THE INFLUENCE OF QUALITY ASSURANCE PRACTICES ON QUALITY OF ACADEMIC PROGRAMMES IN HIGHER EDUCATION INSTITUTIONS IN KENYA: A CASE OF THE FACULTY OF EDUCATION, UNIVERSITY OF NAIROBI

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DECLARATION

This thesis Report is my original work and has not been submitted for the award of a degree in any other university.

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This Thesis Report has been presented for examination with our approval as the university supervisors;
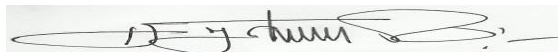
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DEDICATION

To my mother, Margret Nyawira, for giving me life, to my wife, Tabitha Njeri, for her companionship and warmth, and to my sons, Cyril Mathenge and Gabriel Weru, for their understanding and support during the study period.

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TABLE OF CONTENTS

CHAPTER ONE

INTRODUCTION

CHAPTER TWO

REVIEW OF RELATED LITERATURE

CHAPTER THREE

RESEARCH METHODOLOGY

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION, AND DISCUSSION

CHAPTER FIVE162

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

AfriQAN   African Quality Assurance Network

ANQAHE   Arab Network for Quality Assurance in Higher Education

ASG-QA   African Standards and Guidelines for Quality Assurance

AU   African Union

CHEA   Council for Higher Education Accreditation

CHEA/IQG   Council for Higher Education Accreditation International Quality Group

CIT   Coast Institute of Technology

CUE   Commission for University Education

EAQAN   East Africa Quality Assurance Network

ED   Department of Education

EFQM   European Foundation for Quality Management

EQA   External Quality Assurance

HE   Higher Education

HEA   Higher Education Authority

HEIs   Higher Education Institutions

ICT   Information and Communication Technology

INQAAHE   International Network for Quality Assurance Agencies in Higher Education

IQA   Internal Quality Assurance

ISCED   International Standards Classification of Education

ISO   International Standards Organization

IT	Information Technology
IUCEA	Inter-University Council of East Africa
KMIS	Knowledge Management Information Systems
KuQAN	Kenya Universities Quality Assurance Network
MBNQA	Malcolm Bridge National Quality Award
NAB	National Accreditation Board
NAC	National Accreditation Commission
NACOSTI	National Commission for Science, Technology and Innovation)
NCTE	National Council for Tertiary Education
PAEI	Plan-Act-Evaluate-Improve
PDCA	Plan-Do-Check-Act
QAA	Quality Assurance Agency
QC	Quality Control
QFD	Quality Function Deployment
QMS	Quality Management System
QMS	Quality Management System
SADC	Southern Africa Development Community
SADCQF	Southern African Development Community Qualifications Framework
SAR	Self-Assessment Report
SECI	Socialization-Externalization-Combination-Integration
STS	Social-Technical Systems
TQM	Total Quality Management

TSC	Teachers Service Commission
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
UoN	University of Nairobi
USA	United States of America

ABSTRACT

Higher education institutions significantly contribute toward the nation's economic transformation and are influenced by various factors including ISO 9001 standards adoption, total quality management, knowledge management utilization and institutional audits. The study investigated the influence of quality assurance practices on academic programmes' quality with regard to Kenya's HEIs based on the University of Nairobi's Bachelor of Education (B.Ed.) programme case. Deming's Quality Management and Neo-Institutional theories served as the study's foundation. Four objectives guided this study; to determine the influence of the adoption of ISO 9001 standards; implementation of Total Quality Management (TQM); utilization of knowledge management and analyze the effect of Institutional Audits on the quality of academic programmes. A descriptive research design was utilized targeting Deans of Faculties and Departmental heads, lecturers, and alumni. The sample size in each category of respondents was determined through multi-stage sampling. The study sample size included representatives from 16 academic unit heads, 111 lecturers, and 344 alumni from a target population of 25 academic unit heads, 370 lecturers from the Faculty of Education and other service faculties, and 1145 Bachelor of Education alumni classes of 2016 and 2017, for a total target population of 1540 respondents. University of Nairobi's Quality Assurance unit and the Commission for University Education's Quality Audit section provided the study's key informants. The questionnaires and informants' interview schedules were converted to google forms for online administration. The questionnaires were pretested in a pilot study, to ensure the validity of data collection instruments. To measure internal consistency, this study used Cronbach alpha with an average of 0.762, which was above 0.7 implying that the test items in the instruments were reliable. Quantitative data were analysed through SPSS version 25.0. By fitting a linear equation to the acquired data, multiple linear regression analysis models were used to establish the correlation between the dependent and independent variables. The investigation yielded both quantitative and qualitative findings, indicating that: embracing ISO 9001 guidelines had a credible and effective bearing on the quality of academic programs, and efficient application of TQM concepts in institutions enhances educational program quality. Utilization of Knowledge Management principles in higher education institutions enhances academic programme quality. The study concluded that HEIs continued adoption and use of QA Practices in academic programme design and delivery has a significant potential for producing graduates who meet stakeholder expectations. The research recommends a Quality Assurance Management System and ISO certification for HEIs to improve their academic processes and effectively implement policies, procedures, guidelines and related internal and external quality assurance practices.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Higher education institutions (HEIs) contribute significantly to the transformation of the social-political and economies of nations by continuously establishing the advancement of human capital, technology and research, Machumu & Kisanga, (2014) and Elken & Stensaker, (2018). Since university education is a major contributor to the global economy, there is a need for a high standard of education in these institutions (Haseena & Mohammed, 2015).

The HEIs are meant to yield graduates who can match the human resources' requirements in society; and enhance borders of knowledge through activities of research (Haseena & Mohammed, 2015; Green 1994). Among the key and significant factors that affect HEIs performance is Quality (Matei & Iwinska, 2016). Quality is a concept that has been differently interpreted as a result of its divergent approaches and mechanisms of its measurement. Quality in university education is a high rating given to a learning process associated with a set of parameters that establishes basic values and standards against which performance is measured (Mishra, 2007).

Since the beginning, improving educational quality has been a primary priority. Nonetheless, there has been a movement in the last two decades toward boosting quality assurance (QA), particularly the enhancement of quality initiatives in university education (Cardoso *et. al*., 2017).

Today, university education is undergoing fast changes, including massification, internationalization, student and program diversity, labor market expectations for quality graduates, resource scarcity, governance and accountability Dill (2007); Seyfried & Pohlenz, (2018). As a result, institutionalization and articulation of quality in university education have become mandatory.

The typical QA mechanism refers to the assessment of academic standards and quality of an academic programme, that establishes an academic institution's overall corporate image (Elken & Stensaker, 2018). Globally, different institutions engage different QA procedures and models to assess the quality and standards of education in learning institutions. For example, in the United Kingdom, numerous quality assurance procedures exist, including accreditation of professional programs quality audits of processes of teaching and learning, assessment of educational programs, and recent advances Harvey, (2005).

One challenge facing educationists today is how to demonstrate and quantify the education quality outputs. The extensive expansion of educational systems has heightened public concerns regarding educational quality, prompting many countries to establish frameworks and programs to enhance higher education quality Dill, (2011).

According to Cheng & Tam, (1997): Cheung & Man Wong, (2012) there has been continual improvement in several facets of education around the world, notably in developed countries; Australia, the United States, and the United

Kingdom, including evaluation of the student, curriculum, student: lecturer ratio, resources for academic processes, and qualifications of members of the teaching staff.

In addition, the Quality Assurance Agency for Higher Education (QAA) in the UK safeguards the quality and standards of education provided by HEIs (Ryan, 2015; QAA, 2014). Additionally, the Council for Higher Education Accreditation (CHEA) has made a notable contribution to the advancement of the quality of HE in the United States through its quality awards. Furthermore, International Network for Quality Assurance Agencies in Higher Education (INQAAHE), a global quality assurance agency collaborates with national licensing organizations and educational professionals globally to promote standards and quality of university education. (Van Damme, 2002).

The Bologna Function, a collection of consultative meetings and treaties amongst European countries aimed at assuring consistency of university education quality and standards, had already been implemented in Europe and remains an important aspect of the quality assurance process that has evolved both conceptually and practically. The outcome of the process was the formation of the European Higher Education Area under the Lisbon Recognition Convention. This includes European QA Standards for institutions' external and internal QA, as well as external QA agencies. The 'Standards and Guidelines for QA in the European Higher Education Area,' or ESG, were established in 2005 and revised and translated into many languages in 2015.

Review cycles apply to both universities and QA agencies. Notably, within the Register for European Quality Assurance for Higher Education is a list of QA organizations which adhere to the ESG (Haseena & Mohammed, 2015). EQAR is the official register of quality assurance/accreditation agencies for higher education complying with agreed European standards and guidelines. EQAR also maintains a large database of results of external quality assurance. The requirements for proper databases, beginning with establishments and progressing to Ministries at the local level, to the regional level for comparison and collaboration (Dill, 2011).

As a result, systematic attempts to strengthen the relationships between labour markets and higher education institutions are required. Several initiatives are needed, including labour market studies and speculation, employer participation in higher education program planning and governance, career counselling, and student mobility encouragement (Lindqvist, 2019).

Although HE reforms attempt to improve quality and standards of education, the complexity of the academic setting, and equally, the absence of appropriate quality measures and education standards, has heightened the ambiguity and uncertainty of education systems Teichler, (2004). The QA methods and approaches have become crucial to ensure education relevance in the face of multiple issues facing HEIs around the world today (Dill, 2007; Haseena & Mohammed, 2015; Materu, 2007). For example, owing to enhanced student enrolment of students decreased budgets, and rising demands from many partners, most African nations are aware of the increased demand for quality and improvement in HEIs (Nabaho & Turyasingura, 2019).

As a result of this, it is critical to reassure society that learning programmes fulfil both international and domestic basic criteria. Similarly, the African Quality Assurance Network (AfriQAN), established by the Association of African Universities (AAU) to strengthen the effectiveness of educational programmes at African institutions of higher learning. (Knight, & Motala-Timol, 2021).

The notable standards of QA for higher education emphasized several key aspects, including organisational vision and mission, curriculum, educational resources (such as libraries, information systems, equipment, and infrastructural facilities), members of the faculty competency, enrolments and entry certifications, and financial ability (Materu, 2007). Similarly, audits, evaluations, certifications, performance metrics, student analyses, employability of graduates, capability, work-readiness, and several other performance monitoring methods are all used to safeguard standards and quality of education in HEIs. Also, with the competitive nature of the world, it is vital to frequently assess the curriculum quality to stay pace with evolving public demands (Harvey & William, 2010).

The Arab region of North Africa took note of the effects of QA in Europe and formed several national quality assurance commissions with regional higher education networks like Arab Network for Quality Assurance in Higher Education (ANQAHE). Some universities formed collaborations with universities from other countries. The Association of Arab Universities came up with quality assurance and accreditation criteria and standards. In 2007, in collaboration with international organizations, the Arab Network for quality

assurance in Higher Education was established. The World Bank and UNESCO developed the Global Initiative for Capacity Building for QA, and the United Nations Development Programme (UNDP) funded these regional programmes (Badran, 2019).

The curriculum's quality, specifically outdated content unrelated to labour-market needs, was a weakness of Arab education. Community engagement and lifelong learning culture were also not available. The graduates lacked critical thinking skills, language, and numeracy. Quality assurance in Arab colleges was more concerned with quality control than with quality assurance. The Ministry of the HE imposed regulations that restricted private universities' growth. The focus in the classroom was on memorization rather than encouraging autonomous study. The majority of colleges had yet to see tangible outcomes from QA evaluations. To encourage academic advancement, proactive procedures such as staff training, peer reviews, and benchmarking were required (Harvey & William, 2010).

In a wide range of fields, Jordanian universities conducted accreditation and quality assurance procedures. The Commission for Higher Education produced QA criteria for institutions as well as guidelines for each course of study. (Anastasiadou, & Anastasiadis, 2019). The quality of service was reviewed in consideration of the following key areas; subject review; organization of content; teaching, curriculum development, learning, student progress, and assessment; and attainment; learning resources; learner supervision and guidance; improvement and quality management (Paraschivescu, 2017).

Universities that need an independent review must first complete a Self-Assessment Report (SAR) prior to requesting an external evaluation. The external evaluation's function is to verify the facts by comparing the SAR with what is on the ground. The success of this entire process is largely reliant on faculty members who prepared the SAR and collaboration with the parties involved in the evaluation (Rodman, *et. al*., 2013).

In the world of education, "physical" resources including libraries, research facilities, and computer labs are collectively known as learning resources. The most important learning resource is usually the faculty itself. The quality control of educational programs is heavily reliant mostly on the quality control of academic staff in all aspects. Because of this, institutions of higher learning must not only assist faculty members in improving their research and teaching skills but also give them the chance to be trained in specific areas of service and the associated quality-assurance procedures and processes (Allam, 2020).

Through the Pan-African QA and Accreditation Framework, Southern African Development Community Qualifications Framework (SADCQF) and African Union (AU), South African countries have been collaborating to strengthen their nationwide quality assurance (QA) structures and improve processes, guidelines and structures regionally. Every SADC country has a group or organization tasked with ensuring the country's higher education quality. This demonstrates that at the national level, every country has implemented some sort of EQA (Butcher, Hoosen, & Chetty, 2017).

Quality Assurance Agencies (QAA) through External Quality Assurance (EQA) use several approaches for accreditation and audits on a cyclical basis. Accreditation and audits can occur on a variety of levels. There are numerous ways for institutional and programmatic quality assurance. Private education providers in Mauritius, for example, are registered at the institutional level, whereas private providers are accredited and public schools are subject to programme-level quality audits (Knight, & Motala-Timol, 2021). Lesotho conducts audits at the organisational level, whereas accreditation occurs at the programme level (Tlali, Mukurunge, & Bhila, 2019). Accreditation and inspections are done at the organizational level in Zambia, whereas certification is done at the program level (Mwiya, et. al., 2017).

In several Southern Africa Development Community (SADC) countries, learning institutions have a specific office or unit tasked with the quality of academic processes. Quality assurance practices and policies are developed at various levels by learning institutions where there is a detailed QA structure outlining all of the different QA methods (El Hassan, 2013).

In West Africa, two external quality regulators oversee Ghana's institutions of higher learning: the National Accreditation Commission (NAC) and the National Council for Tertiary Education (NCTE) (Ansah, Swanzy & Nudzor, 2017). To ensure learning institutions' academic processes are economically sustainable and contribute to national development, National Council for Tertiary Education has that mandate whereas NAC is Ghana's major quality assurance organization and the predecessor to the National Accreditation Board (NAB) (Anane, & Addaney, 2016). Accreditation is the NAB's primary

quality assurance technique, and it applies to both institutions and academic programmes. Furthermore, the NAB uses a mechanism called "affiliation" for assuring the delivery of high-quality academics by delegating responsibility for improvement duty to Ghanaian public universities.

Affiliation is a win-win situation whereby an affiliating institution undertakes to certify educational programmes as well as provide scholarly awards toward an associated member institution. To offer academic programs, the NAB mandates higher education institutions in Ghana, primarily private educational institutions, polytechnics, colleges, and specialized public institutions, to be tied to the country's long-established public universities. (Badu-Nyarko, 2013). These learning institutions are assisted by the universities in the affiliation agreement that lasts for at least ten years to develop their capabilities in internal quality assurance.

Professional associations have a responsibility to ensure quality in Ghana's higher education system. Certification of professional academic study programmes, involvement in NAB certification boards, and curriculum review exercises are all part of their involvement (Anane, & Addaney, 2016). Although the functions of regulators of the external quality assurance have improved the reputation, strengthened the trust of the public, and raised the competitiveness of institutions of higher learning in Ghana, external quality assurance is constantly under review. Aspects of review include curriculum development; teaching and learning; research and activities concerning outreach; management and leadership functions; staff professional development; staff recruitment; governance systems; student admissions;

student assessment; student support services; institutional ceremonies, cooperation, and partnership. A higher education institution's quality assurance framework must include all of these, as well as other functional activities together with other areas of the institution so that there is an adequate guarantee and implementation of stakeholders' expectations (Ansah, Swanzy & Nudzor, 2017).

The QA framework covers the following programme areas at an institution: leadership and administration, teaching and learning activities, student evaluations, resumes, business growth, admission of students, recruitment of staff, as well as learning resources (Varghese, 2013). Programmes are the institution's backbone or lifeline, and they require a great deal of attention because of the image they project, and the university would not function without them. Furthermore, the programme and its associated activities maintain competitiveness. As a result, experts and experience are used extensively to support and enhance their quality (Varghese, 2013).

A good programme is central to any institution's mission. As a result, it appears that the quality of the programme must be closely monitored. The mission of HEI revolves around research, teaching, and learning. Without programmes, the university would not exist. As a result, considerable effort is expended to make certain that the programmes meet acceptable quality and standards. Employers, professional organizations, the NCTE, the NAB, some donor agencies, alumni, and students are involved in quality assurance efforts (Ansah, Swanzy & Nudzor, 2017).

Commercialization of university education, according to UNESCO (2013), has continued to degrade the quality of academic programs, notably in East Africa. Due to this, the East Africa Quality Assurance Network (EAQAN) was formed by the Inter-University Council of East Africa (IUCEA) to oversee improvement efforts across the area. The QA coordinators and other partners can use the network to discuss and exchange ideas regarding quality certification, instruction, as well as learning, as well as other topics in university education governance. (Knight, & Motala-Timol, 2021).

Concerns have been raised in Kenya regarding the decline in educational quality due to the inadequacy of academic staff as well as other educational resources to support the academic programmes on offer (Boit and Kipkoech, 2014). The Kenya Universities Quality Assurance Network (KuQAN) was established to bring together QA professionals and practitioners to tackle the country's higher education system's shortcomings.

The Commission on University Education (CUE) on the other hand with other regulatory authorities safeguard the quality of higher education by conducting regular audits on institutions' and programmes' quality to guarantee standards of education. For example, CUE emphasizes the minimal requirements for an academic programme, which include, among other things, mode of delivery, entry requirements, course administration, and resources to enable its implementation. Although there is plenty of literature on academic programmes quality, there is limited information on the specific techniques HEIs use to improve academic program quality or how these strategies affect academic program quality. (Michubu, 2019).

This research is based on the Reconstructionism philosophy, which emphasizes the examination of social concerns as well as the quest for global democracy and a better way of life. Humanistic instructors advocates for a programme, which prioritizes reform agenda as a goal of education. It contends that the primary goal of education is to generate innovative cultural patterns and eradicate societal ills. Theodore Brameld was the pioneer of social Reconstructionism (1904-1987) (McKernan, 2013). Critical theorists, like Reconstructionist educators, believe that to eradicate oppression and better the human condition, systems must be reformed. The QA approaches aim to improve education quality and hence bring about positive change in society (McKernan, 2013).

The HEIs in Kenya continue to face unprecedented demands from their various stakeholders, including students, staff, government, businesses, and society (Kagondu & Marwa, 2017). There are various challenges including inadequate funds and inconsistencies in quality assurance, which have consequently caused deterioration in the quality of education. The QA mechanisms in HEIs in Kenya are not working well. This could be attributed to the fact that there are thousands of unemployed graduates in Kenya having graduated from these institutions (Okebiro, 2018). The University of Nairobi played as Kenya's only high institution of higher learning for a long time, designing as well as developing robust, diversified quality educational programs and expertise in the science field, advanced technologies, technology, humanities, social sciences, and the cultural activities in response

to the country's, regions, and Africa's high-level manpower training needs (Michubu, 2019).

To contribute to the quality of the academic programmes in universities, a model incorporating ISO 9001 Standards adoption, Total Quality Management (TQM) implementation, Knowledge Management utilization, and Institutional Audits was examined. Using the University of Nairobi's Faculty of Education as a case study, this research aims at examining the quality assurance processes that affect the effectiveness of academic programs at Kenya's higher education institutions.

1.2 Statement of the Problem

While the debate on quality education has dominated the academic world for decades, QA is still a new phenomenon that higher education institutions are yet to embrace fully (Matei & Iwinska, 2016). Global accreditation standards are required to allow transparency and comparability among universities, especially when evaluating the quality of academic programmes and research activities in comparison to established standards and specifications (Ali, et al., 2018; Humphries & Gaston, 2016).

Most institutions of higher learning are grappling with increased budgetary control measures by the governments, rising number of student enrolments, changing learning dynamism, demands on institutional collaborations, intensified mobility of students, and rising demands for flexible modes of delivery (Martin & Thawabieh, 2018). These challenges are likely to cause higher institutions to compromise the quality of education in the process of

finding a balance between the demand for quality university education and available resources. As a consequence, the output from these compromised education systems is likely to cause an influx of incompetent graduates to the job market, joblessness, irrelevant programmes, and a disconnect between academia and industry (Machumu & Kisanga, 2014).

According to a study conducted by Kyule Alexander, Mile Justus, Maureen Kangu, and Indara Celine (2018) and published in 'The State of University Education in Kenya: Selected Papers from the 2nd Biennial Conference, 2018', by the CUE, 51 per cent of respondents disagreed that universities engaged in adequate industry involvement when developing courses. Sixty-one per cent of respondents disagreed that universities had adequate resources to support such collaboration (Mukhwana, Eusebius, Too, J. & Kande, Alice, 2018).

Several studies on QA practices in HEIs that influence the quality and standards of academic programmes have been done, however, these studies suffer from conceptual, contextual and methodological gaps (Michubu, 2019). The HEIs have over time pursued excellence and quality in their academic programmes. For instance, embracing the ISO 9001 Standards affected the quality of programmes in institutions. Additionally, TQM practices implemented by some universities had a general improvement in academic programme's service delivery while the establishment of library systems has seen exponential growth of knowledge management in universities. Institutional audits after the Universities Act of 2012 had an effect of influencing the management to focus keenly on the quality of academic

programmes. These QA practices were the focus of this study meant to determine whether they contribute to the quality of academic programmes on offer by universities. An academic programme is considered to be of high quality when it satisfies the following features; accredited by regulators and professional bodies: benchmarked with the best in higher education and responds to changing industrial needs. Furthermore, scanty research exists regarding the impact of quality assurance practices on academic program quality at Kenya's higher education institutions. Moreover, none of the reviewed studies focuses on the case of the University of Nairobi. Hence, this study investigated quality assurance practices in Kenyan HEIs that influence the quality of academic programs.

1.3 Purpose of the Study

The study investigated the quality assurance practices that influence the quality of academic programmes in higher education institutions in Kenya, the case of the Faculty of Education of the University of Nairobi.

1.4 Research Objectives

The study was guided by the following objectives:

i) To assess the influence of adoption of ISO 9001 standards on the Quality of academic programmes at the Faculty of Education at the University of Nairobi, Kenya.

ii) To determine the influence of Total Quality Management (TQM) implementation practices on the Quality of academic programmes in the Faculty of Education at the University of Nairobi, Kenya.

iii) To examine the influence of knowledge management utilization on the quality of academic programmes in the Faculty of Education at the University of Nairobi, Kenya.

iv) To analyze the influence of Institutional Audits on the quality of academic programmes in the Faculty of Education at the University of Nairobi, Kenya.

1.5 Research Questions

The following research questions guided this study:

i) What influence does the adoption of ISO 9001 standards have on the quality of academic programmes in the Faculty of Education at the University of Nairobi, Kenya?

ii) How do TQM implementation practices influence the quality of academic programmes in the Faculty of Education at the University of Nairobi, Kenya?

iii) To what extent does the application of knowledge management practices by the Faculty of Education at the University of Nairobi, Kenya influence its quality academic programmes?

iv) How do institutional audits affect the quality of academic programs in the Faculty of Education at the University of Nairobi, Kenya?

1.6 Research Hypotheses

The research was guided by the following null hypotheses: -

H_{01} There was no significant relationship between the adoption of ISO 9001 standards and the quality of an academic programme

H$_{02}$ There was no significant relationship between TQM implementation and the quality of an academic programme

H$_{03}$ There was no significant relationship between knowledge management utilization and the quality of an academic programme

H$_{04}$ There was no significant relationship between institutional audits and the quality of an academic programme.

1.7 Significance of the Study

Research findings from this study may inform the university management and faculty on possible strategies and possibilities of creating opportunities to develop and implement successful and coherent quality assurance frameworks. The research findings may also offer viable information to the stakeholders, policymakers, and learning institutions in general on the necessity for robust quality assurance mechanisms, together with a theoretical understanding of quality assurance practices in HEIs.

These research findings can consequently offer Directorates/Divisions of quality assurance with guidelines on curriculum review and development. The findings also provide information regarding conformance to regulatory and statutory requirements and understanding of policy direction, as given by the Ministry of Education. Moreover, the findings revealed the status of quality assurance practices in universities in Kenya.

This research could also assist the Ministry of Education in formulating reforms that will improve education and training standards in the higher education sector.

Accreditation bodies can similarly benefit from this study's findings by focusing on important areas revealed when evaluating the curriculum quality. This study will furthermore add to the current knowledge regarding university quality assurance techniques and build up the body of knowledge, allowing learners and research scholars to fill in any gaps that may be identified in quality assurance and to build on ideas outlined in this research.

1.8 Limitations of the Study

Limitations, according to Simon (2011), are potential flaws in the research that are beyond the permissible range. We face limitations in practically everything we undertake. To identify practices of quality assurance that affect the quality of academic programmes in Kenyan HEIs, the researcher relied upon responses from targeted respondents who were difficult to find because most were graduates who were distributed across the country and even fill out the online questionnaire. The researcher used a variety of strategies to encourage respondents to complete the questionnaire, including sending daily email reminders and calling respondents to remind them to check their emails.

The study only considered one programme in one Faculty; therefore, the findings may not apply to all other programmes due to the diversity and complexity of programmes in the University. For example, the findings of studies in social science may not be completely applicable to programmes in pure sciences, medicine, and engineering. The study results can however be generalized for similar programmes in other Higher Education Institutions.

1.9 Delimitations of the Study

The elements, which limit the scope and determine the borders of a study, are known as delimitations (Simon, 2011). The influence of ISO, TQM, Knowledge Management techniques, and accreditation audits on the quality of academic programs in Kenyan HEIs was the subject of this study. It targeted Departmental heads and Deans of faculties, lecturers teaching and serving the B.Ed. the program, and alumni who graduated from the University of Nairobi's Faculty of Education in the 2016-2017 academic year.

The research examined the quality of academic programmes based on the perceptions of stakeholders on the influence of QA practices on the quality of academic programmes. Bachelor of Education alumni who graduated from UoN 2016-2017 were selected since they could have information on quality assurance practices for academic programmes that they underwent in comparison with their experience in the industry.

1.10 Assumptions of the Study

Simon (2011) defines assumptions as those aspects that are accepted as true, or at least credible, by researchers and scholars given your target population, research design, statistical test, or other delimitations. The research assumed that targeted respondents were aware of quality assurance practices undertaken in institutions of higher learning including ISO Standards adoption, TQM principles, and knowledge management practices. The study also assumed that regulatory and professional authorities undertake frequent programme quality audits of higher education institutions, involving all stakeholders.

1.11 Definition of Significant Terms

This study was confined within defined terms as stated:

Academic Programmes: refer to a set of courses and/or prerequisites leading to the conferral of a certificate or degree from a Kenyan higher education institution.

Accreditation Bodies: refer to agencies mandated to make decisions on the conditions, legality, and relevance of an institution or programme.

Accreditation: is the process by which an accreditation body, like the Commission for University Education (CUE), certifies educational institutions' programs as meeting certain criteria and standards.

Audit: refers to a systematic way of evaluating the quality of an institution's academic systems and processes.

Internal Quality Assurance: refers to the processes that ensure a higher education institution realizes its mandate and meets the required standards of its academic programmes.

ISO 9001: refers to a series of standards that guide quality assurance in higher education institutions.

Knowledge Management is the generation, use, sharing, and ultimately managing of information in an educational institution.

Quality Assurance: refers to systematic efforts to ensure that an educational institution's curriculum accomplishes and maintains an acceptable measure of quality.

Quality Assurance Practices refer to activities undertaken by institutions of higher learning that enhance quality.

Quality Management: refers to activities and tasks that ensure the maintenance of the desired level of excellence by a higher education institution.

Quality of an Academic Programme: Refers to the attainment of the highest standards when aspects of a programme are compared, evaluated, and measured for quality.

Total Quality Management: refers to systemic guidelines for the development of institution-wide staff involvement in the planning and execution of programmes that satisfy or exceed the expectations of its customers.

1.12 Organization of the Study

The first chapter of this study is the introduction, which includes a problem description, purpose of the study, Research objectives, questions and hypotheses, study's significance, limitations, assumptions, and definition of keywords. Chapter two describes a literature review consisting of aspects of a good curriculum, quality assurance techniques, and conceptual and theoretical frameworks. Chapter three covers research methodology, chapter four presents study findings, and chapter five contains a summary of findings, conclusions, and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

The following subheadings organize the evaluated literature in this chapter as the notion of quality in higher education, the concept of academic program quality, and the quality assurance practices in higher learning.

The chapter also discusses the studies done on the four constructs; ISO 9001 standards adoption, TQM implementation, Knowledge Management utilization, and Institutional audits in relation to the academic program quality, an overview of the review of relevant literature, and conceptual and theoretical frameworks.

2.2 Concept of Quality in Higher Education

Quality encompasses the characteristics of a product or service, whereas education and the educational process are services that can be adequately attained by pursuing high quality. Quality assurance refers to the art of maintaining an anticipated level of quality of a product or service through observing guidelines in every stage of the product creation or service delivery (Anastasiadou & Anastasiadis, 2019). In education, quality assurance calls for the systematic review of education programmes to maintain and even improve their efficiency and effectiveness, and eventual quality. It involves self and external evaluation of schools, school inspection, teachers and school heads evaluation not forgetting student assessments (Paraschivescu, 2017). Higher Education Quality assurance is important because it drives institutions towards

achieving excellence. It is however not easy to ensure the quality of study programmes and at the same time attain the local and international standards. In HE, Quality Assurance may be conducted through several approaches including the adoption of ISO 9001 standards, undertaking knowledge management, and institutional audits (Seyfried & Pohlenz, 2018).

Quality perspective seems to have become crucial in the worldwide competitive economy, according to Bendermacher (2017); Elken & Stensaker, (2018), due to rapidly changing social expectations, which raises the need for more products. The hunt for quality education has attracted considerable attention in the last decade, particularly with the continuing education reform in Higher Learning, locally and internationally. As a result of the diverse viewpoints and expectations among stakeholders, defining and assessing quality has remained a challenge (Kundu, 2017; Rodman et. al., 2013). quality has been defined and differently assessed depending on the interests and expectations of the people, as indicated by Seyfried and Pohlenz, (2018), making defining and assessing quality in Higher Education a tough undertaking.

As Green (1994) points out, quality is indeed an incomprehensible notion/ idea that is simple to comprehend but hard to define. Quality, he explained, is the supply of unique distinctive services and products which imply the status of the customers or owners, like superior development, distribution, and display criteria.

Ryan (2015) similarly demarcates that in as much as accrediting bodies are concerned with quality, the structures of accreditation are complex and more so decentralized both at the regional and international levels. A study by Allam (2020) concluded that to achieve quality and effective higher education, stakeholders and institutional managers in the Kingdom of Saudi Arabia must focus on six aspects obtained in the study under investigation. These include admission requirements, institutional factors, the content of the curriculum, resources, learning experiences, learning outcomes, and assessment.

Quality in higher education institutions refers to underlying concepts, processes, or principles which institutions must follow to attain their goals Tight (2020). However, the concept of educational quality has long existed, it was not until the late 1980s that the concept of Quality Assurance was born as educational institutions became more evaluative.

The concept of learning environment quality evolved from the competitive business world, according to Sokoli, Koren, and Gutierrez (2018), and the education sector later began to incorporate commercial ideas and practices into the management of educational institutions. The authors also noted that current worldwide educational changes have been affected by the fast growth of student numbers, reduced budgetary allocation, efficiency, growing competition, quality, and accountability.

Amaral (2014) asserts that the commencement of quality evaluation initiatives, particularly in the first world nations like the United Kingdom (UK), Australia, and the USA, had a considerable effect on the expansion of QA

processes. Educational system changes, like increased student mobility, complexity, and regulations of the HEIs led to evaluation.

Similarly, the Bologna Declaration, adopted in June 1999, emphasized the importance of developing standard criteria and techniques to act as a benchmark for ensuring higher education quality (Tutko, 2019; Rosa & Amaral, 2014; Manatos, 2017a). International quality assurance frameworks like the African Standards and Guidelines for Quality Assurance (ASG-QA) in Africa, the Council for Higher Education Accreditation (CHEA) in the United States and the European Association for Quality Assurance in Higher Education (ENQA) in Europe are also contributing factors to QA, as are national quality assurance agencies like CUE and other related government agencies. Recently, each country has established QA frameworks and QA agencies mandated to ensure quality in HE by giving baseline standards, guidelines, and procedures (Haughney, Wakeman & Hart, 2020).

Currently, quality is a major subject in how Higher Education Institutions operate, with phrases like accreditation, audits, and assessments revolving around it based on the extant literature. QA is a crucial tool for HEIs to use in addressing the needs of society and global competition in the provision of higher education (Seyfried & Pohlenz, 2018; Westerheijden, 2007).

According to a prior study, many stakeholders have varied interests in the educational sector, including learners, teaching staff and researchers, labour markets, regulatory agencies, legal experts, quality bodies and the society (Amaral, 2014; Rosa & Amaral, 2014).

The interests and desires of the stakeholders drive many of the quality approaches and practices in HE. Haughney, Wakeman, and Hart (2020) note that consistency in ensuring the application of sound feedback practices, use of innovative tools, and use of peer evaluators for quality should be observed while assessing the quality of responses from preservice teachers before carrying out summative licensure assessments. Quality assurance in HE has emerged to be one of the biggest challenges affecting the social and technological advancements of learning institutions which the management of these institutions is struggling to surmount (Gora, Ion & Ștefan, 2018)

2.2.1 The Concept of quality of an Academic Programme

Quality and standards are used interchangeably in the HE sectors. A standard is defined as a form of measure or feature of a product or service (Seyfried, & Pohlenz, 2018). In HEIs, the quality of outputs is measured based on the degree of conformance to specifications. A standard is also defined as the measure with which a service/product meets or is fit for its usefulness. For instance, producing the right number of graduates with the desired skills and abilities and balance of knowledge to meet the goals of education to stimulate National growth and development (Nabokikh, 2019).

The concept of standards in HE relates to the measures used to appraise the quality of education such as excellence, value for money, consistency, transformation, and fitness for purpose (Anastasiadou, & Anastasiadis, 2019; Seyfried, & Pohlenz, 2018). The extant literature reveals that accreditation schemes impact positively on the quality of educational programmes and

overall education quality. For instance, Beerkens (2018) observed that accredited programmes are perceived to be more credible and give confidence to students that they are undergoing the quality benchmarked programme. The author argued that academic programmes should indicate detailed evidence of improved academic quality so that what is being assessed meets the minimum standards and gain mutual recognition globally.

Though QA practices promote the quality and standards of academic programmes, the aim should not only focus on evaluating whether the programme meets the standards but rather on monitoring the academic improvement (Ansah, 2015). This is attained through constant improvement of student learning, pedagogical techniques, mode of delivery, and evidence-based approaches (Beerkens, 2018). In the evaluation of literature on quality in HE, Harvey (2016) identified four practices of QA in Higher Education; academic audit, programme accreditation, self-assessments, and regular evaluations by regulatory agencies.

A study by Tsinidou (2010) denote that one major challenge facing Higher Education is that the standards and parameters of measuring the quality of education are not constant and vary across stakeholders' standpoints. The scholar observed that one of the popular quality approaches in HE is the use of TQM principles and techniques such as quality function deployment, which evaluates cause-and-effect in the process and suggests areas of improvement. Conversely, Cardoso (2013) established that accreditation has become a predominant practice of assuring the quality of academic programmes. Generally, QA practices enable the HEIs to improve the overall academic

27

quality including courses and programmes, faculty engagement, and teaching and learning activities.

Further, Ryan and Tilbury (2013) argued that to attain the goals of education for sustainable development, quality is critical to the curriculum transformation as it interlinks with the core business of the Higher Education Institutions, which comprise institutional leadership, accountability, and sustainability. This study centred on the influence of the following quality assurance approaches on the quality of academic programmes in HE; ISO 9001 Standards, TQM, Knowledge Management, and Institutional Audits

2.2.2 The Concept of Quality Assurance Practices in Higher Education

A steady gain has been realized in the significance of QA in HEIs due to several factors. For instance, the increased need for a qualified workforce has led to the rise of public funding for university education and hastened the drive to increase access to postsecondary education. Dill (1992, 2007) signified QA practices in HE as the academic standards of education that graduates should attain. Today, the emphasis is on the learning outcomes for students that should reflect on the knowledge, skills, and competencies that the learner achieves after undertaking a particular course or programme (Seyfried & Pohlenz, 2018). The harmonization of academic qualifications, regional QA network protocols, and political integration in the countries have heightened the relevance of quality in Higher Education (Beerkens, 2018).

There are two distinct types of QA practices in Higher Education; internal and external QA mechanisms. The internal QA mechanisms include practices and

policies used by universities to track and upscale the quality of education programmes (Anastasiadou & Anastasiadis, 2019). The internal QA activities in higher education revolve around undertaking self-assessments, academic audits, and programme reviews to identify institutional strengths and weaknesses (Kundu, 2017). Additionally, the external QA mechanisms include policies and practices designed by national policy frameworks to assure the quality of academic programmes in HEIs (Dill, 2007). The external quality mechanisms in the educational context comprise several compliance mechanisms such as institutional and programme accreditation, licensing, ranking systems, and other quality enhancement approaches that governments use to regulate Higher Education Institutions (Materu, 2007; Milliken & Colohan, 2004). A move aimed at minimizing autonomy and independence in the universities as the quality assessment is used as a tool not only for improvement and accreditation but also for accountability and allocation of resources (Amaral, 2014; Pham & Paton, 2019).

According to Nabaho and Turyasingura (2019), QA practices in higher education encompass clearly defined student and teacher awards, external assessments and examinations, stakeholder involvement in curriculum development and review, graduate tracer survey, and research excellence awards. These practices aim at closing the evident gap that exists between academic outputs and expectations of the labour market. Presently, many national governments especially in Africa are using market-oriented techniques to influence HEIs to compete for student placements and public funding (Franco, Silva, & Rodrigues, 2019). For instance, Higher Education

Institutions are required to continuously revise their learning programmes to match the changing requirements of the global market and attract international students and remain vibrant, relevant, and sustainable.

Existent studies confirm that there are various approaches to quality in HE, which include Total Quality Management (TQM), external evaluations, and performance indicators (Law, 2010). A similar study by Ardi, (2012) identified TQM as the resolution to quality improvement of academic quality in HE due to the enormous success contributions in the business context. Demchig (2015) underlined Knowledge Management (KM) as an effective means of innovation, customer satisfaction, and business excellence.

However, most of these quality approaches in higher education have received much criticism for their lack of theoretical foundations and focus on fulfilling external intentions rather than on enhancing educational quality and culture (Dill, 2007; Law, 2010; Okwiri, 2013). Most education systems in many nations especially in the developing world have prioritized accountability aspects of academic quality for compliance purposes rather than quality enhancement indicators such as graduate employability, work readiness, and quality of the academic programme and teaching and learning activities (Ansah, 2015). Moreover, despite the widely broadcasted external QA systems intended to improve the education quality, the alignment of academic programme standards to prepare graduates for job opportunities remains a challenge in most countries, particularly developing nations like Kenya. This is due to the ineffective implementation of TQM approaches applied by most

university management meant to control the quality of their outputs which ultimately leads to failure (Mosadeghrad, 2014).

The emerging global economy necessitates high calibre human capital, which has fuelled the rapid growth of Higher Education Institutions. Previous studies by Dill (2007, 2011) postulated that policymakers are facing endless challenges as they seek better ways of providing quality education. The author consequently observed that fierce competitive forces influenced by continuous globalization and internationalization are compelling HEIs to be quickly responsive to the ever-changing labour markets, societal demands, and student programme preferences. Some of these academic reforms include the rapid development of new academic programmes and courses, review of existing programmes, and archiving of obsolete programmes (Ali et.al. 2018; Cheung & Man Wong, 2012).

The first national QA policies and practices were established in the early 1980s in the US wherein the government, concerned with speedy deteriorating education standards, requested the public institutions to use assessment techniques to assure the quality of education (Dill, 1996). Other countries followed suit including France (1984), the UK (1985), and others (Van Vught & Westerheijden, 1994). The main reasons for establishing QA frameworks were to reduce the dysfunctional QA bureaucracies, enhance better linkages with labour markets, and foster an innovative approach to education (Dill, 2007).

Though the national QA frameworks vary from one country to another, they all take after the key global modal forms; the European centralized QA model, the US market-based decentralized QA model, and the British QA model that delegates and encourages self-accreditation of Higher Education Institutions (Dill, 1992, 2007). The QA mechanisms for evaluating academic quality include; academic programme frameworks, academic audits, self-assessment reports, programme/institution accreditation, and QA agencies' pre-planned visits (Dill, 1999).

Kelum et.al. (2020) argues that COVID-19 has negatively impacted the university programmes, in particular, maintaining the academic quality standards and procedures involved in quality assurance has significantly become challenging and complex. He continues to argue that HEIs are taking measures to maintain quality assurance procedures and high academic standards during these challenging times that affect students' academic performance. Dill (2007) states that among the challenges facing the countries globally is to develop a policy framework that can effectively assure academic standards amid the changing market forces from multiple stakeholders including the industry, government, academic profession, and society. As a result, several countries have established national qualification frameworks to aid in addressing academic quality issues in Higher Education Institutions. Further, the Bologna process framework provides the international recognition of accepted academic programmes to enable the placement of students and graduates in the global arena. In addition, the national frameworks serve as points of reference for external quality assessment. For instance, the UK-based

Quality Assurance Agency for Higher Education (QAA) published the first degree subject benchmarks in 2002 to aid in the process of curriculum development and review by use of broad programme descriptors (QAA, 2012).

Further, UNESCO has provided mechanisms as reference points to academic programme codes. However, with the continued massification of HE, which has produced numerous academic programmes, there is a need to collectively agree on uniform content and outcome-based approaches even as the deregulation of the education sector remain (Dejager & Nieuwenhuis, 2005; Dill, 2003, 2011). Consequently, Ali et.al. (2018) defined QA in HE as the process of creating a quality culture that fosters progressive professional and organizational improvement to guarantee value-for-money and fitness for use outputs that meet the global knowledge and societal learning needs and requirements.

Moreover, Setiawati (2016) notes that Management plays a significant role in quality assurance, HEIs should be led by a manager with effective leadership skills. Also, Matovu (2019) established that staff at Ugandan Universities did not agree in perception with their counterparts regarding indicators for quality assurance; staff classification concerning gender and campus. Michubu (2019) contends that universities had established policies and practices regarding internal and external quality systems and often engaged the stakeholders during curriculum review and development. The study found that the absence of these services could seriously affect the education quality since learners will not be satisfied with the support of their institutions hence, struggle with numerous challenges which hinder their concentration on academic work. It

was observed that there existed a link between learner support services and the quality of HE.

The following section explores the different practices in quality assurance that influence the quality of academic programmes in Kenya's HEIs.

2.3 Quality Assurance Practices

The study considered the following variables:

2.3.1 ISO 9001 Standards and Quality of Academic programmes

ISO 9001 certification is a global standard that guides quality management systems in both private and public organizations. It guides organizations on the acceptable timelines and standards for all the production processes and the minimum acceptable quality levels of products and services (Dumond & Johnson, 2013). ISO 9001 is a set of globally recognized quality standards and practices that help businesses meet their customers' needs (Sohail, 2003). While ISO standards were developed for the manufacturing industry, they are still used by service businesses such as educational institutions. The most common quality management approach and quality awards are based on this set of quality standards. Because of the emphasis on QA, most HEIs have been forced to implement ISO 9001 quality standards to enhance education quality. The importance of customer satisfaction and company efficiency is one of ISO 9001's most notable features.

Martin and Thawabieh (2018) in their study on the effect of ISO 9001 on Oman HE operational performance in Buraimi University College found that staff focuses; market focus, stakeholders, and effective leadership have a

significant effect on the operational performance of HE. Chumba, Sang, Kibett, and Kirui (2019) established that certification of ISO 9001 calls for the support of the university management. They noted that ISO 9001 was positively embraced by university employees and promoted better usage of university resources hence improved on the service delivery of the university and bringing about uniformity in the university processes.

According to Jingura, Kamusoko, and Tapera (2020), efforts have been made to develop QA models and practices tailored to Higher Education that adhere to the ISO 9001 standard concentrating on the basic academic processes of teaching and learning. Despite some gaps highlighted by some studies in this sector, the ISO 9001 standard, as one of the most recognized QM models in Higher Education, is the most sought-after model among academic institutions (Saraf, 2019). When an organization implements Quality Management Systems (QMS), the standards define the requirements that must be met for the system to function. ISO defines QMS as a system that controls and guides an institution's quality (Martin & Thawabieh, 2018).

The ISO 9001 standard is generic, and any organization, regardless of its products, can use it (Abuhav, 2017). With a quality-driven movement and the fact that quality has emerged as a distinguishing aspect of international higher education institutions, many universities have sought ISO certification in recent years (Istileulova, & Peljhan, 2015). The goal of ISO certification in universities is to assess and improve operational efficiency, teamwork among working departments, and customer satisfaction (Ab Wahid, 2019). Some

organizations place a premium on the prestige that comes with being ISO certified. External government pressure, combined with the fact that many institutions are ISO 9001 certified, has led to many institutions pursuing this standard. Initially, various reasons were advanced for the adoption of ISO standards in the HE sectors, including claims that it ensured operations that are more efficient and improved the quality of services and programmes provided by HEIs (Istileulova, & Peljhan, 2015). The ISO 9001 series of standards have broad requirements for developing a QMS, regardless of the institution's size or activity, implying that it can be used in higher education. One of the main criticisms levelled at this standard is that academic activities cannot be equated with industrial activities (Jingura, Kamusoko, & Tapera, 2020).

In general, industry QM models do not recognize the student as a critical part of learning in HEIs, and subsequent editions of ISO standards have attempted to address and resolve this issue. In industrial activities, quality procedures are process-oriented and prioritize customer needs. Academic activities, on the other hand, such as learning and teaching, cannot be viewed as a buyer-seller relationship. The ISO 9001 standard is effective in the HE services sector (Ab Wahid, 2019).

The majority of issues encountered during ISO 9001 implementation are due to internal challenges. The ease with which ISO 9001 can be implemented is heavily influenced by education, resources, people, and communication. Implementing ISO standards necessitates the commitment, motivation, and participation of all working employees, which is difficult to achieve (Michubu,

2019). Staff perception, fear of increased bureaucracy, and increased workload due to audits and documentation requirements are the main issues with ISO standard implementation. However, the more the level of internalization, the more the benefits of adopting ISO 9001. Standard principles such as people engagement, relational management, and leadership can be enforced to improve the internalization process. Implementing the ISO 9001 standard necessitates that all staff devotes time and resources to IQA activities. The implementation of the ISO 9001 standard necessitates effective and continuous education and training of staff to improve performance. Furthermore, effective communication should be established through the establishment of a communication mechanism with internal and external stakeholders (Ali, et. Al., 2018).

Developing organizational value structures that foster the formation and progressive improvement of quality is required in the process of creating a quality culture (Istileulova, & Peljhan, 2015). It is a cost-effective and efficient method of establishing QA systems that result in higher quality across HE institutions and promote change within those institutions. Staff and students not only adhere to the established quality standards, but they also gradually see, hear, and feel others discuss quality actions (Alzeaideen, 2019).

The ISO standard requires HEIs to implement a QMS to establish a quality culture among staff that promotes continuous improvement in all areas of performance. Quality control (QC) refers to the process used by entities to evaluate the quality of all involved factors in the production process

(Istileulova, & Peljhan, 2015). ISO 9001 defines Quality control as an element of quality management that is focused on meeting quality requirements. Because ISO standard implementation involves staff, establishing QC among both staff and students is critical in the institution for continuous improvement. Staff engagement, ownership, and relationship management, as specified in the ISO 9001 standard, can improve QC among staff and students, allowing IQA implementation and increasing the likelihood of a positive outcome (Jingura, Kamusoko & Tapera, 2020).

According to a study conducted by UNESCO, (2018), 94% of learning Institutions rated academic activity improvement as a 'very important' component of IQA. Academic programmes and activities are expected to benefit from quality assurance systems. The ISO 9001 standard's philosophy echoes the main principles of Quality Management in Higher Education, which are continuous improvement and accountability. The seven principles of the standard are easily applicable to Higher Education and have the potential to improve IQA in learning Institutions. These are leadership, customer focus, process approach, engagement of people, relationship management, improvement, and evidence-based decision-making. Certainly, one could argue that the principles provide a generic philosophy applicable to QM in any industry (Sena, 2020). QM concentrates on academic processes and evidence-based decision-making, which are critical to IQA in higher education. As a result, the ISO 9001 standard presents a QM philosophy that is well established in higher education. The Plan-Do-Check-Act (PDCA) cycle serves as both an implementation model for the ISO 9001 standard and the

foundation of QM in universities, where it is commonly referred to as the quality cycle PAEI (Plan-Act-Evaluate-Improve). Based on this, student, graduate, and employer satisfaction are important quality indicators in IQA (UNESCO, 2018).

2.3.2 Total Quality Management Implementation and Quality of Academic programmes

As HE immerses in the market-oriented settings and with consistent increasing demand from various partners, HEIs are increasingly applying the TQM principles to delight higher education institutions' customers (Sahney, 2004). Consequently, the significance of TQM in higher education is being emphasized more. TQM, according to Wiklund (2003), is a technique for continuous improvement management involving everyone in the organization and centred on quality.

Additionally, Grundey (2008) defined TQM as a management approach that encourages firms to build mechanisms for improving service and quality of a product, productivity, and client satisfaction over time. TQM is one of the international quality techniques, according to Becket and Brookes (2006), that has helped significantly to the efficiency of operations in higher education. TQM principles and methods have successfully been applied in many universities around the world. For example, the University of Wisconsin-Stout received the Baldrige education award in 2002, a first for higher education institutions since the award's inception (Sirvanci, 2004).

Other QA experts, on the other hand, feel that due to the complexity of educational processes, TQM principles are more effective in the corporate context than in educational institutions Becket & Brookes, (2006); Harvey, (1995). The emphasis on conformity, effectiveness, transparency, and "managerialism" at the expense of quality enhancement is a common source of criticism of TQM and QMS in higher education. (Tight, 2020). TQM concepts, however, are crucial, according to Dejager and Nieuwenhuis (2005), since they place a strong emphasis on the end client. As a result, the organization should constantly listen to customers of HEIs, in this case, the students, and reassess learning institutions' offers to meet changing societal needs.

They provide attestations of TQM is a governance project based on a clear corporate culture, cooperation, directives of managers, and scientific methodologies & instruments. TQM refers to approaches and processes in higher education meant to improve, guarantee, and assess the quality of educational activities (Kleijnen, 2011). This includes establishing quality self-assessment standards, program accreditation methods, benchmark methods, and other performance-related processes for continual development.

TQM procedures and evidence are well-documented and made publicly available to aid in the achievement of education's ultimate goal (Dejager & Nieuwenhuis, 2005).

Terzi (2017) found that for TQM to be applied at institutions of higher learning, all expertise and leadership must be trained in this field, and they

must also have a compelling reason to execute the insights. Implementing TQM in higher education institutions gives them a competitive advantage, encourages innovation, and flexibility and provides the potential to generate funds. TQM challenges the staff to be more innovative through their institutions and this leads to significant opportunities for growth and progress. (Mosadeghrad, 2014).

TQM had a positive significant effect on higher education performance in Jordan and provided data used to determine the correlation between TQM and the performance of Jordanian universities (Alzeaideen, 2019). Almurshidee (2017), on the adoption of TQM concepts in Saudi Arabian universities, is average, except for academic affairs and community service, where it is used extensively. The application of TQM principles was average according to educational leaders except for the department of strategic planning. Adoption of practices of TQM like top management commitment, involvement of employees, customer focus, and process management is important in enhancing the quality and standards of education and hence improving students' satisfaction. The institutions that had embraced TQM practices in the higher education sector realized improvement in student satisfaction (Almurshidee, 2017). Ullah, Jehan, Malik, and Ali (2018) contend that many universities focus on different practices like administration, academic registration, and budgeting while they ignore important activities like scholarship awards, curriculum revision, implementation, and competency level of teaching staff. They argue that such institutions have abandoned practices for TQM.

On the role of TQM on the financial viability of HEIs, Antunes, Mucharreira, Justino and Quirós (2018) found that TQM as a principle of management focuses on the progressive enhancement of institutional performance and customer satisfaction, cutting across the entire institution, and integrating all the players in its structure. It has been proven repeatedly that implementing TQM leads to better performance and greater competitiveness in a variety of industries (Tight, 2020). Previously, TQM concepts were applied in the industrial sector, however, it is now being implemented as a new concept in universities, since fresh insights have demonstrated and proved that universities are successful businesses. With the rise in labour market expectations, there is increased competitiveness in the provision of university education by both private and public universities (Manatos, 2017). This has increased interest in research on TQM principles implementation in HEIs. Changes in the business sector as a result of internalization and globalization necessitated that HEIs respond and adapt to gain a competitive advantage in the business world (Mensah, 2020). As a result, institutions need to expand their resource base, promote knowledge production, and stimulate information sharing to stand out from their competitors. Due to this point of view, institutions' tactical forces and new patterns for progressing and managing knowledge are becoming important topics of discussion. TQM is viewed as a shift in quality management approaches, with a significant contribution to the creation of new management processes. Numerous scholars have cited TQM as a method for enhancing operational efficiency while also increasing the institution's variety and financial strength to better address the needs of

customers. This gives the institution a competitive edge. TQM principles are an important instrument for improving institutional learning and gaining a competitive edge (Abuamer, 2021).

TQM concepts application in HEIs can improve quality and achieve progressive development. This fuels competition, ongoing change and adaptation of HEIs, and meeting stakeholders' expectations. Learning, flexible structures, dynamism, and quality have been identified as the most significant characteristics of HE in recent years. To meet the specified goals and complete the overall mission, higher education institutions must adapt to ongoing advances and changes. As a result, universities will be able to provide students with high-quality instruction while also holding themselves accountable to the standards set by the government (Sahney, 2016). Furthermore, the emphasis on users and quality leads to higher educational institutions prioritizing learning and innovation to offer the best services to students, lecturers, and the community, which eventually leads to economic growth and development. Higher education institutions have lagged in TQM implementation in the current context. TQM culture defines an institution's commitment to user satisfaction through progressive improvement, which varies by country (Antunes, et.al, 2018).

According to Ershadi, Najafi, and Soleimani (2019), TQM is highly related to performance outcomes, implying that higher educational institutions can develop a powerful TQM model that will aid them in achieving business success, developing a competitive advantage, and reaping significant benefits.

TQM principles have a huge influence on all higher educational institutions in measuring performance, which is important for institutional effectiveness. A TQM structure has to be built around an organizational culture with values and principles that provide the guidelines for connecting and integrating the main performance needs within the quality structure (Hasan, Islam, Shams, & Gupta, 2018. TQM procedures are classified into two broad categories by researchers: hard and soft. The soft procedures address the behavioural aspects of TQM by involving all stakeholders, the social aspect, and the culture of the institution, whereas the hard procedures address the technical aspects by utilizing scientific procedures and statistical tools (Sciarelli, Gheith, & Tani, 2020). This categorization is assisted by the Social-Technical Systems (STS) theory, which regards institutions as being composed of two interacting smaller systems: the technical subsystem and the social subsystem. STS aids in the identification of soft procedures that influence the social system and hard procedures that influence the technological sphere, as well as the integration and optimization of the two rather than each one on its own. Leadership, strategy, and policy are soft procedures that have an immediate effect on hard procedures like process management (Abbas, 2020).

Leadership, strategy & policy (soft QM) are elements that have a direct effect on the management process (hard QM). Several academics believe that soft practices like leadership and management of people relate closely to product innovation (Sciarelli, et. al. (2020); Zeng, et.al (2017)). According to Zeng (2017), soft QM promotes liberal communication and the development of

innovative thoughts that are critical in creating an environment conducive to innovation development.

Other research has revealed that hard QM practices would positively impact innovation as they aid in the development of new routines for implementing good practices as a basis for learning and supporting creative ideas (Escrig-Tena, 2018; Bourke & Roper, 2017). Furthermore, fostering a decision-making culture based on up-to-date information. Benchmarking also offers the opportunity for boosting creativity (Ali & Zehir, 2016). Several types of research in higher education revealed that QM practices related positively to performance (Psomas & Antony, 2017; Jasti et. al, 2021). For instance, Jasti et.al. (2021) observed that TQM dimensions have a significant effect on all Higher Education Institutions' performance measures, which has a significant effect on the effectiveness of institutions. According to Psomas and Antony (2017), performance results are significantly related to Total Quality Management. This implies that Higher Education Institutions can develop a strong TQM model which will assist the institutions in approaching business quality, applying for competitive quality awards, together with gaining many other benefits. Some research links soft QM practices directly to performance Psomas and Antony (2017). Other studies however reveal an indirect effect of soft QM practices on performance via hard QM practices. In Kaynak's 2003 TQM model, soft QM practices were presumed to have an indirect effect on firm performance via hard QM practices (Saleh & Sweis, 2017).

Khan and Naeem (2018) contend that soft quality practices improve the direct effect of hard quality practices on the performance of organizations. Similarly, Sciarelli, Gheith, and Tani (2020) proposed that if management supports quality and communicates the philosophy of QM, it could improve innovation. The management should also share the organization's vision with all the employees and encourage them to set targets to work towards achieving them to scale up performance. The management should consequently encourage staff training and promote employee recognition and lastly learn to listen to employee suggestions.

A study to learn more about the implementation of TQM in learning Institutions in the United Kingdom in 2010 revealed that only a small percentage of the universities surveyed had implemented TQM. Furthermore, the study found that leadership perform a critical function in promoting TQM in HEIs. The study also revealed that fear of the unknown, lack of knowledge and commitment were factors that hindered the implementation of TQM (Izahrani, Bahaitham, Andejany & Elshennawy, 2021; Salim, Sundarakani & Lasrado, 2019).

According to Sirvanci (2004), Institutions of higher learning have been dealing with challenges for quite a while and will continue to do so in the future. While TQM implementation has resulted in many business organizations becoming leaner and more efficient, HEIs have been less affected by this trend. HE costs have steadily risen, mirroring the rise in

operational and running costs. These are some of the factors pressuring universities to change and become more efficient.

TQM implementations in some HEIs have been restricted to non-academic processes and administrative branches. For example, some academic departments have employed Quality Function Deployment- QFD to develop and improve their curricula (Shams, 2017). Some HEIs have formed advisory councils to receive feedback on market demand for their graduates (Small, Shacklock, & Marchant, 2018). This is a case of customer and market focus. The majority of these applications have however been somehow limited in coverage. Everett (2002) describes the efforts of Pennsylvania State University to improve quality. He stated that when implementing TQM in institutions of higher learning, keep in mind that it is distinct from other service sectors and that how the theme of identifying customers is defined has a significant impact on the companies' performance measurements.

Students play multiple roles which cannot be reduced to that of a customer. Higher education has also been impacted by technological advancements. Using multimedia in classroom instruction, and the rise of "distance learning" are structurally altering the processes of education and diminishing the traditional classroom instruction (Small, Shacklock, & Marchant, 2018).

2.3.3 Knowledge Management Practices and Quality of Academic programmes

Knowledge management (KM) has emerged as the foundation for long-term competitive advantage in learning institutions (Brewer & Brewer, 2010; Devi

Ramachandran, 2009). Consistent transmission and translation of tacit knowledge are essential contributing factors to both human and organizational success in the present age of a knowledge-based economy and unexpected environmental influences that affect the activities of the organization *(*Anvari, 2011; Edge, 2005; Mchombu, 2007; Wiig, 1997).

Since they contribute to the continuous generation and transmission of information via research, consultancy, and knowledge-sharing platforms, higher education institutions are often characterized as knowledge-intensive service organizations. Demchig (2015) defines KM as "purposeful knowledge production and sharing actions undertaken by an organization to efficiently improve performance." KM is the process of acquiring, disseminating, and use of knowledge among academics and students (Nejadhussein & Azadbakht, 2011; Ooi, 2009). Furthermore, KM emphasizes the adoption of relevant processes and instruments for performance improvement.

In higher education, KM entails not just manipulation and storage of data, but also the acquisition of embedded inferred information & its incorporation into the institutional databases for ease of accessibility, sharing, and use (Edge, 2005; Omerzel, 2011; Wiig, 1997). Despite the multiple advantages of knowledge management like excelling in business, there is still a lack of information about how to utilize KM to scale up the educational sector, particularly excellence of education programmes in the field of higher education. (Cheung & Man Wong, 2012; Edge, 2005; Fullan, 2001).

Furthermore, among issues confronting Higher Education is that most institutions have yet to design and implement a knowledge management plan. According to Veer Ramjeawon and Rowley (2017), difficulties with KM adoption in higher education include a scarcity of funds, information, a strict mentality and procedures, regulations, and research programs. The researchers also recognized effective employees, library resources, IT infrastructure, and money to support knowledge development and dissemination as major facilitators of KM.

Similarly, Mavodza and Ngulube (2012) identified several barriers to knowledge development and integration, including a lack of acceptable knowledge-sharing rules, bureaucratic and cumbersome processes, insufficient IT platforms, and institutional mandates.

Knowledge Management practices in Higher Education are realized, by building suitable information platforms integrating learning resources as well as enhancing the effectiveness of educational programmes via the development of the curriculum and continuous review Gill (2009).

Consequently, Nejadhussein & Azadbakht (2011) identified numerous Knowledge management strategies for education institutions, such as the establishment of KM centres, the developing of KM fields of study and their incorporation into the curriculum, the establishment of Knowledge management classroom instruction in educational programmes, and the integration of KM into university education.

In addition to educational planning, learning activities and teaching, and evaluation of the curriculum as Knowledge Management techniques in the education sector, the existing research describes it in terms of improving student performance (Bain, 2006; Devi Ramachandran, 2009; Gupta, 2015; Mason, 2003). As a result, successful KM implementation in Higher Education necessitates a culture of innovation and frameworks, high-quality data management and the ability to learn from own mistakes (Sadiq, Sohail & Daud, 2009).

Knowledge has two dimensions; explicit & tacit further split into four divisions, which show the way knowledge, is transformed in an institution: tacit-tacit- socialization; tacit-explicit also called externalization; explicit-explicit combination; and explicit-tacit called internalization (Gill, 2009; Nejadhussein & Azadbakht, 2011; Nonaka & Takeouchi, 1995). According to research, the human brain stores a significant amount of important and intangible knowledge that is difficult to transmit (Brewer & Brewer, 2010; Omerzel, 2011). As a result, Higher Education Institutions can acquire important knowledge by building curricula that externalize and articulate tacit knowledge into an explicit setting for simple access and sharing.

The three main approaches to KM in HE according to (Gill,2009) are through hiring a qualified specialist from outside also called external learning, sharing educational experience amongst academic staff through curriculum design, peer supervision, and mentoring, and research collaborations, otherwise called internal learning and experimentation. As a consequence of the KM initiatives undertaken, academic programs will improve in quality as new staff gain from

older colleagues through sharing knowledge and documenting for quick retrieval. (Nejadhussein & Azadbakht, 2011). Knowledge creation entails the use of existing knowledge in the production of new knowledge and as well as the discovery of new knowledge through collaborations and exchanges amongst learners, faculty, industry actors, and other partners. (Nonaka & Takeouchi, 1995). Through blended learning, data gathering, and best -practices, Mavodza and Ngulube (2012) argue that KM makes the integration and use of both explicit and tacit knowledge easier.

The foundations for the establishment of globally renowned QA processes are knowledge creation and sharing according to Riad Shams and Belyaeva (2019). Furthermore, the experts stressed that HEIs must share their experience and knowledge with their authorities regularly to ensure the attainment of quality. KM activities are used as a standard reference of quality for other organizations through sharing with transferring information (Brewer & Brewer, 2010).

An institutional perspective on knowledge sharing, according to the literature, leads to a variety of benefits, including improved curriculum and academic program quality and evaluation outcomes; faster curriculum reviews as well as advancements; inter-faculty curriculum development through partnerships; enhanced integration of learners' assessments together with other top-level managers' perspectives; and enhanced faculty development and improvement (Brewer & Brewer, 2010; Devi Ramachandran, 2009; Steyn, 2004).

Internal processes (for example, instructional practices, teaching methods, and admission of students), intellectual accomplishments (like research & publishing, graduate capabilities and work-readiness, curriculum, student supervision and mentoring, and consultancy engagements,) and involvement of stakeholders (for example, students, parents, employers, and regulatory bodies) are all described by Gupta (2015) as different assessment characteristics and functions for KM in HE; and stakeholders' involvement (for example, students, employers, and regulatory bodies) (for example, faculty progression and other developments).

Dhamdhere (2015) examined the relevance of KM in HEIs and found that Higher Education is a centre of creating knowledge, conveying the same, and learning for society. Internationally, policies for sharing knowledge amongst many countries are also in place. It is necessary for the nation's development. Discussions and information exchange are common and should be encouraged among staff, students, and scholars which form the foundation for the generation of creative ideas. Information can be freely available to anyone seeking it via the open access initiative for someone who can access the internet. However, basic and organisational level attempts are vital in grasping the tacit knowledge of individuals and sharing the same with the world (Dhamdhere, 2015).

A study by Charles and Nawe (2017) focused on practices of KM in HEIs in Tanzania at Mbeya University of Science and Technology (MUST). established that practices of KM require crucial attention in attempting to address the challenges faced by the institution to realize the tangible fruits of

KM. Wanderage, Lwanga and Muhenda (2011) recommended that top leadership be committed and provide a friendly environment by establishing infrastructure for formally managing knowledge and making practice an integral part of the organizational culture; If an institution is to survive, it must enhance creativity through effective management of employees' knowledge by creating a sharing environment and making knowledge a key resource for innovation; Top leadership to cultivate a culture of knowledge sharing. Elezi (2021) observes that the education sector is increasingly becoming competitive and that organizations are constantly seeking new approaches to expand and integrate market share. Due to the competitiveness of the education sector, institutions of higher learning have developed more entrepreneurial practices and various methods of adding value at all levels in educational products and services (Budiharso, & Tarman, 2020).

In terms of institutional strategy, infrastructure, capabilities, programmes, and resources, the diversity of institutions of higher learning has created a set of challenges to overcome and opportunities to maximize the required educational formation (Omerzel, 2011). The business approach of higher education also resulted in the formation of partnerships amongst institutions of higher learning to assist institutions in adding value to what they offer, gaining a competitive advantage, and attracting more stakeholders, resulting in a larger market share (Limani, Hajrizi, Stapleton, & Retkoceri, 2019). Although there may be numerous problems involved, the knowledge component is crucial since it allows many HEIs to interact because they have considerable information and expertise among them. Despite the complexity of HEIs and

the environments in which they operate, successful implementation of knowledge management activities necessitates mutual synchronization and coordination among them (Cheung & Man Wong, 2012).

The creation of an operational framework that stresses the connection between knowledge management procedures and activities, as well as collaboration and partnership with rivals (Khanal & Mathur, 2020). Knowledge is defined by Bratianu and Bejinaru (2020, 2019) as a dynamic and abstract principle that changes, making knowledge control a critical role in working efficiently and successfully in a collaborative setting. As a result, it's vital to comprehend how knowledge management can aid institutions of higher learning in cooperatively managing all of their individual, institutional, and departmental knowledge.

According to Suknunan and Maharaj (2019), a country's economy relies a lot on higher education. Through research, higher education institutions generate critical knowledge which is subsequently consumed by students, who apply this information in the workplace or extend research in their areas of specialization. This may consequently spur a country's economic growth. Knowledge Management is a major driver of the education sector in a knowledge-based economy (Mavodza & Ngulube, 2012). HEIs therefore adapt and compete in the market for knowledge production, dissemination, and extension due to the uncertain economic climate. Higher education institutions can benefit from knowledge management to meet market demands for productive capacity and competitiveness. By utilizing knowledge management, higher education institutions can achieve high levels of

serviceability, creativity, and quality while maintaining a competitive advantage (Pucciarelli & Kaplan, 2016). The HEIs in this environment require KM for quality building, which leads to collaborative efforts to develop and share knowledge, resulting in the improved overall performance of the higher education institution. As institutions implement knowledge management processes, their general nature evolves, resulting in better decision-making processes, cost-effectiveness, and improved service quality (Miotto, Del-Castillo-Feito, & Blanco-González, 2020). Globalization and industry pressure have an immediate impact on the ability of institutions in the United Kingdom to maintain their status and rank. The institutional culture plays an important role in the implementation together with the enhancement of knowledge management practices at HEIs in the United Kingdom. A study at Salt Lake Community College (Utah) showed how knowledge management systems can help higher education institutions improve student performance by focusing on the problem of predicting students' academic track (Collins, & Park, 2016).

Knowledge management improves overall institutional performance and provides a competitive advantage, as demonstrated by a tactical and theoretical procedure to instil a knowledge management mechanism in higher education activities (Mahdi, Nassar, & Almsafir, 2019). Knowledge management procedures benefit stakeholders in HEIs by allowing the integration of a broader range of technologies with knowledge management systems. Knowledge management procedures benefit stakeholders in learning institutions by allowing for the integration of a broader range of technologies with knowledge management systems. Knowledge management practices have

55

also improved academic procedures, activities, and services (Nair & Munusami, 2019).

The need for intensive innovation, fueled by globalization and ICT, has changed the nature of higher education institutions, prompting them to embrace knowledge management practices as a response. The need for intensive innovation, fueled by globalization and ICT, has changed the nature of higher education institutions, prompting them to embrace knowledge management practices as a response. For knowledge management to be fully optimized, it must include not only technology and systems, but also people, procedures, and technology (Khanal & Mathur, 2020).

Knowledge management information systems (KMIS) emerge as a technological component of knowledge management. KMIS are information management systems designed specifically for the analytical analysis of data to generate reports that result in knowledge. KMIS can help institutions achieve goals like gaining a competitive advantage, improving strategy, and facilitating learning within the institution (Suknunan & Maharaj, 2019). According to Nawaz et al. (2020), KM is a procedure and a method for obtaining, sharing, recording, and reusing rich knowledge to improve HEIs performance and learning. Knowledge management, according to Khanal and Mathur (2020), is a process that enables higher education institutions to select, discover, share, structure, and place important data and capacity required for critical thinking and dynamic learning.

The HEIs, according to Dei and van der Walt (2020), must improve their competitive advantage through a set of practices to maintain and safeguard knowledge management practices. Individuals who intend to gradually use knowledge management will select a value-based resource within the institution. HEIs can foster a desire to impart knowledge to realize business and academic objectives. The knowledge-based system developed for knowledge management in learning instances, particularly distance and online learning, has academic categories, partnership and collaboration, and student trust in knowledge sharing. Effective knowledge management practices improve decision-making, reduce curriculum design and research profile time, and improve academic and management performance in HEIs. To improve the performance of knowledge management techniques and to understand change as a demand in the industry, higher education institutions must integrate several principles and methods, such as open, distance and e-learning and a results-oriented approach to training pedagogy (Adeinat, & Abdulfatah, 2019).

According to Veer-Ramjeawon and Rowley (2020), the primary function of HEIs is to create, preserve and share knowledge and information. Over time the functions of higher education institutions have drastically changed due to two prime revolutions. In the first revolution, HEIs were initially created for the function of teaching and research. Afterwards the second revolution added business and economic expansion to their purpose (Elezi, 2021). In knowledge-associated societies, HEIs play a significant role alongside the government and industry to develop innovative systems for the nation (Floyd, 2016). The ever-changing academic environment needs higher education

institutions to regularly develop knowledge and share it widely. This change of purpose for higher education institutions, ranging from knowledge development to application and integration with other sectors in the economy could have negative and also positive outcomes. On one hand, making higher education institutions more innovative and business-oriented while, on the other hand, depleting academic liberty and eroding academic independence (Kruse, Rakha, & Calderone, 2018).

According to Kumaravel and Vikkraman (2018), knowledge management activators have improved KM practices in many institutions of higher learning. These institutions must instil confidence throughout the knowledge management process to improve individual and institutional strength, learning motivation, knowledge attainment, and positive outcomes. Higher education institutions must incorporate various information and communication technology techniques to meet market demands and, in the future, overcome difficult situations such as the Covid-19 pandemic to improve knowledge management practices (Floyd, 2016).

According to Adetunji (2016), three factors affected KM in Nigerian universities. They include; changing culture of the institutions towards knowledge management, challenges of cooperation among the source and the user of knowledge, and commitment of knowledge management drivers. Grant and Grant (2008) classify criticisms of knowledge management into four broad categories, the first one as argued by Wilson (2002) who explains it as "largely a management fad, promoted primarily by certain consultancy firms, and the likelihood is that it will fade away like previous fads." The second one

is an overemphasis on IT as found by Swan and Assegaff and Hussin (2012) where more than 40% of knowledge management papers written between 1990 and 2000 have been authored by computer professionals insinuating that the Information Technology community has grown into a vital professional patron of Knowledge Management." They also contend that, while a common understanding of KM demands varied management practices, usage of KM by some professional communities, particularly those in the field of Information Technology, has contradictory effects, marketing its usage and successes while grouping it into narrowly focused areas, hence reducing its effectiveness. However, Claire and Koenig (2011) argued that though KM does not necessitate the use of software, it is essential for a successful KM programme.

The third critic is the models of validity which underpin KM practice where several substitute models together with KM classification systems have been suggested with a strong emphasis on Nonaka's SECI (Socialization, Externalization, Combination, Internalization) sequence and the translation of tacit knowledge to explicit knowledge, possibly as a result of the above-mentioned over-emphasis on Information Technology. Styhre, A. (2003) contends that there is little patience in the knowledge management literature with an institutional resource which cannot be reduced to several categories and skills and condemns the approach to codification and representation of knowledge representation.

The fourth criticism is the knowledge's usefulness and validity. Underpinning all of this raises an important question "is the knowledge which is created, stored, shared, and preserved relevant and useful?" These concerns are particularly relevant to explicit knowledge, which is created in the information technology systems and recorded as "best" practice or "any" practice. These criticisms, however, do not rule out the use of KMIS to improve the curriculum in higher education.

2.3.4 Institutional audits and Quality of Academic programmes

The European Network for Quality Assurance in Higher Education (ENQA) defines accreditation as the judgment passed on courses, programmes, or institutions that meet the predetermined standards or requirements for quality (ENQA, 2001). Correspondingly, the Council for Higher Education Accreditation (CHEA) delineates accreditation as the method used to determine the authenticity and quality of learning institutions (CHEA, 2014). Quality assurance provides essential tools and guidelines for enhancing teaching and learning processes in HEIs Dei, (2019).

Globally, there are three basic models of accreditation used for QA in HE, these include the competitive, decentralized QA model of the US with limited state control; the centralized QA model of Europe; and the mixed QA model of the British system where the state grants self-accreditation status to the universities (Wilkerson, 2017). According to the CHEA (2014), the US institutional accreditation agencies have been adopted across many nations and have accredited more than 8,300 HEIs across the globe. Some institutions

seek global accreditation in addition to their national QA agencies. For instance, a study by Cheng (2015) found that most institutions in Taiwan seek US-based accreditation in addition to the recognized qualifications in their country.

Another worldwide association for QA in HE includes the International Network of Quality Assurance Agencies in Higher Education (INQAAHE), which has member organizations majority of whom are QA agencies. The INQAAHE, which was established in 1991 focuses on three foundational approaches; accreditation, quality assessment, and academic audit (Dill, 1996). Generally, the state governments have regional accreditation agencies that conduct accrediting activities for educational institutions and academic programmes based on predetermined standards and regulations. The governments in the states depend on accreditation for assuring quality and standards of programmes and educational institutions for the placement of students and public funding. Other categories of accreditation agencies include career-related agencies and specialized or professional agencies that focus on a programme in a particular discipline such as nursing, engineering, and law (Wilkerson, 2017). In most cases, the accrediting agency publishes a list of programmes that are accredited and/or recognized by a particular professional body on their websites (Cheng, 2015).

The main goal of accreditation is to evaluate and certify the educational quality of HEIs. Accreditation standards vary from country to country. A study by Cardoso (2017) established that with the increasing concerns about educational quality, there has been a shift from mere improving quality to a

higher level of institutional accountability. His findings indicate that most educational institutions focus more on responding to the external QA requirements for compliance rather than enhancing their internal QA mechanisms. Thus the primary goal of accreditation is quality improvement and assurance of educational institutions (Pham & Paton, 2019).

A study by Hayward (2006) established that licensing and audit play a big role in ensuring accountability of institutions of higher learning and middle-level Colleges. Since many universities cannot account for their expenditure, programme quality, or the teaching output of their teaching faculty. The challenge for QA in higher education is to build a desirable balance between external demands for quality and the creation of the conditions that allow the flourishing of internal quality assurance procedures and processes.

According to a study by Hegji (2020) on learning institutions in the USA, Institutions that want to be included in the federal government programmes offered by the Department of Education (ED) must be accredited by an agency recognized by the ED as a credible authority on the quality of service that they offer. The function of accreditation in HEIs is to serve as a gauge of acceptable quality and standards at learning institutions and their programmes (Hegji, 2020). The United States of America does not have a centralized authority that provides a singular control over learning institutions. To meet the minimum required standards, the federal government depends on the accrediting agencies that are recognized by ED. Stakeholders have graded accrediting agencies into three general types with each serving a specific

purpose (Lindgrensavage, 2016). These include regional accrediting agencies that work in certain areas across the United States of America; National accrediting agencies that operate across the USA and examine proprietary, career-related, and religious-based institutions, and the programmatic accreditation authorities located around the country that review individual higher education institutions (Ledger, Vidovich, & O'Donoghue, 2014). HEIs must request to be accredited together with their programmes since it is voluntary. Therefore, the review procedure begins with HEIs self-evaluation, then it is followed by an external review by HEI practitioners, a detailed report is submitted to the accrediting body, and the accrediting agency determines accreditation and does a regular review of the accredited institution or programme. Apart from the federal government relying on accrediting bodies to assess the standards and quality of education, the HE Authority together with the Department of Education have regulations outlining the requirements that accrediting bodies must meet to be recognized by the Department of Education. This includes: consistently enforcing standards that make sure the educational programmes offered are of the required quality and accomplish the purpose they are offered, reviewing the standards used to access students' accomplishments subject to the higher education institution's mission, and ensuring course completion and work placement rates, review the higher education curriculum, management capacity, facilities, and resources (Brittingham, 2009).

The federal law points out that the Department of Education shall not exercise control over the education curriculum. Therefore, the Higher Education

Authority has set out three requirements (programme integrity triad) that higher education institutions must meet. These include accreditation by an authorized accrediting agency, state authorization and recognition by the Department of Education (Brittingham, 2009). The Department lists the functions of accreditations as; assessing the quality of academic programmes, developing a norm of progressive improvement of academic quality and standards, adequate staff involvement, reviewing and planning and forming a criterion for professional certification and licensing, and improving courses offered (Stensaker, 2011). The renewal of the accreditation process of learning institutions and programmes in the USA is done in a cycle ranging from every few years to 10 years. Annual fees from learning institutions and programmes accreditation review charge generally fund the accrediting bodies. In some instances, the accrediting bodies receive fund aid from sponsoring institutions, government, or private foundations (Ledger, Vidovich, & O'Donoghue, 2014).

The approved government agency for accrediting university programmes, recognition for qualification, licensing, auditing, inspecting, and indexing students in Kenya is the Commission for University Education (CUE), Universities Act (2016). The Commission developed standards and guidelines for use by learning institutions across the country that ensures compliance with the law, and the Universities Regulations 2014. Each learning institution domesticates the standards and guidelines in its statutes, policies, procedures and guidelines in discharge of its mandate. The universities standards and guidelines are used as the frameworks for the institutional and programmes audits.

2.4 Summary of Literature Review

The rising demand for high-quality educational programs has emphasized the necessity for learning institutions to combine rigorous and clear quality-control measures. Despite a large amount of research regarding quality assurance and standards in learning institutions, there isn't any general agreement about the most effective quality assurance mechanisms which institutions can use to enhance the standards of their academic programmes (Mensah, 2020). To enhance the standards of teaching and learning processes, many institutions use a variety of quality approaches.

As a result, this study aims to determine the effect of ISO 9001 standards, Total Quality Management, knowledge management, and institutional assessments on the quality of academic programs in Kenyan higher education.

Accreditation is one of the most prevalent QA practices in Higher Education that sets the baseline for judging the quality of educational standards. Harvey (2004) viewed accreditation as the process of establishing or reinstating the appropriateness, status and legitimacy of a learning institution or programme of study. Though accreditation ensures sufficient quality and standards of education, in many nations, its primary goal is to ensure control of the programmes on offer in the education sector (Andreani, 2020). Institutional accreditation involves the provision of an operational license based on the government agency's specified minimum requirements such as academic resources, student numbers, research activities, and staff qualifications (Harvey, 2004; Nguyen, 2017; Sadler, 2017). Further, programme accreditation is the process of certifying programmes based on their academic

standards or professional competence (Harvey, 2004). The scope of this research centred on the learning programme quality of HEIs in Kenya.

Programme accreditation focuses on three key aspects; inputs (staffing, resources, and curricula design and content), process (teaching process, mode of delivery, and student support), and outputs (graduate capabilities and employability) (Alani & Ilusanya, 2008; Andreani, 2020; Dill, 1996; Harvey, 2004; OECD, 2008). A study by Bowker (2017) examined the link between accreditation and academic programme reviews and concluded that aligned programme reviews simplify the accreditation process and enhance the credibility of programmes.

One of the techniques employed by educational authorities to improve education quality is the implementation of the TQM concept in higher education.

TQM ideas, according to researchers, enhance the quality of teaching and learning (Dejager & Nieuwenhuis, 2005; Psomas & Antony, 2017).

Furthermore, the findings show that there exists a correlation between effective implementation of Quality management concepts and the general quality of academic programmes in higher education (Owlia & Aspinwall, 1996, 1997, 1998; Sirvanci, 2004; Srikanthan & Dalrymple, 2007; Venkatraman, 2007). Research has highlighted two types of TQM components that are used in Higher Education: hard and soft management concepts, principles, and practices (Zwani, 2014).

Quality and standards in HE are adapted as a way of ensuring transparency and accountability. The ISO 9001 standard is among the well-established quality management frameworks globally, others include EFQM and MBNQA excellence models (Rosa, 2012; Mizikaci, 2006). The ISO 9001 assures the consumers that the services and products produced meet the minimum standards of quality. The ISO 9001 series of standards are increasingly being adopted by the Higher Education Institutions (Ali, 2018; Basir, 2017; Okwiri & Mbeche, 2014).

From the existent literature, most HEIs particularly the public institutions implement ISO 9001 standards mainly for compliance with the regulatory directives (Ab Wahid, 2019; Kohoutek & Westerheijden, 2014; Manatos, 2017a; Papadimitriou & Westerheijden, 2010). Additionally, several previous studies conclude that most HEIs implement ISO 9001 QMS virtuously for attaining a certificate rather than utilizing it for building a culture of continuous improvement for sustainability (Moturi & Mbithi, 2015; Okwiri, 2013; Papadimitriou & Westerheijden, 2010). According to a study by Ab Wahid (2019), ISO 9001 based quality management system (QMS) has a favourable effect on the quality of academic programmes as the QMS embrace various quality aspects closely related to the evaluation of academic programmes, these include; self-assessment, quality audits, accreditation, process management, and data management. Similarly, the QMS are based on the internationally accepted components and concepts of what constitute quality in higher education. A similar study by Dumond and Johnson (2013)

established that ISO 9001 elements aide in improving the quality of academic programmes.

ISO 9001 is grounded on eight key quality management principles, which include; (1) customer focus, (2) system approach, (3) process management (4) leadership, (5) people involvement, (6) factual approach to the decision-making process, (7) continuous improvement, and lastly (8) supplier mutual relationships (O'Mahony & Garavan, 2012). These QMS principles provide guidelines to the organization on process improvements in terms of meeting customer requirements and expectations. This study focused on the ISO 9001 quality principles that provide requirements of QMS for improving the quality of academic programmes. In a world dominated by huge technology, knowledge management is becoming a source of long-term competitive advantage. KM has been connected to business excellence in previous research. According to Mahdi (2019), knowledge management practices assist HEIs to forecast their future orientation and long-term competitiveness. HEIs should continuously develop, preserve, exchange, and utilize knowledge within the organization, according to the researchers, to gain a sustained competitive advantage. The proper deployment of KM procedures in Higher Education reaps numerous benefits. Effective KM strategies, according to Brewer and Brewer (2010), improve an institution's ability to serve both internal and external stakeholders.

Though there is a close relationship among ISO 9001 Standards, TQM, KM, Institutional audits, and the academic programme quality, to the researcher's knowledge, this might be the first research to pool the four constructs in one

research. Thus, this study assesses the influence of quality assurance practices on the quality of academic programmes. The approaches include ISO 9001 Standards, TQM, KM, and Institutional audits. Table 1 shows a summary of the literature on the interrelationships and influence on the academic programme quality among the four constructs ISO 9001 Standards, TQM, KM, and Institutional audits.

Table 2.1

Summary of Reviewed Literature and Knowledge Gaps

Constructs	Studies	Key research focus and findings	Gaps	Contribution to the current study
Institutional Audits	Dill *et al.* (1996)	Examined QA mechanisms: academic audit, accreditation and assessment *Findings*: accreditation enhance academic programmes quality though other QA mechanisms are required	The link to the academic programmes needs more clarification	QA practices in HE: accreditation, quality assessments, and quality audits
	Andreani *et al.* (2020)	Investigated the relevance of accreditation systems on the quality of university programmes *Findings*: quality of academic programmes is influenced by many other factors. Accreditation is just one of them	Fragmented information on accreditation	Impact of accreditation system on academic programmes
	Bowker (2017)	Investigated the benefits and pitfalls of aligning accreditation and academic	More clarity on the impact of accreditation on academic	Accreditation and quality of academic programmes

Constructs	Studies	Key research focus and findings	Gaps	Contribution to the current study
		programme reviews in HE *Findings*: accredited and aligned programmes enhance customer contentment	programme required	
	Harvey (2004)	Studied accreditation processes in HE *Findings*: identified three key accreditation aspects: inputs (staffing, resources, and curricula design and content), process (student support, teaching process and mode of delivery), together with outputs (graduate employability and capabilities)	More clarity on the quality of academic programmes	Programme accreditation elements
TQM	Psomas & Antony (2017)	Studied TQM elements in HE *Findings*: TQM elements include: leadership, student focus, strategic planning, top leaders' commitment, teaching staff involvement and process management,	The linkage to the impact on academic programmes quality is required	TQM elements
	Sahney (2016)	Studied the benefits of embracing TQM principles in Higher Education. Devised an integrated customer-centric quality management model for education. *Findings*: identified customer-focused quality components	The influence on the quality of academic programmes is needed	TQM components

Constructs	Studies	Key research focus and findings	Gaps	Contribution to the current study
		in which TQM can be designed in HE		
	Dejager & Nieuwenhuis (2005)	Developed a TQM model for academic excellence and linked it to student satisfaction and performance *Findings*: TQM elements enhanced student academic performance	Quality of academic programmes	TQM contribution to education quality
	Bayraktar *et al*. (2008)	Studied TQM in university education and identified fundamental aspects of TQM in learning institutions *Findings*: Devised a tool for measuring TQM implementation in HE	Clarity on the impact on the quality of the academic programme	TQM elements
ISO 9001 sandard	Dumond & Johnson (2013)	Examined quality management approaches including ISO 9001 and their impacts on the educational quality *Findings*: ISO 9001 is effective if implemented well	A conceptual paper thus empirical data is required	ISO 9001 components
	O'Mahony & Garavan (2012)	Investigated the implementation of QMS in HE *Findings*: identified four key components of ISO 9001: leadership and sponsorship, quality processes, culture change management and stakeholder engagement	The association to the quality and standards of academic programmes	ISO 9001 components
	Moturi & Mbithi (2015)	Studied the effect of ISO 9001 and its effectiveness on	The connection to the quality of	ISO 9001 components

Constructs	Studies	Key research focus and findings	Gaps	Contribution to the current study
		UoN systems performance *Findings*: effective implementation of ISO 9001 QMS leads to significant achievements. Identified QMS elements: work environment, quality processes, student focus, ICT infrastructure, record management, infrastructure and facilities, and rankings	academic programmes	
	Ab Wahid (2019)	Studied challenges facing HEIs in implementing and sustaining ISO 9001 *Findings*: identified critical success factors of QMS (training, people's commitment, and flow of communication) and challenges (lack of process and standards knowledge, resources, relevant skills, commitment and cooperation, and inadequate communication channels)	The relation to the quality of academic programmes	KM elements
Knowledge management	Veer Ramjeawon & Rowley (2017)	Studied key enablers and obstacles to KM in HE. Identified KM: knowledge creation, sharing, and transfer. *Findings*: most HEIs lack operational KM strategy. identified KM enablers (qualified staff,	No clear link to the quality of the academic programme	KM practices and strategies

Constructs	Studies	Key research focus and findings	Gaps	Contribution to the current study
		library resources, incentives, IT infrastructure) and KM barriers (lack of policies, vision, resources, data, research grants, knowledge sharing culture, incentives, heavy workload, leadership changes, weak industry linkages, and interactive web portal)		
	Brewer & Brewer (2010)	Examined the interrelationship between KM, human resource management (HRM), and quality of academic programmes _Findings_: HRM activities and academic programme enhancement activities should focus on evaluating and improving knowledge, skills, and capabilities of human assets to generate an enduring competitive advantage	The focus on aspects of academic program quality	Knowledge classification: tacit and explicit and knowledge dimensions: factual, conceptual, procedural, and metacognitive
	Gill (2009)	Studied KM in HE to identify key challenges _Findings_: identified key elements of a KM system: core competencies, cultural change, strategic leadership, community partnerships, reward and recognition,	The link between KM and academic programme quality	KM components

Constructs	Studies	Key research focus and findings	Gaps	Contribution to the current study
		infrastructure, and technology		
	Rowley (2000)	Analysed the applicability of Knowledge Management in HEIs *Findings*: identified KM components: learning facilities, information systems, electronic data collections systems, culture change and values, structures and reward systems	Relevance to the quality of academic programmes	KM components

2.5 Theoretical Framework

There exist various theories that explain the concept of ISO 9001 Standards, TQM, KM, and Institutional audits. The scope of this research, however, was limited to the following theories; Deming's Quality Management theory and the Neo-institutional theory.

2.5.1 Deming's Quality Management Theory

This study had its basis on the Quality Management theory by Edward Deming. This theory embraces the steadfast concept of improvement but with a limited budget Deming (2012). This concept reveals that the idea of tolerance demeans quality because leaders relax when they learn that many products or services fall within those tolerable limits. Edward's TQM conceptual statements resulted in the formation of fourteen management levels which include; acceptance of a new philosophy, development of commitment of intention, cessation of reliance on inspection of masses, refusal to award

business based on the price, initiation of revolutionary management methods, goal of constant production and service enhancement, the introduction of revolutionary job training, elimination of quotas and requirements, ensuring that everyone is qualified and skilled, elimination of company concerns, deconstruction of departmental obstacles, removal of quantity-based work targets, promotion of pride in craftsmanship, and ensuring that the top management system recognizes all the preceding points (Davis & Goetsch, 2014). Sallis (2014) examined the utilization of TQM in learning Institutions and established that various companies and universities in the UK had adopted Deming's concept of TQM. These include the Stewart Process Plan-Do-Check-Act and the system of profound knowledge (Nadim & Al-Hinai 2016). The system of profound knowledge comprise the theory of knowledge – mastery of what can be known, knowledge of variation – grasping variation and what triggers its occurrence in the organization, system appreciation – grasping how procedures and systems of the organisation work, and knowledge of psychology-human nature understanding.

In its long-term planning process, Aston University in England, for example, implemented Deming's theory of TQM and continually improved in quality. The University customized TQM and fully recognized specific learning dimensions, acknowledging that learning is a service with no tangible "good."

Sallis (2014) suggests pertinent areas which require the attention of TQM, including the cost of service, mode of delivery, awareness creation, and management. Wanza, Ntale, and Korir (2017) contend that the theory of Deming offers a clear blueprint on how managers ought to include

stakeholders at all organizational levels. The dedication of management towards a university is essential in providing leadership.

Lin and Zhang (2019) revealed that the main objective associated with TQM is to retain a distant future and progressive development of a specific institution in the basic operation. TQM is defined by the series of evolutions and consolidation in the management techniques of different higher education institutions. Therefore, Deming points out one essential and critical point of an organization as the customer. This implies that the students should be the most important aspect of an institution when applying TQM concepts. This concept of having a customer-focused aspect shows that the product quality and general performance outcome must be integrated into the production management process. Hence, the nurturing effect of student-focused processes is a crucial indicator utilized in assessing the quality of teaching in educational institutions. Deming integrated a market study and survey of product quality that initiated the need for most Japanese products globally. He stressed that continuous quality improvement in the products because of the surveys will develop a chain outcome in the institutions' growth and development. Hence, these surveys should be used by learning institutions to improve the standards and quality of learning and teaching. Finally, Deming integrated all the aspects that included quality, statistics, and the surveys into a different theory known as the theory of management. Hence, the implementation of TQM in learning institutions needs proper understanding and development of a conducive environment for suitable outcomes in their performance.

Deming emphasized the fact that quality does not concern more products but people. Customer satisfaction is defined by quality, and because the needs of customers are not constant and their expectations are ever-changing, there is a need for the organization to adapt and respond to the change. Deming devised a 14-point method for firms to adopt to improve quality at every level of their operations. It contains the following items: Improve a constant drive; accept the new philosophy; discontinue relying on inspections; utilize a single supplier for any given commodity; Continuously and indefinitely improve; Employ on-the-job training; Eliminate fear by implementing leadership. Dismantle the barriers that exist between departments; Get rid of slogans that aren't clear; Remove management by objectives from the equation; Remove any obstacles to pride in one's work; Implement self-improvement and education, and make "transformation" a team effort. The 14 elements, considered together, serve as a reminder of the need for more consumer awareness, diminishing variety, and boosting constant change and development throughout the organisations.

Kalvin and Malek (2018) researched the application of advanced management standards in learning institutions in line with TQM in HE. The study investigated the fourteen principles of Edward Deming, analyzing the principles for the zero-idea defect and quality management. It also examined the plan in place for quality in the quality management process.

Khan, Malik, and Janjua (2019) evaluated the effects of TQM procedures on the performance of university staff. They studied the mechanism by which

these procedures affect the staff performance and established that TQM practices positively and notably determined staff performance, job satisfaction, and work commitment.

Deming principles do not give specific guidelines concerning what or how to do. The principles rather consider Deming's philosophy on quality and efficacy as highlighted by Frank et.al (2019). Bagrova and Kruchinin (2021) conducted a study to examine the viability of implementing Deming's 14 points in Russian higher education and considering partially using virtual solutions. They established that Deming's philosophy assumed that quality was structured. The primary goal of management is to build products and services of good quality, effectiveness, lasting demand, and cost reduction. Organizational Managers should not be controlling quality level but rather be continuously improving it. This must be done by motivating and organizing staff as suggested by Saeedi (2017). Deming (2012) states that every worker usually strives to meet the quality targets when motivated by pride in their work thus high-quality labour is achieved as a result of pride in their work and self-esteem. As per Deming's philosophy, innovative technologies may result in a reduction in productivity and quality. According to Saeedi (2017) when implementing Deming's principles, there has been a major part of government restrictions on HEIs. The primary one is the government's evaluation of the effectiveness of learning institutions by use of quantifiable objectives and particular metrics, which are discordant with Deming's understanding of quality. Deming (2012) also states that there is a lot of restriction involving the removal and addition of staff that may cause monetary incentives necessities.

This condition has resulted in the government-managed learning institutions becoming unable to fully implement the Deming fourteen principles. As a result, private learning institutions have better opportunities to develop and enhance their quality. In the current dispensation of distant and online learning, private HEIs can have the potential to be more effective, efficient, and competitive.

2.5.2 Neo-Institutional Theory

James G. March the American political scientist and Johan P. Olsen the Norwegian political scientist are considered the leading founders of the neo-institutional theory in the early 1970s. It came into perspective as a result of organizations responding to economic pressure due to inadequate resources. The theory suggests that such organizations respond to social pressure by the environment that was created by the said organizations. Further, the theory became famous because it was able to break down how organizations defy logical economic explanations and thrive. The Neo-institutional theory assumes that the social as well as symbolic pressure, which arises from the institutional environment, are given attention (Suddaby, Seidl & Kyle, 2013)

According to Guo, Tao, Yan, Chen, and Wang (2014), many organizations operate under rules and regulations with assumptions over what constitutes an ideal form of behaviour. Studies supporting Neo-Institutionalism theory highlight that for an organization to survive it must comply with the institutional environments. Various scholars have argued that the regulations that are adopted by institutions are determined by the level of measure of

institutionalism. The Neo-institutional theory is based on organizational adaptability to customs in the environment. A Neo-institutional approach focuses on the firmness of an institution and challenges change which are within the organization. Most importantly Neo-institutionalist March and Olsen gave special attention to the firmness of an institution and challenges to change. This has demonstrated attempts put forward by organizational changes that end up being frustrated by organizational resistance. Most changes in such organizations come into place due to stable routine responses that tie the organization to its environment.

According to Stensaker et al. (2019), they established that neo-institutional theory proposes that HEIs and higher education in general, irrespective of their status or location, will declare their strategic goal of being "world-class" and follow a comprehensible legitimate strategy to achieve this. They suggest that neo-institutional theory eventually leads us to expect a global commanding narrative that cancels out the status and location difference of higher education institutions. Globalization factors that drive higher education have changed the education sector and resulted in them being increasingly homogenous. The increasing similarities among learning institutions have been accredited to isomorphic influence that increases legitimacy by emulating HEIs that are regarded as successful globally, most particularly those higher education institutions that are top-ranked globally. Based on Suchman's three types of legitimacy: moral, pragmatic, and cognitive, the study established that stratified learning institutions' strategies in a global higher education setting varied by the learning institution status. Patterns associated with the

globalization of learning institutions are based on status differences that contribute to the varied location of higher education institutions following new strategies and ways in pursuance of building an external legitimacy.

According to Neo-institutional theory, institutionalized ideas pressure organizations to adopt similar goals and structures in search of legitimacy, a process called an isomorphism. Isomorphism is used in many sectors of higher education such as steadiness in academic departments, faculty and department allocation of time, and administrative tasks (Evans, Marsicano & Lennartz, 2019).

Considering the three different types of isomorphism mimetic, coercive, and normative. Mimetic isomorphism happens when institutions develop themselves after similar institutions in the same sector are perceived to be more legitimate. Normative isomorphism also known as the professionalization of the field may lead to the homogenization of public engagement across institutions. This gives pressure on institutions to join a similar professional system. Coercive isomorphism boosts the homogenization of higher education through laws for student funding, government job placements, and labor force preparation through public engagement. In higher education, decoupling is a process in which institutions set goals and strategies without engaging in activities that are important to these goals and structures.

According to Kanwar, Mohee, Carr, Ortlieb, and Sukon (2019), the application of neo-institutional theory has been on a higher rise in higher educational institutions' research. Neo-institutionalism examines how systems,

structures, rules, standards, and customs limits or propel change. This change may be propelled by forces inside the higher education institutions (endogenous forces) or by a response to outside factors (exogenous forces). Neo institutionalism acknowledges the difficulty of institutional change. Higher education institutions are vulnerable to pressures from external regulatory and statutory requirements such as accreditation, regulations and legislation which impact the operations of the institutions. The two theories complement each other in making the study complete because Deming's Theory of Quality Management deals with internal aspects of an organization while the Neo-Institutional theory is more on the external environment influencing the survival of organizations.

2.6 Conceptual Framework on Quality Assurance Practices and Quality of Academic Programmes

This study proposed a conceptual framework that deals with the knowledge gaps found in the literature about the four constructs: ISO 9001, TQM, KM, and Institutional Audits. Figure 1 illustrates the interconnectedness between the dependent and independent and moderating variables.

Figure 1

Conceptual Framework on Influence of Quality Assurance Practices on Quality of Academic Programmes

Adoption of ISO 9001 QMS
- Currency of QMS
- Academic programme attributes
- Academic Performance Measures
- Stakeholders Performance Metrics

Total Quality Management Implementation
- Leadership Role
- Customer focus
- Engagement of Staff
- Process approach
- Continual improvement
- Relationship management
- Fact-based decision-making

Utilization of Knowledge Management
- Knowledge Management Technologies
- Knowledge-sharing culture
- Resources in Library repositories
- Research output inform curriculum review and development
- knowledge generated in research utilized

Institutional Audits
- Audits conducted
- Audit reports acted on
- Monitoring and Evaluation done
- Voluntary requests for Audits
- Adherence to quality standards

Quality Academic Programme
- Accredited
- Benchmarked
- Aligned to industry needs

Moderating variables
- Government policies and circulars
- Universities Regulations, standards and guidelines
- Political and Economic Environment

The independent variables (ISO 9001, Total Quality Management, Knowledge Management, and Institutional Audits) have a relationship with the dependent variable (Quality academic programmes).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section describes the methods used to conduct the research. The section covers research design, targeted population, sample size, sampling techniques, research tools, pilot study, instrument validity and reliability, data collection procedures, data analysis, and ethical concerns used in this study.

3.2 Research Design

Research design is defined as a system of methods and techniques used by the investigator to logically incorporate diverse elements of the study to solve the research question (Creswell, 2014). From the definition, a descriptive survey was used to enable participants to describe the prevailing situation in the environment. The design is suitable for large samples, which makes the results statistically significant even when evaluating multiple variables. The design helped in investigating quality assurance practices in learning institutions that influence the quality of academic programmes a case for the Faculty of Education, University of Nairobi, Kenya.

This study employed the positivist research paradigm, in which the researcher was able to deploy data collection tools that were filled by the respondents that helped understand the phenomenon under investigation. The Positivist paradigm promotes the use of quantitative research as the foundation for a researcher's ability to be precise in describing the parameters and coefficients in data that is collected, analyzed, and interpreted to understand the relationships that exist in the data. There are various assumptions linked to the

Positivist paradigm that includes ontological, epistemological and axiological. Ontological assumptions assert that there is only one fixed, measurable, and observable reality, whereas epistemological assumptions assert that true knowledge is objective and quantifiable. Furthermore, according to axiological assumptions, the investigator's subjective values, intuition, and biases are significant because they play a role in the social construction dialogue and inform his or her interpretation of the data.

3.3 Target Population

This study targets targeted 1540, which included 370 lecturers at the Faculty of Education and service lecturers from other faculties, 25 heads of academic units at the Faculty of Education, and other service faculties (Science and Technology; Arts and Social Sciences, and Business and Management Sciences) and 1145 Bachelor of Education alumni (2016-2017). The study selected the graduates between 2016 and 2017 because they were not too old in the job market and could recall and relate what they learned with what they were doing hence the generalisation of data on the subject under the survey. The study's key informants were the Commission for University Education and the University of Nairobi's Quality Assurance Unit.

3.4 Sample Size and Sampling Procedures

The part of the population chosen for the study is referred to as a sample (Bell & Bryman 2022). The Sample size was calculated at a 95% level of confidence and a 5% precision. The researcher used purposive sampling to select the Faculty of Education at the University of Nairobi. Purposive sampling was used since the study was delimited to the quality of B.Ed.

programmes, which are offered by the faculty of education and serviced by several other faculties. The key informants were purposively selected due to their nature of work that relates directly to the quality of academic programmes. Purposive sampling is a type of non-probability sampling in which researchers select members from the population to take part in their survey based on their judgment (Campbell, 2020). To get lecturers and alumni, a simple random sampling technique was applied and it offered both alumni and lectures an equal chance of being sampled. A minimum ratio of 30% is recommended for populations under 1,000 to ensure that the sample is representative (Ryan, 2013). For larger populations, such as a population of 10,000, a comparatively low minimum ratio of 10% of individuals is required to ensure the sample's representativeness. (Neuman, 2007). Table 3.1 summarizes the study sample.

Table 3.1

Sampling Frame

	Target Population	**Sample Size**
Heads of academic units at the Faculty of Education and other service Faculties (Arts, Social Sciences, Business and Management Sciences, Science and Technology)	25	16
Lecturers at the Faculty of Education and service lecturers from other faculties	370	111
Bachelor of Education Alumni (2016-2017)	1145	344
Total	**1540**	**471**

3.5 Research Instruments

The investigator in the collection of data from the field used the questionnaires and key informants tools. There were three questionnaires, that is, one for

heads of academic units and other service faculties (Appendix II), another for Lecturers at the Faculty of Education and service lectures from other faculties (Appendix III), Bachelor of Education Alumni (2016-2017), (Appendix IV) and key informants schedule (Appendix V). The questionnaires and key informants schedule had a question regarding respondents' general information and key highlights on the quality criteria of an academic programme, ISO 9001 standards adoption, Total Quality Management (TQM) implementation practices, knowledge management utilization, and Institutional Audits. These allowed for the generalization of the findings by interpreting diverse views from all the respondents. The following section outlines the results of the pilot study conducted to improve the data collection tools.

3.5.1 Pilot Study

A pilot study in research is small feasibility research made to examine different aspects of the stipulated research tools for a larger, rigorous research investigation. Pilot studies are often used to refine training strategies for the research personnel and establish if initial findings support the larger, more rigorous investigation research. The more rigorous investigation involves more rigorous methods to estimate the sample size and randomization. (Lowe, 2019)). According to Polit and Beck (2017), the main reason for conducting a pilot study is not to give a specific answer to a particular research question but to avert researchers from initiating an extensive study without enough and proper knowledge of the methods suggested, hence a pilot study is carried out to prevent an event where a serious flaw in a study may occur which is costly

in terms of funds and time (Polit & Beck, 2017). The pilot study was conducted at the School of Open and Distance Learning (SODL), which offered a bachelor's degree in education by distance learning mode. The Dean and Department Chairs were purposefully selected, while lectures and alumni were drawn at random from departments and cohorts from 2016 to 2017. The pilot study revealed that the research instruments were valid and reliable.

3.5.2 Validity of the Research Instrument

Validity describes how the collected data is measured in the field of study. Taherdoost (2016). Instruments for data collection were carefully designed to avoid vagueness and to enable respondents to give precise responses. The pilot study's results were used to improve the instruments by correcting the ambiguous questions and amending the unreliable constructs. Curriculum development and QA experts examined the instruments and provided feedback, which was used to adjust and streamline the test items. This aided in improving the reliability of the questionnaires used for assessing the subject under study.

3.5.3 Reliability of the Research Instrument

The term "reliability" refers to the degree to which research tools produce consistent results when used multiple times (Tsinidou, Gerogiannis & Fitisilis, 2010). The accuracy of the research tool was tested by administering the questionnaire to a pilot group. Findings were utilized to improve the test items of the research instrument. Cronbach alpha (α) will be applied to gauge internal consistency, which indicates how well a set of test items performs on

one latent variable. Furthermore, high reliability was achieved by providing a consistent stimulus to all subjects, which ensured that observer subjectivity was greatly reduced (Mohajan, 2017). From the findings in Table 3.2, all the variables had their reliability index above 0.7 with an average of 0.762, which implied that the variables were reliable.

Table 3. 2

Reliability Test Results

Variable	Reliability index
Adoption of ISO 9001 Standards	0.702
Implementation of TQM	0.806
Knowledge Management	0.784
Institutional Audits	0.811
Quality Academic programme	0.709

The researcher used a test re- test technique to ensure reliability.

The questionnaire was pre-tested by a few heads of academic departments at the University of Nairobi. Some research questions were realigned, some refocused, some removed, and new ones developed. This helped in refining the research instruments.

3.6 Data Collection Procedure

A letter for permission to collect data from the University was obtained (Appendix VII). In addition, a data collection permit (Appendix VI) was also acquired from NACOSTI. The data collection tools were prepared and administered to the participants and their collection dates were determined. The tools were prepared in Google forms and then emailed to the respondents. Respondents had two weeks to complete the emailed Google forms questionnaires, and reminders were sent where there were delays in filling

them. The daily progress of field data was monitored to gauge the response rate (69.4%).

3.7 Data Analysis Techniques

Quantitative analysis results were generated whereby data coding and entry were performed by the use of SPSS Version 25.0. Multiple regression analysis models were used to establish the relationship between variables and obtain an answer to the research questions by fitting an equation to the observed data. The multiple regression formula at a 95% level of significance was indicated as $U_y = \beta0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4$, Uy stand for the dependent variable

X_1 through X_4 are distinct independent variables, $\beta0$ is the value of Y when all of the independent variables (X_1 through X_4) are equal to zero, and β_1 through β_4 is the estimated regression coefficients.

Descriptive statistics (mean frequencies and percentages) were applied, while inferential statistics were applied to establish the relationship between variables using regression analysis. Data were tabulated into tables and explained in prose. Specific data for each research question are displayed, as well as data for a group of study questions that have common data shown. Analysis of the four hypotheses was done using the Chi-Square test ($\chi2$), at a 0.05 level of significance to test each hypothesis.

3.8 Ethical Considerations

To ensure compliance with ethical and legal standards, the researcher adopted ethical standards and principles that govern research as recommended by Collogan, Tuma, Dolan-Sewell and Borja (2004). The researcher sought

90

informed consent from the research participants where the respondents were made to understand that the research was for intellectual purposes only and that anonymity of the respondents was guaranteed. A research permit was obtained from the University of Nairobi and NACOSTI (National Commission for Science, Technology and Innovation) for authorization of the research.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION, AND DISCUSSION

4.1 Introduction

This chapter discusses the return rate of questionnaires, demographic data findings, and descriptive statistics for academic programme quality, ISO 9001 standards adoption, Total Quality Management implementation, knowledge management methods, and Institutional audits. Lastly, the results of the multiple regression analysis are presented.

4.2 Questionnaire Response Rate

According to this study, the response rate consisted of 471 respondents who took part in the survey for data collection compromising heads of academic units, lecturers as well as alumni. The findings from the return rate from questionnaires are displayed in Table 4.1.

Table 4. 1

Response Rate Instruments

	Sampled	Questionnaires returned	Return Rate
Heads of academic units at the Faculty of Education	16	12	75.0
Lecturers	111	76	68.5
Alumni (2016-2017)	344	239	69.5

The scholar recorded a 75% questionnaire return rate for heads of academic units (Deans of Faculties and Chairs of Departments teaching and serving B.Ed. programme), lecturers was 68.5% and that of alumni (2016-2017) was 69.5%. The questionnaire return rate for all categories was adequate for data analysis since they were more than 50%. This correlates with Creswell (2014)

who recommends that the questionnaire return rate should be more than 50 per cent for any statistical data analysis to be conducted.

4.3 Social-Demographic Profile of Respondents

Demographic information gives general information about participants to establish bio data. This information offered data such as academic unit (Faculty & Department), age, gender, highest academic qualification, title, teaching experience, quality assurance training experience, and employment status.

4.3.1 Units of Faculty Academic Staff

The academic staff's unit (lecturers and heads of academic units) was established in terms of the academic unit (Department) as illustrated in Table 4.2.

Table 4. 2

Academic Unit (Department)

	Frequency	Percent
Department of Educational Management, Policy and Curriculum Studies,	40	45.5
Department of Educational Communication and Pedagogical Studies,	24	27.3
Department of Educational Foundations, Arts and Social Studies	11	12.5
Department of Physical Education and Sport	13	14.8
Total	**88**	**100**

Table 4.2 reveals that 45.5% of Faculty of Education academic staff are the majority in the Department of Educational Management, Policy and Curriculum Studies (45.5%) and the least being from the Department of Physical Education and Sport (14.8%). This implies that most of the

departments of the Faculty of Education were covered by the study and hence the findings could be generalized to equivalent faculties in other universities in Kenya.

 Further, the University academic Staff (heads of academic units and lecturers) were requested to state their ages. Most of the university academic staff were aged between 40 to 49 years which was 56.8%. Other university's academic staff were aged between 50 to 59 years which was 39.8% and 60 to 69 years which was 3.4%. This indicates that the University of Nairobi is dominated by employees aged below 49 years. The age of the respondents reflected the credibility of the findings since the information was collected from a wide scope.

The university academic staff (lecturers and heads of academic units) were also asked to indicate their gender. The findings reveal that females were 52% of lecturers and heads of academic units and males were 48%. Lecturers and heads of academic units were also asked to provide their highest level of education. Most lecturers together with the heads of academic units had a PhD as their highest level of education giving a 78.4% while 21.6% had Master's degrees. This confirmed that the minimum qualification for academic staff was a Master's degree.

4.3.2 Academic Staff Titles

The lecturers and heads of academic units were further requested to indicate their titles as summarized in Table 4.3.

Table 4.3

Title of the University Staff

	Frequency	Percent
Tutorial Fellow	18	20.5
Lecturer	32	36.4
Senior Lecturer	33	37.5
Professors	5	5.6
Total	**88**	**100**

As shown in Table 4.3 indicates 37.5% were senior lecturers, 36.4% were lecturers, tutorial fellows at 20.5%, and the least were professors at 5.6%.

4.3.2 Academic Staff Teaching Experience

The lecturers and heads of academic units were asked to indicate their teaching experience. From the findings, most of the lecturers and heads of academic units had a teaching experience of 6 to 15 years as shown by 60.2% followed by those with an experience of above 25 years as shown by 14.8%.

4.3.3 Socio-demographic characteristics of Alumni

Alumni from the years 2016 to 2017 were determined in terms of gender and employment status.

Table 4. 4

Socio-demographic profiles of Alumni

Gender	Frequency	Percent
Female	120	50.2
Male	119	49.8
Employment Status		
Employed	189	79.1
Self-employed	50	20.9
Where employed		
Public Service	200	83.7
Private	39	16.3
Total	**239**	**100**

Table 4.4 reveals that 50.2% of the alumni (2016-2017) indicated to be female and employed as shown by 79.1%. In addition, most of the alumni were employed in public service as shown by 83.7%. Table 4.4 illustrates the detailed findings. This high percentage implied that most Alumni are employed in public service which shows that the University of Nairobi is regarded to be among universities offering quality academic programmes.

4.4 Quality Criteria for an Academic Programme

The lecturers and heads of academic units were asked to provide any quality assurance training experience. Table 4.5 has tabulated results.

Table 4. 5

Training experience in Quality Assurance

	Frequency	Percent
Yes	64	72.7
No	24	27.3
Total	**88**	**100**

Most lecturers and heads of academic units indicated to have quality assurance training experience as shown by 72.7% while 27.3% indicated having no Quality Assurance training experience. The Quality Assurance training was by the Association of Commonwealth Universities (ACU), the Association of African Universities (AAU), and the University of Nairobi (UoN) as part of a course unit.

The respondents were asked to indicate various quality assurance approaches used at the University of Nairobi. Table 4.6 shows the summary

Table 4.6

Quality Assurance Approaches used in the University of Nairobi

	Frequency	Percent
ISO 9001 Standards	64	72.7
TQM	20	22.7
Knowledge Management	1	1.1
Institutional Audits	3	3.4
Total	**88**	**100.0**

As shown in Table 4.6 72.7% of the quality assurance approaches used in the University of Nairobi included ISO 9001 standards, TQM as shown by 22.7%, Institutional Audits as shown by 3.4%, and Knowledge Management as shown by 1.1%. This implies that the University of Nairobi engages more in ISO 9001 standards and less in Knowledge Management.

The study sought responses from heads of academic units, lecturers, and alumni (2016-2017) to investigate QA practices that influence the quality of an academic programme. The respondents were asked to rate how much they agreed with various statements regarding the quality criteria of an academic programme using a Likert scale of 1 to 5, where 1 meant strongly disagreed, 2 disagreed, 3 neutral, 4 agreed, and 5 strongly agreed. Subsequently, a mean of less than 1.5 denoted strongly disagree, a mean of 1.5 to 2.5 denoted disagree, a mean of 2.5 to 3.5 denoted neutral, a mean of 3.5 to 4.5 denoted agree, and a mean of 4.5 or higher denoted strongly agree. The standard deviation depicts the distribution of measurements more accurately. It represents measurements that are nearer to the exact value than those that fall in the area greater than ± 2 standard deviations. The findings are illustrated in various Tables. Table 4.7

indicate stakeholder involvement as one of the quality criteria for an academic programme.

Table 4. 7

Stakeholders Involvement

Heads of Academic Units	Mean	Std. Dev.
Government involvement enriches the quality of a curriculum	4.167	0.937
Labour market involvement enhances the quality of a curriculum	4.583	0.669
Involvement of students in curriculum development and review is important	4.500	0.674
The involvement of experts enhances the quality of the curriculum	4.750	0.452
Parents should be involved in the curriculum in which their children undergo	4.250	0.866
Society's input is important in curriculum design	3.833	1.030
Lecturers	**Mean**	**Std. Dev.**
Government involvement enriches the quality of a curriculum	2.961	1.428
Labour market involvement enhances the quality of a curriculum	3.329	1.437
Involvement of students in curriculum development and review is important	3.513	1.311
The involvement of experts enhances the quality of the curriculum	3.947	1.557
Parents should be involved in the curriculum in which their children undergo	3.579	1.369
Society's input is important in curriculum design	3.618	0.848
Faculty of Education Alumni	**Mean**	**Std. Dev.**
My department involved the labour market in curriculum review processes	3.038	1.175
My department involved students during curriculum review processes	2.791	1.359
My department invited experts in teaching and learning	3.289	1.404
My department had community engagements that enriched the curriculum	3.167	1.469

Results from Table 4.7 show; that the heads of academic units strongly agreed that the involvement of experts enhanced the quality of the curriculum as displayed by a 4.750 mean rate and standard deviation of 0.452, and that

labour market involvement enhanced the quality of a curriculum as rated by a 4.583 mean and SD of 0.669 and that involvement of students in curriculum development and review was important as evidenced by a mean of 4.500 and SD of 0.674. The more detailed findings are illustrated in Table 4.7. The results concur with observations by Dill (2007) who noted that one of the challenges facing the countries globally was to develop a policy framework that could effectively assure academic programmes quality amid the changing market forces from multiple stakeholders including the industry, government, academic profession, and the society. As a result, several countries have established national qualification frameworks to aid in addressing academic quality issues in their Higher Education Institutions.

Further findings from Table 4.7 showed that lecturers agreed with the statement that the involvement of experts enhances the quality of the curriculum as confirmed mean = 3.947 and SD = 1.557, that society's input is important in curriculum design as portrayed by 3.618 mean and a standard deviation = 0.848 and that involvement of students in curriculum development and review is important as confirmed by a mean = 3.513 and SD of 1.311. Moreover, lecturers agreed with the assertion on parents' involvement in the curriculum, which their children undergo with a mean= of 3.579 and SD of = 1.369. The more detailed findings are illustrated in Table 4.7. The findings support Amaral's (2014) assertion that the commencement of quality assessment campaigns, mainly in developed countries such as the United Kingdom, the United States and Australia, had a major influence on the rapid expansion of Quality Assurance systems in the rest of the world.

From the findings in Table 4.7 on stakeholders' involvement, the alumni were neutral on whether their department invited experts in teaching and learning with a mean = 3.289 and SD = 1.404, that their department had community engagements that enriched the curriculum with a mean = of 3.167, and SD = 1.469 and that their department involved the labour market in curriculum review processes with a 3.038 mean rate and a standard deviation of 1.175. More detailed findings are illustrated in Table 4.7. These results agree with Haughney, Wakeman, and Hart (2020) who explained that when determining the quality of higher education, greater consistency in the application of these quality indicators should be undertaken.

The respondents were requested to give views on statements regarding

Programme and Content at the University of Nairobi as displayed in Table 4.8.

Table 4.8

Agreement with statements on Programme and Content

Head of Academic Units	Mean	Std. Dev.
Programmes have clearly defined and expected learning outcomes	4.833	0.577
The programme's content is aligned with the mission and vision of the institution	4.917	0.289
Programmes are aligned to the UNESCO international standards classification of education and training	4.583	0.793
The programme's content has well-articulated philosophy, rationale, and goals	4.917	0.289
Programmes' structures and contents are kept up-to-date to meet changing market needs	4.667	0.492
Lecturers	**Mean**	**Std. Dev.**
Programmes have clearly defined and expected learning outcomes	4.053	1.346
The programme's content is aligned with the mission and vision of the institution	3.553	1.620
Programmes are aligned to the UNESCO international standards classification of education and training.	3.697	1.265
The programme's content has well-articulated philosophy, rationale, and goals	3.579	1.369
Programmes' structures and contents are kept up-to-date to meet changing market needs	3.224	1.429
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Programmes had clearly defined expected learning outcomes	3.829	1.250
Programmes content was aligned with the mission and vision of the institution.	3.870	1.204
Programmes were internationally benchmarked	3.339	1.068
Programmes had well-articulated philosophies, rationale, and goals.	3.707	1.279
Programmes' contents were kept up-to-date to meet changing market needs.	3.452	1.259

Findings from Table 4.8 shows that the heads of academic units strongly

agreed that the programme's content was aligned with the mission and vision

of the institution with a mean = 4.917 and SD = 0.289, that the programme's

content had well-articulated philosophy, rationale, and goals with a mean = 4.917 and SD of 0.289 and programmes had clearly defined and expected learning outcomes with a mean = 4.833 and SD = 0.577. Moreover, the heads of academic units strongly agreed that programmes' structures and contents were kept up-to-date to meet changing market needs with a mean = of 4.667 and SD of 0.492 and that programmes were aligned to the UNESCO international standards classification of education and training with mean = 4.583 and a standard deviation = 0.793. The findings correlate with Beerkens (2018) who observed that accredited programmes are perceived to be more credible and enable students to perform better in assessments and examination tests. Cardoso et.al (2017) established that accreditation has become a predominant practice of assuring the quality of academic programmes.

More findings from Table 4.8 showed that lecturers agreed that programmes had clearly defined and expected learning outcomes with a mean = 4.053 and SD = 1.346, that programmes were aligned to the UNESCO international standards classification of education and training with a 3.697 mean rate and a standard deviation of 1.265 and that programme's content were aligned with the mission and vision of the institution with a mean = 3.697 and SD of 1.620. In addition, the lectures agreed that the programme's content had well-articulated philosophy, rationale, and goals with a mean = 3.579 and SD = 1.369. However, the lecturers were neutral on the assertion that programmes' structures and contents are kept up-to-date to meet changing market needs with a mean = of 3.224 and a standard deviation = 1.429. The findings correlate with Ryan and Tilbury (2013) who argued that to attain the goals of

education for sustainable development, quality is critical to the curriculum transformation as it interlinks with the core business of the Higher Education Institutions, which comprise institutional leadership, accountability, and sustainability.

Further, on programme and content in Table 4.8, the alumni agreed that programmes content was aligned with the mission and vision of the institution with a mean = 3.870 and SD = 1.204, that programmes had clearly defined expected learning outcomes with a mean = 3.829 and SD of 1.250 and that programme had well-articulated philosophy, rationale, and goals mean = 3.707 and SD = 1.279. However, the alumni were neutral that programmes' contents were kept up-to-date to meet changing market needs as revealed by 3.452 mean and SD = 1.259 and that programmes were internationally benchmarked as illustrated by mean = 3.339 and SD = 1.068. The results correlate to Nabaho and Turyasingura (2019) who noted that QA practices in Higher Education encompass clearly defined student and teacher awards, external assessments, and examinations, stakeholder involvement in curricula development and review, and graduate tracer survey, and research excellence awards. The findings also contradict Amaral's (2014) findings that some higher education institutions in the United Kingdom have not been able to ensure programmes' contents are kept up-to-date to meet changing market needs. Table 4.9 indicate curriculum development and design as one of the quality criteria for an academic programme.

Table 4. 9

Agreement with Curriculum development and design attributes

Heads of Academic Units	Mean	Std. Dev.
The curricula are aligned to the national and international priorities and standards.	4.750	0.452
Internal curriculum development and review policy is in place to guide the process of programme design	4.833	0.389
The curriculum development and review process go through specified internal quality assurance phases.	4.333	0.985
The curricula show the chronology of courses from foundational, specialty, and project/ thesis activities.	4.500	0.674
The curricula clearly show a balance between common and specialty courses	4.417	1.165
The curricula indicate specified pedagogical styles that are learner-centred	3.917	0.669
The curricula are ultimately approved by the external body or agency.	3.667	1.155
Lecturers	**Mean**	**Std. Dev.**
The curricula are aligned to the national and international priorities and standards.	3.697	1.442
Internal curriculum development and review policy is in place to guide the process of programme design	3.697	1.442
The curriculum development and review process go through specified internal quality assurance phases.	3.697	1.442
The curricula show the chronology of courses from foundational, specialty, and project/ thesis activities.	3.579	1.369
The curricula clearly show a balance between common and specialty courses	4.053	1.346
The curricula indicate specified pedagogical styles that are learner-centred	3.842	0.801
The curricula are ultimately approved by the external body or agency.	4.079	0.796
Faculty of Education Alumni	**Mean**	**Std. Dev.**
The curriculum was aligned to the national and international priorities and standards	3.745	1.365
The curriculum was ultimately approved by the external body or agency	3.498	1.159
Curriculum development and review policy were in place to guide the process of programme design.	3.661	1.180
The curriculum showed the chronology of courses from foundational, specialty, and project/thesis activities.	3.996	0.867
The curriculum clearly showed a balance between common and specialty courses.	4.038	1.022

The curriculum indicated specified pedagogical styles that were learner-centred.	3.623	1.037

Information in Table 4.9 indicated that heads of academic units strongly agreed that internal curriculum development and review policy was in place to guide the process of programme design with a mean = 4.833 and SD = 0.389 and that the curricula are aligned to the national and international priorities and standards as pointed out with a mean = 4.750 and a standard deviation = 0.452. The heads of academic units strongly agreed that the curricula show the chronology of courses from foundational, speciality, and project/thesis activities with a mean = 4.500 and a standard deviation = 0.674. Heads of academic units also agreed that the curricula clearly show a balance between common and specialty courses as pointed out with mean = 4.417 and SD = 1.165. More detailed results are shown in Table 4.9. Setiawati (2016) notes that Leadership is critical in the quality assurance effort and higher education institutions must be led by leaders who can effectively apply their leadership.

From the outcomes in Table 4.9, the lecturers agreed that curricula clearly show a balance between common and specialty courses with mean = 4.053 was realized and SD of 1.346. Moreover, the lecturers agreed that the curricula indicate specified pedagogical styles that are learner-centred with mean = 3.842 and SD = 0.801. In addition, lecturers concurred that curriculum development and review process go through specified internal quality assurance phases with mean = 3.697 and SD = 1.442 and that internal curriculum development and review policy is in place to guide the process of programme design with mean = 3.697 and SD = 1.442. More detailed findings

are shown in Table 4.9. This finding concurs with Matovu (2019) who established that staff at Ugandan Universities varied in terms of opinions as regards quality assurance key performance indicators from their colleagues in Kenya regarding the category, gender, classification of the staff and campus.

Moreover, on curriculum development and design, the alumni agreed that the curriculum clearly showed a balance between common and specialty courses with mean = 4.038 and SD = 1.022 and that the curriculum showed the chronology of courses from foundational, speciality, and project/thesis activities with a 3.996 mean rate and a standard deviation of 0.867. Additionally, alumni had the same opinion that the curriculum was aligned to the national and international priorities and standards with mean = 3.745 and SD = 1.365. Moreover, the alumni agreed that curriculum development and review policy was in place to steer the process of programme design mean = 3.661 and a standard deviation = 1.180. More detailed findings are illustrated in Table 4.9. This correlates with Michubu (2019) who found that universities had established internal and external quality control policies and procedures and that stakeholders were occasionally involved in curriculum development and revision. Table 4.10 indicate the quality of academic staff as one of the quality criteria for an academic programme.

Table 4. 10

Quality of Academic Staff

Heads of Academic Units	Mean	Std. Dev.
Academic staff are recruited and promoted based on merit	4.083	0.900
Academic staff are adequate to deliver the programme content	3.250	1.357
Course units are allocated based on qualifications, skills, and experience.	4.583	0.515
Accountability and time management are served by academic staff and students	3.917	0.793
Mentorship of new faculty for succession planning is adequate	3.417	1.379
Lecturers	**Mean**	**Std. Dev.**
Academic staff are recruited and promoted based on merit	3.184	1.581
Academic staff are adequate to deliver the programme content	2.474	1.501
Course units are allocated based on qualifications, skills, and experience.	2.829	1.464
Accountability and time management are served by academic staff and students	2.697	1.211
Mentorship of new faculty for succession planning is adequate	2.105	0.932
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Academic staff were recruited and promoted based on merit	3.418	0.912
Academic staff were adequate to deliver the programme content	3.582	1.081
Course units were allocated based on qualifications, skills, and experience.	3.619	0.992
Accountability and time management were observed by academic staff and students.	3.494	1.118

The findings in Table 4.10 revealed that the heads of academic units strongly

agreed that course units were allocated based on qualifications, skills, and

experience with mean = 4.583 and SD = 0.515. In addition, the heads of

academic units agreed that academic staff is recruited and promoted based on

merit with mean = 4.083 and SD = 0.900 and that accountability and time

management were served by academic staff and students with mean = 3.917 and SD = 0.793. More detailed findings are shown in Table 4.10. The findings concur with Elken and Stensaker (2018) who noted that "there has been a strong emphasis on the search for quality education especially with the persistent educational reforms in Higher Education both locally and internationally". The findings contradict Atashak's (2011) arguments that most universities in Iran are marred with corruption making it hard to recruit and promote academic staff based on merit.

From the findings in Table 4.10, the lecturers were neutral that academic staff were recruited and promoted based on merit with mean = 3.184 and SD = 1.581 and that course units were allocated based on qualifications, skills, and experience with mean = 2.829 and SD = 1.464. Further, on the quality of academic staff, the alumni agreed that course units were allocated based on qualifications, skills, and experience as indicated 3.619 mean and 0.992 standard deviations and that academic staff were adequate to deliver the programme content as evidenced mean = 3.582 and a standard deviation = 1.081. More detailed findings are illustrated in Table 4.10. The findings correlate with Ryan (2015) who delineates that although the quality is the most important concern for accrediting bodies, accreditation structures are decentralized and complex at both the regional and international levels. Table 4.11 indicates the academic quality of students as one of the quality criteria for an academic programme.

Table 4. 11

Academic Quality of Students

Heads of Academic Units	Mean	Std. Dev.
There is a working admission policy to guide the process of student enrolment	4.917	0.289
Students are selected and admitted based on qualifications and merit	4.917	0.289
Students' performance is monitored, recorded and corrective actions taken (for example, class attendance and active participation in learning activities, etc.)	4.583	0.515
Students' evaluation feedback is considered in the design and review of programmes.	4.333	0.492
There is an effective student mentorship program	3.750	0.754
Lecturers	**Mean**	**Std. Dev.**
There is a working admission policy to guide the process of student enrolment	4.053	1.346
Students are selected and admitted based on qualifications and merit	4.053	1.346
Students' performance is monitored, recorded and corrective actions taken (for example, class attendance and active participation in learning activities, etc.)	3.540	1.371
Students' evaluation feedback is considered in the design and review of programmes.	3.053	1.295
There is an effective student mentorship program	2.697	1.108
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Students were selected and admitted based on qualifications and merit	3.916	1.042
Students' performance was monitored, recorded and corrective actions are taken (for example, class attendance and active participation in learning activities, etc.)	3.791	1.122
Students' evaluation feedback was considered in the design and review of programmes.	3.582	1.000

The results in Table 4.11 portray that the heads of academic units strongly agreed that there was a working admission policy to guide the process of student enrolments as illustrated with mean = 4.917 and a standard deviation = 0.289. Moreover, he heads of academic units strongly agreed that students were selected and admitted based on qualifications and merit as expressed with mean = 4.917 and SD = 0.289. Again, the heads of academic units

strongly agreed that students' performance was monitored, recorded and corrective actions are taken (for example, class attendance and active participation in learning activities, etc.) as illustrated by mean = 4.583 and SD = 0.515. Participants also agreed that students' evaluation feedback was considered in the design and review of programmes as illustrated with mean = 4.333 and SD = 0.492 and that there was an effective student mentorship program as confirmed by mean = 3.750 and SD = 0.754.

From the findings in Table 4.11, the lecturers agreed that there was a working admission policy to guide the process of student enrolments as demonstrated by mean = 4.053 and SD = 1.346, that students are selected and admitted based on qualifications and merit as expressed by mean = 4.053 and SD = 1.346 and that students' performance is monitored, recorded and corrective actions are taken (for example, class attendance and active participation in learning activities, etc.) as confirmed by mean = 3.540 and SD = 1.371. Nevertheless, the lecturers were neutral that students' evaluation feedback is considered in the design and review of programmes as illustrated by mean = 3.053 and SD = 1.295 and there was an effective student mentorship program as confirmed by mean = 2.697 and SD = 1.108.

Regarding the quality of students, the alumni concurred that students were selected and admitted based on qualifications and merit with mean = 3.916 and SD = 1.042, that students' performance was monitored, recorded and corrective actions taken (for example, class attendance and active participation in learning activities, etc.) with mean = 3.791 and SD = 1.122 and that

students' evaluation feedback was considered in the design and review of programmes with mean = 3.582 and SD = 1.000. Table 4.12 indicate Innovative Research Activities and Outputs as one of the quality criteria for an academic programme.

Table 4. 12

Innovative Research Activities and Outputs

Heads of Academic Units	Mean	Std. Dev.
The academic unit continually develops scientific and innovative research activities that aim to solve societal problems	4.417	0.900
The academic unit conducts and disseminates quality research outputs	4.500	0.522
Research outputs inform curriculum review	3.750	0.965
Research outputs and publications by universities, staff, and students enhance teaching and learning.	4.583	0.515
Experiential learning imbedded in the curriculum	4.333	0.651
Lecturers	**Mean**	**Std. Dev.**
The academic unit continually develops scientific and innovative research activities that aim to solve societal problems	2.855	1.197
The academic unit conducts and disseminates quality research outputs	3.684	1.525
Research outputs inform curriculum review	3.540	1.612
Research outputs and publications by universities, staff, and students enhance teaching and learning.	3.671	1.684
Experiential learning embedded in the curriculum	3.566	1.455
Faculty of Education Alumni	**Mean**	**Std. Dev.**
The academic unit conducted and disseminated quality research outputs.	3.795	0.867
Students were involved in innovative research activities.	3.670	0.900

The results in Table 4.12 shows that the heads of academic units strongly agreed that research outputs and publications by staff and students enhanced teaching and learning with mean = 4.583 and SD = 0.515. Further, the heads of academic units strongly agreed that the academic unit conducted and

disseminated quality research outputs with mean = 4.500 and SD = 0.522. Moreover, the participants agreed that the academic unit continually develops scientific and innovative research activities that are aimed at solving societal problems with mean = 4.417 and SD = 0.900. In addition, the respondents agreed that experiential learning was embedded in the curriculum with mean = 4.333 and SD = 0.651 and that research outputs informed curriculum review with mean =3.750 and SD = 0.965.

Furthermore, outcomes in Table 4.12 shows that lecturers agreed that the academic unit conducted and disseminated quality research outputs with mean = 3.684 and SD =1.525 and that research outputs and publications by staff and students enhanced teaching and learning with mean = 3.671 and SD =1.684. Moreover, the lecturers agreed that experiential learning embedded in the curriculum with mean = 3.566 and SD = 1.455 and that research outputs informed curriculum review with mean = 3.540 and SD =1.612. However, the lecturers were neutral that the academic unit continually developed scientific and innovative research activities that were aimed at solving societal problems with mean = 2.855 and a standard deviation of 1.197.

From the results, the faculty of education alumni agreed that the academic unit conducted and disseminated quality research outputs as indicated by mean = 3.795 and SD = 0.867 and that students were involved in innovative research activities as indicated with mean = 3.670 and SD = 0.900. Table 4.13 indicate Student Mobility and International Partnerships as one of the quality criteria for an academic programme.

Table 4. 13

Student Mobility and International Partnerships

Heads of Academic Units	Mean	Std. Dev.
The unit has guidelines and resources to support and promote regional and international partnerships between institutions	3.250	1.215
Student mobility is enhanced through exchange programmes and scholarships	3.417	1.240
The academic unit uses benchmarking tools to gauge their academic programme's performance	4.083	0.900
The academic unit uses subject benchmark statements in the process of curriculum development/review	4.250	0.754
The academic unit has attracted international students in the last three years	4.667	0.492
Lecturers	**Mean**	**Std. Dev.**
The unit has guidelines and resources to support and promote regional and international partnerships between institutions	3.197	1.132
Student mobility is enhanced through exchange programmes and scholarships	3.316	1.048
The academic unit uses benchmarking tools to gauge their academic programme's performance	2.842	1.286
The academic unit uses subject benchmark statements in the process of curriculum development/review	2.842	1.286
The academic unit has attracted international students in the last three years	3.566	1.279
Faculty of Education Alumni	**Mean**	**Std. Dev.**
The academic unit had guidelines and resources to support and promote regional and international partnerships between institutions.	3.381	1.074
There was Student mobility through exchange programmes and scholarships.	3.506	1.226

The findings in Table 4.13 illustrates that the heads of academic units strongly agreed that the academic unit had attracted international students in the last three years as revealed by a mean = 4.667 and a standard deviation = 0.492. Moreover, the heads of academic units agreed that the academic unit used subject benchmark statements in the process of curriculum development/review as confirmed with mean = 4.250 and SD = 0.754 and that the academic unit used benchmarking tools to gauge their academic

113

programme's performance with mean = 4.083 and SD =0.900. However, heads of academic units were neutral that student mobility was enhanced through exchange programmes and scholarships with mean = 3.417 and SD = 1.240, unit had guidelines and resources to support and promote regional and international partnerships between institutions as shown by mean = 3.250 and SD = 1.215.

In addition, results in Table 4.13 show that lecturers agreed that the academic unit had attracted international students in the last three years as revealed with mean = 3.566 and a standard deviation = 1.279. However, lecturers were neutral that student mobility is enhanced through exchange programmes and scholarships as portrayed by mean = 3.316 and SD = 1.04 and that the unit had guidelines and resources to support and promote regional and international partnerships between institutions with mean = 3.197 and standard deviation = 1.132. Moreover, the lecturers were neutral that the academic unit used benchmarking tools to gauge their academic programme's performance with mean = 2.842 and SD = 1.286 and that the academic unit used subject benchmark statements in the process of curriculum development/review as confirmed with mean = 2.842 and SD = 1.286.

From the findings, Faculty of Education alumni agreed that there was Student mobility through exchange programmes and scholarships as confirmed by mean = 3.506 and SD = 1.226 and were neutral that the academic unit had guidelines and resources to support and promote regional and international partnerships between institutions as seen by mean = 3.381 and SD = 1.074.

Table 4.14 indicate Adequacy of Academic Resources and Student Support as

one of the quality criteria for an academic programme

Table 4. 14

Adequacy of Academic Resources and Student Support

Heads of Academic Units	Mean	Std. Dev.
Programmes delivery is supported by adequate and up-to-date physical resources (for example, lecture rooms, theatres, library, laboratories, studios, workshops e.tc)	3.250	1.357
Virtual solutions are available to enable teaching and learning	4.250	0.866
There is regular monitoring, maintenance, and upgrade of student learning facilities	3.917	0.996
Computer and ICT centres provide reliable services and connectivity	3.583	0.793
Information technology systems are up-to-date	3.000	0.853
Health and safety precautions are placed to mitigate accidents and other hazards.	3.333	1.155
Lecturers	**Mean**	**Std. Dev.**
Programmes delivery is supported by adequate and up-to-date physical resources (for example, lecture rooms, theatres, library, laboratories, studios, workshops e.tc)	2.592	1.416
Virtual solutions are available to enable teaching and learning	3.303	1.442
There is regular monitoring, maintenance, and upgrade of student learning facilities	3.066	1.473
Computer and ICT centres provide reliable services and connectivity	2.961	1.361
Information technology systems are up-to-date.	3.079	1.486
Health and safety precautions are placed to mitigate accidents and other hazards.	3.776	0.974
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Programmes delivery was supported by adequate and up-to-date physical resources (for example, lecture rooms, theatres, library, laboratories, studios, workshops, etc.)	3.870	1.094
Virtual solutions were available to enable teaching and learning.	3.661	1.180
There was regular monitoring maintaining and upgrade of student learning facilities	3.703	1.061
Computer and ICT centres provided reliable services and connectivity	4.038	1.175
Information technology systems were up-to-date.	4.121	1.273
Health and safety precautions were placed to mitigate accidents and other hazards.	3.837	0.747

The results in Table 4.14 show that the heads of academic units agreed that virtual solutions were available to enable teaching and learning with mean = 4.250 and SD = 1.442, that there was regular monitoring, maintenance, and upgrade of student learning facilities with mean = 3.917 and SD = 0.996. However, the heads of academic units were neutral that health and safety precautions were placed to mitigate accidents and other hazards with mean = 3.333 and SD = 1.155 and that information technology systems are up-to-date with mean = 3.000 and SD = 1.486. More detailed findings are presented in Table 4.14.

Additionally, findings in Table 4.14 show that lecturers agreed that health and safety precautions were placed to mitigate accidents and other hazards mean = 3.776 and a standard deviation = 0.974. However, the lecturers were neutral that virtual solutions were available to enable virtual teaching and learning with mean = 3.303 and SD = 1.442, information technology systems are up-to-date with mean = 3.079 and SD =1.486, and there is regular monitoring, maintenance, and upgrading of student learning facilities with mean = 3.066 and a standard deviation = 1.473. Moreover, the lecturers were neutral that computer and ICT centres provided reliable services and connectivity with mean = 2.961 and a standard deviation = 1.361 and that programmes delivery was supported by adequate and up-to-date physical resources (for example, lecture rooms, theatres, libraries, laboratories, studios, workshops e.tc) with mean = 2.592 and SD = 1.416.

On academic resources and student support, the alumni agreed that information technology systems were up-to-date with mean = 4.121 and standard deviation = 1.273, that computer and ICT centres provided reliable services and connectivity as rated by mean = 4.038 and a standard deviation = 1.175 and that programmes delivery was supported by adequate and up-to-date physical resources (for example, lecture rooms, theatres, library, laboratories, studios, workshops, among other) with mean = 3.870 and SD = 1.094. Moreover, the alumni agreed that health and safety precautions were placed to mitigate accidents and other hazards with mean = 3.837 and SD = 0.747, that there was regular monitoring maintenance and upgrade of student learning facilities with mean = 3.703 and SD =1.061 and that virtual solutions were available to enable teaching and learning with mean = 3.661 and SD = 1.180.

Table 4.15 indicate Student Assessment and Workload as one of the quality criteria for an academic programme.

Table 4. 15

Student Assessment and Workload

Heads of Academic Units	Mean	Std. Dev.
Students' workload is adequate and appropriate (for example, lecture contact hours, practical, studio work, clinical, among others)	4.250	1.138
The assessment process is consistent and orderly (in terms of setting tests, evaluation and timely results, and delivery, among others)	4.417	0.900
Assessments (that is, tests, evaluations, exams) are aligned to the content and learning outcomes of the academic programmes).	4.833	0.389
Students are provided with adequate feedback on their progress.	4.083	0.515
Students' progression across the years is timely and consistent	3.167	0.937

Lecturers	Mean	Std. Dev.
Students' workload is adequate and appropriate (for example, lecture contact hours, practical, studio work, clinical, among others)	3.421	1.278
The assessment process is consistent and orderly (in terms of setting tests, evaluation and timely results, delivery, among others)	3.276	1.448
Assessments (that is, tests, evaluations, exams) are aligned to the content and learning outcomes of the academic programmes).	3.934	1.300
Students are provided with adequate feedback on their progress.	3.066	1.473
Students' progression across the years is timely and consistent	2.684	1.397

Faculty of Education Alumni	Mean	Std. Dev.
Students' workload was adequate and appropriate (for example, lecture contact hours, practical, studio work, clinical, among others)	3.916	1.081
The assessment process was consistent and orderly (in terms of setting tests, evaluation, and timely results delivery, among others)	3.577	1.323
Assessments (that is, tests, evaluations, exams) were aligned to the content and learning outcomes of the academic programmes.	3.870	1.204
Students were provided with adequate feedback on their progress.	3.665	1.031

Results presented in Table 4.15 indicate that lecturers agreed that assessments (that is, tests, evaluations, exams) were aligned to the content and learning outcomes of the academic programmes as indicated with mean =3.934 and SD =1.300. However, the lecturers were neutral that students' workload was adequate and appropriate (for example, lecture contact hours, practical, studio work, clinical, among others) as illustrated by mean = 3.421 and a standard deviation =1.278 and that the assessment process was consistent and orderly (in terms of setting tests, evaluation and timely results, delivery, among others) as illustrated by mean = 3.276 and SD =1.448. The lecturers were also

neutral that students were provided with adequate feedback on their progress with mean = 3.066 and SD = 1.473 and that students' progression across the years was timely and consistent as illustrated by mean of 2.684 and a standard deviation =1.397.

In addition, results in Table 4.15 show that the heads of academic units strongly agreed that assessments (tests, evaluations, exams among others) were aligned to the content and learning outcomes of the academic programmes as confirmed with mean = 4.833 and a standard deviation of 0.389. The heads of academic units also agreed that the assessment process was consistent and orderly (in terms of setting tests, evaluation and timely results, delivery, among others) as confirmed by mean = 4.417 and SD = 0.900 and that students were provided with adequate feedback on their progress as shown by mean = 4.083 and SD = 0.515. More detailed findings are illustrated in Table 4.15.

Further on student assessment and workload, the alumni agreed that students' workload was adequate and appropriate as indicated by mean = 3.916 and a standard deviation of 1.081 and that assessments were aligned to the content and learning outcomes of the academic programmes as portrayed by mean = 3.870 and SD = 1.204. In addition, the alumni agreed that students were provided with adequate feedback on their progress as shown by mean = 3.665 and SD = 1.031 and that the assessment process was consistent and orderly with mean = 3.577 and SD = 1.323. Table 4.16 indicate graduate accomplishments as one of the quality criteria for an academic programme

Table 4. 16

Respondents' agreement with Graduate Accomplishments

Heads of Academic Units	Mean	Std. Dev.
Completion rates are satisfactory (70% of a cohort)	3.750	1.138
Drop-out rates are at a minimum or an acceptable level (5% of a cohort)	4.000	0.739
Tracer survey is consistently conducted to determine graduate employability	2.833	0.937
Graduate employability index (50% and above)	4.167	0.577
Graduates are recruited into Alumni Association	3.667	0.779

Lecturers	Mean	Std. Dev.
Completion rates are satisfactory (70% of a cohort graduate	2.803	1.189
Drop-out rates are at a minimum or an acceptable level (5% of a cohort)	2.447	1.012
Tracer survey is consistently conducted to determine graduate employability	2.447	1.124
Graduate employability index (50% and above)	3.066	1.389
Graduates are recruited into Alumni Association	3.934	1.300
Faculty of Education Alumni		
Completion rates were satisfactory (over 70% of my classmates graduated within schedule)	3.674	1.248
Drop-out rates were at a minimum or an acceptable level (less than 5% of my classmates dropped out)	3.628	0.995
Over 70% of my classmates got employed.	2.795	1.043

The findings in Table 4.16 show that heads of academic units agreed that the graduate employability index was 50% and above with mean = 4.167 and SD = 0.577 and that drop-out rates were at a minimum or an acceptable level of 5% of a cohort as expressed by mean = 4.000 and SD = 0.739. Heads of academic units also agreed that completion rates were satisfactory (70% of cohort graduates with mean = 3.750 and a standard deviation of 1.138) and that graduates were recruited into Alumni Association with mean = 3.667 and SD = 0.779. However, the heads of academic units were neutral that a tracer

survey was consistently conducted to determine graduate employability as conveyed by mean = 2.833 and SD = 0.937.

Table 4.16 reveals that lecturers agreed that graduates were recruited into Alumni Association as illustrated by mean = 3.934 and SD = 1.300. The lecturers were neutral that the graduate employability index was (50% and above) with mean = 3.066 and SD = 1.389 and that completion rates were satisfactory at (70% of a cohort graduates as illustrated with mean = 2.803 and SD =1.189. However, the lecturers disagreed that drop-out rates were at a minimum or an acceptable level (5% of a cohort) as illustrated by mean = 2.447 and SD = 1.012 that tracer survey was consistently conducted to determine graduate employability with mean = 2.447 and SD = 1.124.

Finally, on graduate accomplishments, the alumni agreed that completion rates were satisfactory (over 70% of my classmates graduated within schedule) by mean = 3.674 and SD = 1.248 and that drop-out rates were at a minimum or an acceptable level (less than 5% of my classmates dropped out) with mean = 3.628 and SD = 0.995. However, the alumni were neutral that over 70% of their classmate's secured employment with mean = 2.795 and SD = 1.043. The results were in line with Ansah (2015) who noted that despite the widely broadcasted external QA systems meant to improve the quality of education, the alignment of academic programmes standards to prepare graduates for job opportunities remains a challenge in most countries, particularly the developing nations. Table 4.17 indicate Benchmarking as one of the quality criteria for an academic programme

121

Table 4. 17

Rating of Benchmarking in academic units

Heads of Academic Units	Mean	Std. Dev.
The academic unit uses benchmarking tools to gauge their academic programme's performance	3.500	0.905
The academic unit uses subject benchmark statements in the process of curriculum development/ review	3.917	1.084

The findings in Table 4.17 show that heads of academic units agreed that the academic unit used subject benchmark statements in the process of curriculum development/review with mean = 3.917 and SD = 1.084 and that the academic unit used benchmarking tools to gauge their academic programme's performance as indicated with mean = 3.500 and SD = 0.905. The findings also agree with Nabaho and Turyasingura (2019) who argued that quality assurance practices in universities encompass clearly defined students and teacher awards, external assessments, and examinations, stakeholder involvement in curricula development and review, graduate tracer survey, and research excellence awards. These practices targeted bridging the prevalent gap between the academic outputs and labour market expectations. Sections 4.5 to 4.8 addressed the research objectives of the study; ISO 9001 standards, TQM, Knowledge Management, and Institutional Audits. The participants were requested to show the extent to which the approaches used addressed the various quality measures. A Likert scale of 1 to 5 was used, where 1 meant strongly disagreed, 2 disagreed, 3 neutral, 4 agreed, and 5 strongly agreed. It meant a mean of less than 1.5 denotes strongly disagree, a mean of 1.5 to 2.5 denoted disagree, a mean of 2.5 to 3.5 denoted neutral, a mean of 3.5 to 4.5 denoted agree, and a mean of 4.5 or higher denoted strongly agree.

One key informant stated that '*an accredited programme that is benchmarked and responds to industrial needs is more likely to be of high quality*'.

4.5 Adopting ISO 9001 Standards

The study aimed at assessing the influence of adopting ISO 9001 Standards on the quality of academic programmes in the Faculty of Education at the University of Nairobi, Kenya. The study sought perceptions from alumni (2016-2017), lecturers and heads of academic units. The participants were requested to specify whether a formal (QMS) enhanced provision of quality products and services. The findings are summarized in Table 4.18.

Table 4. 18

System and Academic Performance Measures

Heads of Academic Units	Mean	Std. Dev.
Engaging qualified staff	4.000	0.603
Design, development, review, and delivery of a curriculum	4.083	0.669
Alignment of the curriculum with national and international priorities	4.167	0.718
Curriculum accreditation with regulatory authorities' requirements	4.417	0.515
The attraction of qualified students	4.083	0.515
A variety of delivery modes for the curriculum	3.417	0.900
Mechanisms for curriculum assessment	3.917	0.996
Resources supporting teaching and learning	3.750	0.754

Lecturers	Mean	Std. Dev.
Engaging qualified staff	3.868	0.772
Design, development, review, and delivery of a curriculum	4.000	0.864
Alignment of the curriculum with national and international priorities	4.132	0.772
Curriculum accreditation with regulatory authorities' requirements	4.237	0.671
The attraction of qualified students	4.118	0.783
A variety of delivery modes for the curriculum	3.487	0.856
Mechanisms for curriculum assessment	3.908	0.615
Resources supporting teaching and learning	3.382	0.692

Faculty of Education Alumni	Mean	Std. Dev.
Engaging qualified staff	3.498	0.916
Design, development, review, and delivery of a curriculum	3.498	1.045
Alignment of the curriculum with national and international priorities	3.456	1.121
Curriculum accreditation with regulatory authorities' requirements	3.452	1.079
Attraction of qualified students	3.745	0.925
A variety of delivery modes for the curriculum	3.577	1.038
Mechanisms for curriculum assessment	3.661	0.897
Resources supporting teaching and learning	3.870	0.928

Table 4.18 shows that heads of academic units to a large extend indicated that Quality Management System (QMS) addressed curriculum accreditation with regulatory authorities' requirements at mean = 4.417 and SD = 0.515. Moreover, heads of academic units to a large extend indicated that QMS addressed curriculum alignment with national and international agendas to a large extent with mean = 4.167 and SD = 0.718. Further, heads of academic units indicated that QMS addressed the design, development, review, and delivery of a curriculum to a large extent with mean = 4.083 and SD = 0.669. Moreover, the heads of academic units indicated that Quality Management System (QMS) addressed the attraction of qualified students with mean = 4.083 and SD = 0.515, engaging qualified staff with mean = 4.000 and SD = 0.603. More detailed findings are illustrated in Table 4.18. The findings correlate with Cruz et. al. (2016) who explain that 'While quality management approaches such as ISO should help to improve internal quality, including student performance, in most cases, the efforts fail to produce positive results.' The authors suggested that rather than focusing solely on teaching quality,

quality systems should be implemented to ensure student learning and a high level of student performance.

The study findings in Table 4.18 also show that lecturers to a large extent pointed out that the quality management system (QMS) addresses curriculum accreditation with regulatory authorities' requirements with mean = 4.237 and SD = 0.617 and address alignment of the curriculum with national and international priorities with mean = 4.132 and SD = 0.772. Further, lecturers to a large extent pointed out that the Quality Management System QMS addresses the attraction of qualified students with mean = 4.118 and SD = 0.783 and design, development, review, and delivery of a curriculum with mean = 4.000 and SD = 0.864. More detailed findings are illustrated in Table 4.18.

From the findings in Table 4.18, alumni indicated to a large extent that the quality management system (QMS) addressed resources supporting teaching and learning with mean = 3.870 and SD = 0.928, the attraction of qualified students with mean = 3.745 and SD = 0.925, mechanisms for curriculum assessment with mean = 3.661 and SD = 0.897 and variety of delivery modes for the curriculum with mean = 3.577 and SD = 1.038. More detailed findings are illustrated in Table 4.18. The findings concur with Ali et.al (2018) who investigated academic programme's quality by comparing different standards and established that the standards utilized differed from country to country and organization to organization. One of the key informants stated:

"*QMS in the institution is more of documentation. It does not genuinely support academic heads to improve quality*"

While another key informant said, "*To a large extend yes, though with the COVID -19 situation the system has not been very efficient for example, in-class attendance, lecturers do not have clear information about this*". "*Formal Quality Management System (QMS) is mostly done for formality*"

Results of analyzed data and key informants' perspectives were inconsistent. One respondent stated that QMS helped improve the quality of academic programmes while key informants stated that QMS was largely for formality. Table 4.19 shows the respondents' perceptions in terms of the level of change in the various academic performance measures in their institution for the last two (2) academic years. The findings are illustrated in Table 4.19.

Table 4. 19

Academic Performance Measures: Responses by Lecturers and Heads of Academic Units

Heads of Academic Units	Mean	Std. Dev.
Student enrolment	3.667	1.155
Student dropout rates	2.833	0.937
Student completion rates	3.500	0.905
Graduate throughput	3.500	1.000
Lecturer - student ratio	2.417	1.443
Lecturers	**Mean**	**Std. Dev.**
Student enrolment	2.461	1.311
Student dropout rates	3.329	1.012
Student completion rates	2.513	1.332
Graduate throughput	3.355	1.219
Lecturer - student ratio	2.921	0.935

As per the findings in Table 4.19, the heads of academic units indicated a slight increase in student enrolment with mean = 3.667 and SD = 1.155,

student completion rates with a mean = 3.500 and SD = 0.905, and graduate throughput expressed by mean = 3.500 and SD = 1.000. However, the heads of academic units indicated no change in student dropout rates with mean = 2.833 and SD = 0.937 while they also displayed a slight decrease in lecturer-student ratio with a mean = 2.417 and SD = 1.443.

As per results in Table 4.19, the lecturers indicated no change for the last two (2) academic years in graduate throughput with mean = 3.355 and SD = 1.219 and student dropout rates with mean = 3.329 and SD = 1.012. Moreover, the lecturers indicated no change for the last two (2) academic years in lecturer-student ratio with mean = 2.921 and SD = 0.935 and student completion rates with mean = 2.513 and SD =1.332. More detailed findings are illustrated in Table 4.19. The findings concur with Dumond and Johnson (2013) who noted that ''institutions implementing the ISO 9001 series must plan, implement, and manage a quality management system (QMS), which should include documentation, staff training, and quality audits to assess the system's progress and effectiveness.''. According to the authors, an educational institution that adopts ISO 9001 QMS should first develop a QMS with top management responsibilities, design a learner-focused process approach, ensure adequate resources, create steps for education services, and monitor learner fulfilment. Table 4.20 shows the respondents' rating on the level of improvement in the various performance metrics over the last two (2) academic years since the system's implementation.

The study sought responses from heads of academic units, lecturers, and alumni (2016-2017) to assess the influence of adopting ISO 9001 Standards on the quality of academic programmes. The findings are shown in Table 4.20.

Table 4. 20

Respondents' ratings on Performance Metrics

Heads of Academic Units	Mean	Std. Dev.
Punctuality	3.500	1.168
Class attendance	4.083	0.900
Accidents during learning	4.167	0.937
Academic & technical staff competencies	4.167	0.718
Employee turnover	3.500	0.905
Teamwork and cooperation	3.500	1.087
Communication between staff	3.667	1.073
Attitudes towards quality	4.083	0.900
Number of programmes accredited	3.250	1.055
Lecturers	**Mean**	**Std. Dev.**
Punctuality	3.211	1.299
Class attendance	3.579	0.883
Accidents during learning	3.447	1.136
Academic & technical staff competencies	3.447	1.025
Employee turnover	3.211	0.984
Teamwork and cooperation	3.737	0.957
Communication between staff	2.618	0.979
Attitudes towards quality	3.750	0.656
Number of programmes accredited	4.145	0.605
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Punctuality	4.331	0.801
Class attendance	4.498	0.819
Accidents during learning	3.791	0.766
Academic& technical staff competencies	3.619	0.992
Employee turnover	3.456	0.818
Teamwork and cooperation	3.452	1.079
Communication between academic staff and students	3.670	0.747
Attitudes towards quality by academic staff and students	3.623	0.953
Number of visits by accreditation bodies	4.251	0.725

As per the findings in Table 4.20, the heads of academic units indicated a slight increase in accidents during learning with mean = 4.167 and SD = 1.136 and academic & technical staff competencies mean = 4.167 and SD = 0.718.

Also, the heads of academic units indicated a slight increase in class attendance with mean = 4.083 and SD = 0.900, attitudes towards quality with mean = 4.083 and SD = 0.900 and communication between staff with a mean = 3.667 and SD = 1.073. More detailed findings are illustrated in Table 4.20. The findings concur with Dumond and Johnson (2013) who postulated that the standard may be used to identify areas for improvement through self-assessment or quality audits with improvement action points indicated.

As per the outcomes in Table 4.20, lecturers indicated a slight increase over the last 2 academic years in the number of programmes accredited with mean = 4.145 and SD = 0.605, attitudes towards quality with mean = 3.750 and SD = 0.656. Moreover, lecturers indicated a slight increase over the last 2 academic years in teamwork and cooperation with mean =3.737 and SD = 0.957 and class attendance with mean = 3.579 and SD = 0.883. More detailed findings are illustrated in Table 4.20. This agrees with findings by Sohail (2003) who noted that though ISO standards were primarily intended for the industrial segment, service businesses, including learning institutions continue to utilize them. The most widely quality management approach and quality awards are based on this set of quality standards.

Alumni in Table 4.20 showed a slight increase over the last two years in class attendance with mean = 4.498 and SD = 0.819, punctuality with mean = 4.331 and SD = 0.801 and the number of visits by accreditation bodies with mean = 4.251 and SD = 0.725. Moreover, alumni showed a slight increase over the last two years in accidents during learning with mean = 3.791 and SD = 0.766

and communication between academic staff and students with mean = 3.670 and SD = 0.747. More detailed findings are shown in Table 4.20. Though quality management systems like ISO should add largely to the internal quality improvement, including student performance, Cruz (2016) explained in most situations, the efforts do not give favourable results. Ali et.al (2018) also compared different standards to determine the quality of academic programmes and discovered that the standards employed differed from country to country and organization to organization.

The hypothesis on the quality of a programme and ISO Standards adoption was tested and yielded the following results.

Table 4.21

Relationship between the adoption of ISO 9001 standards and quality of an academic programme.

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	81.250[a]	77	.348
Likelihood Ratio	50.053	77	.993
Linear-by-Linear Association	.000	1	.991
N of Valid Cases	13		
a. 96 cells (100.0%) have expected count less than 5. The minimum expected count is .08.			

Table 4.21 shows the responses of chairs of departments on the relationship between the quality of an academic programme and ISO standards adoption. From the Chi-Square test, the Pearson Chi-Square (Pearson Value (χ_2) 81.250, df = 77) has a p-value of 0.348 which is greater than the level of significance 0.05 (P-value 0.348 > 0.05 level of significance). This shows that there is a significant relationship between the quality of academic programme and ISO

130

standards adoption. This study, therefore, rejects the null hypothesis (ISO 9001 standards have no significant relationship with the quality of academic programmes).

Section 4.6 presents the findings for objective two, which addresses the implementation of Total Quality Management.

4.6 Implementing Total Quality Management (TQM) Practices

This study sought to establish the influence of implementing Total Quality Management (TQM) practices on the quality of academic programmes in the Faculty of Education at the University of Nairobi. The study sought responses from alumni (2016-2017), lecturers and heads of academic units. The findings are shown in various Tables. Table 4.22 indicate top management commitment ratings as part of the implementation of Total Quality Management.

Table 4.22

Respondents' ratings of top management commitment

Heads of Academic Units	Mean	Std. Dev.
Top management is devoted to the development and communication of the institution's vision, mission, goals, values, and quality statements	4.583	0.515
Top management provides financial support, for the development of quality programmes	3.583	1.240
Top management participates in the curriculum review process	4.333	0.651
Top management is aware of the needs and requirements of departments that deliver curriculum	4.000	1.279
Lecturers		
Top management is devoted to the development and communication of the institution's vision, mission, goals, values, and quality statements	4.513	0.503
Top management provides financial support, for the development of quality programmes	3.790	1.204
Top management participates in the curriculum review process	4.513	0.503
Top management is aware of the needs and requirements of departments that deliver curriculum	4.395	0.492

Faculty of Education Alumni		
Top management communicated the institution's vision, mission, goals, values, and quality statements	4.247	0.971
Top management provided financial support for the development of quality programmes	3.879	0.929
Top management participated in the curriculum review process	3.749	1.055

In the results in Table 4.22, the heads of academic units strongly agreed that top management was devoted to the development and communication of the institution's vision, mission, goals, values, and quality statements. The item had a mean = 4.583 and a standard deviation = 0.515. Moreover, the respondents agreed that top management participates in the curriculum review process as shown by mean = 4.333 and a standard deviation = 0.651 and that top management was aware of the needs and requirements of departments that deliver the curriculum as shown mean = 4.000 and a standard deviation = 1.279. TQM, as defined by Grundey (2008) is a management concept that encourages firms to build mechanisms for improving product and service quality, efficiency, and customer satisfaction over time.

From the results in Table 4.22, the lecturers strongly agreed that top management was devoted to the development and communication of the institution's vision, mission, goals, values, and quality statements with mean = 4.513 and SD = 0.503 and that top management participates in the curriculum review process as indicated with mean = 4.513 and SD = 0.503. The lecturers agreed that top management was aware of the needs and requirements of departments that deliver the curriculum mean = 4.395 and SD = 0.492 and that top management provided financial support, for the development of quality

programmes with mean = 3.790 and SD = 1.204. TQM is among the international quality techniques as viewed by Becket and Brookes (2006) that has helped significantly to the efficiency of operations in Higher Education.

Alumni in Table 4.22 agreed that top management communicated the institution's vision, mission, goals, values, and quality statements with mean = 4.247 and SD = 0.971, that the top management provided financial support for the development of quality programmes mean = 3.879 and SD =0.929 and that top management participated in the curriculum review process as revealed by mean = 3.749 and SD = 1.055. The results correlate with Dejager and Nieuwenhuis's (2005) assertion that ' TQM principles are crucial because they focus heavily on the final consumer'. Table 4.23 indicate education and training ratings as part of total quality management implementation

Table 4.23

Respondents' ratings of Education and Training

Heads of Academic Units	Mean	Std. Dev.
Training needs assessments are conducted regularly to determine areas that require training	3.917	0.793
There exists a policy for in-service and training	3.917	0.793
Academic staff are continuously updated on TQM principles and concepts	3.500	0.674
There is continuous learning for staff through education and training	4.000	0.853

Lecturers	Mean	Std. Dev.
Training needs assessments are conducted regularly to determine areas that require training	3.645	1.016
There exists a policy for in-service and training	3.908	0.615
Academic staff are continuously updated on TQM principles and concepts	3.882	0.816
There is continuous learning for staff through education and training	4.145	0.354

Faculty of Education Alumni	Mean	Std. Dev.
There was continuous learning for staff through education and training	3.703	1.021
Academic staff and students were continuously updated on TQM principles and concepts.	3.418	1.041

Table 4.23 confirms that lecturers agreed that there was continuous learning for staff through education and training with mean = 4.145 and SD = 0.354, there exists a policy for in-service and training as revealed by mean = 3.908 and a standard deviation = 0.615, academic staff were continuously updated on TQM principles and concepts with mean = 3.882 and a standard deviation of 0.816 and that training needs assessments were conducted regularly to determine areas that require training with mean = 3.645 and standard deviation = 1.016. The results support Stensaker's (2019) works that quality practices that influence study programmes in Higher Education have been found to apply various labels when each institution launches its quality management systems (QMS).

In addition to findings in Table 4.23, the heads of academic units agreed that there was continuous learning for staff through education and training with mean = 4.000 and a standard deviation = 0.853, training needs assessments were conducted regularly to determine areas that require training as confirmed by mean = 3.917 and SD = 0.793, there existed a policy for in-service and training with mean = 3.917 and SD = 0.853 and that academic staff were continuously updated on TQM principles and concepts as confirmed with mean = 3.500 and SD =0.674. The findings concur with Manatos (2017) who argued that rather than focusing only on specific aspects, Higher Education

Institutions should strive for an integrated approach to quality in universal educational structures that encompasses holistic educational processes and systems.

Alumni agreed that there was continuous learning for staff through education and training as revealed by mean = 3.703 and SD = 1.021 and were neutral that academic staff and students were continuously updated on TQM principles and concepts with mean = 3.418 and SD =1.041. Terzić (2017) established that for TQM to be successfully implemented in educational institutions, all knowledge carriers and members of management are the first to be educated, they must have a strong motivation to apply the knowledge acquired. Table 4.24 indicate customer focus as part of total quality management implementation

Table 4.24

Customer Focus / Orientation

Heads of Academic Units	Mean	Std. Dev.
Customer feedback systems are in place (for example, Students exit survey and graduate tracer survey)	3.500	0.674
Feedback from stakeholders (for example, Students, employers, government, etc.) is integrated into the curricula	4.250	0.965
Reports from customer satisfaction surveys are acted upon on time	3.667	0.888
Lecturers	**Mean**	**Std. Dev.**
Customer feedback systems are in place (for example, Students exit survey and graduate tracer survey)	4.263	0.681
Feedback from stakeholders (for example, Students, employers, government, etc.) is integrated into the curricula	3.540	1.341
Reports from customer satisfaction surveys are acted upon on time	3.026	1.346
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Customer feedback systems were in place (for	3.460	1.229

example, students exit survey and graduate tracer survey)		
Feedback from stakeholders (for example, students, employers, government, etc.) was integrated into the curriculum.	3.247	1.271

The findings in Table 4.24 indicate that heads of academic units agreed that feedback from stakeholders (for example, students, employers, government, etc.) was integrated into the curricula as displayed with mean = 4.250 and SD = 0.965,   that reports from customer satisfaction surveys were acted upon on time. The item had a rating mean = 3.667 and SD = 0.888 and that customer feedback system was in place (for example, Students exit survey and graduate tracer survey) as seen by a mean =3.500 and a standard deviation = 0.674. From the results in Table 4.24, the lecturers agreed that customer feedback systems were in place (for example, Students exit survey and graduate tracer survey) as displayed by mean = 4.263 and SD = 0.681 and that feedback from stakeholders (for example, students, employers, government, etc.) were integrated into the curricula as seen by a mean = 3.540 and SD = 1.341. The lecturers however were neutral that reports from customer satisfaction surveys were acted upon on time as seen by mean =3.026 and SD = 1.346.

The alumni were neutral about customer feedback systems being in place (for example, students exit survey and graduate tracer survey) as illustrated mean= 3.460 and SD = 1.229, and feedback from stakeholders (for example, students, employers, government, etc.) was integrated into the curriculum as illustrated by mean = 3.247 and SD = 1.271. Table 4.25 indicates the involvement of academic staff as part of total quality management implementation.

Table 4.25

Involvement of Academic Staff

Heads of Academic Units	Mean	Std. Dev.
The staff are involved in decision-making processes	4.500	0.522
Cross-functional teams are involved in the design of quality programmes	4.250	0.622
Quality control circles involved in curriculum review	4.250	0.452
Empowered to take accountable actions	3.833	1.267
Reward system in place	3.583	1.165
Lecturers	**Mean**	**Std. Dev.**
The staff are involved in decision-making processes	3.974	0.879
Cross-functional teams are involved in the design of quality programmes	3.868	0.914
Quality control circles involved in curriculum review	3.513	1.101
Empowered to take accountable actions	3.987	0.503
Reward system in place	3.487	1.000

As per the findings in Table 4.25, the heads of academic units strongly agreed that the staff were involved in decision-making processes with mean = 4.500 and a standard deviation of 0.522. Further, heads of academic units agreed that cross-functional teams were involved in the design of quality programmes with mean = 4.250 and SD = 0.622, heads of academic units agreed that quality control circles were involved in curriculum review with mean = 4.250 and SD = 0.452 and that they were empowered to take accountable actions as confirmed mean =3.833 and SD = 1.267.

As per the outcomes in Table 4.25, lecturers agreed that the staff were involved in decision-making processes mean =3.974 and SD = 0.879 and that staff were empowered to take accountable actions (mean =3.987 and SD = 0.503). In addition, the lecturers agreed that cross-functional teams were involved in the design of quality programmes with a mean of 3.868 and a standard deviation of 0.914 and that quality control circles were involved in

curriculum review. The item had a mean = 3.513 and SD = 1.101. However, the lecturers were neutral that a reward system was in place with a mean = 3.487 and SD = 1.000. Table 4.26 indicate Supplier Quality Management as part of the implementation of Total Quality Management.

Table 4.26

Supplier Quality Management (SQM)

Heads of Academic Units	Mean	Std. Dev.
Programmes quality audits conducted regularly	4.083	0.515
Functional programmes performance feedback system	3.833	0.937
Curriculum design considered learners requirements	4.250	0.452
There are proactive consultations with stakeholders when reviewing courses	4.333	0.651
Lecturers	**Mean**	**Std. Dev.**
Programmes quality audits conducted regularly	3.526	1.238
Functional programmes performance feedback system	3.790	1.087
Curriculum design considered learners requirements	3.671	0.999
There are proactive consultations with stakeholders when reviewing courses	4.026	0.864
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Quality audits on programmes were conducted regularly	3.331	1.109
There was a feedback system on the performance of programmes	3.163	1.070

The findings in Table 4.26 show that heads of academic units agreed that there are proactive consultations with stakeholders when reviewing courses with mean = 4.333 and SD = 0.651, curriculum design considered learners requirements with mean = 4.250 and SD = 0.452, programmes quality audits conducted regularly with mean = 4.083 and SD = 0.515 and that functional programmes performance feedback system was in place with a mean = 3.833 and SD = 0.937.

As per the outcomes in Table 4.26, the lecturers agreed that there were proactive consultations with stakeholders when reviewing courses with mean = 4.026 and SD = 0.864, functional programmes performance feedback system in place with a mean = 3.790 and SD = 1.087, that curriculum design considered learners requirements with mean = 3.671 and SD = 0.999 and that programmes quality audits were conducted regularly with a mean = 3.526 and SD =1.238.

Further, the alumni were neutral in that quality audits on programmes were conducted regularly as shown by mean = 3.331 and SD = 1.109, and that there was a feedback system on the performance of programmes as seen by a mean = 3.163 and SD = 1.070. Table 4.27 indicate continuous improvement at the Faculty as part of total quality management implementation.

Table 4.27

Respondents' ratings of Continuous Improvement at the Faculty

Heads of Academic Units	Mean	Std. Dev.
Ease of access and use of teaching and learning facilities	4.250	0.452
Teaching and learning facilities are inclusive and user-friendly.	3.917	0.669
Sustainable waste management systems in place	3.167	0.937
Health and safety measures are functional	3.500	1.168
Lecturers	**Mean**	**Std. Dev.**
Ease of access and use of teaching and learning facilities	3.882	0.816
Teaching and learning facilities are inclusive and user-friendly.	3.526	1.238
Sustainable waste management systems in place	3.526	1.238
Health and safety measures are functional	3.908	0.926
Faculty of Education Alumni	**Mean**	**Std. Dev.**
There was the ease of access and ease of use of teaching and learning facilities	3.954	1.022
There were inclusive and user-friendly teaching and learning facilities.	3.703	1.061
There were Sustainable waste management systems in place	3.661	1.144

The findings in Table 4.27 revealed that heads of academic units agreed that ease of access and use of teaching and learning facilities as rated with mean = 4.250 and SD = 0.452, teaching and learning facilities were inclusive and user-friendly with mean = 3.917 and SD = 0.669 and health and safety measures were functional with a mean = 3.500 and SD = 1.168. However, the heads of academic units were neutral in that sustainable waste management systems were in place with a mean = 3.167 and SD = 0.937.

Lectures in Table 4.27 agreed that health and safety measures were functional with a mean = 3.908 and SD = 0.926 and that there was the ease of access and use of teaching and learning facilities with a mean = 3.882 and SD = 0.816. Moreover, the lectures agreed that teaching and learning facilities were inclusive and user-friendly with mean = 3.526 and SD = 1.238 and that sustainable waste management systems were in place with mean = 3.526 and SD = 1.238.

Moreover, the alumni agreed that there was ease of access and ease of use of teaching and learning facilities as stated by mean= 3.954 and SD = 1.022. Moreover, the alumni agreed that teaching and learning facilities were inclusive and user-friendly as conveyed by mean = 3.703 and SD =1.061 and that there were sustainable waste management systems in place as displayed by mean = 3.661 and SD = 1.144. Table 4.28 indicate process-flow Management as part of the implementation of Total Quality Management.

Table 4.28

Process-Flow Management

Heads of Academic Units	Mean	Std. Dev.
Learning equipment is well maintained based on the maintenance plan.	3.500	1.168
There are standardized and documented operating processes and procedures for programmes	4.250	0.452
There are effective data collection procedures	4.000	0.739
Lecturers	**Mean**	**Std. Dev.**
Learning equipment is well maintained based on the maintenance plan.	3.026	1.346
There are standardized and documented operating processes and procedures for programmes	3.540	1.125
There are effective data collection procedures	3.671	1.112
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Ease of use of teaching and learning facilities.	3.912	0.955
There were standardized and documented operating processes and procedures for programmes.	3.703	1.061

As per the findings in Table 4.28 for process-flow management, the heads of academic units agreed that there were standardized and documented operating processes and procedures for programmes with a mean = 4.250 and SD = 0.452. Moreover, heads of academic units agreed that there were effective data collection procedures with a mean = 4.000 and a standard deviation = 0.739 and that learning equipment was well maintained based on the maintenance plan as rated by a mean = 3.500 and a standard deviation = 1.168.

As per the findings in Table 4.28 for process-flow management, the lecturers agreed that there were effective data collection procedures as rated by a mean = 3.645 and a standard deviation = 1.112 and that there were standardized and documented operating processes and procedures for programmes as illustrated by a mean = 3.540 and SD = 1.125. However, the lecturers were neutral that

learning equipment was well maintained based on the maintenance plan with a

mean = 3.026 and SD = 1.346.

Moreover, alumni agreed that there was ease of use of teaching and learning

facilities with mean = 3.912 and SD = 0.955 and that there were standardized

and documented operating processes and procedures for programmes with

mean = 3.703 and SD = 1.061. Table 4.29 indicate fact-based management as

part of the implementation of Total Quality Management.

Table 4.29

Fact-based management

Heads of Academic Units	Mean	Std. Dev.
The academic unit's decision-making processes are based on facts.	3.833	0.937
Lecturers	**Mean**	**Std. Dev.**
The academic unit's decision-making processes are based on facts.	3.790	1.087
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Decisions made by the academic unit were based on facts.	3.577	1.038
Programmes design and review were based on data and information gathered from stakeholders.	3.452	1.154

In Table 4.29 on fact-based management, the heads of academic units agreed

that the academic unit's decision-making processes were based on facts with a

mean = 3.833 and SD = 0.937. Further, in Table 4.29, the lecturers agreed that

the academic unit's decision-making processes were based on facts with mean

= 3.790 and SD = 1.087. In addition, the alumni agreed that decisions made by

the academic unit were based on facts with mean = 3.577 and SD = 1.038.

Table 4.30 indicate ratings of Incentive and Recognition Systems as part of the

implementation of Total Quality Management.

Table 4.30

Respondents' ratings of Incentive and Recognition Systems

Heads of Academic Units	Mean	Std. Dev.
Reward and recognition system in place to award good performance for academic staff and students	3.500	1.087
The academic unit applies for participation in awards for excellent quality standards.	3.167	0.937
Members of staff and students are awarded for innovative ideas and initiatives	3.167	0.835
Lecturers	**Mean**	**Std. Dev.**
Reward and recognition system in place to award good performance for academic staff and students	3.645	1.016
The academic unit applies for participation in awards for excellent quality standards.	3.658	0.873
Members of staff and students are awarded for innovative ideas and initiatives	3.408	1.009
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Reward and recognition system in place to award good performance for academic staff and students.	3.372	1.188
Students' support systems for publication were in place.	3.536	1.155
Students were rewarded for innovative ideas and initiatives.	3.331	1.183

In Table 4.30 on incentives and recognition systems, the heads of academic units agreed that a reward and recognition system was in place to award good performance for academic staff and students with mean = 3.500 and SD = 1.087. However, the heads of academic units were neutral that the academic unit applied for participation in awards for excellent quality standards with a mean = 3.167 and SD =0.937 and that members of staff and students were awarded for innovative ideas and initiatives a mean = 3.167 and SD = 0.835.

Further, lecturers agreed that reward and recognition systems were in place to award good performance for academic staff and students with mean =3.645 and SD = 1.016 and that the academic unit applied for participation in awards for excellent quality standards with mean = 3.658 and SD = 0.873. However,

the lecturers were neutral that members of staff and students were awarded for innovative ideas and initiatives with mean = 3.408 and SD = 1.009.

Further, the alumni agreed that students' support systems for publication were in place as shown by mean = 3.536 and SD = 1.155, However, the alumni were neutral that a reward and recognition system was in place to award good performance for academic staff and students with mean = 3.372 and SD = 1.188 and that students were rewarded for innovative ideas and initiatives as disclosed by a mean = 3.331 and SD = 1.183. Table 4.31 indicate Process Monitoring and Control as part of the implementation of Total Quality Management.

Table 4.31

Process Monitoring and Control

Heads of Academic Units	Mean	Std. Dev.
Process monitoring and control measures in place	3.750	0.622
Periodic self-assessments are conducted to monitor the effectiveness of programmes	4.333	0.492
Performance contracts are signed by each academic unit to keep track of its activities, achievements, and failures.	4.583	0.515
Lecturers	**Mean**	**Std. Dev.**
Process monitoring and control measures in place	3.790	1.087
Periodic self-assessments are conducted to monitor the effectiveness of programmes	3.645	1.128
Performance contracts are signed by each academic unit to keep track of its activities, achievements, and failures.	4.132	0.957
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Process monitoring and control measures are in place.	3.536	1.118
Periodic self-assessments were conducted to monitor the effectiveness of programmes.	3.326	1.105

From the findings in Table 4.31 on process monitoring and control, the heads of academic units strongly agreed that performance contracts were signed by

each academic unit to keep track of its activities, achievements, and failures with a mean = 4.583 and a standard deviation = 0.515. Moreover, the heads of academic units agreed that periodic self-assessments were conducted to monitor the effectiveness of programmes with mean = 4.333 and SD = 0.492 and that process monitoring and control measures were in place with mean = 3.750 and SD =0.622.

Further, the lecturers agreed that performance contracts were signed by each academic unit to keep track of its activities, achievements, and failures with a mean = 4.132 and SD = 0.957. The lecturers also agreed that periodic self-assessments were conducted to monitor the effectiveness of programmes with mean = 3.645 and SD = 1.128 and that process monitoring and control measures were in place with mean = 3.790 and SD = 1.087.

The alumni agreed that process monitoring and control measures were in place with a mean = 3.536 and SD =1.118 and were neutral that periodic self-assessments were conducted to monitor the effectiveness of programmes with mean = 3.326 and SD = 1.105.

According to Becket and Brookes (2006), ''TQM is one of the global quality management techniques that has helped largely the operations efficiency in Higher Education''. Several quality award criteria, like Malcolm Baldrige National Quality Award (MBNQA), the European Foundation for Quality Management (EFQM) model, and many more quality models used by businesses for self-evaluation processes, were developed based on TQM principles. TQM principles, according to Dejager and Nieuwenhuis (2005), are

important because they place a strong emphasis on the final consumer. As a result, institutions should constantly listen to their customers (students), by constantly reassessing their offerings to respond to changing societal needs.

The findings correlate with Manatos (2017) who argued that Higher Education Institutions should endeavour for an integrated approach to quality in international educational structures that encompasses holistic academic processes and systems rather than focusing only on some aspects. Sahney (2016) also reveals that although applying TQM in Higher Education is still debatable; it is still important in today's competitive environment. The findings are also consistent with Grundey (2008), who stated that TQM in Higher Education institutions focuses on inputs (students and lecturers), outputs (graduates), and processes (interaction between inputs and outputs). The key informants agreed with the findings of the analysed data on the influence of the application of TQM principles on the quality of academic programmes.

The hypothesis on quality of an academic programme and implementation of TQM principles was tested and yielded the following results.

Table 4.32

Relationship between the TQM implementation and quality of an academic programme.

Chi-Square Tests			
	Value	**Df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	143.000[a]	132	.242
Likelihood Ratio	63.916	132	1.000
Linear-by-Linear Association	1.298	1	.254
N of Valid Cases	13		
a. 156 cells (100.0%) have an expected count less than 5. The minimum expected count is .08.			

Table 4.32 shows the responses of chairs of departments on the relationship between the quality of an academic programme and the implementation of TQM principles. From the Chi-Square test, the Pearson Chi-Square (Pearson Value (χ_2) 143, df =132) has a p-value of 0.242 which is greater than the level of significance 0.05 (P-value 0.242>0.05 level of significance). This shows that there is a significant relationship between the quality of an academic programme and the implementation of TQM principles. This study, therefore, rejects the null hypothesis (TQM practices have no significant relationship on the quality of academic programmes). Section 4.7 presents the findings for objective three, which addresses the utilization of knowledge management.

4.7 Utilization of Knowledge Management

The study sought to examine the influence of utilization of knowledge management on the quality of academic programmes in the Faculty of Education at the University of Nairobi. The survey sought answers from alumni (2016-2017), lecturers and heads of academic units. The results are illustrated in Table 4.33.

Table 4.33

Respondents' ratings of Knowledge Management Principles

Heads of Academic Units	Mean	Std. Dev.
Existence of a culture of knowledge sharing	4.250	0.452
Knowledge repositories are available and accessible	4.417	0.515
Knowledge mapping is conducted periodically	3.417	0.900
Knowledge management technologies utilized	3.917	0.793
Knowledge management incorporated into the units' strategy	3.917	0.996
There is continual education on knowledge management practices.	3.583	0.900
Accumulated knowledge published in journals and books	4.333	0.492
Research output informs curriculum review and development	4.167	0.577
Lecturers	**Mean**	**Std. Dev.**
Existence of a culture of knowledge sharing	3.763	1.106
Knowledge repositories are available and accessible	4.132	0.618
Knowledge mapping is conducted periodically	3.540	1.125
Knowledge management technologies utilized	3.540	1.125
Knowledge management incorporated into the units' strategy	3.434	1.226
There is continual education on knowledge management practices	3.540	1.125
Accumulated knowledge published in journals and books	4.013	0.721
Research output informs curriculum review and development	3.776	0.974
Faculty of Education Alumni	**Mean**	**Std. Dev.**
There existed a culture of knowledge sharing.	3.870	1.055
Knowledge repositories were available and accessible.	3.912	1.079
Knowledge mapping was conducted periodically.	3.577	1.116
Knowledge management technologies were utilized	3.870	1.132
There was continual education on knowledge management practices	3.619	1.074
Accumulated knowledge was published in journals and books	3.703	1.243
Research output informed curriculum review and development	3.460	0.868

In the findings in Table 4.33 on knowledge management practices, the heads of academic units agreed that knowledge repositories were available and accessible with a mean = 4.417 and SD = 0.515 and that accumulated

knowledge was published in journals and books with mean = 4.333 and SD = 0.492. Further, heads of academic units agreed that the existence of a culture of knowledge sharing with a mean = 4.250 and SD = 0.452 and that research output informed curriculum review and development with a mean = 4.167 and SD = 0.577. Moreover, the heads of academic units agreed that knowledge management technologies were utilized with a mean =3.917 and SD = 0.793 and that knowledge management incorporated units' strategy with mean =3.917 and SD = 0.996.

The findings in Table 4.33 showed that the lecturers agreed that knowledge repositories were available and accessible as illustrated by a mean = 4.132 and SD = 0.618 and that accumulated knowledge was published in journals and books with a mean = 4.013 and SD = 0.721. The lecturers also agreed that research output informed curriculum review and development as expressed by a mean = 3.776 and SD = 0.974 and that there was the existence of a culture of knowledge sharing with a mean = 3.763 and SD = 1.106. However, the lecturers were neutral that knowledge management was incorporated into the units' strategy with a mean = 3.434 and SD = 1.226.

From the findings, the alumni agreed that knowledge repositories were available and accessible as shown by a mean = 3.912 and SD = 1.079, that there existed a culture of knowledge sharing with a mean = 3.870 and SD = 1.055 and that knowledge management technologies were utilized as presented by a mean = 3.870 and SD = 1.132. The alumni agreed that accumulated knowledge was published in journals and books as shown by a mean of 3.703

standard deviations of 1.243 and that there was continual education on knowledge management as shown by a mean =3.619 and SD = 1.074. Further, the alumni agreed that knowledge mapping was conducted periodically with a mean = 3.577 and SD = 1.116.

The findings are in line with Demchig (2015) who defines Knowledge Management as "purposeful knowledge creation and sharing activities that an organization undertakes to efficiently enhance performance". KM is the process of acquiring, disseminating, and applying knowledge among academics and learners. The findings also concur with Veer Ramjeawon and Rowley (2017) who identified the following as hurdles to KM adoption in higher education;- rigid culture and structures, data, inadequate resources, policies, and research activities. Experienced and Competent academic staff, library resources, information technology infrastructure, and finances to support knowledge creation and transfer were also seen as major facilitators to KM by the researchers.

The findings also correlate with Gill (2009) who noted that Knowledge Management applications in higher education are realised by the development of appropriate information systems for library resources and improvement of the quality of academic programmes through curriculum development and regular reviews. Knowledge creation, according to Nonaka and Takeouchi (1995), includes the use of current knowledge to produce new information as well as the discovery of new knowledge through collaborations and interactions among students, staff, industry actors, and other stakeholders.

This agrees with Demchig (2015) who underlined that knowledge management (KM) is an effective means of innovation, customer satisfaction, and business excellence. However, most of these quality approaches in Higher Education have received much criticism for their lack of theoretical foundations and focus on fulfilling external intentions rather than on enhancing educational quality and culture.

The major problems that face knowledge development and integration, according to Mavodza and Ngulube (2012), include bureaucratic and cumbersome procedures, organizational directives, an inadequate information technology platform and a lack of proper guidelines on knowledge sharing. The key informants supported the findings from the data analysis on the influence of utilization of knowledge management on the quality of academic programs.

The hypothesis on quality of an academic programme and utilization of knowledge management was tested and yielded the following results as shown in Table 4.34.

Table 4.34

Relationship between the knowledge management utilization and quality of an academic program

Chi-Square Tests			
	Value	**Df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	95.333[a]	88	.278
Likelihood Ratio	51.779	88	.999
Linear-by-Linear Association	.155	1	.694
N of Valid Cases	13		
a. 108 cells (100.0%) have expected count less than 5. The minimum expected count is .08.			

Table 4.34 shows the responses of Chairs of departments on the relationship between the quality of an academic programme and Knowledge Management practices. From the Chi-Square test, the Pearson Chi-Square (Pearson Value (χ_2) 95.333, df=88) has a p-value of 0.278 which is greater than the level of significance 0.05 (P-value 0.278>0.05 level of significance). This shows that there is a significant relationship between the quality of an academic programme and Knowledge Management practices. This study, therefore, rejects the null hypothesis (knowledge management practices have no significant relationship with the quality of academic programmes). Therefore, KM practices have a significant influence on the quality of academic programmes.

4.8 Institutional Audits

The study sought to analyse the influence of institutional audits on the quality of academic programmes in the Faculty of Education at the University of Nairobi. The study sought responses from heads of academic units, lecturers, and alumni (2016-2017). The results are covered in Table 4.35.

Table 4.35

Frequency of Responses on Institutional audits

Heads of Academic Units	Mean	Std. Dev.
Institutional quality audits conducted	3.667	0.651
Academic programmes quality audits conducted	3.583	0.996
Implementation of recommendations of quality audits monitored and evaluated	3.500	1.087
Requests for a quality audit done	3.250	1.138
Adherence to standards on programmes quality	4.083	0.793
Adherence to standards on resources supporting programmes	3.417	1.165
Curriculum review for accreditation	4.250	0.452
Lecturers	**Mean**	**Std. Dev.**

	Mean	Std. Dev.
Institutional quality audits conducted	3.395	0.896
Academic programmes quality audits conducted	3.276	1.001
Implementation of recommendations of quality audits monitored and evaluated	3.026	1.166
Requests for a quality audit done	3.540	0.886
Adherence to standards on programmes quality	3.276	1.115
Adherence to standards on resources supporting programmes	3.158	1.189
Curriculum review for accreditation	3.632	1.018
Faculty of Education Alumni	**Mean**	**Std. Dev.**
Institutional quality audits conducted	3.540	1.158
Academic programmes quality audits conducted	3.498	1.122
Adherence to standards on programmes quality	3.791	1.159
Adherence to standards on resources supporting programmes	3.703	1.137
Curriculum review for accreditation	3.619	1.149

The summary of the results in Table 4.35, the alumni frequently agreed that adherence to program quality standards was done with mean = 3.791 and SD = 1.159, that adherence to standards on resources supporting programmes was done with mean = 3.703 and SD = 1.137, that curriculum review for accreditation was done with mean = 3.619 and SD = 1.149, that institutional quality audits conducted with mean = 3.540 and SD = 1.158 and that they were neutral on academic programmes quality audits having been conducted with mean = 3.498 and SD = 1.122. The results correlate to Cheng (2015) who found out that most institutions in Taiwan sought US-based accreditation in addition to the recognized qualifications in their country.

As per the findings in Table 4.35, Heads of academic units indicated that curriculum review for accreditation was done frequently with mean = 4.250 and SD = 0.452, that adherence to standards on programmes quality was done with mean = 4.083 and SD = 0.793, that institutional quality audits conducted with mean = 3.667 and SD =0.651, that academic programmes quality audits

were conducted mean = 3.583 and SD = 0.996 and implementation of recommendations of quality audits monitored and evaluated with mean = 3.500 and SD = 1.087. However, the respondents were neutral on whether there was adherence to standards on resources supporting programmes with a mean = 3.417 and SD = 1.165 and requests for a quality audit were done with mean = 3.250 and SD = 1.138. Cardoso et. al. (2017) established that with the increasing concerns about educational quality, there has been a shift from mere improving quality to a higher level of institutional accountability. Their findings indicate that most educational institutions focus more on responding to the external QA requirements for compliance rather than enhancing their internal QA mechanisms that promote quality culture.

As per the findings in Table 4.35, Curriculum review for accreditation was frequently mentioned by lecturers with a mean = 3.632 and SD =1.018, and requests for quality audit were done with a mean = 3.540 and SD = 0.886. However, the lecturers were neutral on whether institutional quality audits were conducted with mean = 3.395 and SD = 0.896, academic programmes quality audits were conducted with mean = 3.276 and SD = 1.001, that adherence to standards on programmes quality was done with mean = 3.276 and SD = 1.115, that adherence to standards on resources supporting programmes was done with mean = 3.158 mean and SD = 1.189   and that implementation of recommendations of quality audits was monitored and evaluated with a mean = 3.026 and SD =1.166.

The findings correlate with CHEA (2014) who argued that the US institutional accreditation agencies have been adopted across many nations and have accredited more than 8,300 Higher Education Institutions across the globe. Some institutions seek global accreditation in addition to those supported by their state governments. The findings concur with Dill (1996,2007) who argued that the state governments have regional accreditation agencies that conduct accrediting activities for educational institutions and academic programmes based on predetermined standards and regulations. He also argued that the external quality mechanisms in the educational context comprise several compliance mechanisms such as institutional and programme accreditation, licensing, ranking systems, and other quality enhancement approaches that governments use to regulate Higher Education Institutions.

One of the key respondents commented on institutional audits and the quality of academic programmes and said; "*Both positive and negative, positive in the harmonization of quality, but negative by not integrating the uniqueness of certain programmes*". Another key respondent stated that; it *"Gives an indication on the quality of programmes and competencies of graduates"* and that *"By conducting frequent audits and inspection of programmes through the accreditation process, the universities will definitely ensure that the programmes offered are relevant for sustainable development"* and also that *"They rarely visit the universities for the same as expected"* and that *"There is insufficient financial resource allocation to the regulators. Universities in Kenya are too many the regulators cannot effectively offer oversight"* also that *"they ideally should help to standardize programmes and improve on product*

quality" and that *"My experience was excellent. I have top tier knowledge in my two teaching subjects and also the education courses. I believe this was greatly influenced by the continuous review and update of our course"* also that *"The audits by the accreditation bodies display that the academic programme is legitimate and that the university has been allowed to carry out the programme to give knowledge to the next generation and it displays that it is qualified to do so"*

Results from the data and the respondents' perspectives agree that institutional audits contributed to the improvement of the quality of academic programmes in higher education institutions.

The hypothesis on Quality of an academic programme and Institutional Audits was tested and yielded the following results

Table 4.36

Relationship between Institutional Audits and quality of an academic programme

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	95.333[a]	88	.278
Likelihood Ratio	51.779	88	.999
Linear-by-Linear Association	2.639	1	.104
N of Valid Cases	13		
a. 108 cells (100.0%) have expected count less than 5. The minimum expected count is .08.			

Table 4.36 shows the responses of chairs of departments on the relationship between the quality of an academic programme and Institutional Audits. From

the Chi-Square test, the Pearson Chi-Square (Pearson Value (χ_2) 95.333, df=88) has a p-value of 0.278 which is greater than the level of significance 0.05 (P-value 0.278>0.05 level of significance). This shows that there is a significant relationship between the quality of an academic programme and institutional audits. This study, therefore, rejects the null hypothesis (institutional audits have no significant relationship with the quality of academic programmes). Therefore, institutional audits have a significant influence on the quality of academic programmes.

4.9 Multiple Regression Analysis

The relationship between two or more sets of data variables can be analyzed using multiple regression analysis (MRA) Musek (2020). MRA can predict the value of a dependent variable through the value of the independent variables to make a judgment on future incidents and make decisions.

A multiple regression analysis was done to check the influence of quality assurance practices on the quality of academic programmes a case of the Faculty of Education at the University of Nairobi. The investigator applied the Statistical Program for Social Sciences (SPSS) Version 25.0 to code, enter, and calculate multiple regression measurements. The findings are presented in Tables 4.37, 4.38, and 4.39. Table 4.37 presents the model of the study.

Table 4.37

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	0.861	0.742	0.739	0.570

Adjusted R square computes R square using only variables whose additions in the model are significant. As a result, when performing a multivariate regression, adjusted R square is considered rather than R square. It identifies the percentage of variance in the target field that is explained by the inputs. Adjusted R-squared provides an unbiased estimate of the population R-squared.

From the findings, the independent variables were significant in predicting the dependent variable since the adjusted R square was 0.739. This implied that 73.9% of variations in the quality of academic programmes in the Faculty of Education at the University of Nairobi are explained by adopting ISO 9001 standards, implementing total quality management (TQM) practices, knowledge management practices, and institutional audits.

Table 4.38

ANOVA Table

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	303.042	4	75.761	231.422	.000
Residual	105.413	322	0.327		
Total	**408.455**	**326**			

The ANOVA Table 4.38 illustrates, the p-value was 0.000 and F was 231.422. Since the p-value was less than 0.05 and the F was greater than F-critical from the f-table (2.3997), then the regression relationship was significant in determining how adopting ISO 9001 standards, implementing Total Quality Management (TQM) practices, knowledge management practices, and

institutional audits influenced the quality of academic programmes in the Faculty of Education at the University of Nairobi. Table 4.39 indicates the regression coefficients producing the regression model for the four variables namely adopting ISO 9001 standards, implementing TQM, Knowledge management practices, and institutional audits as they influence the quality of the academic programme. Table 4.39 shows the regression coefficients.

Table 4.39

Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.908	0.102		8.902	.000
Adopting ISO 9001 standards	0.802	0.286	0.703	2.804	.005
Implementing Total Quality Management (TQM) practices	0.741	0.309	0.611	2.398	.017
Knowledge management practices	0.664	0.091	0.569	7.297	.000
Institutional Audits	0.784	0.311	0.676	2.521	.012

The established model of this study is represented as:

$$Y = 0.908 + 0.802X_1 + 0.741X_2 + 0.664X_3 + 0.784X_4$$

The following assumptions were met: That there was a relationship between the independent variables and the dependent variable which was achieved using a scatter plot where most of the points fell along a straight line, the residuals are independent using the Durbin Watson test, homoscedasticity (the residual has a constant variable) using the Scale-Location plot and the residuals are normally distributed using a histogram.

From the above regression equation, the mean of the dependent variable (quality academic programmes) is at 0.908 while the independent variables (adopting ISO 9001 standards, implementing Total Quality Management (TQM) practices, Knowledge Management practices, and institutional audits) are at zero. A P-value that is more than 0.05 is considered statistically significant while a figure that is less than 0.01 is viewed as highly statistically significant.

The findings also indicate that a unit increase in adopting ISO 9001 standards leads to a 0.802 increase in the quality of academic programmes in the Faculty of Education at the University of Nairobi. If all other variables are held constant. The variable was significant because its p-value was 0.005, which was less than the threshold of significance of 0.05.

Further, it was found that for a unit increase in implementing TQM practices, there is a corresponding increase of 0.741 in the quality of academic programmes in the Faculty of Education. The variable was significant because its p-value was 0.017, which was less than the threshold of significance of 0.05.

Further, the findings show that a unit increase in the scores of KM practices would lead to 0.664 increases in the quality of academic programmes in the Faculty of Education at the University of Nairobi. The variable was significant because its p-value was 0.000, which was less than the threshold of significance of 0.05.

Moreover, a unit increase in institutional audits would lead to a 0.784 increase in the quality of academic programmes in the Faculty of Education at the University of Nairobi. The variable was significant because its p-value was 0.012, which was less than the threshold of significance of 0.05.

Overall, adopting ISO 9001 standard had the highest influence on the quality of academic programmes in the Faculty of Education at the University of Nairobi followed by institutional audits, then implementation TQM practices while KM practices had the least influence on the quality of academic programmes in the Faculty of Education at the University of Nairobi. All the variables were significant since their p-values were less than 0.05.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the study results, conclusions, and recommendations drawn from the research. The section also highlights suggestions for further research to tackle gaps identified in the research. The purpose of this study was to investigate quality assurance practices in Higher Education Institutions that influence the quality of academic programmes -The case of the Faculty of Education at the University of Nairobi. The following section presents a summary of the study; adopting ISO 9001 standards, Total Quality Management (TQM) practices, Knowledge Management practices, and Institutional Audits.

5.2 Summary of the Study

The survey investigated quality assurance practices in Higher Education Institutions that influenced the quality of academic programmes; A case of the Faculty of Education at the University of Nairobi. The survey employed a descriptive research design. This was arrived at through the use of Research Objectives, Research Questions and Research Hypotheses out of which a model was used to analyse the data and draw conclusions from the study. Qualitative and quantitative data analysis were both generated and data coding and entry were done by use of SPSS Version 25.0. Descriptive statistics (mean frequencies and standard deviations) were used, while inferential statistics were used to determine the relationship between variables using multiple regression analysis.

The findings of the study were based on the objectives, questions and the hypotheses meant to ascertain the influence and the relationship of ISO 9001 standards adoption, Total Quality Management (TQM) implementation, knowledge management utilization, and Institutional Audits on the quality of academic programmes in the Faculty of Education at the University of Nairobi.

5.2.1 Adopting ISO 9001 and Quality of Academic Programmes

The study established that a unit increase in the adoption of ISO 9001 standards lead to a 0.802 increase in the quality of academic programs. The study established that a formal quality management system (QMS) enhanced the provision of quality products and services. The study pointed out that the adopted quality management system (QMS) addressed curriculum accreditation requirements, curriculum alignment with national and international priorities, and curriculum design, development, review, and delivery. The study also established that a quality management system (QMS) addressed the attraction of qualified students, engaging qualified staff, mechanisms for curriculum assessment, and resources supporting teaching and learning to a large extent. The findings concur with Ali *et. al.* (2018) who investigated academic programmes quality by comparing different standards and found that the standards used differed from country-country and organization-organization.

The study also revealed that since the adoption of ISO 9001 standards, learner enrolment, learner completion rates, and graduate throughput had slightly

increased. The study further established that accidents during learning, academic & technical staff competencies and class attendance, attitudes towards quality, communication between staff and punctuality, employee turnover, teamwork, and cooperation had slightly increased. However, student dropout rates and lecturer-student ratio slightly decreased after ISO 9001 standards were adopted. From the study, it is evident that ISO 9001 standards have a significant influence on the quality of academic programmes offered by Higher Education Institutions. The findings correlate with Cruz *et. al*. (2016) who noted that ''While quality management approaches such as ISO should help to improve internal quality, including student performance, in most cases, the efforts fail to yield positive results.''

5.2.2 Total Quality Management (TQM) Practices and Quality of Academic Programmes

The study found that a unit increase in implementing Total Quality Management (TQM) practices had a corresponding increase of 0.741 in the quality of academic programmes in the Faculty of Education at the University of Nairobi. The study established that top management was devoted to the development and communication of the institution's vision, mission, goals, values, and quality statements, that top management participated in the curriculum review process and that top management was aware of the needs and requirements of departments that delivered the curriculum. The study also established that top management provided financial support, for the development of quality programmes. TQM is defined by Grundey (2008) as a

management concept that encourages firms to build methods for continual improvement of product and service quality, efficiency, and customer satisfaction.

The study also established that there was continuous learning for staff through education and training and training needs assessments were conducted regularly to determine areas that required training. The study found that there existed a policy for in-service and training and that academic staff were continuously updated on TQM principles and concepts. The study established that the staff were involved in decision-making processes, that cross-functional teams were involved in the design of quality programmes, that quality control circles were involved in curriculum review, that staff were empowered to take accountable actions and that a reward system was in place. TQM is one of the global quality methods that has greatly contributed to the efficiency of operations in higher education, according to Becket and Brookes (2006).

In addition, the study found that there were proactive consultations with stakeholders when reviewing courses, that curriculum design considered learners' requirements, that programmes quality audits were conducted regularly, and that functional programmes performance feedback systems were in place. The study established that there was the ease of access and use of teaching and learning facilities and that they were inclusive and user-friendly and that health and safety measures were functional.

Further, the study found that there were standardized and documented operating processes and procedures for programmes, that there were effective data collection procedures and that learning equipment was well maintained based on the maintenance plan. The study revealed that the academic unit's decision-making processes were based on the fact that a reward and recognition system was in place to award good performance to academic staff and students. The study found that performance contracts were signed by each academic unit to keep track of its activities, achievements, and failures, that periodic self-assessments were conducted to monitor the effectiveness of programmes and that process monitoring and control measures were in place. From the hypothesis, there was a significant relationship between the quality of an academic programme and TQM implementation. Therefore, Higher Education Institutions in Kenya will compare favourably with the rest of the world through the use of modern management practices like Total Quality Management (TQM). The results correlate with Dejager and Nieuwenhuis' (2005) assertion that ''TQM principles are crucial because they place a strong emphasis on the final consumer''.

5.2.3 Utilization of Knowledge Management and Quality of Academic Programmes

The study found that a unit increase in the scores of knowledge management practices leads to 0.664 increases in the quality of academic programmes in the Faculty of Education at the University of Nairobi. The study established that knowledge repositories were available and accessible and that accumulated knowledge was published in journals and books. Moreover, the

study found the existence of a culture of knowledge sharing, that research output informed curriculum review and development, that knowledge management technologies were utilized, that knowledge management was incorporated in the units' strategy, and that there was continual education on knowledge management. The findings are in line with Demchig's (2015) definition of knowledge management as " purposeful knowledge creation and sharing activities that an organization undertakes to efficiently enhance performance". Knowledge management refers to the process of acquiring, disseminating, and using knowledge among academics and learners.

The respondents in the study were neutral on whether knowledge mapping was conducted periodically. From the hypothesis, there was a significant relationship between the quality of an academic programme and knowledge management utilization. Therefore, Higher Education Institutions are yet to leverage the massive explicit knowledge that they produce in terms of managing into extent knowledge. The findings also concur with Veer Ramjeawon and Rowley (2017) who identified hurdles to KM adoption in Higher Education as follows;- rigid culture and structures, data, inadequate resources, policies, and research activities.

5.2.4 Institutional Audits and Quality of Academic Programmes

The finding showed that a unit increase in institutional audits lead to a 0.784 increase in the quality of academic programmes in the Faculty of Education at the University of Nairobi. The study showed that there were frequent; curriculum reviews for accreditation, adherence to standards on programmes

quality, institutional quality audits, academic programmes quality audits, and implementation of recommendations of quality audit monitoring and evaluation. The results correlate to Cheng (2015) who found out that most institutions in Taiwan sought external accreditation in addition to the recognized qualifications in their country.

However, there was moderate; adherence to standards on resources supporting programmes and requests for quality audits. From the results of the hypothesis, there was a significant relationship between the quality of an academic programme and institutional audits. Cardoso et.al. (2017) established that with the increasing concerns about educational quality, there has been a shift from mere improving quality to a higher level of institutional accountability.

5.3 Conclusions

Generally, the researchers concluded that adopting ISO 9001 standards, implementing Total Quality Management (TQM), utilization of Knowledge Management, and Institutional audits have a significant influence on the quality of academic programmes. This is made possible by ensuring appropriate curriculum design, development, review, and delivery, as well as alignment with national and international priorities. Consistent application and implementation of quality assurance practices can enhance the quality of academic programmes offered by Higher Education Institutions.

The study concluded that adopting ISO 9001 standards significantly influences the quality of academic programmes at the University of Nairobi. Adopting

ISO 9001 standards highly addresses the curriculum accreditation with regulatory authorities' requirements. Moreover, the adoption of ISO 9001 standards improves communication, punctuality, teamwork as well as cooperation among the university staff.

The study concluded that implementing total quality management (TQM) practices significantly influences the standards of academic programmes in the University of Nairobi. Implementing total quality management (TQM) practices ensure that top management is devoted to the development and communication of the institution's vision, mission, goals and values. TQM implementation also ensures that there is continuous learning for staff through education and training and guarantees staff' involvement in decision-making processes regarding curriculum review.

The study concluded that knowledge management practices significantly influence the standards of academic programmes at the University of Nairobi. Knowledge management practices ensure knowledge repositories are available and accessible and that accumulated knowledge is published in journals and books. Knowledge management practices also ensure the existence of a culture of knowledge sharing and that research output informs curriculum review and development.

The study concluded that Institutional audits significantly influenced the standards of academic programmes at the University of Nairobi. Institutional audits ensure that curriculum review for accreditation, adherence to standards

on programmes quality and institutional quality audits are conducted frequently.

5.4 Recommendations

The recommendations target policy implications, theory and practice, and further studies as follows.

5.4.1 Recommendations for Policy

i.   Universities should institutionalize the use of ISO standards in all their processes and procedures as an item in performance contracting. This will ensure HEIs are obliged to prioritize the implementation of ISO standards and hence the promotion of a quality culture.

ii. The HEIs should adopt effective management strategies such as equitable resource allocation, negotiated funds, and addressing students' resource needs at the lowest management level of service delivery. This will enable the availability of resources at the department where they are needed most and ensure the proper functioning of the institutions.

5.4.2 Recommendation for Theory and Practice

i.   The study recommends that universities maintain or improve their QMS in pursuit of offering relevant, appropriate and labour demands driven academic programmes.

ii. Top management should encourage all departmental heads to continually implement quality management systems and methods.

iii. The study supports the necessity for knowledge repositories to be open to the public and accessible to all, as well as for accumulated

information to be published in journals, theses, dissertations, and books.

iv. Greater emphasis is put on frequent monitoring and evaluation and implementation of recommendations of quality audit reports. This can be achieved through ISO certification and the accompanying quality audits

v. Top management to allow staff at all levels to fully participate in decision-making, particularly on quality issues. This will enable them to take ownership of the quality management system and process, thereby improving organizational performance and quality culture.

vi. Top management to ensure that the institution has strong knowledge management processes and that the knowledge gained from research is used in curriculum review.

vii. The study recommends that universities voluntarily subject their programmes to national and international accreditation to ensure the internationalization and comparability of their academic programmes.

5.4.3 Recommendation for Further Studies

i. The study recommends that future research be undertaken on the challenges associated with the implementation and adoption of quality assurance practices in HEIs.

ii. The study also recommends that future research should focus on emerging issues that have an impact on the quality of educational outputs.

171

iii.   Approaches for leveraging and utilization of knowledge from faculty and students' research in the search for solutions to societal problems is another area for further research.

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173

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APPENDICES

Appendix I: Letter of Introduction

Mr. Michael M. Wangai
University of Nairobi
P.O BOX 30197-00100,
NAIROBI
Dear Sir/Madam,

Subject: A Survey on the *"Quality Assurance Practices Influencing Quality of Academic Programmes in Higher Education Institutions in Kenya. A case of Faculty of Education, University of Nairobi".* Doctor of Education (Curriculum Studies), University of Nairobi.

Introduction: This survey is part of the Doctoral study in Curriculum Studies by Michael Wangai, a student in the Department of Educational Management Policy and Curriculum Studies under the supervision of Dr. M.M. Mugambi, Prof. J.M. Kalai, and Prof. J.O. Inyega of the Faculty of Education, University of Nairobi.

Purpose: The purpose of this study is to investigate the quality assurance practices that influence standards of academic programmes in higher education in Kenya, A case of the Faculty of Education, University of Nairobi. The study specifically intends to examine the influence of adopting TQM practices, ISO 9001 standards, knowledge management practices, and external audits on academic programmes.

Benefits to your institution: the findings from the study are appropriate and valuable to the HEIs, hence will enable you to gain knowledge on the best quality assurance practices that influence the standards of academic programmes in your institution.

Confidentiality: your opinions will be treated as confidential and undisclosed.

Filling in the questionnaire: the questionnaire seeks information about the higher education institution. Questions are designed in form of statements to enable you to choose the best answer that suits your current situation in your institution. The questionnaire requires 10-15 minutes to be filled. The target group is the heads of academic units, lectures, and alumni (2016-2019).

Contact person: for more information, kindly contact –
mwareri.wangai@uonbi.ac.ke Cell Phone number: 0722 223 011.

Appendix II: Questionnaire for Heads of Academic Units Faculty of Education

I am Michael Wangai, a Doctoral student at the University of Nairobi, undertaking a Doctor of Philosophy in Curriculum Studies in the Department of Educational Management Policy and Curriculum Studies.

The title of the study is 'Quality Assurance Practices influencing the quality of academic programmes in Higher Education Institutions in Kenya: A case of the Faculty of Education in the University of Nairobi.

I request your participation in filling out this questionnaire. Your opinions will be treated confidentially.

Fill all the fields in this section

Part I: SOCIO-DEMOGRAPHIC CHARACTERISTICS

1. Name of the Academic unit (Faculty):
2. Indicate your age.   *Mark only one oval.*

◯ Less than 30 years   ◯ 30-39   ◯ 0-49   ◯ 50-59   ◯ 60- 59 ◯

Above 70

3. **Indicate your gender**   *Mark only one oval.*

◯ Female ◯ Male   ◯ Prefer not to say   ◯ Other

4. **What is your highest academic qualification?**   *Mark only one oval.*

◯   Bachelor's Degree ◯   Masters Ph.D. ◯   Other ◯

5. **Indicate your Academic title?**
     Mark only one oval.

◯ Lecturer ◯ Senior Lecturer   ◯ Associate Professor

◯ Professor

6. **Indicate your teaching experience:**   *Mark only one oval.*

                                          ◯
◯   Below 5 years ◯   6-15 years   16-25 years ◯

Above 25 years

7. **Do you have any Quality Assurance training experience?**
     Mark only one oval.

Yes⃝   ⃝ No   Not sure

8.   If yes in (Viii) above, list the most recent Quality Assurance training attended?

9.   Which of the following Quality Assurance approaches are used in your institution? (*Tick the applicable ones*)
ISO ☐   ☐ TQM   ☐   IQA Mechanisms

External QA Mechanisms   ☐   Knowledge Management
_____

PART II: QUALITY CRITERIA FOR AN ACADEMIC PROGRAMME

This section contains statements regarding the current status of quality criteria or standards of an academic programme. Please check the statement that best describes your opinion. The scoring is 1=Strongly Disagree, 2 = Disagree, 3 = Neutral 4= Agree , 5 = Strongly Agree .

1.0   QUALITY CRITERIA: Stakeholder's involvement

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.1	Government involvement enriches the quality of a curriculum					
1.2	Labour market involvement enhances the quality of a curriculum					
1.3	Involvement of students in curriculum development and review is important					
1.4	The involvement of experts enhances the quality of the curriculum					
1.5	Parents should be involved in the curriculum in which their children undergo					
1.6	Society's input is important in curriculum design					

2.0 QUALITY CRITERIA: Curriculum development and design.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
2.1	The curricula are aligned to the national and international priorities and standards.					
2.2	Internal curriculum development and review policy is in place to guide the process of programme design					
2.3	The curriculum development and review process go through specified internal quality assurance phases.					
2.4	The curricula show the chronology of courses from foundational, specialty, and project/ thesis activities.					
2.5	The curricula clearly show a balance between common and specialty courses					
2.6	The curricula indicate specified pedagogical styles that are learner-centred					
2.7	The curricula are ultimately approved by the external body or agency.					

Curriculum development and design (Additional information)

_____.

3.0 QUALITY CRITERIA: Quality of academic staff

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.1	Academic staff are recruited and promoted based on merit					
3.2	Academic staff are adequate to deliver the programme content					
3.3	Course units are allocated based on qualifications, skills, and experience.					
3.4	Accountability and time management are served by academic staff and students					

Quality of academic staff (Additional information)

_____.

4.0 QUALITY CRITERIA: Quality of students.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4.1	There is a working admission policy to guide the process of student enrolments					
4.2	Students are selected and admitted based on qualifications and merit					
4.3	Students' performance is monitored, recorded and corrective actions taken (for example, class attendance and active participation in learning activities, etc.)					
4.4	Students' evaluation feedback is considered in the design and review of programmes.					

Quality of students (Additional information)

_____.

5.0 QUALITY CRITERIA: *Innovative research activities and outputs*

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5.1	The academic unit continually develops scientific and innovative research activities that aim to solve societal problems					
5.2	The academic unit conducts and disseminates quality research outputs					
5.3	Research outputs inform curriculum review					
5.4	Research outputs and publications by universities, staff, and students enhance teaching and learning.					

Innovative research activities and outputs (Additional information)

_____.

6.0 QUALITY CRITERIA: *Student Mobility and international partnership*

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6.1	The unit has guidelines and resources to support and promote regional partnerships between institutions					
6.2	Student mobility is enhanced through exchange programmes and scholarships					

Student mobility and international partnerships (Additional information)_____.

7.0 QUALITY CRITERIA: *Academic resources and student support*

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7.1	Programmes delivery is supported by adequate and up-to-date physical resources (for example, lecture rooms, theatres, library, laboratories, studios, workshops e.tc)					
7.2	Virtual solutions are available to enable teaching and learning					
7.3	There is regular monitoring, maintenance, and upgrade of student learning facilities					
7.4	Computer and ICT centres provide reliable services and connectivity					
7.5	Information technology systems are up-to-date (for example, e-mail contact persons and offices etc.					
7.6	Health and safety precautions are placed to mitigate accidents and other hazards.					

Academic resources and student support (Additional information)

_____.

8.0 QUALITY CRITERIA: *Student assessment and workload*

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8.1	Students' workload is adequate and appropriate (for example, lecture contact hours, practical, studio work, clinical, etc.)					
8.2	The assessment process is consistent and orderly (in terms of setting tests, evaluation and timely results, delivery, etc.)					
8.3	Assessments (i.e. tests, evaluations, exams) are aligned to the content and learning outcomes of the academic programmes).					
8.4	Students are provided with adequate feedback on their progress.					

Student assessment and workload (Additional information)_____.

9.0 QUALITY CRITERIA: *Graduate accomplishments*

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
9.1	Completion rates are satisfactory (70% of a cohort graduates					
9.2	Drop-out rates are at a minimum or an acceptable level (5% of a cohort)					
9.3	Tracer survey is consistently conducted to determine graduate employability					
9.4	Graduate employability index (50% and above)					

Graduate accomplishments (additional information) _____.

10.0   QUALITY CRITERIA: *Benchmarking*

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10.1	The academic unit uses benchmarking tools to gauge their academic programmes performance					
10.2	The academic unit uses subject benchmark statements in the process of curriculum development/ review					

Benchmarking (additional information) _____.

PART III; ISO 9001 STANDARDS AND QUALITY ACADEMIC PROGRAMMES

ISO 9001 standards require the implementation of a quality management system (QMS) in all processes and procedures of the organization. In this Section, you are requested to give your opinion on the status of your Institution. Please answer the following questions based on your Institution. Please answer the following questions based on your understanding. Tick where appropriate.

11.0 Does a formal Quality Management System (QMS) enhance the provision of quality products and services?

Mark only one oval.

Yes ⬭ No Not Sure

11.1 if yes or no, comment. _____.

11.2 Does your institution have a formal QMS? *Mark only one oval.*

⬭ Yes ⬭ No Not sure ⬭

11.3 If yes in 12.2 above, what is the name of the system? _____

11.4 If no in 12.2 above, what is the name of the system in use? _____

11.5 What is its status? *Mark only one oval.*

⬭ Current ⬭ Obsolete Not Sure

12.0 To what extent does the system in use address the following measures?

Mark only one oval per row

		Very small extent	Small extent	Neutral	Large extent	Very Large extent
12.1	Engaging qualified staff					
12.2	Design, development, review and delivery of a curriculum					
12.3	Alignment of the of the curriculum with national and international priorities					
12.4	Curriculum accreditation with regulatory authorities requirements					
12.5	Attraction of qualified students					
12.6	A variety of delivery modes for the curriculum					
12.7	Mechanisms for curriculum assessment					
12.8	Resources supporting teaching and learning					

13.0 The last two (2) academic years indicate the level of change in the following academic performance measures in your institution.

Mark only one oval per row

		Significantly Decreased	Slightly decreased	Neutral	Slightly increased	Significantly increased
13.1	Student enrolment					
13.2	Student dropout rates					
13.3	Student completion rates					
13.4	Graduate throughput					
13.5	Lecturer - student ratio					

14.0 With the implementation of the system in use, indicate the level of improvement in the following performance metrics over the last two (2) academic years.

		Significantly Decreased	Slightly decreased	Neutral	Slightly increased	Significantly increased
14.1	Punctuality					
14.2	Class attendance					
14.3	Accidents during learning					

14.4	Academic & technical staff competencies					
14.5	Employee turnover					
14.6	Teamwork and cooperation					
14.7	Communication between staff					
14.8	Attitudes towards quality					

PART IV: TOTAL QUALITY MANAGEMENT (TQM) AND QUALITY ACADEMIC PROGRAMMES

This section highlights the Total Quality Management (TQM) principles and their influence on the quality of academic programmes. You are requested to indicate your opinion on the level of agreement in the following statements regarding the implementation of TQM principles.

15.0 Top management commitment

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15.1	Top management is devoted to the development and communication of the institution's vision, mission, goals, values, and quality statements					
15.2	Top management provides financial support, for the development of quality programmes					
15.3	Top management participates in the curriculum review process					

16.0 Education and training

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16.1	There is a continuous learning for staff through education and training					
16.2	Academic staff are continuously updated on TQM principles and concepts					

17.0 Customer Focus / orientation

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
17.1	Customer feedback systems is in place (e.g Students exit survey and graduate tracer survey)					
17.2	Feedback from stakeholders (for example, Students, employers, government etc.) is integrated into the curricula					

18.0 Involvement of academic staff

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
18.1	The staff are involved in decision-making processes					
18.2	Cross-functional teams are involved in the design of quality programmes					
18.3	Quality control circles involved in curriculum review					
18.4	Empowered to take accountable actions					
18.5	Reward system in place					

19.0 Supplier Quality Management (SQM)

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19.1	Programmes quality audits conducted regularly					
19.2	Functional programmes performance feedback system					

20.0 Continuous improvement

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
20.1	Ease of access and use of teaching and learning facilities					
20.2	Teaching and learning facilities are inclusive and user-friendly.					
20.3	Sustainable waste management systems in place					

21.0 Process-flow management

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
21.1	Learning equipment is well maintained based on the maintenance plan.					
21.2	There are standardized and documented operating processes and procedures for programmes					

22.0 Fact-based management

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
22.1	The academic unit's decision-making processes are based on facts.					

23.0 Incentive and recognition system

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
23.1	Reward and recognition system in place to award good performance for academic staff and students					
23.2	The academic unit applies for participation in awards/ citations for excellent quality standards.					
23.3	Members of staff and students are awarded for innovative ideas and initiatives					

24.0 Process monitoring and control

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
24.1	Process monitoring and control measures in place					
24.2	Periodic self-assessments are conducted to monitor the effectiveness of programmes					
24.3	Performance contracts are signed by each academic unit to keep track of its activities, achievements, and failures.					

PART V: KNOWLEDGE MANAGEMENT AND QUALITY ACADEMIC PROGRAMMES

Indicate the level of agreement with the use of the following knowledge management principles on standards of academic programmes.

25.0 Knowledge management principles

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
25.1	Existence of a culture of knowledge sharing					
25.2	Knowledge repositories are available and accessible					
25.3	Knowledge mapping is conducted periodically					
25.4	Knowledge management technologies utilized					
25.5	Knowledge management incorporated in the units' strategy					
25.6	There is continual education on knowledge management					
25.7	Accumulated knowledge published in journals and books					
25.8	Research output informs curriculum review and development					

PART VI: INSTITUTIONAL AUDITS AND QUALITY ACADEMIC PROGRAMMES

Indicate your opinions on the frequency to which the following statements apply

26.0 Institutional Audits

		Very rarely	Rarely	Neutral	Frequently	Very Frequently
26.1	Institutional quality audits conducted					
26.2	Academic programmes quality audits conducted					
26.3	Implementation of recommendations					

	of quality audits monitored and evaluated					
26.4	Requests for a quality audit done					
26.5	Adherence to standards on programmes quality					
26.6	Adherence to standards on resources supporting programmes					
26.7	Curriculum review for accreditation					

PART VII: ADDITIONAL INFORMATION

27.0 What is your opinion on the ability of Higher Education Institutions in Kenya to conduct the self-assessment processes of their academic programmes? _____

28.0 Do regulators conduct routine and timely institutional audits in Higher Education Institutions?

Yes ⬭ No ⬭ Not Sure ⬭

28.1 If yes or no, comment._____.

29.0 What influence do institutional audits have on academic programme quality?
Thank you for your time and participation.

Appendix III: Questionnaire for Lecturers in Faculty of Education

I am Michael Wangai, a Doctoral student at the University of Nairobi, undertaking a Doctor of Philosophy in Curriculum Studies in the Department of Educational Management Policy and Curriculum Studies.

The title of the study is 'Quality Assurance Practices influencing the quality of academic programmes in Higher Education Institutions in Kenya: A case of the Faculty of Education in the University of Nairobi.
I request your participation in filling out this questionnaire. Your opinions will be treated confidentially.

Part I: SOCIO-DEMOGRAPHIC CHARACTERISTICS
1. Name of the Academic unit (Faculty):
2. Indicate your age.   *Mark only one oval.*

◯ Less than 30 years ◯   30-39 ◯   40-49   ◯ 50-59 ◯

60- 59   Above 70

3. **Indicate your gender**   *Mark only one oval.*

◯ Female   ◯   Male   Prefer not to say

Other

4. **What is your highest academic qualification?**   *Mark only one oval.*

◯   Bachelor's Degree ◯   Masters Ph.D Other   ◯

5. **Indicate your Academic title?**
    Mark only one oval.

◯ Lecturer   ◯   Senior Lecturer ◯

Associate Professor   Professor

6. **Indicate your teaching experience:**
    Mark only one oval.

◯ Below 5 years ◯   6-15 years   16-25 years

Above 25 years

7. **Do you have any Quality Assurance training experience?**
    Mark only one oval.
8.   If yes in (7) above, list the most recent Quality Assurance training

attended

9.	Which of the following Quality Assurance approaches are used in your institution? (tick the applicable ones).	*Check all that apply.*

☐ IS	☐ TQ	☐ IQA Mechanisms	☐ External QA Mechanisms
☐ Knowledge Management	Other: ☐ _____

PART II: QUALITY CRITERIA FOR AN ACADEMIC PROGRAMME
In this section, you are requested to consider several statements and give your views about the current status in your academic unit: This is about the quality criteria or standards of an academic programme. Please respond by ticking the best answer ranging from strongly disagree. Additional Information can be described under the "additional information" tab.

10.0 QUALITY CRITERIA: Stakeholders' involvement

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10.1	Government involvement enriches quality of a curriculum					
10.2	Labour market involvement enhances quality of a curriculum					
10.3	Involvement of students in curriculum development and review is important					
10.4	Involvement of expects enhances the quality of a curriculum					
10.5	Parents should be involved in the curriculum in which their children undergo					
10.6	The society's input is important in curriculum design					

Stakeholders involvement (Additional information)

11.0 QUALITY CRITERIA: Programme and content

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
11.1	Programmes have clearly defined and expected learning outcomes					
11.2	Programme's content are aligned with the mission and vision of the institution					
11.3	Programmes are aligned to the UNESCO international standards classification of education and training					
11.4	Programme's content have well-articulated philosophy, rationale and goals.					
11.5	The programme's structures					

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	and contents are kept up-to-date and to meet changing market needs.					

Programme and content (Additional information)

12.0 QUALITY CRITERIA: Curriculum development and design.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
122.1	The curricula are aligned to the national and international priorities and standards					
12.2	Internal curriculum development and review policy is in place to guide the process of programme design					
12.3	Curriculum development and review process go through specified internal quality assurance phases.					
12.4	The curricula show the chronology of courses from foundational specialty and project/thesis activities.					
12.5	The curricula clearly show a balance between common and specialty courses					
12.6	The curricula indicate specified pedagogical styles that are learner-centred.					
12.7	The curricula are ultimately approved by the external body or agency.					

Curriculum development and design (Additional information)

13.0 QUALITY CRITERIA: Quality of academic staff

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13.1	Academic staff are recruited and promoted based merit					
13.2	Academic staff are adequate to deliver the programme content					
13.3	Course units are allocated based on qualifications, skills and experience.					
13.4	Accountability and time management are observed by academic staff and students.					

Quality of academic staff (Additional information)

14.0 QUALITY CRITERIA: Quality of students.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
14.1	There is a working admission policy to guide the process of student enrolments.					
14.2	Students are selected and admitted based on qualifications and merit					
14.3	Students' performance is monitored, recorded and corrective actions taken (for example, class attendance and active participation in learning activities, etc.)					
14.4	Students' evaluation feedback is considered in the design and review of programmes.					

Quality of students (Additional information)

15.0 QUALITY CRITERIA: Innovative research activities and outputs.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15.1	The academic unit continually develops scientific and innovative research activities that aim to solve societal problems.					
15.2	The academic unit conducts and disseminates quality research outputs.					
15.3	Research outputs informs curriculum review					
15.4	Reach outputs and publications by universities, staff and students enhances teaching and learning					

Innovative research activities and outputs (Additional information)

16.0 QUALITY CRITERIA: Student mobility and international partnerships.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16.1	The unit has guidelines and resources to support and promote regional and international partnerships between institutions.					
16.2	Student mobility is enhanced through exchange programmes and scholarships.					

Student mobility and international partnerships (Additional information

17.0 QUALITY CRITERIA: Academic resources and student support.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
17.1	Programmes delivery is supported by adequate and up-to-date physical resources (for example, lecture rooms, theatres, library, laboratories, studios, workshops, etc.)					
17.2	Virtual solutions are available to enable teaching and learning.					
17.3	There is regular monitoring maintaining and upgrade of student learning facilities					
17.4	Computer and ICT centres provide reliable services and connectivity					
17.5	Information technology systems are up-to-date (for example, Email, contact persons and offices. Etc.)					
17.6	Health and safety precautions are places to mitigate accidents and other hazards					

Academic resources and student support (Additional information)

18.0 QUALITY CRITERIA: Student assessment and workload.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
18.1	Students' workload is adequate and appropriate (for example, lecture contact hours, practical, studio work, clinical, etc.)					
18.2	The assessment process is consistent and orderly (in terms of setting tests, evaluation, and timely results delivery, etc.)					
18.3	Assessments (i.e. tests, evaluations, exams) are aligned to the content and learning outcomes of the academic programmes.					
18.4	Students are provided with adequate feedback on their progress.					

Student assessment and workload (Additional information)

19.0 QUALITY CRITERIA: Graduate accomplishments.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19.1	Completion rates are satisfactory (70% of a cohort graduates)					
19.2	Drop-out rates are at a minimum or an acceptable level (5% of a cohort)					
19.3	Tracer survey is consistently conducted to determine graduate employability					
19.4	Graduate employability index (50% and above)					

Graduate accomplishments (Additional information)

PART III: ISO 9001 STANDARDS AND ACADEMIC PROGRAMMES QUALITY

ISO 9001 Standards require the implementation of a quality management system (QMS) in all processes and procedures of the organization. In this section, you are requested to give your opinion on the current status at your understanding. Tick where appropriate.

20.0   Does a formal Quality Management System (QMS) enhance the provision of quality products and services?

Yes   ⬭   No   ⬭   Not Sure   ⬭

    20.1   If yes or no, comment

20.2   Does your institution have a formal QMS?

⬭   Yes   ⬭   No

20.3   If yes in (b) above, what is the name of the system?

20.4   If no in (B) above, what is the name of the system in use?

What is its status?

⬭   Yes   ⬭ No

21.0 To what extent does the system in use address the following measures?

		No Extent	Small Extent	Neutral	High Extent	Very High extent
21.1	Engaging qualified staff					
21.2	Design, development, review and delivery of a curriculum					
21.3	Alignment of the curriculum with national and international priorities					
21.4	Curriculum accreditation with regulatory authorities requirements					
21.5	Attraction of qualified students					

21.6	A Variety of delivery modes for the curriculum					
21.7	Mechanisms for curriculum assessment					
21.8	Resources supporting teaching and learning					

22.0 For the last two (2) academic years, indicate the level of change in the following academic performance measures in your institution.

		Significantly decreased	Slightly decreased	Neutral	Slightly Increased	Significantly increased
22.1	Student enrolment					
22.2	Student dropout rates					
22.3	Student Completion rates					
22.4	Graduate throughput					
22.5	Lecturer-student ratio					

23.0 The implementation of the systems in use indicates the level of improvement in the following performance metrics over the last two (2) academic years. *Mark only one oval per row*

		Significantly decreased	Slightly decreased	Neutral	Slightly Increased	Significantly increased
24.1	Punctuality					
24.2	Class attendance					
24.3	Accidents during learning					
24.4	Academic& technical staff competencies					
24.5	Employee turnover					
24.6	Teamwork and cooperation					
24.7	Communication between staff					
24.8	Attitudes towards quality					
24.9	Number of programmes					

PART 1V: TOTAL QUALITY MANAGEMENT (TQM) AND ACADEMIC PROGRAMMES QUALITY

25.0 This section highlights the Total Management (TQM) principles and their influence on the quality of academic programmes. You are requested to indicate your opinion on the level of agreement in the following statements regarding the implementation of TQM principles.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
25.1	Top management is devoted to the development and communication of the institution's vision, mission, goals, values, and quality statements.					
25.2	Top management participates in the curriculum review process					
25.3	Top management participates in the curriculum review process					

26.0 Education and training

		Significantly decreased	Slightly decreased	Neutral	Slightly Increased	Significantly increased
26.1	There is continuous learning for staff through education and training					
26.2	Academic staff are continuously updated on TQM principles and concepts.					

27.0 Customer Focus/Orientation

		Significantly decreased	Slightly decreased	Neutral	Slightly Increased	Significantly increased
27.1	Customer feedback systems is in place (e.g students exit survey and graduate tracer survey)					
27.2	Feedback from stakeholders (for example, students, employers, government etc.) is integrated into the curricula.					

28.0 Involvement of academic staff.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
28.1	The staff are involved in decision-making processes					
28.2	Cross-functional teams are involved in the design of quality programmes					
28.3	Quality control circles involved in curriculum review					
28.4	Empowered to take accountable actions					
28.5	Reward system in place					

29.0 Continuous improvement.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
29.1	Programmes quality audits conducted regularly					
29.2	Functional programmes performance feedback system					

30.0 Continuous improvement.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
30.1	Ease of access and use of teaching and learning facilities					
30.2	Teaching and learning facilities inclusive and user-friendly					
30.3	Sustainable waste management systems in place					

31.0 Process-flow management.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
31.1	Learning equipment is well maintained based on the maintenance plan.					
31.2	There are standardized and documented operating processes and procedures for programmes.					

32.0 Fact-based management.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
32.1	The academic unit's decision-making processes are based on facts.					

33.0 Incentive and recognition system.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
33.1	Reward and recognition system in place to award good performance for academic staff and students					
33.2	The academic unit applies for participation in awards/citations for excellent quality standards					
33.3	Members of staff and students are rewarded for innovative ideas and initiatives.					

34.0 Process monitoring and control

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
34.1	Process monitoring and control measure in place					
34.2	Periodic self-assessments are conducted to monitor the effectiveness of programmes					
34.3	Performance contracts are signed by each academic unit to keep track of it's activities, achievements and failures.					

PART V: KNOWLEDGE MANAGEMENT AND ACADEMIC PROGRAMMES QUALITY

Indicate the level of agreement with the use of the following knowledge management principles that improve the quality of academic programmes.

35.0 Knowledge management principles

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
35.1	Existence of a culture of knowledge sharing					
35.2	Knowledge repositories available and accessible					
35.3	Knowledge mapping conducted periodically					
35.4	Knowledge management technologies utilized					
35.5	Knowledge management incorporated in the units' strategy					
35.6	There is continual education on knowledge management					
35.7	Accumulated knowledge published in journals and books					
35.8	Research output informs curriculum review and development					

PART VI: INSTITUTIONAL AUDITS AND ACADEMIC PROGRAMMES QUALITY

Indicate your opinion on the frequency to which the following statements apply.

36.0 Institutional Audits

		Very Rare	Rare	Neutral	Frequent	Very Frequent
36.1	Institutional quality audits conducted regularly					
36.2	Academic programmes quality audits conducted regularly					
36.3	Implementation of recommendations of quality audits monitored and evaluated within schedule					
36.4	Requests for quality audit done					
36.5	Adherence to standards on programmes quality					
36.6	Adherence to standards on resources supporting programmes					
36.7	Curriculum review for accreditation					

PART VII: ADDITIONAL INFORMATION. In this section, your input is required.

37.0 What is your opinion on the ability of Higher Education Institutions in Kenya to conduct the self-assessment processes of their academic programmes to ensure high standards?

38.0 Do regulators conduct routine and timely programme quality audits in Higher Education Institutions to ensure quality?

◯   Yes   ◯   No

38.1 If yes or no, comment

39.0 What influence do institutional audits have on the quality of academic programmes?

Thank you for your time and participation.

Appendix IV: Questionnaire for Alumni of Bachelor of Education Programme (2016-2017)

I am Michael Wangai, a Doctoral student at the University of Nairobi, undertaking a Doctor of Philosophy in Curriculum Studies in the Department of Educational Management Policy and Curriculum Studies.

The title of the study is 'Quality Assurance Practices influencing the quality of academic programmes in Higher Education Institutions in Kenya: A case of the Faculty of Education in the University of Nairobi.
I request your participation in filling this questionnaire. Your opinions will be treated confidentially.
Fill all the fields

PART I: Socio-demographic characteristics
1.   Indicate your gender:
◯ Female ◯ Male   ◯   Prefer not to say   Other
2.   Employment Status
◯ Employed   Self ◯ Employed   ◯ Unemployed
3.   If employed.
◯   Public Ser◯vice   Private

PART II: QUALITY CRITERIA FOR AN ACADEMIC PROGRAMME
About the standards of an academic program, you are required to consider several statements and indicate your opinion on the status of your academic unit during your tenure as a student. Additional information can be described after each quality criteria.

4.0 QUALITY CRITERIA: Stakeholders involvement.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4.1	My department involved the labour market (TSC) in curriculum review processes					
4.2	My department involved students during curriculum review processes					
4.3	My department invited experts in teaching and learning					
4.4	My department had community engagements that enriched the curriculum					

Additional information

5.0 QUALITY CRITERIA: Programme and content

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5.1	Programmes had clearly defined expected learning outcomes					

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5.2	Programmes content were aligned with the mission and vision of the institution.					
5.3	Programmes were internationally benchmarked					
5.4	Programmes had well-articulated philosophy, rationale and goals.					
5.5	Programmes' contents were kept up-to-date and to meet changing market needs.					

Programme content and specification (Additional information)

6.0 QUALITY CRITERIA: Curriculum development and design.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6.1	The curriculum was aligned to the national and international priorities and standards					
6.2	The curriculum was ultimately approved by the external body or agency					
6.3	Curriculum development and review policy was in place to guide the process of programme design.					
6.4	The curriculum showed the chronology of courses from foundational, specialty, and project/thesis activities.					
6.5	The curriculum clearly showed a balance between common and specialty courses.					
6.6	The curriculum indicated specified pedagogical styles that were learner-centered.					

Curriculum development and design (Additional information)

7.0 QUALITY CRITERIA: Quality of academic staff.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7.1	Academic staff were recruited and promoted based on merit					
7.2	Academic staff were adequate to deliver the programme content					
7.3	Course units were allocated based on qualifications, skills and experience.					
7.4	Accountability and time management were observed					

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	by academic staff and students.					

Quality of academic staff (Additional information)

8.0 QUALITY CRITERIA: Quality of students.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8.1	Students were selected and admitted based on qualifications and merit					
8.2	Students' individual performance was monitored, recorded and corrective actions taken (for example, class attendance and active participation in learning activities, e.t.c)					
8.3	Students' evaluation feedback was considered in the design and review of programmes.					

Quality of students (Additional information)

9.0 QUALITY CRITERIA: Innovative research activities and outputs.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
9.1	The academic unit conducted and disseminated quality research outputs.					
9.2	Students were involved in innovative research activities.					

Innovative research activities and outputs (Additional information)

10.0 QUALITY CRITERIA: Student mobility and international partnerships.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10.1	The academic unit had guidelines and resources to support and promote regional and international partnerships between institutions.					
10.2	There was Student mobility through exchange programmes and scholarships.					

Student mobility and international partnerships (Additional information)

11.0 QUALITY CRITERIA: Academic resources and student support.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
11.1	Programmes delivery was supported by adequate and up-to-date physical resources (for example, lecture rooms, theatres, library, laboratories, studios, workshops, etc.)					
11.2	Virtual solutions were available to enable teaching and learning.					
11.3	There was regular monitoring maintaining and upgrade of student learning facilities					
11.4	Computer and ICT centres provided reliable services and connectivity					
11.5	Information technology systems were up-to-date (for example, Email, contact persons and offices. Etc.)					
11.6	Health and safety precautions were placed to mitigate accidents and other hazards.					

Academic resources and student support (Additional information)

12.0 QUALITY CRITERIA: Student assessment and workload.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
12.1	Students' workload was adequate and appropriate (for example, lecture contact hours, practical, studio work, clinical, etc.)					
12.2	The assessment process was consistent and orderly (in terms of setting tests, evaluation, and timely results delivery, etc.)					
12.3	Assessments (i.e. tests, evaluations, exams) were aligned to the content and learning outcomes of the academic programmes.					
12.4	Students were provided with adequate feedback on their progress.					

Student assessment and workload (Additional information)

13.0 QUALITY CRITERIA: Graduate accomplishments.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13.1	Completion rates were satisfactory (over 70% of a my classmates graduated within schedule)					
13.2	Drop-out rates were at a minimum or an acceptable level (less than 5% of my classmates dropped out)					
13.3	Over 70% of my classmates got employed.					

Graduate accomplishments (Additional information)

PART III: ISO 9001 STANDARDS AND ACADEMIC PROGRAMMES QUALITY

ISO 9001 Standards require organizations to implement a quality management system (QMS) to guide their processes and procedures.

Please indicate your opinion on the following statements.

14.0 Did your institution have a formal Quality Management System   *Mark only one oval?*

(Yes)   (No)   (Not Sure

14.1 If yes in (11.0) above, what was the name of the system?

14.1 If no in (11.0) above, what was the name of the system in use?

15.0 What was its status?   *Mark only one oval.*

Current ( )   Obsolete ( )   Not sure ( )

15.0 To what extent did the system in use address the following measures?

		Very small Extent	Small Extent	Neutral	Large Extent	Very Large extent
15.1	Engaging qualified staff					
15.2	Design, development, review and delivery of a curriculum					
15.3	Alignment of the curriculum with national and international priorities					
15.4	Curriculum accreditation with regulatory authorities requirements					
15.5	Attraction of qualified students					
15.6	A Variety of delivery modes for the curriculum					
15.7	Mechanisms for curriculum assessment					

15.8	Resources supporting teaching and learning					

16.0 With the implementation of the system in use, indicate the level of improvement in the following performance metrics during your time as a student.

		Significantly decreased	Slightly decreased	Neutral	Slightly Increased	Significantly increased
16.1	Punctuality					
16.2	Class attendance					
16.3	Accidents during learning					
16.4	Academic& technical staff competencies					
16.5	Employee turnover					
16.6	Teamwork and cooperation					
16.7	Communication between academic staff and students					
16.8	Attitudes towards quality by academic staff and students					
16.9	Number of visits by accreditation bodies					

PART 1V: TOTAL QUALITY MANAGEMENT (TQM) AND ACADEMIC PROGRAMMES QUALITY

This section highlights the Total Management (TQM) principles and their influence on the Academic Programmes Quality.

You are requested to indicate your opinion on the level of agreement in the following statements regarding the implementation of TQM principles.

17.0 **Top Management commitment**.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
17.1	Top management communicated the institution's vision, mission, goals, values, and quality statements.					
17.2	Top management provided financial support for the development of quality					

		Significantly decreased	Slightly decreased	Neutral	Slightly Increased	Significantly increased
	programmes.					
17.3	Top management participated in the curriculum review process.					

18.0 Education and training.

		Significantly decreased	Slightly decreased	Neutral	Slightly Increased	Significantly increased
18.1	There was continuous learning for staff through education and training					
18.2	Academic staff and students were continuously updated on TQM principles and concepts.					

19.0 Customer Focus/Orientation

		Significantly decreased	Slightly decreased	Neutral	Slightly Increased	Significantly increased
19.1	Customer feedback systems were in place (e.g students exit survey and graduate tracer survey)					
19.2	Feedback from stakeholders (for example, students, employers, government etc.) was integrated into the curriculum.					

20.0 Supplier Quality Management (SQM)

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
20.1	Quality audits on programmes were conducted regularly					
20.2	There was feedback system on the performance of programmes					

21.0 Continuous improvement.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
21.1	There was the ease of access and ease of use of teaching and learning facilities					
21.2	There were inclusive and user-friendly teaching and learning facilities.					
21.2	There were Sustainable waste management systems in place					

22.0 Process-flow management.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
22.1	Ease of use of teaching and learning facilities.					
22.2	There were standardized and documented operating processes and procedures for programmes.					

23.0 Fact-based management.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
23.1	Decisions made by the academic unit were based on facts.					
23.2	Programmes design and review were based on data and information gathered from stakeholders.					

24.0 Incentive and recognition system.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
24.1	Reward and recognition system in place to award good performance for academic staff and students.					
24.2	Students' support systems for publication were in place.					
24.3	Students were rewarded for innovative ideas and initiatives.					

25.0 Process Monitoring and Control.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
25.1	Process monitoring and control measures are in place.					
25.2	Periodic self-assessments were conducted to monitor the effectiveness of programmes.					

PART V: KNOWLEDGE MANAGEMENT AND ACADEMIC PROGRAMMES QUALITY

Indicate the level of your agreement with the use of the following knowledge management principles during your time as a student.

26.0 Knowledge management principles.

	Practices	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
26.1	There existed a culture of knowledge sharing.					
26.2	Knowledge repositories were available and accessible.					
26.3	Knowledge mapping was conducted periodically.					
26.4	Knowledge management technologies were utilized					
26.5	There was continual education on knowledge management					
26.6	Accumulated knowledge was published in journals and books					
26.7	Research output informed curriculum review and development					

PART VI: INSTITUTIONAL AUDITS AND ACADEMIC PROGRAMMES QUALITY

Indicate your opinion on the frequency to which the following statements apply.

27.0 Institutional Audits

		Very Rarely	Rarely	Neutral	Frequently	Very Frequently
27.1	Institutional quality audits conducted					
27.2	Academic programmes quality audits conducted					
27.3	Adherence to standards on programmes quality					

27.4	Adherence to standards on resources supporting programmes					
27.5	Curriculum review for accreditation					

PART VII: ADDITIONAL INFORMATION

28.0 Describe your learning experience concerning institutional audits in the programme you undertook.

29.0 What influence do institutional audits have on the quality of academic programmes?

Thank you for your time and participation.

Appendix V: Interview Schedule for Key Informants

In charge Quality Audits in Commission for University Education and the University's Quality Assurance Unit.

I am Michael Wangai, a Doctoral student at the University of Nairobi undertaking Doctor of Education in Curriculum Studies in the Department of Educational Management, Policy & Curriculum Studies. The title of the study is "***The Influence of Quality Assurance Practices on Quality of Academic Programmes in Higher Education Institutions in Kenya: A Case of the Faculty of Education, University of Nairobi***". The interview will take utmost 30 minutes. Please answer the questions to the best of your knowledge. I request for your participation in responding to this interview schedule. Your opinions will be treated confidentially.

1. What is your opinion on Kenyan universities' ability to adhere to self-assessment processes for academic programmes in order to ensure quality and standards?
2. Are external quality assurance agencies' institutional and programmes audits effective in influencing the provision of high-quality academic programs in higher education institutions in Kenya?
3. What is your opinion of Kenya's higher education landscape in terms of quality?
4. In which ways do you think adoption of ISO 9001 standards have influenced the quality of academic programmes in the Faculty of Education at the University of Nairobi, Kenya?
5. What are some of TQM implementation practices in place at University of Nairobi, Kenya?
6. In which ways do you think TQM implementation practices influences the quality of academic programmes in the Faculty of Education at the University of Nairobi, Kenya?
7. Please highlight how some of knowledge management practices being applied at University of Nairobi.
8. In your own opinion, in which ways do you think application of knowledge management practices influence quality academic programmes at the University of Nairobi, Kenya?
9. How are the institutional audits at the university of Nairobi?
10. Please highlight some of the ways in which institutional audits affects the quality of academic programs in the Faculty of Education at the University of Nairobi, Kenya?
11. In your own opinion, what should be done to improve the quality of academic programmes in the Faculty of Education at the University of Nairobi, Kenya?

Thank you for your time and Participation

Appendix VI: NACOSTI Research Licence

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 583320

Date of Issue: 10/March/2020

RESEARCH LICENSE

This is to Certify that Mr.. Michael Mwareri Wangai of University of Nairobi, has been licensed to conduct research in Nairobi on the topic: QUALITY ASSURANCE PRACTICES INFLUENCING STANDARDS OF ACADEMIC PROGRAMMES IN UNIVERSITIES IN KENYA for the period ending : 10/March/2021.

License No: NACOSTI/P/20/3957 Ammended

583320

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

234

Appendix VII: Authority to research at the University of Nairobi

UNIVERSITY OF NAIROBI
OFFICE OF THE DEPUTY VICE - CHANCELLOR
(Research, Innovation & Enterprise)

P.O. Box 30197-00100
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UON/RPE/3/5/Vol.XVII

October 27, 2020

Michael M. Wangai
C/O Department of Educational Administration & Planning,
University of Nairobi
P.O. Box 30197-00100
NAIROBI

Dear Wamgai,

AUTHORITY TO CONDUCT RESEARCH AT THE UNIVERSITY OF NAIROBI

I refer to your request dated October 22, 2020 to conduct research at the University of Nairobi for your PhD entitled: *"Quality assurance practices influencing standards of academic progress in universities in Kenya."*

I write to inform you that your request has been approved.

You are however required to share the findings of your study with the University of Nairobi by depositing a copy of your research findings with the Director, Library and Information Services on completion of your study.

HORACE OCHANDA
AG. DEPUTY VICE-CHANCELLOR
(RESEARCH, INNOVATION AND ENTERPRISE)
&
PROFESSOR OF APPLIED PARASITOLOGY

Copy to: Principal, CEES
             Director, Library & Information Services
             Chairman, Department of Educational Administration & Planning
             Registrar Administration

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