EFFECT OF TOTAL QUALITY MANAGEMENT PRINCIPLES ON INTERNAL SERVICE QUALITY IN SELECTED PUBLIC UNIVERSITIES IN KENYA

BY

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DECLARATION

Declaration by the Student

This thesis is my original work and has not been presented for a degree in any other university/academic institution. No part of this thesis may be reproduced without prior written permission of the author and/or Moi University.

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DEDICATION

This work is dedicated to my parents and my family for the moral support they gave me when carrying out this research.

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ABSTRACT

In Kenya's public universities, efforts have been made to utilize the criteria and standard of the ISO 9001:2008 as a means to achieve total quality in managing academic activities, however not much has been researched on internal service quality. The objective of this study was to dertermine the effect to which Total Quality Management Principles (TQM) on internal service quality in selected public universities in Kenya. In this study a descriptive survey design was used and the data was analysed quantitatively using descriptive and inferential statistics by use of SPSS and EVIEWS Statistical softwares. The data was gathered from Moi University (MU) and University of Eldoret (UoE) main campuses. From the target population of 199 members of Universities' Management Board, senior administrative and academic staff, there were 190 respondents, which represented 95.4% percent of the target population. Data was collected by administration of five Likert scale questionnaire. The questionnaires were analyzed in order to establish the relationship between the independent variables and the dependent variable. The data is presented by use of descriptive data analysis tools which include tables for descriptive statistics and percentages. From the analysis majority of the respondents indicated that the three TQM principles of Leadership Styles, Organizational Culture and Quality Workmanship have influenced internal service quality in selected public universities to a very great extent. The regression model also revealed a positive and significant relationship between internal service quality and TQM principles of Leadership styles (p $-$ value $0.000 < 0.05$), organizational culture (p $-$ $0.0044 < 0.05$) and quality workmanship (p $-$ $0.0017 < 0.05$). The major recommendation from this research is that, public universities and other institutions of higher learning should be more critical in monitoring information relating to internal service quality as to whether they fulfil customer requirements while they implement quality management policies and meet the international standards.

ABBREVIATIONS AND ACRONYMS

TQM - Total Quality Management

ISO - International organization for Standardization

KEBS - Kenya Bureau of Standards

TQM - Quality Management Systems

CUE – Commission for University Education

IV – Independent Variable

DV – Dependent Variable

UoE – University of Eldoret

MU – Moi University

IUCEA – Inter-University Council for East Africa

MOHE – Ministry of Higher Education

EFQM – European Foundation for Quality Management

SERVQUAL - A measure of Service Quality in the Public Sector

RATER – Reliability, Assurance, Empathy and Responsiveness

DEFINITION OF OPERATIONAL TERMS

Total Quality Management (TQM) is a management approach for an organization's centre on quality, based on the participation of all its members and aiming at long term success through customer satisfaction and benefits to all members of the organization and to society.

Internal service quality: These are services given to management staff of Moi University and University of Eldoret. These services include service quality that must be reliable, responsive, assured, tangible and emphatic.

Internal customers of ISO certified public universities: Can be defined as the persons who are working and who are contributing goods and service production directly or indirectly in an organization. Include, staff from service departments such as Library, Estates, Finance, Administration and staff in academic division.

Leadership: Leaders establish unity of purpose and direction of the organization. They should create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives.

The Concept of Quality: Siaw (1998) gave customer-driven definition of quality. In general sense, quality may be defined as a meeting or exceeding the expectations of the customers. Quality has multiple dimensions in the mind of customer.

Support: Often the product or service support provided by the company is as important to the customer as the quality of the product or service itself. Customers get upset with a company if responses to warranty claims are delayed or advertising is misleading. Good product support can make up for quality failures in other areas (Siaw, 1998).

Psychological Impressions: People can evaluate the quality of a product or service on the basis of psychological impressions: atmosphere, image, or aesthetics. In the provision of services, where the customer is in close contact with the provider, the appearance and actions of the provider are very important. Nicely dressed, courteous, friendly and sympathetic employees can affect the customer's perception of service quality (Siaw, 1998).

The Concept of Quality Management (QM): According to John (1999), quality management is driven by two broad ideas about how to run organizations better. The first is **customer satisfaction**. If an organization figures out what its customers like, and deliver it the same every time, its customers will come back to the organization and will tell others about the organization. The firm will hence be successful. The second is **efficiency**. If a firm can figure out the most efficient way to produce a product or service, and stop wasting time and resources replacing broken-down goods or rectifying unsatisfactory services, they will be more successful. The aim is to design errors out, because once a mistake is made, it tends to be expensive and difficult to rectify.

Quality and Organizational/Business Performance: Quality assurance is a continuous process by which an institution can guarantee that standards and quality of its educational provisions are being maintained or enhanced (KEBS, 2008). Various studies have examined problems facing universities such as leadership, lack of adequate resources among others and have concluded that most of the challenges that university management face is that they must take responsibility for systems that provide assurance of quality teaching, research and community services (Gudo, Oanda and Olel, 2011). According to Deming chain reaction (Deming, 1982); as quality improves, costs will decrease and productivity will increase; resulting to

greater market share.

ISO: The name ISO is derived from the Greek '*isos*', meaning "equal". Therefore, the short form of the Organization's name is ISO. The organization is International Organization for Standardization. In 1946, delegates from 25 countries met in London and decided to create a new international organization whose objective would be to facilitate the international coordination and unification of standard (KEBS, 2008).

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.0 Overview

This section contains the background of the study, statement of the problem, objectives of the study, research hypotheses, significance of the study, and the scope of the study.

1.1 Background of the study

Total Quality Management concept is a strategic management approach for involving the whole organization to ensure customer satisfaction through continuous improvement in quality of products/services (Avinash, 2011). Quality experts like Joseph Juran, Edward Deming in the 1950s and Philip Crosby in the 1980s have put forth several approaches to improve company performance. These approaches are embodied in a set of quality management practices, known as Total Quality Management (Magutu Mbeche, Nyaoga Nyamwange and Ombati, 2010).

According to Wiklund and Evardsson (2003), different approaches have been adopted for the introduction of quality management in universities. These include self-assessment and external assessment of the institution, accreditation and certification systems, and different models of TQM.

Goldberg and Cole (2002) argued that quality management presented a strategic option and integrated management philosophy for organizations, which allowed them to reach their objectives efficiently and effectively, and to achieve sustainable competitive advantage.

The TQM approach was introduced and started in the early 1920s from the production

quality control ideas. In mid 1980s Total Quality Management (TQM) concept was developed in Japan (Faiza and Amjad, 2011).

Declining quality of graduates, increasing competition and growing mandates for accountability by accreditation associations, legislatures, and funding bodies are among the factors that have "forced" Higher Education Institutions to focus on quality. In Australia, a senate inquiry has shown a dramatic fall in the quality of teaching standards, student entry-level qualifications, campus conditions and quality of learning experience. The inquiry has also shown increases in problems such as student plagiarism, grade inflation and 'soft' marking (Smart, Sim and McMahon, 2001; and Lomas, 2007).

Chapman (2005) reported that in Malaysia, several employers complained about the quality of local universities' graduate. The graduates were said to lack the generic skills and unable to adapt and communicate effectively especially in English. Nevertheless they were found to have excellent technical skills and knowledgeable in their area of expertise. The quality assurance that was implemented at University of Malaya highlighted the issue of rigidity versus flexibility. In this concern, the general unease among academics that instituting a quality system with the guidelines and procedures (program specification) been determined by the ruler would lead to restrictions. It gave less freedom to the program owner to develop their area of academic inquiry, scholarship and teaching. Another concern was the misfit between focuses and the decision to be taken whether the management of the quality system should be centralized or decentralized.

According to Coleman and Douglas (2003), implementation of performance measurement depends on TQM principles such as leadership, quality planning training, supplier and process management, continuous improvement and learning. The introduction of quality assurance criteria and standard, the utilization of ISO 9000 quality management systems and the interest in cross-national analyses are among examples of such interest (Mikol, 2002).

The initiative for ensuring quality of higher education has also been influenced by changes that take place in the governmental policy and customers' expectations (in this case was employer). The successful acceptance and implementation of quality system in higher education is often influenced by the external factors such as favourable government regulations, economic climate, confident leaderships and a certain level of stress to initiate the need for change. In Malaysia, TQM initiatives at the universities include the implementation of ISO 9001:2000, Total Quality Organization and Total Quality Education models, and more recently the Quality Assurance (Idrus, 2001).

Internal customers mainly consume services provided by other departments within the organization, whereas external customers consume both goods and services from the organization. While external customers rely on the company's employees to meet and exceed their needs, internal customers in turn rely on each other for products, services, and support in order to meet or exceed their needs (Naumann & Giel, 1995). The employees working in different departments have usually very little input about those hired into other departments. The employees depend highly on other

department's services and typically have no choice about where to do business, or choose to outsource for a better product or service they need. Because of this captivity issue, there is no pressure to change the internal service as employees often are expected to adjust to the situation and be satisfied with the fact that they are employed by the company (Naumann & Giel 1995).

Implementation of ISO 9000 Standards KEBS Handbook (2008) gives a clear definition of a Quality Management System (QMS) which is a comprehensive and fundamental rule or belief for leading and operating an organization aimed at continually improving performance over the long term by focusing on customers. These include persons and organizations that receive a product or service and include purchasers, consumers, clients, end- users, suppliers, retailers and beneficiaries. It states that, all these should be done while addressing the needs of all other interested parties, such as owners, employees, suppliers, shareholders, other investors, unions, partners and society. This is in line with the main concern of Total Quality Management (TQM) concept.

The revised ISO 9000:2005 series of standards are based on eight (8) quality management principles, these are: Customer focus, the role of Leadership, Involvement of People, Process Approach, Systems Approach to management, Continual Improvement, Factual Approach to Decision Making and Mutual Beneficial Supplier relationship (KEBS, 2008).

According to Srivanci (2004), critical issues in implementing TQM in universities include leadership, customer identification, cultural and organizational transformation. He argued that Deans and Head of Departments (HODs) cannot eliminate unethical

employment practices of lecturers like what is applied in public universities where rigid rules is deployed. Hence they do not enjoy ultimate authority in hiring and firing of personnel and allocating resources.

Srivanci (2004), concludes that customer orientation is a more problematic principle of TQM when applied to universities because of special nature of many academics whose motivation to work is often independent of market issues. Education is considered as a provider of services. Its services include advice, tuition, assessment and guidance to pupils and students, their parents and sponsors. The customers and the stakeholders of the service are a very diverse group and need identifying. If quality is about meeting and exceeding customer needs and wants , it is important to be clear whose needs and wants we are to be satisfied.

TQM as a management approach of an organization is centred on quality, based on the participation of all its members and aiming at long term success. This is achieved through customer satisfaction and benefits to all members of the organization and to the society. TQM is a philosophy for managing an organization in a way, which stakeholders' needs and expectations are met efficiently and effectively without compromising ethical values (ISO 8402, 1994). This is why many firms in Kenya and the world in general are seeking certification of Quality Management Systems as stipulated by ISO 9000 standards through recognised bodies like KEBS (Kenya Bureau of Standards in Kenya).

Karani and Bicchanga (2011), agreed that Total Quality Management (TQM) has become a world-wide topic in the 21st century. They agreed with Lagrosen (2002), that

with greater successes of Japanese companies during the 1980s, companies all over the world found that it was necessary to have good quality management practices in order to stay competitive.

According to Gudo *et al.*, (2011), ISO certification has fundamentally been a private sector affair, especially in Kenya. ISO has been perceived as an external pressure and therefore, is treated as a mark of quality and a step towards meeting international standards. However, Singels *et al.*, (2001), in a survey of 950 organizations of North Holland noted a common misconception among the e organization that ISO would mandate higher levels of product quality. They were of the view that ISO certification gives no guarantee that the quality of products or services of an organization is better than the quality of other organizations.

This is why different researchers have different findings, related to effects of TQM practices and implementation. Some have concluded that TQM implementation has effect on firm's business performance, whereas others stated that it does not lead to improvements in firm's business performance (Faiza *et al.*, (2011). Harnesk R. And L. Abrahamson (2007), agreed that TQM has both strong supporters and strong opponents. On one hand it is supposed to be manipulative, on the other it is believed to be employee empowering. Similarly some other conflicting views are that TQM brings collectivism, others believe it results in individualism. Others argue that TQM leads to standardization while others think it brings innovative learning (Faiza *et al.*, 2011). Today, most researchers emphasize on quality management programs for organizational development and getting maximum benefits.

1.2 Statement of the Problem

Improving quality is perhaps the most pressing need for higher education institutions in Africa. This is what prompted the German Academic Exchange Service, DAAD, in 2006 to start cooperation with the Inter-University Council for East Africa, or IUCEA, to promote quality assurance in East African higher education institutions. The choice of IUCEA was perhaps strategic. Like DAAD, IUCEA is an association of higher education institutions funded mainly by member countries of the East African Community. Several activities including training of trainers, evaluation of study programmes, establishing quality assurance units in institutions and preparing a handbook on quality assurance, were undertaken.

According to Ugboro and Obeng (2000), lack of resources and commitment to quality management systems and the use of half hearted approach has accounted for the failure of most organizations in meeting up to their expected target of implementing this ideology. Changes in global educational landscape have forced the institutions of higher learning to revolutionize its operation. The imperatives of the conversion are the stringent requirement of the work force environment and increasing in the supply of the quality work force across continent and countries.

Declining internal/external quality service delivery and growing mandates for accountability by accreditation associations, legislatures, and funding bodies are among the factors that have "forced" institutions of higher learning to focus on quality. Understanding how to use basic quality tools, allows administrators in the organization to take responsibility for the processes they manage. In general, TQM will allow administrators to understand and continuously improve the processes they manage. Administrators' use of the TQM proposed model will enable them to forecast the

possible success and failure lines in the course of the organizational operations thereby helping organizations to achieve breakthrough in process improvement through proper leadership, quality oriented organizational culture and formulating policies which encourage quality workmanship within the organization. It's against this background that this study seeks to establish the effect of Total Quality Management Principles (TQM) of Leadership Style, Organizational Culture and Quality Workmanship on the internal service quality in selected ISO certified public universities in Kenya.

1.3 General Objective of the Study

To determine effect of Total Quality management (TQM) principles on internal service quality in selected public universities in Kenya.

1.3.1 Specific Research Objectives

The specific objectives of this study were:

i. To establish the effect of Leadership Styles (LS) on internal service quality in selected public universities.

ii. To establish the effect of Organisational Culture (OC) on internal service quality in selected public universities.

iii. To establish the effect of Quality Workmanship (QW) on internal service quality in selected public universities.

1.3.2 Research Hypotheses

H_1 Leadership Styles has no significant effect on internal service quality in selected public universities.

H_2 Organisational Culture has no significant effect of on internal service quality

in selected public universities.

H₃   Quality Workmanship has no significant effect of on internal service quality in selected public universities.

1.4 The Scope of the Study

The study focused on the effect of Total Quality Management (TQM) principles of Leadership Styles (LS), Organisational Culture (OC) and Quality Workmanship (QW) on internal service quality in selected public universities in Kenya. The study was carried out at Moi University (MU) and University of Eldoret (UoE) main campuses which are located in Eldoret town. Uasin Gishu County. One hundred and ninety nine (199) members of board of management, senior administrative and academic staff of the two universities formed the sample for the investigations. The study sought to ascertain the TQM practices that have been put in place and whether there is any effect on their internal service quality and if not, how that can be improved by the universities in implementing these principles. This study was carried out between July and December 2013 when questionnaires were administered to collect the data for analysis.

1.5 Significance of the Study

The purpose of this study was to establish whether Total Quality Management Principles through ISO certification as a Quality Management System have contributed to the continuous improvement of services that would enhance quality education and whether its application has made any important contribution in meeting quality objectives and driving organizational growth.

The findings of the study would be useful to those institutions that aim to pursue ISO 9000 and certification. It would assist the institutions on analysing the cost and

benefit of the implementation of TQM practices, maintaining ISO 9000 certification and get better results in performance contract rating. In addition, it would enable those institutions of learning to set right objectives and clearer direction in pursuing ISO registration.

Nevertheless, this study would also encourage institutions of higher learning that have already achieved ISO 9000 certification to go beyond the standards to implement Total Quality Management (TQM).

The findings of this study will assist in gaining greater insights into the existence, nature of TQM implementation in universities and other institutions of higher learning. Such knowledge is relevant to the education practice, educators, and curriculum developers and parents because it can help them identify and put in place appropriate strategies which would improve service provision within these units. This would then improve the staff/learners' social and individual development in line with goals of education and development. Quality Management is an important element in institutions of higher learning and is also a useful tool for the realization of university's goals.

The board of management and senior administrative and academic staff from UoE and MU formed the sample for the investigations. The study sought to ascertain whether the TQM principles as stated by ISO standards are utilized, helpful, need for improvement so as to improve service quality at the universities.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents literature review related to this study. It includes the theoretical framework which acted as a guide to the study, concept of internal service quality, internal customer satisfaction and service quality, empirical studies or research, TQM and its relationship with ISO 9000 standards, reasons for seeking ISO certification, the benefits for implementing TQM and ISO certification, problems associated with the implementation of TQM and ISO standards and the research conceptual framework.

2.1 Theoretical Framework

One of the theories put forwards on service delivery is the social capital theory, which argues that the quality of organizational social networks affects organizational outcomes (Lin, 2001a; Coleman, 1990; Cohen and Prusak, 2001) as cited by Brunetto and Wharton (2007). It affects organizational outcomes because if employees have developed effective relationships with others at different levels of the hierarchy, then they can seek relevant information more efficiently, thereby undertaking their duties more effectively and efficiently. This will later solve day-to-day workplace problems with greater ease. Public service delivery is the responsibility of public authorities. They are not about provision by the state, or provision on behalf of the state, but provision for the public, whether or not it is done by public authorities (EUA, 2007). They may be linked to government activities, but they are not confined to govern-

ment, and government does not cover the full range of such activities (EUA, 2006; EUA, 2007).

2.2 The Concept of Internal Service Quality Delivery

An employee who receives goods or services produced elsewhere in an organization as inputs to his or her work is an internal customer (Johnson, 2005; Arawati, 2000). Internal Customer satisfaction is a significant issue for managers and marketers in financial organizations (Zeithaml Bitner and Gremler, 2006). Internal Customer satisfaction is widely recognised as a key influence in the formation of consumers' future purchase intentions (Teddy and Rainey, 2003). Satisfied internal customers are also likely to deliver quality service to external organization customer (Bass and Avolio, 1994). Today's business is faced with many challenges in the competitive era. However winning and keeping customers by providing high quality service and products that meet and exceed their expectations is more important today.

Considering that, a satisfied customer and employee are of important value to the organization, it therefore becomes the duty of the management to put in place a system that would ultimately generate either satisfaction or dissatisfaction from their customers and employees (Kotler, Brown and Armstrong, 2006). Since the employees have a major role to play in determining, whether a customer would enjoy the experience or turn to their competitors for better solutions. This according to Engelkemeyer (1993), forces organizations to re-think their strategy because as Zeithaml *et al.,* (2006) points out, companies today recognize that they

can compete more effectively by distinguishing themselves with respect to service quality and improved customer satisfaction.

Whereas, the term internal customer can be defined as the persons who are working and who are contributing goods and service production directly or indirectly in an organization. The persons, who are in the process and provide inputs to internal customers in the production process, are called internal supplier. An internal supplier can be, at the same time, an internal customer in the previous business in the production sequence (Yetton and Sharma, 2001).

Internal Customer satisfaction is one of the key factors in modern marketing and customers' behaviour analysis. If the internal customers are satisfied, they remain committed to provide organizational goods or service the probability that they use the services again increases (Spector, 1997). Also, satisfied customers will most probably talk enthusiastically about their buying or the use of a particular service; this will lead to positive advertising (Jamal, and Naser, 2002).

Customer expectations are beliefs about a service that serve as standards against which service performance is judged (Zeithaml *et al*., 2006); which customer thinks a service provider should offer, rather than on what might be on offer. To some, service quality can also be defined as the difference between customer's expectations for the service encounter and the perceptions of the service received. According to the service quality theory (Oliver, 1980), it is predicted that customers will judge that quality as low if performance does not meet their expectations and

quality as high when performance exceeds expectations. Closing this gap might require toning down the expectations or heightening the perception of what has actually been received by the customer (Parasuraman *et al*., 1985)

Internal customers mainly consume services provided by other whereas external customers consume both goods and services. When external customers rely on the company's employees to meet and exceed their needs, internal customers in turn rely on each other for products, services, and support in order to meet or exceed their needs (Naumann and Giel, 1995; and Newton, 2002).

The employees working in different department have usually very little input about those hired into other departments. The employees depend highly on other department's services and typically have no choice about where to do business, or choose to outsource for a better product or service they need. Because of this captivity issue, there is no pressure to change the internal service as employees often are expected to adjust to the situation and be satisfied with the fact that they are employed by the company (Naumann & Giel, 1995).

2.3 Internal Customer Satisfaction and Service Quality

It has been established that internal customer satisfaction exerts an important influence on external customer satisfaction, as satisfied employees tend to be more productive, provide better services to customers, and hence, can significantly enhance business profitability (Gazzoli, Hancer and Park, 2010). The cycle of success, proposed by Schlesinger and Heskett (1991a), suggests that satisfied

internal customers deliver high service quality. In a similar vein, the service-profit chain establishes a relationship between profitability and growth, due to customer loyalty and satisfaction which is, in turn, due to services provided by satisfied employees. Vilares and Coelho (2003) proposed a reformulation of the ECSI model, establishing that perceived internal customer satisfaction, loyalty, and commitment exert an important impact on perceived product and service quality (Gil, 2008; Gronroos, 1982; and Harvey 2009).

Because most of the processes in the organization are relatively related with the service for external customers, quality in the process, timing, interruption in co-operation will affect all the goods and services being offered to external customers. Internal customer satisfaction has been recognized as a component of organizational commitment (Kynak, 2003). It is suggested that internal customer satisfaction is a state of pleasure gained from applying one's values to a job such as job satisfaction (Caceres and Paparoidamis, 2007). Indeed, Spector (1997) believes that job satisfaction can be considered as a global feeling about the job or as a related constellation of attitudes about various aspects or facets of the job.

Employees in a service organization and particularly, those who have frequent contacts with the customer usually serve as representatives of both the organization and their products or services to the customer at contact point. The quality of the service and the satisfaction the customer may derive will be an assessment of the entire service experience. Employees who are empowered in an organization can either portray a positive or negative picture to the customers (Spector (1997).

As a nature of the intangibility of service, customers look for tangible things to give them a clue of what the service they are buying is worth. However majority of the clues they are searching for, they evaluate through their interactions with the service supplier (the contact employee). Therefore, a huge part of their judgments will hinge on the attitudes and qualities expressed by those employees.

According to Lamaitre (2009) and Leonard and Sasser (1982), the delivery of quality goods and services has become a priority but markets of service experience difficulty in understanding and controlling quality. Services are performances rather and therefore precise production specifications for uniform quality rarely can be established and enforced by the firm. In most services, quality occurs during delivery, usually an interaction, between the customer and contact personnel of the service form (Yetton and Sharma, 2001).

According to Yusof and Aspinwall (1999), such of these behaviours help customers to differentiate a gratifying service experience from a dissatisfactory one, and further suggests that firms should train, motivate, and reward their employees for demonstrating such desirable behaviours in service encounters. According to Zeithaml *et al.*, (2006), s atisfied employees make for satisfied customers (and customers can in turn reinforce employees' sense of satisfaction in their jobs). Harvey and Stansaker (2008) and Gronroos (2001), have suggested that if employees are not satisfied with their jobs, achieving customer satisfaction will be difficult.

2.4.1 Empirical Literature

Various studies have been done by many scholars in the field of Total Quality Management (TQM), ISO Standards and other related fields.

Joseph (1997) carried out an empirical study among Indian firms and noted that, since quality management is an organization-wide function, organizational factors such as; Quality of Work Life (QWL), Organizational Climate (OC) and Communication could be used for its effective implementation. The study investigated empirically the relation between levels of quality management and the levels of organizational factors (independent variables) which were QWL, OC and Communication. The conclusion was that managers' perceptions of organizational factors were highly influenced by the levels of TQM in their respective business units. QWL and its dimension were found to be the most influencing factors on TQM. The study pointed out that the findings were useful to both practitioners and academicians. That is, practitioners can make a self-assessment on their TQM practices by using the instruments developed in the study. They can also determine the current levels of organizational factors. The Indian (Joseph, 1999) study concentrated only on the quality management actions taken by managers as being triggered by stimuli in their entire organizational environment but did not take into account the stimuli caused by internal customer needs in particular.

Mhlanga (2008) critically examined the nature of quality assurance policies and practices in three different countries; South Africa, Zimbabwe and Botswana, using qualitative data with the aid of quantitative dimensions of data. The study confirmed

the tensions that were observed amongst the various stakeholders within institutions, especially between management and academic staff. The research revealed the complexities that arise in institutional policy making as a result of the highly differentiated nature of the academy. On the whole, institutions were mainly preoccupied with developing quality assurance policies and systems that are comparable to international standards, hence the heavy reliance on external/international expertise in doing so.

The quality assurance systems that were developed did not take into account the contextual peculiarities of the studied institutions. The conclusion was that a direct consequence of this was the development of policies and mechanisms that were more concerned with standardisation of procedures than with enhancement of academic practice and such quality assurance systems were unlikely to result in the self-improvement of institutions. The study also confirmed that the establishment of quality assurance policies and the putting in place of structures and procedures were necessary but not sufficient conditions for enhancing academic practice in universities. Quality assurance policies in his study may refer to top-down approach and the sufficient conditions, Mhlanga (2008) mentioned that this may be aligned with bottom-up approach.

However, Lueger and Vettori (2008) argued that compatibility of the two approaches also requires further investigation which should take the ambivalence concerning the relationship of top-down and bottom-up ideas into consideration. Several zones of ambivalence are management-driven versus stakeholder-oriented strategies, control-

oriented versus development-oriented paradigms of evaluation, standardization versus innovation, external versus internal relevance. However, the context of his study may be broad enough for obvious differences between three countries though within the same geographical region at governmental and institutional levels. In terms of bottom-up approach and the involvement of all stakeholders in quality work, contextual variables may be different amongst different universities within a country and even between different faculties/schools of a university, or smaller unit of the same faculty/department.

Mertova and Webster (2009) compared academic voice and leaders in English and Czech higher education quality and identified a number of similar issues/common perceptions and concerns in the area of quality shared by English and Czech academics despite significant cultural and historical differences including lack of focus on innovation and change, collegial approach, and value of research in teaching practices. A further need for a greater focus on quality enhancement in English higher education system with established and advanced level of quality evaluation practices as well as in Czech Republic with less advanced system was identified. The findings caution higher education systems which may be considering adoption of higher education quality mechanisms from overseas to be aware of cultural differences. Two major issues emerged from the study: first, a quality enhancement mechanism is needed rather than a quality assurance mechanism and second, cultural specifics ought to be considered. In Vietnamese context this could include a centralized system in the Socialist Republic nation, and Confucian values on power distance and saving face.

Gudo, Oanda and Olel (2011) carried out a comparative study on the role of institutional managers in Quality Assurance among four Kenyan universities in between May, 2010 and November, 2010. The study noted that higher education in Kenya was experiencing changes in the form of expansion of the sector, diversification of provision of services, more heterogeneous student bodies, new funding arrangements, increasing focus on accountability and performance, global networking, mobility and collaboration.

The study agreed with Lemaiter (2009) and Idris (2011) that these changes have challenged institutional management more than ever before and there is need to revise and specify institutional mission statements, assess impact of new sources of funding, meet requirements for accountability, consider participation in globalization and international competition and the requirement for national and international integration. The finding was that, private universities perform better than public universities in management of quality education. It was noted further that public universities suffer from insufficient teaching and learning resources and a leadership that did not satisfactorily engage its stakeholders in decision making.

Gudo *et al.*, (2011) however concluded that management of quality assurance in private and public universities in Kenya was significantly different. They noted that private universities were doing better in quality assurance than public universities. The findings indicated that private universities had better physical facilities and effectively engaged their stakeholders in management of the institutions. In view of the evidence that, most of the variability in university performance was explained by

situational factors (Breakwell & Tytherleigh, 2010), the researchers urged that loyalty to ethic pressure by the management and patronage (political and religious) of the respective universities were major limitations to observing quality assurance requirements by university management.

Faiza and Amjad (2011) did a case study of telecom services sector of Pakistan to determine the various benefits an organization can derive from the application of Total Quality Management practices. Their findings revealed that TQM practices and implementation had positive effects on quality benefits or outcome. That is, in terms of productivity, profitability, competitive position, reducing customer complaints, cost reduction, reduced rework level, reducing scrap level among others. They also noted that benchmarking plays a significant role in the development of organizations.

A study conducted by Rategan (1992) indicated that a 90% improvement rate in employee relations, operating procedures, customer satisfaction, and financial performance was achieved due to TQM implementation. However, Burrows (1992) reported a 95% failure rate for initiated TQM implementation programs; Eskildson (1994), and Tornow and Wiley (1991) reported that TQM implementation has uncertain or even negative effects on performance. Longenecker and Scazzero (1993) indicated that achieving high product quality and pursuing successful TQM implementation were highly dependent on top management support. However, Motwani, Mahmoun and Rice (1994) reported that there was no association between top management support for quality and the level of product quality achieved. Thus, conflicting research findings have been reported surrounding the effects of TQM

implementation on overall business performance (Karani & Bichanga, 2011).

Sisnuhadi (2014), concluded that intangible or behavior factors of TQM practices such as leadership, customer focus, people management, continuous improvement, and mutually beneficiary supplier relationship are the influential dimensions on providing learning opportunity for Indonesia's ISO 9001 registered companies.

2.4.2 Total Quality Management Principles of Leadership Styles and its Relationship with Service Delivery

A suitable leadership style in an organization will drive followers to excel their maximum potential to achieve the goal of the organization that is to be aligned with their vision and mission statement. Somehow, there may be a link between leadership styles and TQM owing to the fact that TQM aims to achieve organizational and employee excellence. Leadership proceeds as the most important element of TQM. It provides guidance and direction for the entire organization to adopt and implement any quality improvement program. Leadership in TQM is negatively related to role conflict (Thiagarajan *et al.,* 2009).

It is also found in a research that a competent leader would be able to execute the important critical factors of TQM implementation more effectively (Das, Kumar and Kumar, 2011, Idris and Ali, 2008). Jitpaiboon and Rao (2007) further show that all TQM practices are positively related to internal and external performance and top management support has had the highest impact on performances. Sila and Ebrahimpour (2005) identified leadership style and information analysis as the two factors that acted as the foundations on achieving favourable business results.

An appropriate style of leadership is considered an organizational capability because this style allows an organization to utilize its resources to achieve the desired end. This is consistent with the definition established by Amit and Schoemaker (1993), which defines capabilities as the capacities to organize resources to affect a preferred result through mixing intangible and tangible resources over time. Explicitly, leadership is the result of combination of tangible and intangible resources such as quality top leaders, knowledge and information to make decisions, and other organizational resources.

Elaborating this, top managers are a form of tangible resources, yet their skills, knowledge and experience are intangibles, making leadership a capability as it involves the organizations' top managers with their skills, knowledge and experience. Because leadership is an important capability, this dimension has been included in studies on critical success factor of TQM implementation (Saraph, *et al*., 1989; Black and Porter, 1996; Ahire and Golhar, 1996; Anderson, *et al*., 2006; Porter and Parker, 1993; Grandzol and Gershon, 1998; Thiagarajan *et. al*., 2001; Yusof and Aspingwall, 1999; Arawati, 2000; Ugboro and Obeng 2000).

They believe that the transformational type of leadership is suitable for TQM organizations. Transformational leadership upholds four dimensions first, idealized influence or charisma, second inspirational motivation, third individualized consideration, and fourth intellectual stimulation (Bass and Avolio, 1994). A set of practices shown by the transformational leaders to their followers are setting a

vision, aligning followers to the vision through effective communication and motivating followers to achieve the vision (Bass and Avolio, 1994). Charismatic leaders make their follower feel secure and comfortable. They are masters of social skills, sensitive to their social environment and are able to adapt quickly to the new organizational climate (Idris and Ali, 2008).

Avinash (2011) in his investigative study among public sector industry in India, noted that quality has long lasting impact on customer satisfaction and was in support of Quazi and Padibjo (1997) that TQM implementation is difficult and time consuming for most organization, and therefore certification of TQM implementation was not possible as standards for TQM do not exist. International Organization for Standardisation (ISO) has however standardised the quality system based on analysis of frequently encountered problems in ensuring the quality of products/services, finding out the way/means for preventing such problems, minimising the occurrence of such problem, and finding their solutions.

Mhlanga (2008) and Mertova and Webster's (2009) suggestions for further investigation in the compatibility of top-down and bottom-up approaches are what the researcher wishes to explore in his research. Integrated top-down and bottom-up approach is forming a current trend in quality assurance, that is: Quality Culture approach which was promoted by European University Association (EUA 2005, 2006, 2007). This new approach is worth striving because of its improvement potential, which Lueger and Vettori (2008) think differs clearly from more traditional quality management strategies, shifting attention to more development-oriented and value-

based aspects. The approach requires the involvement of all stakeholders both external and internal, especially 'front-line' academics and students, who are closest to teaching and learning processes into quality work with the hope to genuinely improving and enhancing quality in tertiary education.

Improvement has been reported in Kowalkiewicz (2007) research in a Polish higher education institution, confirming a strong positive correlation between the two variables examined: quality culture and quality of teaching. Quality culture largely determined the quality of the teaching they offered. Optimistically he also concluded that universities with a relatively lower value of their intellectual and material resources could be successful in improving quality with the development of quality culture. The author noted that a low level of these resources does not necessarily mean that the teaching is worse. He suggested that well developed quality assurance systems and procedures may not help improvements, unlike a successful quality culture. This could be relevant for developing countries with limited material resources.

Kowalkiewicz (2007) suggested accrediting quality culture. Needless to say, this can only add more complexity to the current conflict and debate over quality, quality assurance, quality improvement and quality culture and may reflect a poor understanding of quality concept, being used as a "manipulative tool:", seeing it as "an end product" as cautioned by Harvey (2009).

Since its first introduction officially in higher education among European universities,

many authors have discussed the complexity of quality culture concept (Katiliute and Neverauskas, 2009, Harvey and Stensaker, 2008). Most of them focused on the different theoretical frameworks and complicated nature as well as literature around the two concepts 'quality' and 'culture' in the possibility that many efforts in building a quality culture are linked to transformative learning and teaching. Although the concept of quality culture is taken for granted for many networks during Quality Culture Project (EUA, 2006) and no clear definitions offered, following characteristics were identified by Harvey (2007) are indicative of quality culture.

To achieve organizational performance through ISO 9000 Implementation, public universities should fully understand their motivations in adopting ISO 9000 and establish implementation objectives and plans; concentrating their efforts on critical success factors is an essential condition to improve both short and long-term performance through ISO 9000 (Zuckerman and Rhodes,2000; Vettori and Knassmueller, 2007).

2.4.3 TQM principles of Organisational Culture and Service Delivery

According to Hofstede (2001) and Trice and Beyer (1993), organizational culture is the collective programming of the mind that distinguishes the members of one organization from another. Schein (1997) defines organizational culture as a pattern of shared basic assumptions that was learned by the organization as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems.

Researchers often use different dimensions to describe organizational culture. For instance, Caldwell, Chat man and O' Reilly (1990) identify seven dimensions to develop their Organizational Culture Profile (OCP), innovative, stable, respecting people, outcome oriented, detail oriented, team oriented and aggressive. Some researchers alleged that there were principal factors that influenced the choice of culture and structure, for instance, Harnest and Abrahamson (2007) suggested these principal factors to be history, ownership, size, technology, goals, the environment and the people; and in Hofstede's (2001) culture dimensions, there are three dimensions (power distance, uncertainty avoidance and individualism collectivism) which may particularly influence organizational culture.

Understanding the dominant culture of an organization before implementing TQM is important. Environmental changes produce different emphases within an organization, thus, new approaches in learning and adaptation are required. Schein (2005) regards cultural dynamics as a natural evolution because there is constant pressure exerted on any culture for growth and evolvement. Black and Porter (1996) propose that cultural change can be initiated by top management. Leaders should pay attention to what the objectives of the organization are and implement different but appropriate strategies for their followers for continuous success. Dellana and Hauser (1999) alleged that the mismatch of organizational culture with TQM implementation principles is a reason for the failure of implementing TQM, while Doyle (1992) blames lack of management leadership and inadequate training.

AlKhalifa and Aspinwall (2000) discovered that the clan and adhocracy cultures

provided the best working environment for successful implementation of TQM; this was also supported by Dellana and Hauser (1999). However, organizations differ in their backgrounds (history/leadership style) and, thus, there is no unique way of implementing TQM. Cameron and Sine (1999) revealed that many companies failed in implementing TQM because they did not acknowledge that the implementation procedures might constitute a fundamental change from the direction, values and culture of their companies. Hence, an appreciation of the need for culture (change) to match the TQM approach is fundamental to successful TQM implementation.

To successfully implement ISO 9000, it may be imperative for the institutions of higher learning to customize ISO 9000 requirements to be aligned with their own institutional goals and strategies (Aruasa, 2009; Bevans and Nair, 2004). Keka¨le, T & Keka¨le, J. (1995), agreed with other researchers such as Bevans-Gonzales and Nair (2004), Van Der Wiele *et al.*, (1997), Zuckerman and Rhodes (2000) that in many countries, the application of ISO 9000 standards as a Total Quality Management has flourished as an efficient and scientific tool that maintains high standards in public education.

2.4.4 TQM principles of Quality Workmanship and service Quality

Katerina (2005) has given a review of anticipated benefits for the implementation of the new series of quality assurance standards ISO 9000:2000 for the certified organizations. She noted that the ISO family of international quality management standards has earned a global reputation in establishing Quality Management Systems

(QMS). Dooley (2004) reported that the 1994 version of ISO standards captured a lot of attention within the business world causing a great number of discussions and serious controversy on their long term effectiveness. They noted that the revised ISO 9000:2000 family of standards proceeds quality management further than the previous series of standards and forms a new basis for continual improvement and business excellence. The new series introduces some aspects more in line with Total Quality Management (TQM) system, such as management commitment, customer orientation and continuous improvement. The basic principles of the new series of standards are very much in line with the principles of TQM (ISO, 2008).

Therefore, according to Katerina (2005) if the previous standards were perceived as a good first step towards TQM, the new standard may be considered as the next important step towards quality improvement and business excellence. The new elements that were introduced by the revised series of standards belong to the so called "soft factors" of TQM, which have been proved to be the fundamental ones in TQM system with a very strong effect in company's performance results.

The changes in the ISO 9000:2000 series of standards was published by the International Organizations of Standards (ISO) as the new ISO 9000 family of standards, which is identified as "2000" in the designation on 15th December, 2000. The new family has been reduced in size and it has only three principle members: ISO 9000:2000, ISO 9001:2000, and ISO 9004:2000 (ISO, 2008). The new ISO 9001:2000 standards have been organized in a user-friendly format with terms that are easily recognized by all business sectors. The revised principles are meant to be

applicable to firms of all sizes and are process-based in structure. They cover five areas: TQM, management responsibility, resource management, product realization, and measurement, analysis and improvement (Katerina, 2005).

According to ISO 9000:2000 fundamentals and vocabulary, the revised standards suggest that each of these five areas is required to assure that the basic processes of a company are well controlled. Together the five sections of ISO 9001:2000 define what companies should do in order to provide products/services that meet customer and applicable statutory or regulatory requirements and to continuously enhance customer satisfaction by continuously improving their TQMs. Lastly, the new series of standards is based on a set of principles that can be used by senior management as a framework to guide their organizations towards improved performance.

2.4.5 Problems Associated with the Implementation of TQM and ISO Standards

Sebstianelli and Tamimi (2003) noted that several researches have focused more directly on the obstacles that hinder the ability of organizations to make a successful transformation to Total Quality Management (TQM) or Quality management. It is also worth noting that Tam (2001), Harvey (2009), and Huisman and Westerheijden (2010) tend to support transformative initiatives of quality as a crucial conceptualisation, and students' centrality in learning experience as an important underpinning principle for quality endeavours, which is viewed by Reeves and Bedner (2001), and Harvey (2006) as "the heart of quality" in education and training. Such a approach leads to the essentiality of research-informed, evidence-based and improvement-led practices for internal quality assurance in higher education

institutions (Harvey and Stansaker, 2007), seeking more harmony between internal and external quality assurance relationship in order to reduce the academics' negative feelings of "feeding the beast" (Harvey and Newton, 2007).

In Vietnam, Westerheijden, Cremonini, and Empel (2010) state that without the stimulus of external scrutiny, internal quality assurance often does not develop at all. With this sense of understanding of accreditation and quality culture relationship, the accreditation is seen as a prerequisite for quality culture development in Vietnamese tertiary education, as opposed to what is seen as no clear answer for EUA's network (Harvey, 2007). However, they also point out that "the extent to which internal quality assurance actually contributes to a culture of quality and accountability rather than being superficial compliance depends partly on the characteristics of accreditation scheme". Higher education policy, therefore, in Vietnam seeks to combine improvement through control (Westerheijden, Cremonini, & Empel, 2010).

Nguyen Oliver and Priddy (2010) summarizes that during the last five years (2004-2009), Vietnam has made great attempts and has shown its desire to catch up with the developed education systems in the world, shaping its strong determination to shorten time and take a 'shortcut' for miracle improvements in education. Hopefully, Vietnam could learn some experiences from other countries for their higher education reform. Education, however, links pretty much to and also is the result of mindset, perceptions, and culture with their own roots, which are not easily to change (Nguyen *et al.,* 2010). Nguyen *et al.,* (2010) argues that this process can take place step-by-step. Initially, all staff and students accept to voluntarily participate in the quality

assurance activities, which are supposed to successfully form a culture of quality within HEIs, as many educators have realized that changes do come from the root rather than from the top. Top down policies have no significance on the quality improvement.

Quality culture in higher education as shown in the literature review is quite a complicated and multi-level concept resulting from the intersections between the two concepts 'quality' and 'culture'. Issues of context and culture are critical as they shape not only national but also institutional performance, and also the uniqueness of each country and each institution. Apparently, no research has been done to identify how structure and culture can inform quality assurance systems in higher education. Taken quality culture as the final goal of recent efforts from the government, MOET, and educational experts in Vietnam into account, the understandings of quality culture and possibility of building a culture of quality for Vietnamese HEIs were critically examined in the study. The characteristics explored by EUA (Harvey, 2007).

The adoption of Total Quality Management has been considered by some scholars as a strategic decision by educational institutions to ensure delivery of quality service. This may take the form of ISO certification, structured specific training series for top management, section heads and customer care or a combination of the two approaches.

Aruasa (2009) noted that the international standard specific requirements for Total

Quality Management include: need to demonstrate the ability to consistently provide a product/service that meets customer and applicable regulatory requirements; and enhancement of customer satisfaction through effective application of the system, including processes for continual improvement of the system and the assurance of conformity and applicable regulatory requirements.

From the literature review of studies carried out in higher educational institutions, it is clear that both Total Quality Management (TQM) and ISO 9000 Standards are interrelated. TQM will only be fully implemented and maintained by putting in place defined procedures and processes as ISO 9000 Standards fundamentals stipulate. Therefore, any organization seeking or that has achieved ISO 9000 Standards certification should consider incorporating TQM principles in their strategic plans because it aids in maintenance of ISO 9000 Standards. Literature has shown that quality management has been applied as a way of improving activities and performance. Kenyan public universities like other institutions of higher learning in the world are committed to providing quality higher education and services that meet the needs of its customers and other stakeholders through relevant and quality teaching, research, community service and outreach.

This is why KEBS (2008) has given these as the reasons why the universities have adopted various quality management practices and certification through ISO 9000-2008 Standards and Performance Contract as a tool to enhance their main objective of providing quality education both locally and internationally. This research was carried out to establish whether the TQM principles as had effect on the institutional internal

service quality.

2.5 Research Conceptual Framework

Conceptual framework is a type of intermediate theory that attempt to connect to all aspects of inquiry (for example: problem definition, purpose, literature review, methodology, data collection and analysis). Conceptual framework can act like a map that gives coherence to empirical inquiry. Because conceptual frameworks are potentially so close to empirical inquiry, they take different forms depending upon the research question or problem (Kombo and Tromb 2006).

Customer-focus is quite literally and obviously focusing on the customer. That means thinking about them when decisions are made, policies are implemented, and employees are trained. It spans across the whole business and is a cultural thing as much as it is anything else. The companies that are customer-focused (the ones that actually do it, instead of just say it) are already depending on a customer-focused strategy. If they are doing it well, they are most likely seeing that strategy work for them in all areas (happy employees, happy customers, financial success). The relationship of these variables is given in figure 2.1 below.

INDEPENDENT VARIABLES (IV)　　　　　　**DEPENDENT VARIABLE (DV)**

Figure 2.1: Conceptual framework for impact of TQM Principles on Internal Service Quality.

Total Quality Management Principles　　　　　**Internal Service Quality**

| **Leadership styles** |
| Charismatic Leadership |
| Transformational Leadership |
| Strategic Leadership |
| Distributed Leadership |

Ho 1

| **Internal service quality** |
| Realiability |
| Assurance |
| Tangibility |
| Empathy |
| Responsiveness |

| **Organisational culture** |
| Teamwork |
| Power distribution |
| Proactive to change |
| Staff empowerment |

Ho 2

| **Quality workmanship** |
| Providing Training |
| Evaluation system |
| Recruitment process |
| Getting management support |

Ho 3

Source: Researcher, 2015

2.5.1 Measurement of Variables

Independent Variables, measured using structured statements related to TQM principles recommended by KEBS. The five-point Likerts type scale scores were used in this study to collect the information for analysis.

Dependent Variable - Measurement of service quality in the public sector, from a best value perspective, should take into account customer expectations of the service as well as perceptions of the service. The most widely used generic measure of service

quality is SERVQUAL, developed by Parasuraman *et al.*, (1985). To achieve quality service delivery certain aspects or dimensions of service quality, based on SERVQUAL or RATER model, should be observable among the customers. SERVQUAL instrument comprises 22 statements used to assess service quality across five dimensions: Tangibles, Reliability, Responsiveness, Assurance, and Empathy.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter deals with methodology of the study. It covers the research design, target population, sample size and sampling method, methods of data collection and data analysis.

3.1 Research Design

This study is a descriptive survey on the effect of Total Quality Management (TQM) on the internal service quality in selected public universities in Kenya, University of Eldoret (UoE) and Moi University (MU) in Uasin Gishu County.

3.2 Target Population

The target population constituted one hundred and ninety nine (199) members of Moi University (MU) and University of Eldoret (UoE) management board and other senior administrative and academic staff. This did not include the other subsidiaries operating under the Universities' umbrella/name such as satellite campuses. The target population from each university was obtained from the respective universities' human resource department staff establishment databases.

3.4 Sampling Size

According to Kombo and Tromp (2006), sampling is the procedure a researcher uses

to gather people, places or things to study. It is the process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group. This enables the researcher to derive from it reliable data at an affordable cost in terms of time, finances and human resource. The sample size depends on what one wants to know, the purpose of the inquiry, what is at stake, what will have credibility and what can be done with available time and resources.

The sample was based on the following members of the universities' management board and other administrative and academic staff drawn from various departments and schools (see Table 3.1 and Table 3.2 below). The study utilized stratified sampling technique to ensure that different cadres of the population were adequately represented and to increase the level of accuracy in estimating the parameters. The actual respondents within each stratum were selected purposefully.

Nassiuma (2000) referred stratified sampling as a sampling technique which involves classification of the N units of the population into certain number of non-overlapping groups known as strata. Typically, for stratified sampling, the same percentage of participants, not the same number of participants, are drawn from each stratum (Neill, 2007, Polit and Hungler, 2001). For each cadre with larger population only 10% of the population was sampled. But for cadres where 10% representation is negligible, the whole population was sampled. This ensured that the sample was as diverse as possible, representative, accessible and knowledgeable (an effective population must have idea on the topic being investigated).

Table 3.1: Moi University management board, senior administrative and academic staff.

Management Board, Admin./Academic staff	Total Population (N)
Vice Chancellor	1
Deputy vice chancellor-Academic, Research & Extension	1
Deputy vice chancellor-Student Affairs	1
Deputy Vice Chancellor – Finance	1
Deputy Vice Chancellor – Administration, Planning and Development	1
Academic Registrar	1
Administration Registrar	1
Finance Officer	1
Legal Officer	1
Deans of schools	15
Directorates	8
Principal of Colleges	2
Principals of Constituent Colleges	2
Campus Directors	5
Departmental Heads	71
Total	**112**

Source: Author, 2015

Table 3.2: University of Eldoret (UoE) management board, senior administrative and academic staff.

Management Board/Admin./Academic staff	Total Population (N)
Vice Chancellor	1
Deputy vice chancellor- academic and Student Affairs	1

Deputy Vice Chancellor – Finance	1
Deputy Vice Chancellor –, Planning	1
Academic Registrar	1
Administration Registrar	1
Finance Officer	1
Legal Officer	1
Deans of schools	8
Coordinators	8
Principal of Campuses	0
Principals of Constituent Colleges	0
Campus Directors	1
Departmental Heads	62
Total	**87**

Source: Author, 2015

3.5 Data Collection Techniques

The data collection instruments used was structured questionnaires. The question-naires were self-administered to management board members, senior administrative and academic staff in the two institutions under study with the help of a research as-sistant. The questionnaire was divided into sub-questionnaires: Questionnaire One: General statements on key areas addressed in quality of service delivery, Two: Extent on which TQM principles of Leadership Styles has influenced internal service deliv-ery, Three: Extent on which TQM principles of Organisational Culture has influenced internal service delivery and lastly: Extent to which TQM principles of Quality Work-manship has influenced internal service quality in the selected public universities.

The items were written in form of statements to which respondents responded using a five-point Likerts type scale (ranging from Very Little Extent to Very Great Extent).

3.6 Data Analysis and Presentation Techniques

Factor analysis is a type of multivariate analysis which is based on the hypothesis that outcomes, for example, are seldom, if ever, attributable to one factor or influence. The relative importance of multiple factors affecting internal service delivery in selected

public universities in Kenya is examined from both operator and beneficiary perspectives. Evidences available tend to suggest that Factor analytical technique has previously been used in consumer attitude related studies (Hair, Anderson and Tatham, 1987). Factor analysis therefore is a method of quantitative multivariate analysis with the goal of representing the interrelationships among a set of continuously measured variables (usually represented by their interrelationships) by a number of underlying linearly independent reference variables called factors. So, for the purpose of this study, factor analytical techniques was adopted to assess the significance of the three TQM policy factors affecting internal service quality in selected universities in Kenya.

Data analysis was based on the research objectives and hypotheses designed at the beginning of the research. Frequency tables, descriptive statistics, percentages and means were used to analyze the data. Responses in the questionnaires were tabulated, coded and processed by use of a computer program, SPSS for descriptive analysis and EVIEWS for regression. Once the responses were received, the questionnaires were edited for completeness and consistency before processing.

 Data was coded to facilitate categorization. The data collected on the strategic responses was analyzed quantitatively on the basis of the variables to be highlighted. Descriptive statistics was used especially the mode to determine the most frequent response on the factor under study. The mean was also used to determine the average response of the relationships between the variables under study. The presentation of the data utilized the use of tables. These tools were selected for their clarity, preciseness,

ease of understanding and interpretation. The Statistical Package for Social Science (SPSS) and EVIEWS programmes were used to analyze the data, make conclusions and recommendations from the study. The results of the study were compared with literature review to establish the impact of the Total Quality Management practices in the selected universities on the Internal Service Delivery.

3.6.1 Model Specification

Multiple regression models were used to establish the multiple regression coefficients of correlation. The multiple linear regression models are shown below;

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$

Where, Y = Internal Service Delivery

α = constant.

$\beta_1 \dots \beta_3$ = Coefficients of independent variables $X_{1\dots\dots\dots\dots}X_3$

X_1 = Leadership Styles

X_2 = Organisation Culture

X_3 = Quality Workmanship

€ is error term (represents all other factors which influence the dependent variable other than the independent variables in the study).

3.7 Reliability and Validity of the Instruments

On the validity of the instruments, the researcher also carried out a pilot study to appraise the questionnaire soundness of the items and to estimate time required to answer the items. The pilot study covered some of the 20 members of the administrative team in Moi University in Town Campus not covered in the sampled population. The results of the pilot study were discussed with the respondents and adjustments were made accordingly. The validity of instruments measures the consistency of instruments. Best and Kahn (2003) considers the reliability of the instruments to be the degree of consistency that the instruments or procedure demonstrates. What it measures does so consistently.

The reliability of a standardized test is usually expressed as a correlation coefficient, which measures the strength of association between variables. Such coefficient vary between 0.00 and 1.00 with the former showing that there is no reliability and the later showing there is perfect reliability which is an ideal situation. Reliability was ascertained by splitting the instruments into two; by placing all odd numbered in one sub-set and all even numbered items in another subset and then finding the coefficient of internal consistency. The reliability was estimated to be 0.89 meaning that the instruments were reliable.

3.8 Ethical Consideration

As Hart (2005) argues that all research is based on a series of decisions about the nature of the topic, what research questions to ask, how to use literature, how to give fair play to the arguments of others, how best to collect data so as to avoid bias, how to present findings, what interpretations to give of the findings and many more. It was therefore a cardinal principle of this research to keep secret information collected

from the respondents. This has been done by maintaining privacy required of collected data. The research has therefore kept the responses confidential. Full consent from the university authority and respondents was sought. The confidentiality of information collected was also assured and communicated to the respondents.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION OF FINDINGS

4.0 Overview

This section covers data analysis and findings of the research. The data is summarized and presented in the form of proportions, means, tables and charts. Data was collected from one hundred and ninety nine (199) members of the management board, senior administrative staff of Moi University (MU) and the University of Eldoret (UoE). The collected data has been analyzed and interpreted in line with the objectives of the study.

4.1.1 Response Rate

The respondents were: the management board members, senior administrative and academic staff of the two public universities. The one hundred and ninety nine (199) members of the universities management board, senior administration and academic staff were issued with questionnaires, only one hundred and ninety (190) responded. This gave a response rate of 95.4% percent.

4.1.2 Gender of the Respondents

A total of 199 respondents were issued with questionnaires of which only 190 (n=190; 95.4%) were received. The analysis of the data revealed that out of the 190 respondents received questionnaires, 60.5% were male while 39.5% were female representing of the total respondents. Table 4.1 shows the frequency and percentage of the respective gender.

Table 4.1: Distribution of respondents by gender

Gender	Frequency	Percentage (%)
Male	115	60.5
Female	75	39.5
Total	**190**	**100.0**

Source: Author, 2015

From Table 4.1 above, it is noted that majority of the respondents were male at 115(60.5%) while female were 75(39.5%). This indicates that majority of the respondents are male but meets the one third statutory requirement.

4.1.3 Age of the Respondents

The respondents had a mean age of 44 years. 24.7% of the respondents were aged between 18-35 years and a further 38.4% represented an age bracket of 36 to 55 years while 34.7% were aged between 55 to 65 years. The summation of the two age groups, age group between 18-35 and 36-55 is a clear pointer to the maturity of the employees in the universities. Only 4 employees or 2.2 % were above 65 years of age as shown in table 4.2 below.

Table 4.2: Age of the respondents

Age in years	Frequency	Percentage (%)
18- 35	47	24.7
36-55	73	38.4
55-65	66	34.7
Above 65	4	2.2
Total	**190**	**100.0**

Source: Author, 2015

Table 4.2 above shows that majority of the respondents are falling between the ages of 36-65 years. This could mean that they are at the peak of their career and hence must have gained a lot of experience in management and administration.

4.1.4 Level of Education of the Respondents

The level of formal education of a worker may affect the growth and performance of

the enterprise and especially in terms of management, productivity and sustainability

of the firm. This is so because higher level of education is associated with greater

verbal communication and comprehension skills, which are important in firm decision

making and management.

Table 4.3: Level of education of the respondents

Level of education	Frequency	Percentage (%)
Certificate	0	0.0
Diploma	0	0.0
Degree	89	46.7
Masters	70	37.0
PhD.	31	16.3
Total	**190**	**100.0**

Source: Author, 2015

From the results in Table 4.3 above, this could mean that most of the employees are

learned since majority had acquired university education and thus could understand

management and its implication to service quality.

4.2 Universities top leadership commitment to Total Quality Management
        (TQM)

The study sought to establish the university's top management commitment towards

continual improvement of the TQM in selected public universities as reported in table

4.4 blow. On a scale of 1 to 5 representing Very Little Extent (VLE) to Very Great

Extent (VGE) the sampled respondents responded as follows.

Table 4.4: Extent to which Universities' top leadership commitment to Total
          Quality Management.

STATEMENT		VLE	LE	ME	GE	VGE
Provided evidence of its commitment to the development and implementation of the university's TQM	F	52	11	20	41	66
	%	27	5	11	22	35
Defined its processes to ensure its academic/educational products meet the Commission for University Education regulatory requirements;	F	34	48	20	30	58
	%	18	25	11	16	30
Implemented actions necessary to achieve planned results and continual improvement of their educational processes	F	13	30	83	30	34
	%	7	16	43	16	18
Communicated the importance of meeting customer as well as statutory and regulatory requirements	F	12	11	57	43	67
	%	6	5	30	23	36

Source: Author, 2015

Based on the measures on the likert-scale , of their educational processes majority of the respondents at 83 (43%) said it was moderate extent, while 34 (18%) responded to a very great extent; and lastly whether the the Selected public universities   have to a very great extent done the following: provided evidence of its commitment to the development and implementation of the universities TQM with 66 (35%) respondents while 52 (27%) respondent said it was to very low extent; On whether the university's top management defined its processes to ensure its academic/educational products meet the Commission for University Education (CUE) regulatory requirements; 58 (30%) responded to a very great extent while 34 (18%) responded to a very low extent; On whether the University's top Management implemented actions necessary to achieve planned results and continual improvement University's top Management communicated the importance of meeting customer as well as statutory and regulatory

requirements 67 (35%) of the respondents said to a very great extent and 43 (23%) said to a great extent and only 12 said to a very low extent.

4.3 The extent to which TQM principles of leadership styles has influenced internal service quality in selected public universities.

Questions were posed to calibrate on the extent to which TQM principles of leadership styles had influenced internal service quality in selected public universities. On a scale of 1 to 5 representing Very Little Extent (VLE) to Very Great Extent (VGE) the sampled respondents responded as follows.

Table 4.5: Extent to which TQM principles of Leadership Styles has influenced internal service quality in selected public universities.

STATEMENT		VLE	LE	ME	GE	VGE
Charismatic leadership has significantly	F	8	14	21	41	106
influenced internal service quality	%	4	7	11	22	56
Transformational leadership has significantly	F	23	33	82	21	31
influenced internal service quality	%	12	17	43	11	17
Strategic leadership has significantly influenced	F	16	24	26	512	73
internal service quality	%	8	13	14	7	38
Distributed leadership has significantly	F	8	11	11	33	127
influenced internal service quality	%	4	6	6	17	67

Source: Author, 2015

Majority of the sampled respondents agreed that charismatic leadership has significantly influenced internal service quality to a very great extent at 106 (56%) respondents with only 8 (4%) respondents said to a very little extent; on whether transactional leadership has significantly influenced internal service quality majority of the respondents at 82 (43%) said to a moderate extent while 23 (12%) said to a

very little extent; on whether strategic leadership has significantly influenced internal service quality 73 (38%) of the respondents agree to a very great extent while only 16 responded at a very little extent; on whether distributed leadership has significantly influenced internal service quality 127 (67) of the respondents felt that has significantly influenced internal service quality to a very great extent, while 8 (4%) of the respondents felt that it has to a very little extent influenced internal service quality. This confirms that the TQM principle of leadership styles has influenced internal service quality in selected public universities to a very great extent. However, efforts must be made to improve this percentage for better positioning in the world rankings. From the outset, the majority of the respondents recognized the importance of leadership style and how it gives impact to staff job satisfaction and implementation of international standards. Some data clearly indicate the characteristics of the transformational leadership approach. The above statement shows that a leadership style that allows staff involvement in decision making can improve job satisfaction. This practice is vital as staff participation in decision making is a core element in TQM.

Table 4.6: Descriptive statistics for TQM principle of Leadership Styles

Factor	N	Mean	Std. Deviation
Charismatic leadership has significantly influenced service quality	190	2.2537	.78261
Transformational leadership has significantly influenced service quality	190	1.9136	.74033

Strategic leadership has significantly influenced service quality	190	1.5556	.53792
Distributed leadership has significantly influenced service quality	190	3.1345	.65433

Source: Author, 2015   **Average mean = 2.2144**

The descriptive statistical measurements for TQM principles of leadership styles are shown in table 4.6. Distributed leadership style scored highest among the four leadership styles with a mean of 3.13. Strategic leadership scored lowest with a mean of 1.56 while charismatic leadership styles scored a mean of 2.2537 and transformational leadership styles scored a mean of 1.9136. The mean scores are similar to those of a study by Jones and Rudd (2007). Therefore, this study confirms that the TQM principles of leadership styles; Distributed leadership styles is the most preferred leadership style among the selected public universities.

4.4 The extent to which TQM principles of Organisational Culture has influenced Internal Service Delivery in selected public universities.

Questions were posed to calibrate on the extent to which TQM principles of organisational culture has significantly influenced internal service quality in selected public universities. On a scale of 1 to 5 representing Very Little Extent (VLE) to Very Great Extent (VGE) the sampled responded as follows.

Table 4.7: Extent to which TQM principle of Organizational Culture has influenced internal service quality in selected public universities.

STATEMENT		VLE	LE	ME	GE	VGE
Teamwork has significantly influenced internal service quality	F	30	44	28	38	50
	%	16	23	15	20	26

Power distribution has significantly	F	30	45	40	10	65
influenced internal service quality	%	16	24	21	5	34
Proactive to change has significantly	F	30	45	10	50	55
influenced internal service quality	%	16	24	5	26	29
Staff empowerment has significantly	F	29	58	23	43	37
influenced internal service quality	%	15	31	12	23	19

Source: Author, 2015

The sampled respondents were required to indicate how often teamwork has influenced internal service quality at the universities, 50 (26%) of the respondents indicated that to a very great extent, 44 (23%) responded to little extent, and 30 (16%) responded to a very little extent. On how power distribution has influenced internal service delivery, majority of the respondents at 65 (34%) indicated to a very great extent and 40 (21%) respondents indicated to a moderate extent while 45 (24%) and 30 respondents respectively indicated low extent and very little extent .On weather proactive to change has influenced internal service quality 55 (29%) respondents indicated to a very great extent while 50 (26%) respondents indicated to a great extent and finally on whether staff empowerment has influenced internal service quality majority of the respondents at 58 (31%) indicated to a low extent while 37 (19%) and 43 (23%) respectively indicated to a very great extent and great extent. These findings concluded that TQM principles of organisational culture have positively influenced internal service quality in selected public universities to great extent which correlated with Lee, Toi and Yu (2009), study who indicated that consistency must prevail between the new practice and existing practices. Links have to be established between the organization's old policies, rules and procedures, and the new ones. For example, a full-scale organizational system including procedures for training and employee education has to be added and

made consistent with the organizations' previous practices.

Table 4.8: Descriptive statistics for TQM principles of organisational culture

Factor	N	Mean	Std. Deviation
Teamwork has significantly influenced service quality	190	2.2537	.78261
Power distribution has significantly influenced service quality	190	2.9136	.73033
Proactive to change has significantly influenced service quality	190	1.8324	1.13792
Staff empowerment has significantly influenced service quality	190	3.7245	.65433

Source: Author, 2015   **Average mean =   2.6811**

Table 4.8 present the descriptive statistical measurements for organisational culture**.** It is to be noted from Table 4.8 that the overall organisational culture scored a mean of 2.68. These results indicate that participants are moderately satisfied with their organisational culture**.** In addition, Table 4.8 shows the level of organisational culture based on four factors such as; teamwork, power distribution, proactive to change and staff empowerment. Significant here is the fact that proactive to change factors have obtained the lowest mean score of 1.83, while staff empowerment factors scored highest with a mean of 3.72. The results indicate that participants are not satisfied with proactive to change factors but are satisfied with the staff empowerment factors provided by their institution.

4.5 To establish the extent to which TQM principles of Quality Workmanship has influenced internal service quality in selected public universities.

Questions were posed to calibrate on the extent to which TQM principles of Quality Workmanship has influenced internal service quality in selected public universities.

On a scale of 1 to 5 representing Very Little Extent (VLE) to Very Great Extent (VGE), the sampled responded as follows:

Table 4.9: Extent to which TQM principle of quality workmanship has influenced internal service delivery in selected public universities.

STATEMENT		VLE	LE	ME	GE	VGE
Providing Training has significantly influenced	F	8	6	29	46	101
internal service quality	%	4	3	15	24	54
Evaluation system has significantly influenced	F	34	41	20	40	55
internal service quality	%	19	22	11	21	29
Recruitment process has significantly influenced	F	31	84	32	16	27
internal service quality	%	16	45	17	8	14
Getting management support has significantly	F	12	61	47	33	37
influenced internal service quality	%	6	32	25	17	20

Source: Author, 2015

The sampled respondents were required to indicate how often Quality Workmanship has influenced internal service quality in selected public universities. On whether providing training has influenced internal service quality at the universities, 101 (54%) of the respondents indicated that to a very great extent, 6 (3%) responded to a little extent, and 8 (4%) responded to a very little extent. On how evaluation system has influenced internal service delivery, the respondents at 41 (22%) indicated to a little extent and 20 (11%) respondents indicated to a moderate extent while 55 (29%) and 40 (21%) respondents respectively indicated very great extent and great extent. On weather recruitment process has significantly influenced internal service delivery majority of the respondents at 84 (45%) and 31 (16%) respectively indicated to a little extent and very little extent while 27 (14%) respondents indicated to a very great extent and finally on whether getting management support has influenced internal service quality majority of the respondents at 61 (32%) indicated to a low extent while only 37

(20%) respondents indicated to a very great extent and 47 (25%) respondents were moderate on the subject matter.

Table 4.10: Descriptive statistics for TQM principle of Quality Workmanship.

Factor	N	Mean	Std. Deviation
Providing Training	190	4.2537	.75261
Evaluation system	190	1.9136	.72033
Recruitment process	190	1.8324	1.13892
Getting management support	190	2.7245	.75433

Source: Author, 2015   **Average mean = 2.68105**

Table 4.10 present the descriptive statistical measurements for Quality Workmanship. It is to be noted from Table 4.10 that the overall quality workmanship also scored a mean of 2.68. These results indicate that participants are moderately satisfied with their quality workmanship. In addition, Table 4.10 shows the level of quality workmanship base on four factors, i.e. providing training, evaluation system, and recruitment process and getting management support. Significant here is the fact that recruitment process obtained the lowest mean score of 1.83, while providing training scored highest with a mean of 4.25. The results indicate that participants are not satisfied with proactive to change factors but are satisfied with the staff empowerment factors provided by their institution.

Table 4.11: Extent to which internal service quality has been attained in selected public universities

STATEMENT	VLE	LE	ME	GE	VGE

In the university there is reliable internal quality delivery.	F 6	16	18	43	107
	% 3	8	10	23	56
In the university there is assurance in provision of internal service quality.	F 25	30	62	43	30
	% 13	16	33	22	16
In the university there is physical evidence of internal service quality.	F 18	28	56	63	25
	% 9	15	30	33	13
In the university there is care and individual attention among the departments.	F 9	17	31	67	66
	% 5	9	16	35	35
In the university employees of different departments are willing to help each other by provision of prompt and timely service.	F 8	27	42	73	40
	% 4	14	22	38	21

Source: Author, 2015

Table 4.11 indicates that majority 107 (56%) of the respondents reported that there is reliable internal service quality to a very great extent. Six respondents indicated that reliability of internal service quality was to very little extent. This an indication that the universities have impressed internal service quality. The response on assurance of internal service quality was evenly distributed with a majority of respondents 63 (33%) reporting that there is moderate assurance and the least 25 reporting very little extent. This shows that there is an evenly distributed internal service quality within the universities departments or sections in terms of assurance. In the case of tangibility, 63 respondents reported great extent while the least (18) respondents reported very little extent. This implies that there sufficient evidence of the internal service quality. Empathy (individual care and attention) was reported by a majority of the respondents (67 and 66) reporting moderate extent and very great extent respectively. This shows that in the universities the is moderate individual care and attention while delivering services internally. Lastly, on responsiveness on internal

service quality majority of the respondents 73 (38%) indicated great extent while few

8 (4%) responded very little extent. Therefore giving a positive result on

responsiveness on offering internal service quality.

4.6 Summary of Correlation Analysis

The analysis of correlation of coefficient was tested using Pearson correlation. The

rules as suggested by Hair *et al.*, (1987) were used to characterize or typify the

strength and potency of the relationship between the study variables. This study sought

to investigate the relationship between total quality management practices and Internal

Service Quality using Pearson Correlation. Correlation results indicated that the two

principles under consideration were statistically significant; leadership style had the

highest positive correlation of 0.692, p – value 0.0000 < 0.05, followed by organization

culture 0.497, p – value 0.000 < 0.05, and lastly quality workmanship 0.207 p – value

0.095 > 0.05 was not significant as the p value was above 0.05 as indicated in table 4.12

below.

Table 4.12 Pearson Correlation Analysis

		ISQ	MLS	OCT	QWS
ISQ	Pearson Correlation	1	.692**	.497**	.207
	Sig. (2-tailed)		.000	.000	.095
	N	190	190	190	190
MLS	Pearson Correlation	.692**	1	.509**	.046
	Sig. (2-tailed)	.000		.000	.712
	N	190	190	190	190
OCT	Pearson Correlation	.497**	.509**	1	-.234
	Sig. (2-tailed)	.000	.000		.059
	N	190	190	190	190
QWS	Pearson Correlation	.207	.046	-.234	1
	Sig. (2-tailed)	.095	.712	.059	

N	190	190	190	190

**. Correlation is significant at the 0.01 level (2-tailed).

ISQ = Internal Service Delivery; MLS = Management Leadership Style; OCT = Organization Culture; QWS = Quality Workmanship

Source: Author, 2015

4.6.2 Analysis of Variance

Table 4.13 below presents the results of analysis of variance (ANOVA). The analysis of variance was used to test whether the model could significantly fit in predicting the outcome than using the means. The F- ratio represents the ratio of improvement in prediction that results from fitting the model, relative to the inaccuracy that exists in the model. The F- ratio was 26.673 and was significant (p – value 0.000 <. 0.05). The model significantly improved the ability to predict the effects of Total Quality Management practices on internal service Quality.

Table 4.13 Results of Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	9.297	3	3.099	26.673	0.000[b]
1	Residual	7.203	186	.116		
	Total	16.500	189			

a. Dependent Variable: Internal Service Delivery

b. Predictors: Constant, Leadership Style, Organization Culture and Quality Workmanship

Source: Researcher, 2015

4.7 Coefficient of the Total Quality Management Principles

Tables 4.14 and 4.15 below shows the estimates of β values and gives an individual

contribution of each predictor to the model. The regression results indicated that

variables fitted the model very well p – value 0.000 < 0.05. The β value explains

about the relationship between Internal Service Quality with each predictor

(Leadership Styles (LS), Organization Culture (OC) and Quality Workmanship (QW).

The positive β values indicate the positive relationship that exists between the

predictors and the outcome. The β value for leadership styles, organization culture and

quality workmanship had a positive coefficient thus positive effect on internal service

quality as summarized in the model below. The general regression model is indicated

below;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(4.1)$$

The model was modified to reflect the variables of this study:

$$Y = \alpha + \beta_1 MLS + \beta_2 ORC + \beta_3 QWS + \varepsilon \qquad \dots\dots\dots\dots\dots\dots\dots\dots\dots.$$

(4.2)

The estimated regression model presented as:

$$Y = 0.3816 + \beta_1 0.0038 MLS + \beta_2 0.0025 ORC + \beta_3 0.1170 QWS + \varepsilon \dots\dots\dots..$$

(4.3)

Where:

Y – Internal Service Quality

α - Constant of Proportionality

MLS – Leadership Style

ORC – Organization Culture

QWS – Quality Workmanship

ε - Error Term.

The t test was used as a measure to identify whether the predictors were making a significant contribution to the model. When the t-test associated with p-values is significant then the predictor is making a significant contribution to the model. The smaller the value of standard error (the larger the value of t) that is the greater is the contributor of that predictor on the predicted. From this study findings, the model shows that the leadership style indicates (t= 5.4049, p – value 0.0000 < 0.05); organization culture (t = 2.7588, p – value 0.0076 < 0.05) and quality workmanship (t = 2.8190, p – value 0.0065 < 0.05). This study finding showed that Total Quality Management principles had significant relationship with internal service quality, as shown in tables 4.14 and 4.15.

4.8 Model summary

This study further carried out regression analysis to determine the extent in which the Total Quality Management practices; Leadership Styles, Organization Culture and Quality Workmanship affect Internal Service Quality. R^2 represents the values of multiple correlation coefficients between the predictors used in the model (Leadership Styles, Organization Culture, and Quality Workmanship) and Internal Service Quality. The R^2 represented the measure of variability in organizational performance that is accounted for by the predictors (independent variables). From the model, ($R^2 = .569$) shows that all the predictors account for 56.9 % variation of Internal Service Quality. The value of adjusted R^2 was .564, showing that the prediction of Total Quality

Management practices on Internal Service Quality account for approximately 56.4 % less variance. The change statistics were used to test whether the change in adjusted R^2 is significant using the F ratio. The model caused adjusted R^2 to change from zero to .569 as summarized in tables 4.14 and 4.15 below.

From the model, it is clear that, all the variables are positively related to the dependent variable as their coefficients are all positive. The model also shows that holding the predictor variables constant at zero (0); the TQM principles of leadership styles of the universities would be 0.3816. Further, the results show that, the internal service delivery has a positive relationship with organisational culture where a unit increase in leadership style would result to 0.38 changes in internal service delivery. Similarly a unit increase in organization culture would result in 0.25 changes in organization service delivery. Also a unit increase in the workmanship would result to 11.7 times increase in the internal service quality of the universities. This study correlates with Sohail *at al.,* (2003) whose study emphasized the importance of institutions of higher learning to implement a quality system as a guideline to improved quality ranking. Through implementation of quality system, an institution is able to collect relevant data which enables them to measure progress in key areas and establish bench marks for improved performance is all functions.

4.8.1 Test of Hypothesis

Table 4.14 presents the regression results. The study's first hypothesis (H_{O1}) stated that leadership style has no significant effect on internal service quality. Study results rejected the hypothesis as evidence of $\beta1 = 0.0038$ t-statistic 5.4049 p – value 0.000 < 0.05. This infers that leadership styles had positive effect on service quality. A

statement supported by p - value 0.000 < 0.05. This results support earlier studies by

Idris and Ali 2008, Idris *et al.,* 2003 and Jitpaiboon and Rao, 2007).

Table 4.14 Regression Results with Lok Likelihood

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Leadership Style	0.003804	0.000704	5.404921	0.0000
Organisation Culture	0.002549	0.000924	2.758751	0.0076
Quality Workmanship	0.117041	0.041518	2.819013	0.0065
Intercept	0.381565	0.082169	4.643669	0.0000
R-squared	0.563437	Mean dependent var		0.500000
Adjusted R-squared	0.542314	S.D. dependent var		0.503831
S.E. of regression	0.340855	Akaike info criterion		0.743971
Sum squared resid	7.203281	Schwarz criterion		0.876677
Log likelihood	-20.55105	Hannan-Quinn criter.		0.796410
F-statistic	26.67287	Durbin-Watson stat		1.209783
Prob(F-statistic)	0.000000			

Source: Researcher, 2015

Table 4.15 Regression Results with F - Statistics

Variable	Coefficient	Std. Error	t-ratio	p-value	
Const	0.321853	0.0874695	3.6796	0.0005	***
Organisation Culture	0.00424467	0.00143705	2.9537	0.0044	***
Quality Workmanship	0.148499	0.0453214	3.2766	0.0017	***
Leadership Style	0.003122	0.000829495	3.7637	0.0004	***
Mean dependent var	0.500000	S.D. dependent var		0.503831	

Sum squared resid	7.097445	S.E. of regression	0.338341
R-squared	0.569852	Adjusted R-squared	0.549038
F(3, 186)	27.37879	P-value(F)	2.13e-11
Log-likelihood	−20.06259	Akaike criterion	48.12517
Schwarz criterion	56.88379	Hannan-Quinn	51.58612

Source: Author, 2015

The second Hypothesis (H_{O2}) of the study stipulated that organisational culture has no effect on service quality. As evidence from the study results (Beta coefficient $=$ 0.0025, t-statistic 2.7588 $p-$ value $0.0076 < 0.05$). These results did not support the second hypothesis implying that organisational culture had positive significant effect on internal service quality. This showed that the more the organisational culture, the higher the internal service delivery as evidenced by a p-value $= 0.000$ which also shows that it has the highest effect.

The third Hypothesis (H_{o3}) of the study stated that quality workmanship has no significant effect on internal service quality. As evidence from the study results (β_3 =0.1170, t $-$ statistics 2.890, p $-$ value $0.0065 < 0.05$) null hypothesis 3 was rejected suggesting that quality workmanship has significant positive effect on internal service delivery. Thus, quality workmanship enhances internal service quality.

4.8.2 Discussion of Findings

Basing on the study findings leadership styles showed a positive and significant effect on internal service quality. Study by Fiedler (1996), one of the most respected researchers on leadership, has provided a recent treatise on the importance of leadership by arguing that the effectiveness of a leader is a major determinant of the success or failure of a group, organization, or even an entire country. Indeed, it has been argued

that one way in which organizations have sought to cope with the increasing volatility and turbulence of the external environment is by training and developing leaders and equipping them with the skills to cope (Darcy and Kleiner, 1991; Hennessey, 1998; Saari *et al.*, 1988). These claims are based on the assumption of a direct link between leadership and organizational performance.

Further, TQM principles of organizational culture showed a positive and significant effect on internal service quality. The claim that organizational culture is linked to performance is founded on the perceived role that culture can play in generating competitive advantage (Scholz, 1987). Krefting and Frost (1985) suggest that the way in which organizational culture may create competitive advantage is by defining the boundaries of the organization in a manner which facilitates individual interaction and/or by limiting the scope of information processing to appropriate levels. Similarly, it is argued that widely shared and strongly held values enable management to predict employee reactions to certain strategic options thereby minimizing the scope for undesired consequences (Ogbonna and Harris, 2000).

Basing on the study findings, TQM principles of Quality workmanship has a positive and significant effect on internal service quality. This is consistent with the bulk of the previous research conducted by Silin and Mulford (2002) as cited by Stefan .L. Lagrosen and Yvonne Lagrosen (2014, Rossmiler (1992), Ejimofor (2007), Walumbwa *et al.,* (2010), Choi *et al.,* (2004), and Mthokozisi *et al.,* (2014), whose studies reveal a strong and significantly positive relationship between Quality workmanship and internal service quality, job satisfaction and organisation performance. Finally the TQM principles of Quality Workmanship is positively

related to internal service quality where employees' opinions were taken into consideration in developing the mission, strategy, and objectives of the university, the employees will support them.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary of the research findings. The summary is based on the data interpreted and presented in the previous chapters. Conclusions about the findings are given based on the study findings. Finally, the chapter presents recommendations and suggestions for further research.

5.1 Summary of the Results

The following exposition summarizes the key findings of the preceding chapter and elaborates upon each *appriori* hypothesized relationships between internal service quality and independent variables. Table 5.1 provides the relevant summary for the following discussions.

Table 5.1 Summary of the Hypotheses and Findings

	Maintained Hypothesis	**Finding**
HO_1:	Leadership Styles has no significant effect on internal service quality in selected certified public universities	Rejected
HO_2:	Organizational Culture has no significant effect of on internal service quality in selected certified public universities	Rejected
HO_3:	Quality Workmanship has no significant effect on internal service quality in selected certified public universities.	Rejected

Source: Author, 2015

Based on the three specific objectives of this study; to establish the effect of TQM principles of leadership styles on internal service quality in selected public universities, to establish the effect of TQM principles of organizational culture on internal ser-

vice quality in selected public universities and to establish the effect of TQM principles of quality workmanship on internal service quality in selected public universities in Kenya.

The study found that TQM principles of leadership styles influenced internal service quality in selected public universities with majority of the respondents in agreement that the parameters which included charismatic leadership, transformational leadership, strategic leadership and distributed leadership. However, to a very great extent distributed leadership influenced internal service delivery. This confirms that the TQM principle of leadership styles has influenced internal service quality in selected public universities to a very great extent. However, efforts must be made to improve this percentage for better positioning in the world rankings.

From the outset, the majority of the respondents recognized the importance of leadership style and how it gave impact to staff job satisfaction at the selected public universities. Therefore, distributed leadership styles scored highest among the four leadership styles with a mean of 3.13, strategic leadership scored lowest with a mean of 1.56 while charismatic leadership styles scored a mean of 2.2537 and transformational leadership styles scored a mean of 1.9136. The mean scores are similar to those of a study by Jones and Rudd (2007). Therefore, this study confirms the concussion that the TQM principles of leadership styles in the context of distributed leadership styles is the most used leadership style among the selected public universities.

The study sought to determine the effects of TQM principles of organizational culture has on internal service delivery in selected public universities with majority of the

respondents in agreement that the parameters which include teamwork; power distribution ; proactive to change and staff empowerment. Among the four indicators majority of the respondents were in agreement that staff empowerment had significantly influenced internal service quality to a very great extent. These findings concluded that TQM principles of organisational culture had positively influenced internal service delivery in selected public universities to great extent which conformed to Lee, Toi and Yu (2009), study which indicated that consistency must prevail between the new practice and existing practices.

Further results indicate that participants were moderately satisfied with their organisational culture based on four factors; teamwork, power distribution, proactive to change and staff empowerment. Significant here was the fact that proactive to change factors had obtained the lowest mean score of 1.83, while staff empowerment factors scored highest with a mean of 3.72. The results indicated that participants were not satisfied with proactive to change factors but were satisfied with the staff empowerment factors provided by their institution.

The study sought to determine the effects TQM principle of quality workmanship has on internal service quality in selected public universities with majority of the respondents in agreement that the parameters; providing training, evaluation systems, recruitment process and management support. Among the parameters recruitment process scored highly with the respondents in agreement that it had very great influence on internal service quality. These findings concluded that TQM principles of quality workmanship had positively influenced internal service quality in selected

public universities to great extent. For example, a full-scale organizational system including procedures for training and employee education had to be added and made consistent with the organizations' previous practices.

Further results indicated that TQM principle of Quality workmanship had played a major role to internal service delivery in selected public universities. These results indicated that participants were moderately satisfied with their quality workmanship based on four factors; provision of training, evaluation of systems, recruitment process and getting management support. Significant here was the fact that recruitment process obtained the highest mean score of 2.83, while provision of training scored second with a mean of 2.25. The results indicated that participants were not satisfied with proactive to change factors but were satisfied with the staff empowerment factors provided by their institution.

5.2 Conclusions

Based on the results from data analysis and findings of the research, one can safely conclude the following, based on the objectives of the study;

First, TQM principle of leadership styles has influenced internal service quality in selected public universities to a very great extent. However, efforts must be made to improve this percentage for better positioning in the world rankings. From the outset, the majority of the respondents recognized the importance of leadership style and how it gives impact to internal service quality. Therefore, this study confirms the concussion that the TQM principles of leadership styles: Distributed leadership styles

is the most used leadership style among the ISO certified public universities.

Secondly, from the findings, it was concluded that TQM principles of organizational culture had positively influenced internal service quality in selected public universities to great extent which correlated with Lee, Toi and Yu (2009), study whose findings indicated that consistency must prevail between the new practice and existing practices. Links have to be established between the organization's old policies, rules and procedures, and the new ones. For example, a full-scale organizational system including procedures for training and employee education has to be added and made consistent with the organizations' previous practices.

Thirdly, the study sought to determine the effects TQM principle of quality workmanship has on internal service quality in selected public universities with majority of the respondents in agreement that the parameters; providing training, evaluation systems, recruitment process and management support. Among the parameters recruitment process scored highly with the respondents in agreement that it had very great influence on internal service delivery. These findings concluded that TQM principles of quality workmanship had positively influenced internal service quality in selected public universities to great extent. For example, a full-scale organizational system including procedures for training and employee education had to be added and made consistent with the organizations' previous practices.

5.3 Recommendations
The findings of the study indicate that there were a number of issues to be

addressed. Universities should remove the status quo to be supportive to any formulation of new ideas in order to respond to an ever-changing environment in Kenyan higher Education. This will also curb the resistance from second level management, because employees who are empowered in an organisation can either portray a positive or negative picture to the customers.

5.4 Suggestions for Future Research

Every institution needs to have quality objectives which can be used to guard against any erroneous outputs from its services and activities. The Selected public universities are not an exception. A quality management policy is important for an organisation which is committed to quality service delivery. To test the extent to which the universities have applied quality management in its academic services, it is not an easy task due to various challenges. The respondents were very busy and as such getting time to fill the questionnaire was not easy. This is because the respondents either were attending academic seminars/trips or there were examinations which were going on at that time. Also most of the respondents did not understand the quality management practices in place in the selected public universities thus making it difficult to give relevant information.

From the above limitations of the current following directions for future were drawn. Firstly a similar studies to be carried out on other sectors of higher education. Secondly, a study on the quality management practices used in the other sectors of higher education should be done; and lastly the challenges faced in Quality Management implementation in the other sectors of higher education's academic

function need to be determined. Crucially further research should be done to determine how quality management can contribute to an organizational financial performance and customer satisfaction and to what extent can the benefits if any be quantified by the organizations.

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APPENDICES

APPENDIX I: RESEARCH INTRODUCTORY

Dear Respondent,

I am a postgraduate student in the School of Business and Economics, Moi University Eldoret. I am carrying out research entitled: *"Effect of Total Quality Management principles in Internal Service Quality in Selected Public Universities in Kenya".* The purpose of this questionnaire is to collect data for purely academic purposes and all information will be treated with utmost confidentiality.

Kindly complete this questionnaire as your opinion counts.

Thank you.

Yours Sincerely,

SAMSON K. KIBII

REG. NO SBE/PGM/045/11

APPENDIX II: QUESTIONNAIRE
PART A: PERSONAL DETAILS

Please kindly provide details below relating to your background. Tick where appropriate.

Please indicate your cadre by ticking	Your Gender	Your Age	Education Level
Management [ ]	Male [ ]	18-35 [ ]	Certificate [ ]
Head of Department [ ]	Female [ ]	36-55 [ ]	Diploma [ ]
Coordinator [ ]		55-Above [ ]	Degree [ ]
Lecturer [ ]			Masters [ ]
Administrator [ ]			PhD [ ]
Accountant [ ]			
Supervisor [ ]			
Other..			

PART B: ORGANIZATIONAL COMMITMENT TO TOTAL QUALITY

   MANAGEMENT

This section seeks to establish your assessment of the influence the Total Quality Management practices. Please consider the various aspects of quality control and assurance within your department when you answer the questions. Your answers will be kept confidential and will be used for statistical purposes only. For each question, please circle the appropriate number using the scale below:

1. Very Little Extent (VLE)

2. Little Extent (LE)

3. Moderate Extent (ME)

4. Great Extent (GE)

5. Very Great Extent (VGE)

I). **GENERAL STATEMENTS ON KEY AREAS ADDRESSED IN**

   QUALITY OF SERVICE QUALITY

G1. The University has established, documented and maintains a Quality

   Management System (QMS).

   1   2   3   4   5

G2. In conformity with ISO 9001-2008, the University maintains essential

   documents to support the Quality Management System

   1   2   3   4   5

G3. Within the University there is a detailed document control procedure which

   ensures the documents of the QMS are continually updated and are available

   for use.

   1   2   3   4   5

G4. The University keeps proper control of records which provide adequate information on the implementation of the QMS.

    1   2   3   4   5

G5. There is regular quality audit within all departments in the university

    1   2   3   4   5

II.   STATEMENTS ON THE EXTENT TO WHICH TQM PRINCIPLES OF SERVICE QUALITY HAS BEEN ATTAINED IN SELECTED PUBLIC UNIVERSITIES

KEY	STATEMENT (Please, tick one for each)	1	2	3	4	5
S1	In the university there is realiable internal quality delivery.					
S2	In the university there is assurance in provision of internal service quality.					
S3	In the university there is physical evidence of internal service quality.					
S4	In the university there is care and individual attention among the departments.					
S5	In the university employees of different departments are willing to help each other by provision of prompt and timely service.					

III).   STATEMENTS ON THE EXTENT TO WHICH TQM PRINCIPLES OF LEADERSHIP STYLES HAS INFLUENCED INTERNAL SERVICE QUALITY IN SELECTED PUBLIC UNIVERSITIES.

Kindly indicate by ticking what best describes your opinion about influence of TQM principles on internal service quality in the university.

Select 1, 2, 3, 4, or 5 where,

[1] Very Little Extent [2] Little Extent [3] Moderate Extent [4] Great Extent [5] Very Great Extent

KEY	STATEMENT (Please, tick one for each)	1	2	3	4	5
L1	Charismatic leadership has significantly influenced internal service quality.					
L2	Transformational leadership has significantly influenced internal service quality.					
L3	Strategic leadership has significantly influenced internal service quality.					
L4	Distributed leadership has significantly influenced internal service quality.					

IV). STATEMENTS ON THE EXTENT TO WHICH TQM PRINCIPLES OF ORGANISATIONAL CULTURE HAS INFLUENCED INTERNAL SERVICE QUALITY IN SELECTED PUBLIC UNIVERSITIES.

KEY	STATEMENT (Please, tick one for each)	1	2	3	4	5
O1	Teamwork has significantly influenced internal service quality.					
O2	Power distribution has significantly influenced internal service quality.					
O3	Proactive to change has significantly influenced internal service quality.					
O4	Staff empowerment has significantly influenced internal service quality.					

V). STATEMENTS ON THE EXTENT TO WHICH TQM PRINCIPLES OF QUALITY WORKMANSHIP HAS INFLUENCED INTERNAL SERVICE QUALITY IN SELECTED PUBLIC UNIVERSITIES

KEY	STATEMENT (Please, tick one for each)	1	2	3	4	5
Q1	Providing training has significantly influenced internal service quality.					
Q2	Evaluation system has significantly influenced internal service quality.					
Q3	Recruitment process has significantly influenced internal service quality.					
Q4	Getting management support has significantly influenced internal service quality.					