondents were asked whether they agreed with the quality objectives of being specific, measurable, attainable, realistic and time bound. The responses given by the respondents are shown in the bar charts indicated below.
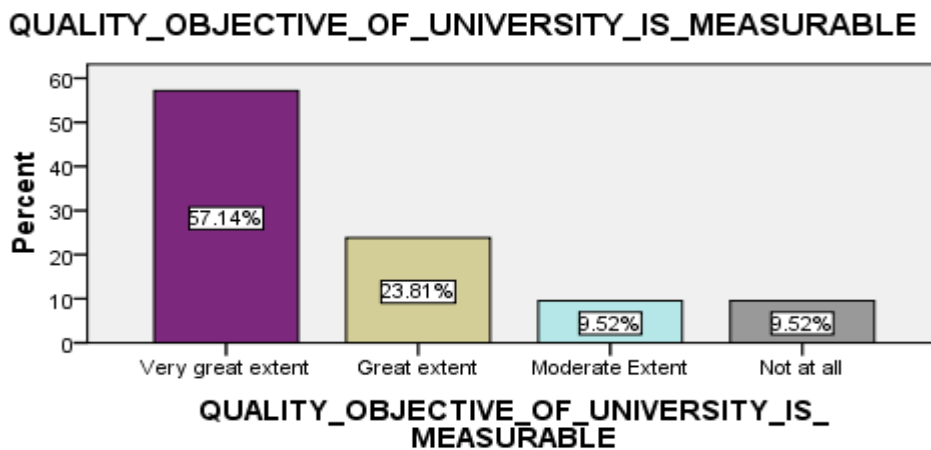
QUALITY_OBJECTIVE_OF_UNIVERSITY_IS_MEASURABLE
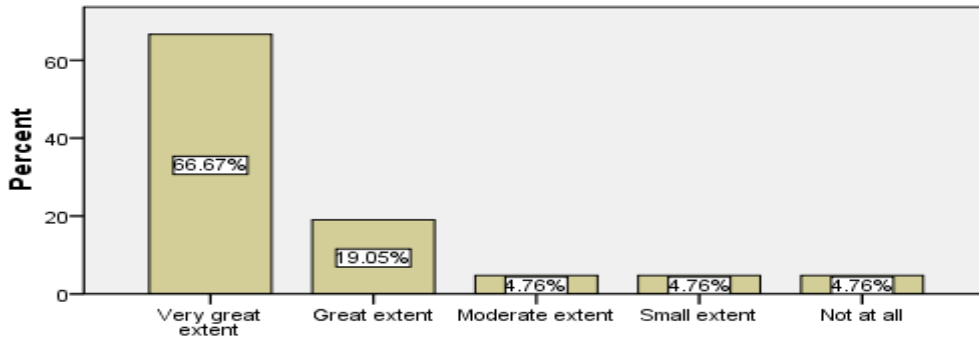
QUALITY_OBJECTIVE_OF_UNIVERSITY_IS_ATTAINABLE

QUALITY_OBJECTIVE_OF_UNIVERSITY_IS_ATTAINABLE

QUALITY_OBJECTIVE_OF_UNIVERSITY_IS_REALISTIC
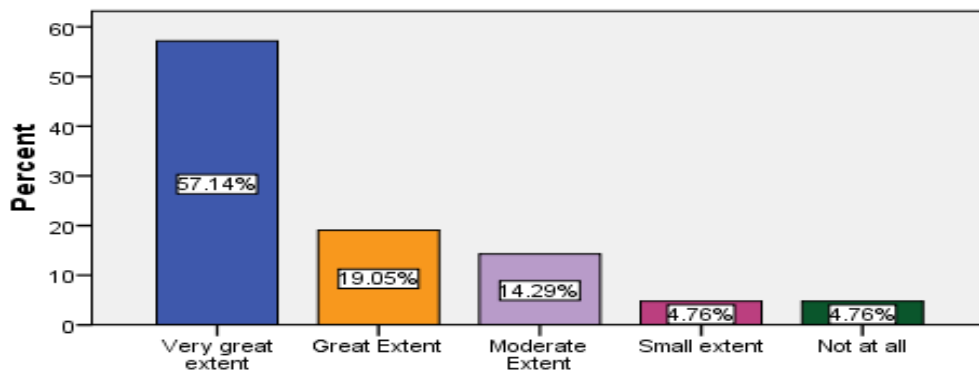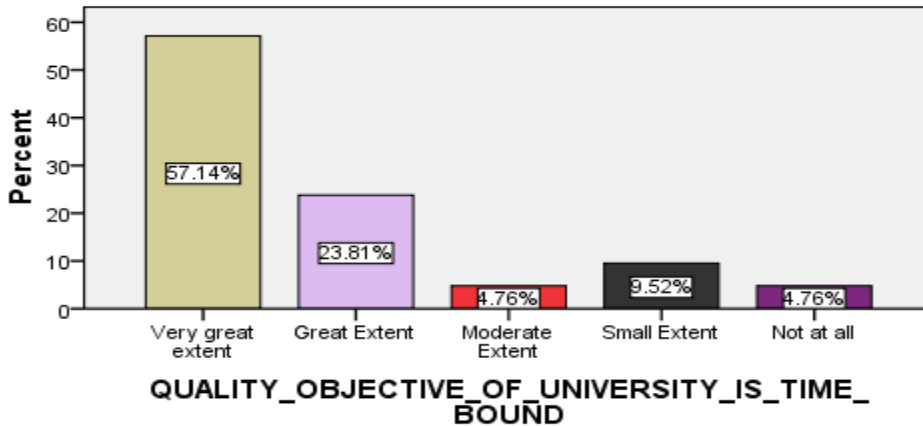

QUALITY_OBJECTIVE_OF_UNIVERSITY_IS_REALISTIC

QUALITY_OBJECTIVE_OF_UNIVERSITY_IS_TIME_BOUND

Chart showing percent distribution:
- Very great extent: 57.14%
- Great Extent: 23.81%
- Moderate Extent: 4.76%
- Small Extent: 9.52%
- Not at all: 4.76%

X-axis label: QUALITY_OBJECTIVE_OF_UNIVERSITY_IS_TIME_BOUND

Y-axis label: Percent

Majority of the sampled respondents agreed with these University quality objectives to a large extent. 51.9% of the respondents felt that indeed these objectives were specific, 57.1% of the respondents felt that they were measurable while 56.6% of the respondents felt they were attainable. 57.1% of the respondents both felt that these objectives were realistic as well as time bound. Only a very small percentage of 4.76% did not agree with the above objectives. Quality objectives are set out in the QMS to guide in delivery of quality services in the universities. On average, 55.7% of the respondents were satisfied with their universities quality objectives to a greater extent. This confirms recognition of these institutions by Webometrics ranking. However, efforts must be made to improve this percentage for better positioning in the world rankings.

4.4.3 Quality of Students

The respondents were asked on how the universities ensured they get quality students each time they enrolled. 80.95% of the respondents said they depended on the performance in the KCSE exams whereas 19% said they issued entry exams to their students upon enrollment in the

University during their first time. Other universities said they used both KCSE and professional exams such as IGCSE to ensure the students they enrolled were indeed high quality students.

HOW_TO_ENSURE_QUALITY_OF_STUDENTS

■ Entry Exams
■ KCSE

19.05%
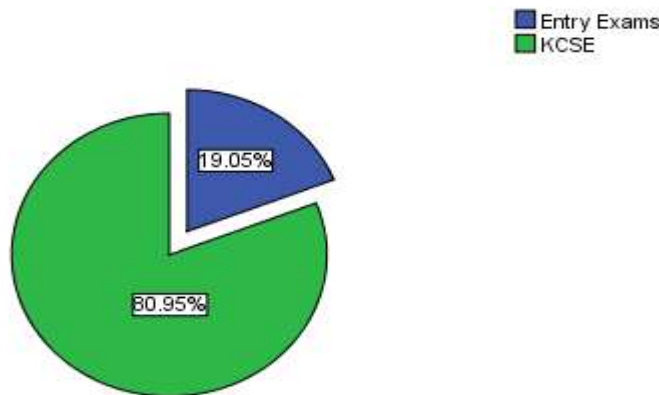
80.95%

KCSE was found out to be the main avenue of evaluating the quality of students as inputs into the universities at 80.95%. This ensures only qualified students join universities hence maintaining quality in universities in Kenya.

4.5 Students and Staff at the University

The respondents were asked about the current enrollment of students in the university. The selected university with the least number of students had 800 students while the one with the highest had 32,000 students. The respondents were further asked on the academic staff personnel who the institution had. Of the selected universities, the one with the least members of academic staff had 100 members while the one with the highest number of academic staff had 600 staff members. There were also some non responses with regards to the number of student and staff en-

rollment in the institution. The number of students was proportionate to the number of academic staff hence an indication of quality services to the students.

The respondents were asked to classify the number of staff members in their institutions ranging from full time professors, associate professors, doctorate, masters and first degrees. It was noted that the professors were the fewest and the staff members increased as we approached the first degree. Among the universities sampled, the highest number of full professors stood at 10 with some not having full professors. The master's degree holders were many as compared to first degree holders. A high number of masters and first degree holders were observed to be a hindrance to quality in universities due to inability to produce intellectuals at post graduate level as well as increased research and publications. This was observed as a cause for decline in quality in the universities.

The institutions were asked on the full time and part time staff members available. In almost all of the sampled institutions, the full time staff members were more than the part time staff members. This implied majority of the Universities preferred to engage full time staff members as opposed to hiring part timers. This positively affects the quality in universities in Kenya as staff dedicate much of their time to the university. The universities which are highly ranked had 80% of the academic staff on full time.

4.7 Curriculum Implementation

The respondents were asked their level of agreement with the curriculum implementation in the university. Several key statements were made and the respondents were to indicate whether they agreed or disagreed with the statements regarding curriculum implementation. Majority of the respondents indicated that they agreed with the student needs and objectives being reflected in

the objectives representing 76.2%. The respondents also felt to a great extent recent research and knowledge which was related to content material was reflected in the objectives representing 52.38%. To a great extent, the respondents also felt that the principles of learning were utilized by lecturers in delivery or instructions representing 71.4%. The respondents also felt to a great extent the lecturers were teaching objectives which were specified in the curriculum representing 61.92%. The respondents sampled in the university also felt that remediation was provided when needed to a great extent representing 38.1%. Majority of the respondents representing 90.48% agreed to a great extent that learning outcomes were specified in the objectives. About instructional materials and resources, the respondents agreed to a great extent that they were utilized appropriately. Concerning monitoring of student performance, the respondents felt to a great extent that their universities conducted this appropriately. The results above confirm that the selected universities have captured curriculum implementation as an element of QMS. This has been implemented to a greater extent hence the recognition in quality ranking. All the information listed above is given in the bar charts below:-

STUDENT_NEEDS_REFLECTED_IN_CURRICULUM_OBJECTIVES
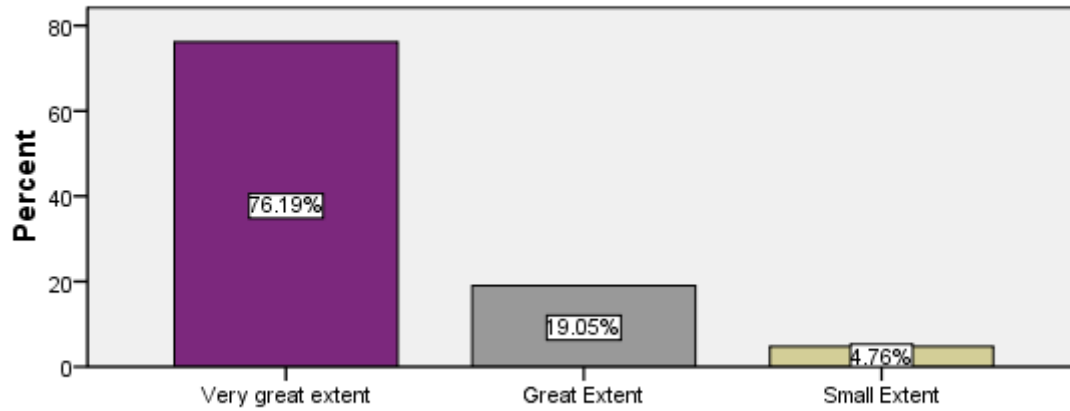
STUDENT_NEEDS_REFLECTED_IN_CURRICULUM_OBJECTIVES

\

RECENT_RESEARCH_RELATED_TO_CONTENT_REFLECTED
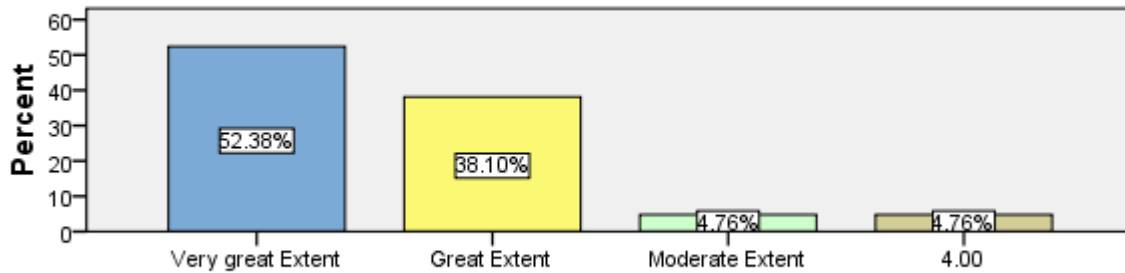
RECENT_RESEARCH_RELATED_TO_CONTENT_REFLECTED

PRINCIPLES_OF_LEARNING_EMPLOYED_BY_LECTURERS
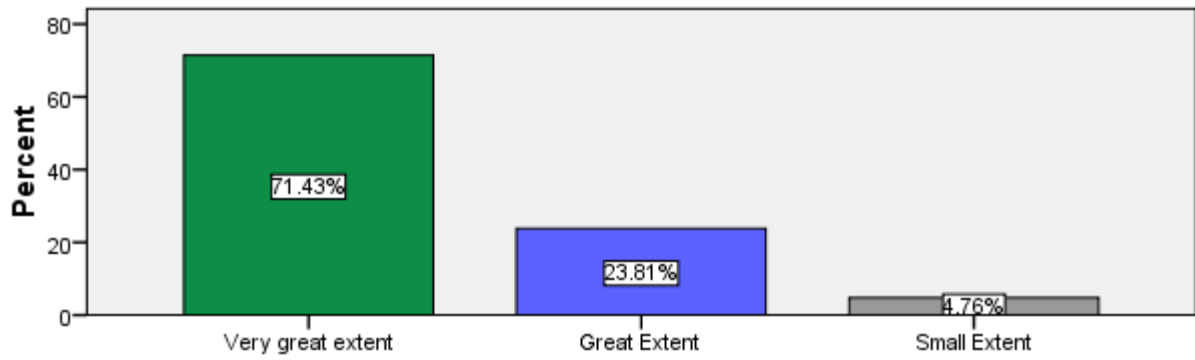
PRINCIPLES_OF_LEARNING_EMPLOYED_BY_LECTURERS

LECTURERS_TEACHING_OBJECTIVES_IN_CURRICULUM

LECTURERS_TEACHING_OBJECTIVES_IN_CURRICULUM

REMEDIATION_PROVIDED_WHEN_NEEDED

LEARNING_OUTCOMES_SPECIFIED_IN_OBJECTIVES

37

AVAILABILITY_OF_INSTRUCTIONAL_MATERIALS_AND_PROPER_USE

AVAILABILITY_OF_INSTRUCTIONAL_MATERIALS_AND_PROPER_USE

MONITORING_OF_STUDENT_PERFORMANCE_AND_RECORDS_KEPT

MONITORING_OF_STUDENT_PERFORMANCE_AND_RECORDS_KEPT
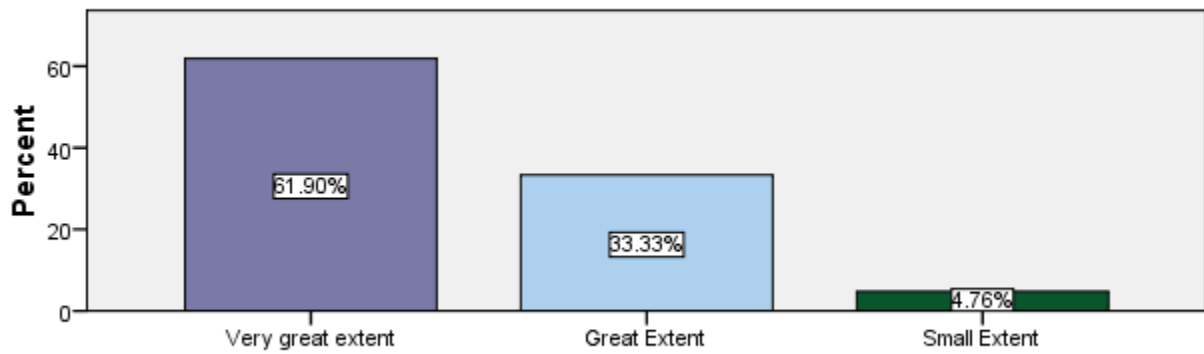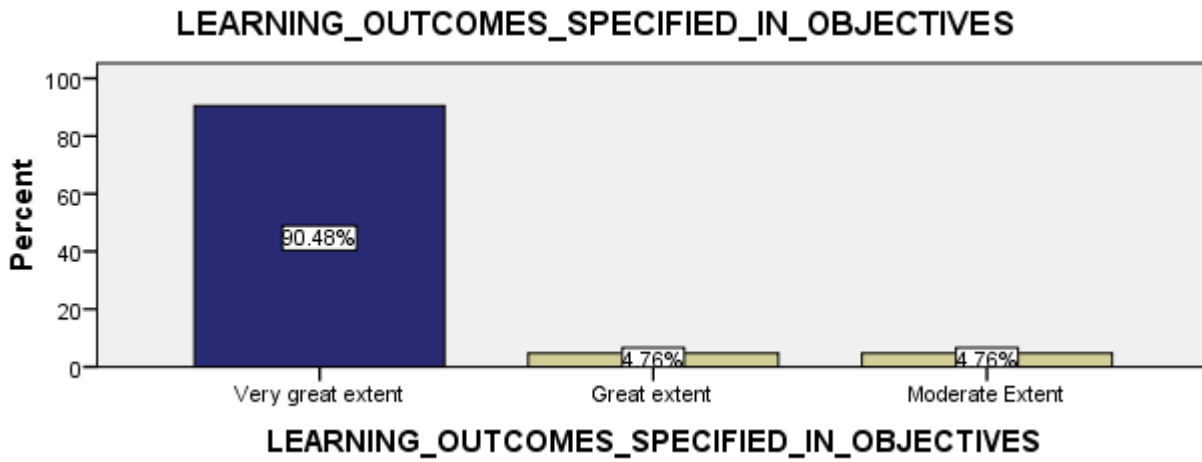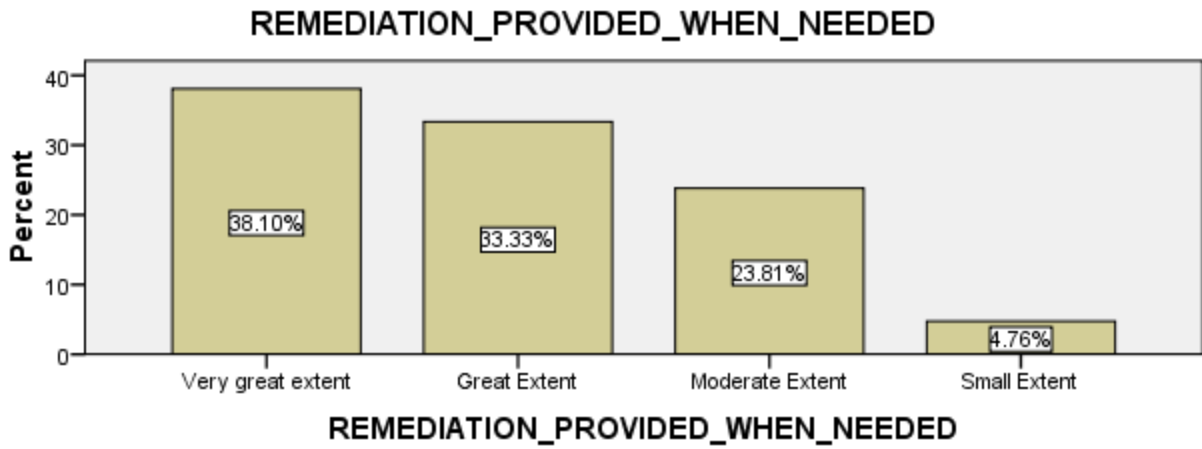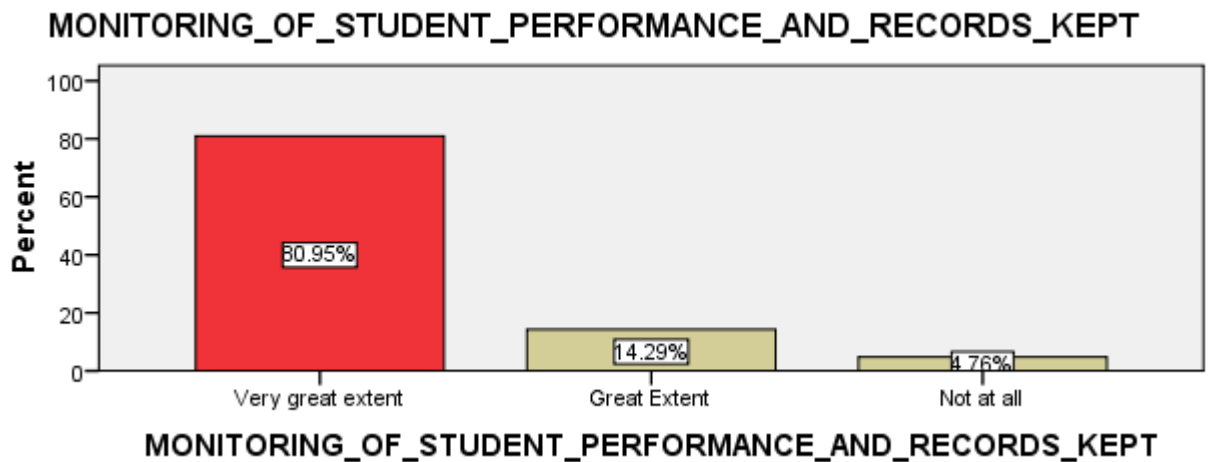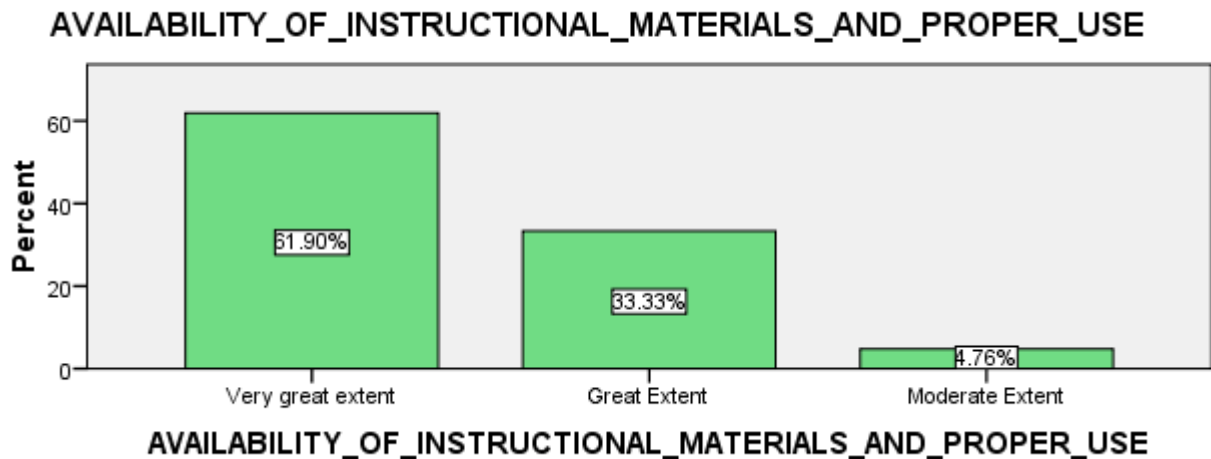
4.8 Administration of examination in the university

The respondents from selected universities were asked what they felt regarding the tests being administered in their respective institutions. The sampled respondents representing 95.2% agreed to a very great extent that tests covered adequate number of objectives from a given curriculum area. The respondents also felt to a very great extent that the test items indeed measured learning outcomes which were described in curriculum objectives. This basically represented 90.5% of the sampled respondents. They also felt and agreed to a very great extent that the examination

38

process was free and fair representing 76.2% of the respondents. To a very great extent, the sampled respondents agreed that the test covered competencies and skills which were required for industry practice. They represented 66.7% of the sampled respondents.

Examination is one of the most important educational processes within the university QMS as it transforms the students as inputs into the systems to useful graduates as outputs of the system. From the results above, the selected universities have implemented to a greater extent the quality elements of the examination administration processes. The QMS therefore has influenced the quality offered in these universities as well as their ranking.

This is represented in the bar charts given below.

TESTS_COVER_ADEQUATE_OBJECTIVES_FROM_CURRICULUM_AREA
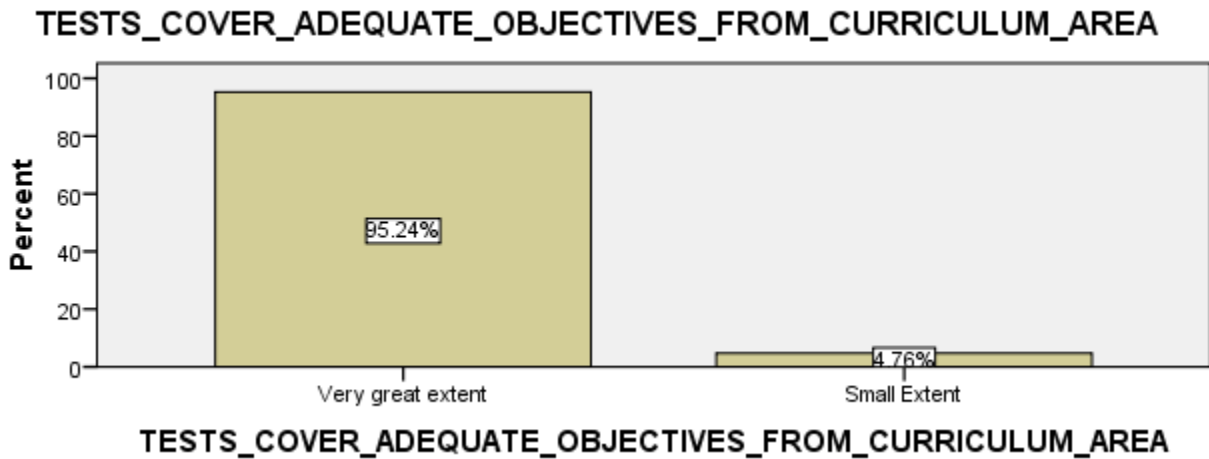
TEST_ITEMS_MEASURE__LEARNING_OUTCOMES_IN_CURRICULUM
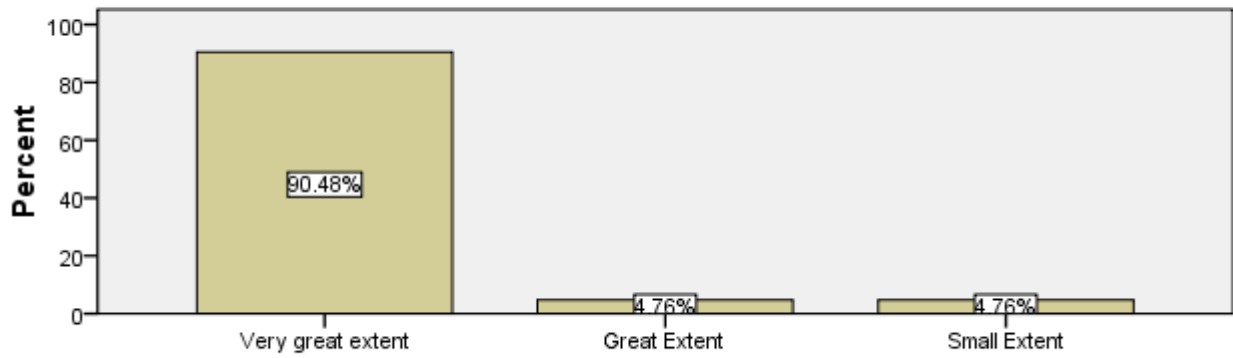
TEST_ITEMS_MEASURE__LEARNING_OUTCOMES_IN_CURRICULUM

EXAMINATION_PROCESS_FREE_AND_FAIR

EXAMINATION_PROCESS_FREE_AND_FAIR

TEST_COVERS_COMPETENCIES_AND_SKILLS_FOR_INDUSTRY_PRACTICE
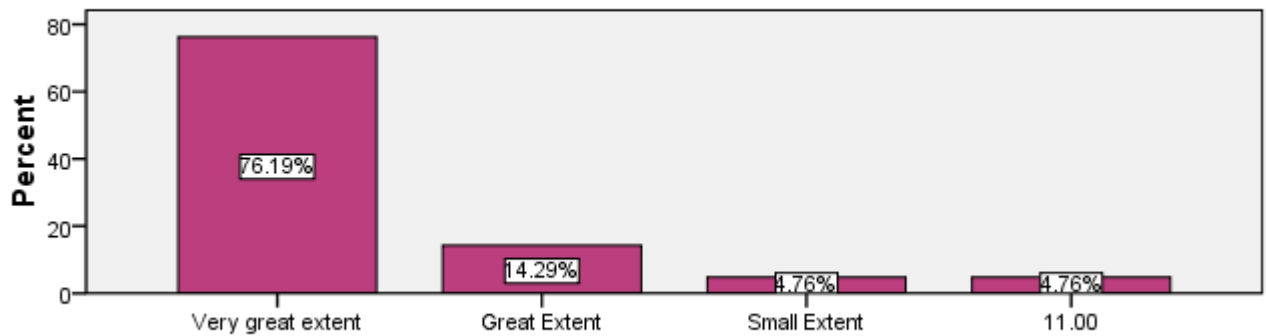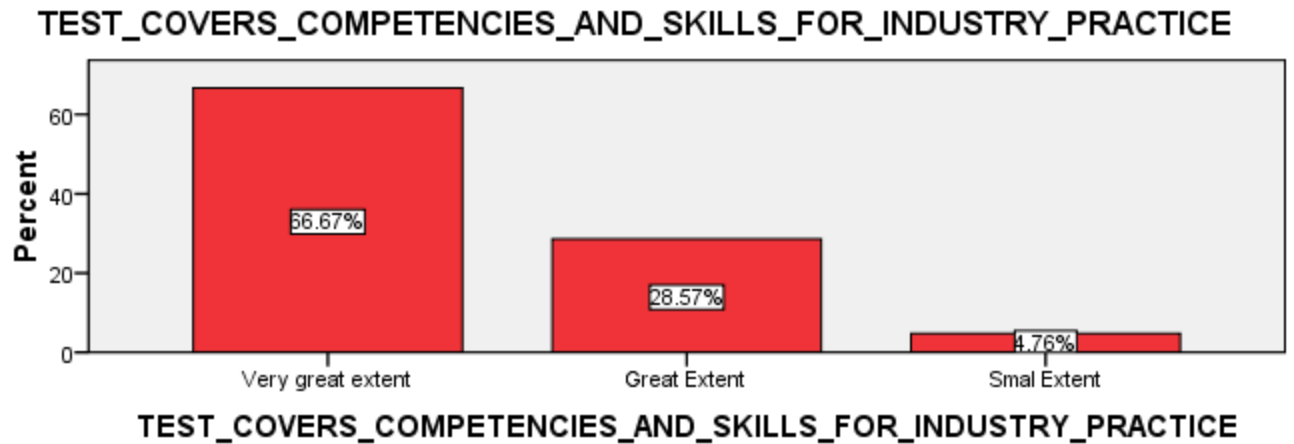
4.9 Overall suitability of University Quality Management

The sampled respondents were asked how they could rate the suitability of the quality management offered in their universities. 19.05% of the respondents found the system to be quite excellent whereas 56.67% found it to be very good. Only 14.29% found this program to be good. None of the respondents thought otherwise regarding the quality.

The fact that all sampled respondents agreed with the suitability of the selected universities QMS confirms that quality is regarded highly in these universities. Effective quality management is therefore realized through QMS irrespective of the typology in place.

OVERALL_SUITABILITY_OF_UNIVERSITY_QUALITY_MANAGEMENT

Excellent
Very Good
Good

14.29% 19.05%

66.67%

4.9.1 Comparison with other universities

When compared with other universities in Kenya, sampled respondents were asked to rate how the university they represented ranked in terms of quality. Around 76.1% felt their institution was better than the others and only 23.8% felt their institution was placed in the same level as others. This ranking however was subjective as respondents preferred their universities hence did not reflect the quality ranking used in this study.

This can be represented in the pie charts given below.

COMPARISON_WITH_OTHER_UNIVERSITIES_IN_KENYA

Better
Same with others

23.81%

76.19%

4.9.2 Regression Analysis

The relationship between the quality management system and the quality ranking was evaluated through a regression analysis. The results presents the regression model summary in table 4.1 which gives the coefficient of determination showing the extent to which the predictor variables influences the dependent variable, the analysis of variance in table 4.2 which determines the reliability of the model developed in explaining the relationship and the regression coefficients in table 4.3 which gives the coefficient explaining the extent at which the independent variables influence the dependent variable.

Table 4.3 Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.891[a]	.873	.865	2.50337

Source: Author (2014)

a. Predictors: (Constant), Quality policy, Suitability of the QMS, Curriculum implementation, quality management audit

The model summary gives the coefficient of determination (R square) which is the measure of the extent to which the predictor variables influences the dependent variable. The R square value from the table is 0.873 which explains that, holding other variables constant, the Quality policy, Suitability of the QMS, Curriculum implementation and the quality management audit account for 87.3% of the variability in the quality ranking. Thus other variables which were not considered in this study would account for 12.7% of the variability in the quality ranking in the universities of Kenya.

Also, the table gives the adjusted R square which is the measure of the reliability of the results. The value was obtained as 0.865 indicating that, the study results are 86.5% reliable. Thus, based on this, the model results are significant and reliable in explaining the influence of the predictor variables to the dependent variable.

Table 4.4 Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	97.317	1	97.317	15.529	.014[a]
	Residual	18.801	3	6.267		
	Total	116.118	4			

Source: Author (2014)

a. Predictors: (Constant), Quality policy, Suitability of the QMS, Curriculum implementation, quality management audit

b. Dependent Variable: Quality Ranking

The significance of the model was tested at 5% level of significance with a 2-tailed test. The significance value obtained was .014 which is a value below the critical coefficient at 5% level (0.025), thus the model is statistically significant in predicting the Quality rankings. The calculated F in the model is 15.529 with 4 degrees of freedom. This indicates that the calculated F value is greater than the F critical at 5% level of significance which is 3.23 and therefore the overall model is statistically significant.

Table 4.5 Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.404	1.182		1.943	.000
	Quality Policy	1.757	1.628	1.173	1.283	.021
	Suitability of the QMS	1.649	8.146	1.151	0.524	.013
	Curriculum implementation	0.507	1.136	0.226	1.229	.006
	Quality management audit	0.282	1.167	0.099	.194	.018

Source: Author (2014)

a. Dependent Variable: Quality Ranking

The table gives the regression coefficients which are used to answer the regression model proposed; $Y = Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Where:

Y = Quality Ranking

X_1 = Quality policy

X_2 = Suitability of the QMS

X_3 = Curriculum Implementation

X_4 = Quality management audit

β_0 = Constant, β_{1-4} = coefficients of X_{1-4} $\in$ = standard error

Based on the table results, the model therefore becomes;

$$Y = 2.404 + 1.757X_1 + 1.649X_2 + 0.507X_3 + 0.282X4$$

From the model, it is clear that, all the variables are positively related to the dependent variable as their coefficients are all positive. The model also shows that holding the predictor variables constant at zero (0), the quality ranking of the universities would be 2.404. Further, the results show that, the quality policy has a positive relationship with quality ranking where a unit increase in quality policy would result to 1.757 times increase in the quality ranking. Also, a unit increase in the suitability of the QMS would result to 1.64 times increase in the quality ranking of the universities.

From the model, it is also clear that, a unit increase in the curriculum implementation policies would result to 0.507 times increase in the quality ranking of the universities while a unit increase in the quality management audit would result to a 0.282 times increase in the quality ranking of the universities. The significance of the coefficients at 5% level with a 2-tailed test was found to be significant as indicated by their p-values which are all less that 0.025 (the critical value at 5% level).

The previous studies by Owlia and Aspinwall (1996) on the dimensions of quality in higher education supports the results of this studies as they established a positive relationship between various dimensions of quality in higher education and quality offered in these institutions.

Sohail at al (2003) emphasized the importance of institutions of higher learning to implement a quality system as a guideline to improved quality ranking. Through implementation of quality system, an institution is able to collect relevant data which enables them to measure progress in key areas and establish bench marks for improved performance is all functions.

4.10 Summary

From the data collection and analysis made in this particular area, the researcher managed to capture a holistic approach on issues regarding the quality management systems in the various universities in Kenya. The use of current data and detailed descriptive statistics was quite crucial since it aided in bringing out the entire picture of items under analysis. Through the different graphs, the researcher was able to draw inferences that could aid on drawing conclusions on the quality management systems and the quality of Universities in Kenya.

The researcher further identified the QMS typologies in universities in Kenya. From the analysis and interpretation of various elements of QMS from the selected universities, the researcher was able to establish existence of positive relationship between quality management system and quality ranking in universities in Kenya.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of the findings

This study sought to find out the quality management systems and the quality in Universities in Kenya. It basically evaluated whether the different chartered higher institutions employed quality standards in their operations and whether these standards trickled down to the students they were molding. The study was quite integral since it analyzed the institution from different points of view. It evaluated the institution from the perspective of the students, the alumni, the teaching and non teaching staff. It sought to really establish whether the universities established quality management systems and how this influenced the quality offered by the institution as well as the ranking. Results showed that QMS influence the quality offered by the chartered universities in Kenya. The study established the existing QMS typologies in the selected universities in Kenya. These included internal, external, regulator imposed, self imposed, adopted, custom made, university wide as well as functional quality management systems.

From a review of the questionnaires presented and used to sample respondents, we were able to find out that not all of the chartered institutions had ISO certification. Though this was a bonus to the quality standards, it was not necessarily a prerequisite. We were able to also find out that all the institutions of higher learning sampled had quality management systems which showed the importance of maintaining high quality standards in their operations. This also confirmed why they were ranked among other universities with respect to quality. All the institutions we could learn carried out period reviews of their quality policies. Some did it periodically whereas others conducted this on an "as needs arise" basis. It is important to note that majority of the institutions recognized the importance of University quality objectives. Indeed, they agreed that the objec-

tives needed to be specific, measurable, attainable, realistic as well as time bound. The fact that the institutions had staff available on call to give guidance to students showed that the quality of their academic and non academic standards was well above par. Since the Institutions partnered with the general industry, it was quite important in showing that they were keen on imparting industry relevant skills to the students and establish linkages that promote practical skills hence growth and improvement of overall quality. All the sampled respondents agreed that quality audits were conducted by their respective institutions some quarterly, annually or semi annually.

The curriculum implementation in the various institutions of higher learning was above par and this was depicted by how well the respondents agreed to the interview questions. Concerning the administration of examination, the institutions indicated that quality was followed in a free and fair manner to avoid compromise of examination quality. Research revealed existence of different QMS typologies across the selected universities. Some were self imposed, regulator imposed, functional, university wide, internal or external.

5.2 Conclusion

With the increase in the number of institutions of higher learning which are not properly registered and accredited, the evaluation of quality has become integral. In majority of the organizations, quality is usually quite essential since parents and guardians are concerned as to where their children will get quality education. Parents would not want to admit students to institutions of poor quality and produce poorly seasoned graduates. From the regression results, there is a significant positive relationship between QMS and quality ranking of selected universities. Quality is therefore quite important. In order for an institution to be of high quality, it has to pass through several standardization procedures which are quite essential and also integral in the

overall operations of the institution. The higher and better the quality management systems are, the better the performance of the institution and many people would like to be identified with it.

Throughout the study, the researcher sought to identify the quality management systems and quality in Universities in Kenya. The researcher sought to establish existence of quality management system, the typologies and relationship with quality ranking of universities in Kenya. It was observed that ISO certification is not a universal quality requirement for the universities but a mark of quality assigned by external authority for meeting the generic ISO principles. This did not guarantee quality as the universities must start by establishing an internal QMS as a platform to the realization of quality. Research further revealed a direct relationship between effective QMS and the ranking of the selected universities.

5. 3 Recommendations

From the study and review of the research questions, the researcher was able to come up with some recommendations which was found could be key to addressing the issue of quality management systems and quality in Universities in Kenya. The researcher was able to find that indeed due to the understanding of the importance of quality management, more and more institutions were keen on how they conducted their operations. It was also found that in order for the quality of management systems to remain above par, the institution ought to be conducting periodic audits and evaluate their operations regularly or as need arises. Through doing this, they could be able to determine a gap and work towards maintaining high quality standards.

Feedback from the stakeholders within and without was also quite important. Majority of the sampled respondents though indicated to having tracer studies or follow up on their graduates,

nothing much was done to that effect. Since the graduates mingle with the outside community, the institutions could need to involve the industry and general public in their standardization procedures. Through doing this, they will maintain a good reputation with the community since they keep track of their graduates and are able to identify challenges which could affect their quality and come up with ready solutions to avert the situation. Thus the researcher recommends a researcher study that will have a holistic approach to investigation of quality in universities by accommodating all the stakeholders. From the study, the researcher recommends the establishment of a local ranking of universities within the country. This will give more focus to the unique aspects of the local universities in delivering quality.

5.4 Limitations of the study

The researcher is expected to encounter certain obstacles that may have affected the results or outcome of the study. These obstacles may be controllable, uncontrollable or both. One of the controllable obstacles included miscomputations by the researcher from the raw data obtained. This obstacle was checked through double checking before data was input in the computer.

The study was limited to chartered universities in Kenya while this could as well have been captured well from other categories of universities in Kenya like those with letter of interim authority whose chartering is partly dependent on the implementation of effective quality management systems.

The other limitation, uncontrollable encountered by the researcher was the reliability of the data used. As the data was obtained from officials of these universities who in some instances had declined to respond to the researchers requests. Additionally some forms were returned partially complete.

Finally, the researcher experienced difficulty in using regression analysis to show the relationship between quality management systems and webometric ranking of universities. This is because it required the disclosure of the identity of the respondents which contradicts ethical standards in research.

4.5 Suggestions for further research

Areas for further research that were identified include a similar study to be carried out in all institutions of higher learning including those that are yet to achieve the charter. Secondly, a study needs to be carried out on the challenges faced by the institutions of higher learning in the implementation of quality management system in their academic functions.

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APPENDIX (1): QUESTIONNAIRE

I take this opportunity to thank you in advance for taking your invaluable time to complete this questionnaire. The purpose of this questionnaire is to aid in research on the Quality Management Systems and Quality in universities in Kenya. I wish to assure you that all the information submitted will remain anonymous, and will be used purely for the purpose of this research and will not be passed to any third party. The respondents in this research are **Quality Assurance Directors**, **the equivalents or representatives**. Kindly answer the questions as truthfully as possible and stamp after completion if possible.

Please tick your response within the appropriate box where applicable.

1. What is your Designation? _____

2. Gender of the respondent

☐ Male ☐   Female

3. Name of your University?

_____

4. Is your University ISO certified?

☐ Yes   ☐ No

If YES, Since when? _____

5. a. Does your University have a quality management system?

☐ Yes   ☐ No

If YES, describe it briefly?_____

_____

b. Which officer is in charge of quality management system of the University?

c. Which office oversees the implementation of the quality management system of your University?

_____

d. Which of the following typologies best describe the quality management system of your university?   (Please tick (√) the one that best describes your QMS)

    i.   ☐ Internal   OR   ☐ External

    ii. ☐ Custom made OR   ☐ Adopted

    iii. ☐ University wide OR ☐ Functional

    iv. ☐ Self imposed   OR ☐ Regulator imposed

    v.   Others _____

6. How often does the University review its quality policy (please circle one response)

    a. Semi-annually

    b. Annually

    c. Others_____

7. To what extent do you agree with the following descriptions of the University quality objectives in a scale of 1-5; Where 1-represent very great extent and 5-represent not at all. *(Please circle the number that represents your level of agreement)*

	Very great extent	Great extent	Moderate extent	Small Extent	Not at all
a. Specific	1	2	3	4	5
b. Measurable	1	2	3	4	5
c. Attainable	1	2	3	4	5
d. Realistic	1	2	3	4	5
e. Time bound	1	2	3	4	5

8. How do you ensure you get quality students? *(Please tick (√) the relevant box)*

    ☐   Entry exams

☐ KCSE

☐ Others_____

9. How many students are currently in session at the University? (please indicate in figures)

_____

10. How many academic staff personnel do you have at the University? (Please indicate in figures)

_____

11. How many of the academic staff personnel hold the following respective qualifications? *(Please insert the number in the blanks below)*

a) Full professor   _____

b) Associate professor   _____

c) Doctorate   _____

d) Masters   _____

e) First degree   _____

12. How many of the academic staff personnel belong to the categories below; *(Please insert the number in the blanks below)*

a) Full time   _____

b) Part time _____

13. To what extent are the staffs available for guidance and advice to the students in a scale of 1-5? *Where 1-represent very great extent and 5-represent not at all.*

(Please circle the number that represents your level of agreement)

Very great extent	Great extent	Moderate extent	Small Extent	Not at all
1	2	3	4	5

14. A). Does the University have partnership with industry?

☐ YES   ☐ NO

B). If YES, list at most two of the practitioners.

_____

_____

15. A). Does the University seek feedback from the employers about its Alumni?

☐YES   ☐NO

B). If YES, how?

_____

_____

16. A). Does the University conduct tracer studies on its graduates?

☐YES   ☐NO

17. A). Does the University follow up the progress of its alumni?

☐YES   ☐NO

B). If YES, how?

_____

_____

18. What proportion of the University graduates belong to the following categories? If not available, kindly provide approximations.

(Please insert the percentages in the blank spaces below)

a) Entrepreneurs _____

b) Employed   _____

c) Unemployed   _____

19. What specific areas are targeted by University QMS? (*Tick all that applies*)

☐ Teaching

☐ Recruitment

☐ Food services

☐ Examinations

☐ Others_____

20. A) Does the University conduct quality audits? (Tick the appropriate box)

☐ YES   ☐ NO

B) If YES in (A) above, how regularly?

_____

C). who does the quality audit? _____

21. To what extent do you agree with the curriculum implementation in the University as described below in a scale of 1-5?

    Where 1-represent very great extent and 5-represent not at all. (Please tick (√) within the appropriate boxes)

	Description	1	2	3	4	5
1	Students' needs and interests are reflected in the objectives.					
2	Recent research and knowledge related to the content are reflected in the objectives					
3	Lecturers use principles of learning in delivery or instruction.					
4	Lecturers are teaching to the objectives specified in the curriculum					
5	Remediation is provided when needed.					
6	Learning outcomes specified in objectives.					
7	Instructional materials and resources are available and are used appropriately					
8	Student performance is routinely monitored and records are kept.					

22. To what extent do you agree with the University examination administration as described below in a scale of 1-5?

    Where 1-represent very great extent and 5-represent not at all.   (Please tick (√) within the appropriate boxes)

	Description	1	2	3	4	5
1	Tests cover an adequate number of objectives from a given curriculum area					
2	Test items measure learning outcomes described in curriculum objectives					
3	The examination process is free and fair					
4	Tests cover competencies and skills needed for industry practice					

23.   What is the current overall budget for the University *(please indicate the amount in figures)*

_____

24.   What is the amount of the budget allocated to quality management? *(please indicate the amount in figures)*

_____

25.   Overall, how would you rate the suitability of your University quality management system?   (*Please circle your response below)*

- Excellent
- Very good
- Good
- Fair
- Poor

26. Compared with other universities in Kenya, how do you rate yourself

- Better
- Same with others
- Worse

27. Which university in your opinion leads in terms quality of graduates

_____

28. Please give any other comment (s) on quality management systems in the university

N/B: Kindly provide a copy of the quality policy and quality objectives

APPENDIX (2): CHARTERED UNIVERSITIES

Below is the list of universities that have been fully accredited as of 30th June 2013.

Public Chartered Universities
i. University of Nairobi (UON)
ii. Moi University (MU)
iii. Jomo Kenyatta University of Agriculture and Technology (JKUAT)
iv. Maseno University (Maseno)
v. MasindeMuliro University of Science and Technology (MMUST)
vi. DedanKimathi University of Technology
vii. Chuka University
viii. Technical University of Kenya
ix. Technical University of Mombasa
x. Pwani University
xi. Kisii University
xii. University of Eldoret
xiii. Maasai Mara University
xiv. JaramogiOgingaOdinga University of Science and Technology
xv. Laikipia University
xvi. South Eastern Kenya University
xvii. Meru University of Science and Technology
xviii. Multimedia University of Kenya
xix. University of Kabianga
xx. Karatina University

Chartered Private Universities

Private Chartered Universities
i. University of Eastern Africa, Baraton
ii. Catholic University of Eastern Africa
iii. Daystar University

iv.	Scott Christian University
v.	United States International University
vi.	Africa Nazarene University
vii.	Kenya Methodist University
viii.	St. Paul's University
ix.	Pan Africa Christian University
x.	Strathmore University
xi.	Kabarak University
xii.	Mount Kenya University
xiii.	Africa International University
xiv.	Kenya Highlands Evangelical University
xv.	Great Lakes University of Kisumu
xvi.	KCA University
xvii.	Adventist University of Africa

Source: Commission for University Education

APPENDIX (3): WEBOMETRIC RANKING OF CHARTERED UNIVERSITIES

ranking	World Rank	University	Det.	Presence Rank*	Impact Rank*	Openness Rank*	Excellence Rank* ▲
1	1167	University of Nairobi		1828	1898	774	1329
2	2907	Kenyatta University		1900	6475	2101	2388
3	4218	Egerton University		6889	7557	1927	2835
4	4947	Jomo Kenyatta University of Agriculture and Technology		6148	7256	5908	3010
5	7381	Maseno University		10968	7598	10422	3548
6	11992	Masinde Muliro University of Science and Technology		9203	12703	16837	4128
7	12374	University of Eastern Africa Baraton		9836	12670	14266	5155
8	18689	Eldoret University		16033	18551	18500	5155
9	12381	United States International University		12615	10026	17126	5155
10	18059	Great Lakes University of Kisumu		17395	16069	20053	5155
11	11868	Africa International University		4147	14096	14418	5155
12	15017	Africa Nazarene University		14082	12460	18904	5155
13	19243	Adventist University of Africa		16258	18776	19605	5155
14	17886	Pan African Christian University		20350	17269	16110	5155
15	12546	Pwani University		1992	16966	12430	5155
16	12477	Scott Christian University		672	15720	17533	5155
17	16809	Kisii University		5271	17715	20053	5155
18	18660	Laikipia University		18004	19803	13829	5155
19	20038	South Eastern Kenya University		20730	19846	17533	5155
20	10424	Mount Kenya University		2898	12774	12876	5155

ranking	World Rank	University	Det.	Presence Rank*	Impact Rank*	Openness Rank*	Excellence Rank*
21	21932	Masai Mara University		21256	21839	19184	5155
22	14856	Multimedia University		13268	15478	14531	5155
23	7882	Moi University		6640	8608	6715	5155
24	17172	Jaramogi Oginga Odinga University of Science and Technology		15565	17997	15329	5155
25	13691	Kabarak University		14449	13589	13247	5155
26	19678	Karatina University		15963	19228	20053	5155
27	11318	KCA University		3583	12004	16774	5155
28	9200	Kenya Methodist University		2534	12189	8764	5155
29	20643	Kenya Highlands Evangelical University		11212	20919	20707	5155
30	18402	University of Kabianga		15534	18266	18500	5155
31	16244	Chuka University		8628	18425	15846	5155
32	10198	Catholic University of Eastern Africa		8173	11093	10108	5155
33	11205	Daystar University		5538	11992	14946	5155
34	13505	Dedan Kimathi University of Technology		6904	16139	12979	5155
35	14912	S.T Paul's University		5743	18492	12555	5155
36	2984	Strathmore University Nairobi		249	2692	6522	5155
37	13489	Technical University of Kenya		4035	17207	12487	5155
38	13490	Technical University of Mombasa		5316	17056	10103	5155
39	16134	Meru University of Science and Technology		15294	12283	16775	5155

Source: http://www.webometrics.info/en/Africa/kenya?sort=asc&order=Excellence%20Rank*