AN ANALYSIS OF THE IMPACTS OF TOTAL QUALITY MANAGEMENT STRATEGIES ADOPTED BY KENYA’S EDUCATIONAL INSTITUTIONS ON THE QUALITY OF EDUCATION IN KENYA

A SURVEY OF PARASTATALS UNDER THE MINISTRY OF EDUCATION

BY

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A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT FOR THE REQUIREMENTS OF THE AWARD OF MASTER OF BUSINESS ADMINISTRATION (MBA) DEGREE, SCHOOL OF BUSINESS, KENYATTA UNIVERSITY

MAY, 2012
DECLARATION

This project is my original work and has not been presented for a degree in any other university or any other examination body.

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I confirm that the work presented in this research project was carried out by the candidate under my supervision

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DEDICATION

I dedicate this project to my family for their understanding and support during the study period.
ACKNOWLEDGEMENT

First of all, I would wish to thank my entire family for their understanding and support during the project period; I wouldn’t have made it this far without them.

I would wish to express my sincere gratitude to my supervisor for his guidance, selfless dedication and encouragement in making this project a reality. I would also like to acknowledge the contribution of the rest of the Kenyatta University fraternity especially the library staff to the success of this project.
Thank you all.

Most important of all I extend my gratitude to the Almighty God for providing me with the strength, knowledge and vitality that helped make this project a reality.
ABSTRACT

Total Quality Management (TQM) is an enigma in many organizations. This study was carried out to analyze the impacts of total quality management strategies adopted by Kenya’s educational institutions on the quality of education in Kenya. The study was motivated by the growing concern on the quality of education in Kenya. Stakeholders such as parents, students, government, and non-governmental organizations continue to focus their attention on education. Nevertheless, a quality gap to be addressed in Kenya’s education still remains at large. While emphasis on the quality of education is not a new phenomenon, a scan through studies aimed at addressing the quality of education revealed unaddressed concerns as far as Total Quality management practices in the education system is concerned.

The study is expected to be of benefit to stakeholders in the education sector as it will help to identify the most effective strategies in improving the quality of education. It will also benefit the managers in educational institutions to better understand the impacts of TQM practices on the quality of education. This will help in better formulation of strategies to improve the quality in Kenya’s education sector.

The general objective of the study was to determine the impacts of total quality management strategies adopted by Kenya’s educational organizations on the quality of education in Kenya. The specific objectives focused to examine TQM strategies such as certificating programs, standardization, accreditation, employee training and managerial support and commitment on the quality of education in Kenya. The research design that was employed in this study was descriptive research design. This would help the researcher to find out the impacts of TQM strategies adopted by Kenya’s educational institutions on the quality of education in Kenya. The target population was parastatal heads and managers of selected parastatals within the ministry of education. Random sampling design was used to select the respondents to participate in the study. A survey research design was used for this research.

The researcher used both primary and secondary sources of data to collect and analyse the data. A semi-structured questionnaire was used to collect primary data, while secondary data was collected from publications, pamphlets, office manuals, circulars, and policy papers and media reports. The data was analysed by qualitative and quantitative techniques. The Statistical Package for Social Science (SPSS) programme was used to analyse the data, make conclusions and recommendations from the study. The responses from the open-ended questions were reported by descriptive narrative. Descriptive analysis was employed; which included mean, standard deviation, frequencies and percentages. The output was presented using frequency tables and charts and interpretations made based on the research objectives.

The results of the study were compared with literature review to establish the impacts of total quality management strategies adopted by Kenya’s educational organizations on the quality of education in Kenya. Some of the anticipated limitations for this study included time spent in data collection and finances since the researcher was the one financing this study.
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OPERATIONAL DEFINITION OF TERMS

**Quality;** The quality of education as used in this dissertation was not mere passing of examinations or certification, but the development of an independent, analytical, creative potential of the individual, including critical imagination, spiritual and ethical values.

**Poor Quality:** Is the substandard result when children are not exposed to optimal educational environments in order to gain appropriate knowledge, skill and attitudes. It is the result when educational conditions fail to produce an independent, analytical and creative personality.

**Parastatal:** Is government-owned corporation, state-owned company, state-owned entity, state enterprise, publicly owned corporation, government business enterprise, commercial government agency or a parastatal is a legal entity created by a government to undertake educational activities on behalf of an owner government.

**Free Primary Education ;** This is the provision of support fund so that tuition costs would no longer be a burden to parents and would no longer prevent poorer families from achieving affordable access to primary education. Free primary education funding is only available to state funded secondary schools.

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<td>Basic Education Improvement Project</td>
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<td>Board of Governors</td>
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<td>Free Primary Education</td>
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<td>GOK</td>
<td>Government of Kenya</td>
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<td>K.E.S.I</td>
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<td>JUSE</td>
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<td>NGOs</td>
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<td>SPSS</td>
<td>Statistical Package for the Social Science</td>
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<td>TQM</td>
<td>Total Quality management</td>
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<td>T.S.C</td>
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CHAPTER ONE:

1.0 INTRODUCTION

1.1 Background information

Education in Kenya has received unmatched attention as the best method of achieving the country’s economic and social growth. As a result, stakeholders such as parents, students, government, and non-governmental organizations continue to focus their attention on education. Nevertheless, a quality gap to be addressed in Kenya’s education still remains at large. While emphasis on the quality of education is not a new phenomenon, a scan through studies aimed at addressing the quality of education revealed unaddressed concerns as far as the impacts of Total Quality management practices on the quality of education in Kenya is concerned.

Attempts to address the quality of education in Kenya were undertaken by Bogonko (1992). Bogonko examined how the increased demand, external policies, and lack of resources hindered access into the Kenya’s highest level of education. He addressed the position of higher education institutions as a means to an educated work force and economic development. He noted that issues experienced in higher levels of education stem from growth, access and challenges from the lower level of education; primary and secondary. He challenges leaders and education stakeholders to focus their attention on lower level of education in order to address the quality challenges affecting higher education.

Another study undertaken by Kimani (2010) examined the political changes that had been sweeping across Kenya for the last two decades. In his study he indicated that many sections of the society such as the media, the church, civil society and even ordinary people had taken advantage of the democratic space to engage in the political establishment, however he noted that the country’s intelligentsia had remained a loof. Kimani challenged the status quo of universities arguing that curtailment of intellectual freedom as in the post-colonial Kenyan University was reproduction of the colonial suppression whose objective was to ensure the survival of the ruling class and a compromise of pertinent issues affecting the country’s education.
Simons (1994) critically examined the efficacy of mainstream aid development projects that embrace people-centred, participatory approaches and government partnerships with multilateral and bilateral agencies (donors), civil society and local communities to enhance benefits of empowerment and social change to disadvantaged people. The thesis used an example of an aid project, the Basic Education Improvement Project (BEIP) which the GOK implemented in partnership with the Organization of Petroleum Exporting Countries (OPEC) and disadvantaged communities in urban slums and marginalised rural areas particularly Arid and Semi-Arid Lands (ASALs). The study drew upon structural and post structural perspectives to respond to the development challenges posed by the theories of modernization, dependency and post development and to assess the fit between policy, theory and practice of participatory development.

From the foregoing background, it is clear that the studies covered leaves unaddressed quality gaps. Several reasons have been put forward as to the cause of failure by educational institutions to achieve the desired educational goals and set objectives. These include: high dropout rates; outside interferences; forced repetition of students and a congested curriculum Bogonko (1992) but none of these causes has however mentioned the impacts of Total Quality management in addressing quality challenges in the Kenya’s education sector.

Quality authorities like Joseph Juran, Edward Deming and Philip Crosby have put forth several approaches to improve company performance. Quality Management (QM) presents a strategic option and an integrated management philosophy for organizations, which allows them to reach their objectives effectively and efficiently, and to achieve sustainable competitive advantage Ferzi (2003). TQM is an indispensable pre requisite to the success of every organization although promoters of Total Quality management confess that organizations find it hard to implement quality management practices, and achieve expected benefits. (Miniace, J.N., Falter, E. (1996).

There are still organizations where TQM philosophy continues to be a central focus of the business and a mechanism for contributing to better performances Grundy (1998), these approaches are embodied in a set of quality management practices, known as Total Quality Management (TQM). On account of these policies, different approaches have been adopted for the introduction of quality management in the Kenyan education sector, for example in Kenyan universities, approaches such as self-assessment and external assessment of the institutions,
accreditation and certification systems, and different models of TQM have been adopted VanVeen-Dirks (2002). The extent to which these practices are achieving quality objectives in the education sector is yet to be addressed. The present study therefore seeks to fill in the gap by examining the impacts of TQM practices on quality of education in Kenya.

1.1.1 Educational parastatals within the ministry of education

The ministry of education is among the many arms under which the government of Kenya carries out its functions. The overall sector objectives are to ensure equitable access, attendance, retention, attainment and achievement in education, science, research and technology by ensuring affordability of services Bogonko (1997). The Ministry of Education Science and Technology seeks to mobilize resources for sustainable and efficient delivery of relevant educational research, technological and other educational services. It ensures co-ordination of the provision of education and training for efficient delivery of services between the government, donors, NGOs and communities. If the targets set by the ministry of education is anything to go by, then there is need for total quality management strategies in all agencies under the umbrella of the Ministry of Education.

Among the targets of the Ministry of Education is achievement of education for all by the year 2015, Achievement of Transition rate of 70% from Primary school to Secondary schools from the current rate of 47% by 2010; Enhanced access, equity and quality in Primary and Secondary Education supported through capacity building for 45,000 education managers by 2005 and construction / renovation of physical facilities/equipment and developing a National Strategy for technical and vocational education and training in 2004, leading to the rehabilitation of physical facilities and equipment and making sure that Vocational and Technical Institutions are appropriately equipped by 2010.

Among the TQM practices deemed important in educational institutions include; certification of programs, standardization, Accreditation, continuous employee training and management commitment and support. Though Kiptugen (2003) indicate that TQM practices continue to be used in educational institutions, the extent to which these practices affect the quality of education is yet to be revealed. This study therefore presents an analysis of TQM practices within educational institutions and the extent to which they affect the quality of education in Kenya.
1.2 Problem statement

The poor quality of education in Kenya is eating away the country’s skills base, adding a new layer of challenge to the country’s quest for high rate of economic growth and the realization of a newly industrialized status by 2030 (Kimani, 2010). A survey conducted by Uwezo Kenya, in 2009 found that millions of Kenya’s primary school children are graduating without attaining basic numeracy and literacy skills, denying the economy quality human capital it needs to grow. Almost half of the children in primary schools, including those in upper classes lack basic numeracy and literacy skills, which means that the heavy investments that the government has recently made in education has not borne fruit.

This lack of competence at the bottom of the learning ladder is also hurting the performance and credibility of students at higher levels, ultimately diluting the quality of Kenya’s human resource base and competitiveness in a globalized economy.

Concerns over the quality of education come at a time when Kenya is grappling with a skills shortage that is now being seen as one of the major obstacles to the realization of the country’s development blueprint Vision 2030. “There is a big mismatch between the skills level of graduates and the market needs yet human capital remains a pillar of our development targets,” said Michael Kahiti, the chief economist at the Planning ministry.

Studies have been carried out in the quest of enhancing quality in Kenya’s education sector. Among the studies contributing to quality enhancement in Kenya’s education sectors include; Efficiency of primary education in Kenya by Abagi (1997), Factors affecting quality of FPE in Kenya by Richard (2010) and Total quality management practices in Kenya’s educational institutions by Peterson and Prof. Mbeche (2010). The studies have recommended, focus teacher recruitment by the government, and accountability measures among educational institutions. However, the solution in the attainment of total quality management in Kenya is far yet to be achieved. Reports of declining quality of education in Kenyan schools have now prompted some educationists to question the impacts of total quality management strategies adopted in the education sector. This therefore creates the need to carry out this study in pursuit of establishing the impacts of TQM strategies adopted by public institutions under the ministry of education.
1.3 Research objectives

1.3.1 General Objective

The general objective of the study is to determine the impacts of total quality management strategies adopted by Kenya’s educational organizations on the quality of education in Kenya.

1.3.2 Specific Objective

The study will be guided by the following objectives;

i. To study the impacts of certification of programs on the quality of education in Kenya
ii. To establish the impacts of standardization on the quality of education in Kenya
iii. To find out the impacts of accreditation on the quality of education in Kenya
iv. To examine the impacts of continuous employee training on the quality of education in Kenya
v. To study the impacts of management support and commitment on the quality of education in Kenya

1.4 Research questions

The study will seek to answer the following research questions;

i. What are the impacts of certification of programs on the quality of education in Kenya?
ii. What are the impacts of standardization of programs on the quality of education in Kenya?
iii. What are the impacts of accreditation of programs on the quality of education in Kenya?
iv. What are the impacts of continuous employee training on the quality of education in Kenya?
v. What are the impacts of management support and commitment on the quality of education in Kenya?
1.5 Significance of the study

Education is a critical issue of concern to the government due to the role it plays in economic development. By examining the impacts of total quality management strategies on the quality of education in Kenya, the government will benefit from the loopholes in TQM practices identified in the study and probably come up with policies aimed at addressing this loopholes and enhancing the quality of education in Kenya.

Most studies on Total quality management highlight what should be done as part of TQM practice within the ministry of education; this study provides an insight as to the actual impacts of TQM practices on the quality of education. The researcher will benefit by gaining knowledge and insights imperative in answering the research questions. Other scholars who wish to conduct further studies on TQM will benefit because this research will provide a basis for future research work.

1.6 Scope of the study

The research will examine the impacts of certification of programs, standardization, accreditation, employee training and management commitment and support strategies of TQM on the quality of education in Kenya. This study will cover parastatals within the Ministry of Education specifically Kenya National Examinations Council, Teachers Service Commission, Kenya Institute of Education and Kenya Education Staff Institute. The study will target to examine 70 managers in the various departments as well as parastatal heads. The study is expected to be undertaken in a period of around six months.

1.7 Justification

Due to the limited resources allocated to the education sector by the Kenyan government; the Ministry of education has not been able to offer the highest quality of education as all stakeholders would expect. After the introduction of free primary and secondary education in Kenya, the number of students going to school increased at an alarming rate bringing imbalance to the optimum teacher student ratio in most public schools. The teachers were not able to offer individualized attention to the pupils because the pupils became too many for the teachers to
handle and consequently the quality of education declined. The distance to school in some regions is also so long resulting to absenteeism and high dropout rates. Some cultures in Kenya also do not value education and they still do not take their children to school causing the transition rate from primary to secondary schools to be solemnly reduced; this has caused decline in the quality of education in Kenya.

Since the parastatals under the ministry of education are government-owned corporations, created by the government to undertake educational activities on behalf of an owner government, the government laws and policies concerning education are enforced by the parastatals and implemented by the teachers then consequently these strategic changes trickle down to major recipients; the students; hence the choice of parastatals as the intended location for this research.

1.8 Assumptions of the study

The researcher assumes that all parastatals within the Ministry of Education have TQM structures meant to ensure quality of education; that the organizations to be examined have made attempts to address TQM. The researcher assumes that all the parastatals within the Ministry of Education operate under the same regulations with other public institutions and hence the study findings will be extrapolated to all other public institutions.

1.9 Limitations of the study

This study will focus on the Ministry of Education and will adopt a survey design. Using a survey means that the researcher will develop a standardized research instrument that may not address issues specific to a particular organization within the Ministry of Education. In order to overcome survey limitations, the researcher will develop a research instrument addressing as many issues as possible; this will help to ensure that the most relevant aspects concerning the study topic have been examined. The study intends to use questionnaires as the instrument for collecting data. This is because time for the data collection will be limited to two weeks. The researcher will also be limited to procedures within the Ministry of Education offices that might affect the collection of data. The study will be also limited by finances since the researcher is the one solely financing this study.
2.0 LITERATURE REVIEW

2.1 Introduction

This chapter will review the existing literature, information and publications on the topic related to the research problem by accredited scholars and researchers. The section shall examine what various scholars and authors have said about total quality management, in particular it will cover the theoretical review of literature, empirical review of the literature and conceptualization of the research problem.

2.2 Review of Theoretical Literature

2.2.1 The background of Total Quality Management

Classical Management Theories

In the early 1900's, Frederick Taylor, founder of the "Scientific Management" movement, promoted his "one best way" method as a set of scientific principles to measure the efficiency and productivity of any given task (1911, 1947). His approach had a strong impact on managerial practices in America during that time. Frederick Taylor (1911) introduced the scientific management theory. It emphasized the legitimization of authority, rewards upon competence and the adherence to rules set out in a hierarchical firm.

Inspection

Inspection involves measuring, examining, and testing products, process and services against specified requirements to determine conformity. The use of inspection has been evident throughout the history of organized production. In the late middle Ages, special measures were taken to inspect the work of apprentices and journeymen in order to guard the Guild against claims of makeshift or shoddy work. During the early years of manufacturing, inspection was used to decide whether a worker's job or a product met the requirements; therefore, acceptable. It was not done in a systematic way, but worked well when the volume of production was
reasonably low. However, as organizations became larger, the need for more impactful operations became apparent.

**Quality Control and Statistical Theory**

Quality Control was introduced to detect and fix problems along the production line to prevent the production of faulty products. Statistical theory played an important role in this area. In the 1920s, Dr W Shewhart developed the application of statistical methods to the management of quality. He made the first modern control chart and demonstrated that variation in the production process leads to variation in product. Therefore, eliminating variation in the process leads to a good standard of end products. Statistical Quality Control; focuses on product and the detection and control of quality problems, involves testing samples and statistically infers compliance of all products, is carried out at stages through the production process, and relies on trained production personnel and quality control professionals.

**Total Quality Management**

In the 1980s to the 1990s, a new phase of quality control and management began. This became known as Total Quality Management (TQM). Having observed Japan’s success of employing quality issues, western companies started to introduce their own quality initiatives. TQM, developed as a catchall phrase for the broad spectrum of quality-focused strategies, programs and techniques during this period, became the center of focus for the western quality movement. A typical definition of TQM includes phrases such as: customer focus, the involvement of all employees, continuous improvement and the integration of quality management into the total organization. Although the definitions were all similar, there was confusion. It was not clear what sort of practices, policies, and activities needed to be implemented to fit the TQM definition.
2.2.2 Theories in Total Quality Management (TQM)

TQM is a quality improvement body of methodologies that are customer-based and service oriented. TQM was first developed in Japan, and then spread in popularity. However, while TQM may refer to a set of customer based practices that intend to improve quality and promote process improvement, there are several different theories at work guiding TQM practices.

Deming's Theory

Deming's theory of Total Quality Management rests upon fourteen points of management he identified, the system of profound knowledge, and the Shewart Cycle (Plan-Do-Check-Act). He is known for his ratio - Quality is equal to the result of work efforts over the total costs. If a company is to focus on costs, the problem is that costs rise while quality deteriorates. Deming's system of profound knowledge consists of the following fourteen principles of management which are: Create constancy of purpose, Adopt the new philosophy, Stop dependencies on mass inspections, Don't award business based upon the price, Aim for continuous production and service improvement, Bring in cutting-edge on the job training, Implement cutting-edge methods for leadership, Abolish fear from the company, Deconstruct departmental barriers, Get rid of quantity-based work goals, Get rid of quotas and standards, Support pride of craftsmanship, Ensure everyone is trained and educated, Make sure the top management structure supports the previous thirteen points.

Crosby's Theory

Philip Crosby is another person credited with starting the TQM movement. He made the point, much like Deming, that if you spend money on quality, it is money that is well spent. Crosby based on four absolutes of quality management and his own list of fourteen steps to quality improvement. Crosby came up with fourteen principles of management which are; Attain total commitment from management, Form a quality improvement team, Create metrics for each quality improvement activity, Determine cost of quality and show how improvement will contribute to gains, Train supervisors appropriately, Encourage employees to fix defects and keep issues logs, Create a zero-defects committee, Ensure that employees and supervisors understand the steps to quality, Demonstrate your company's commitment by holding a zero defects day, Goals are set on 30, 60, or 90 day schedule, Determine root causes of errors, remove
them from processes, Create incentives programs for employees, Create a quality council and hold regular meetings, Repeat from step one.

**Joseph Juran's Theory**

Joseph Juran is responsible for what has become known as the "Quality Trilogy." The quality trilogy is made up of quality planning, quality improvement, and quality control. If a quality improvement project is to be successful, then all quality improvement actions must be carefully planned out and controlled. Juran believed there were ten steps to quality improvement. These steps are: An awareness of the opportunities and needs for improvement must be created, Improvement goals must be determined, Organization is required for reaching the goals, Training needs to be provided, Initialize projects, Monitor progress, Recognize performance, Report on results, Track achievement of improvements, Repeat the process.

**Ishikawa's Theory**

The creator of the last theory, Dr. Kaoru Isikawa is often known for his namesake diagram, but he also developed a theory of how companies should handle their quality improvement projects. Ishikawa takes a look at quality from a human standpoint. He points out that there are seven basic tools for quality improvement. These tools are: Pareto Analysis - Pareto analysis helps to identify the big problems in a process, Cause and Impacts Diagrams - Cause and impacts diagrams help to get to the root cause of problems, Stratification - Stratification analyzes how the information that has been collected fits together, Check Sheets - Check sheets look at how often a problem occurs, Histograms - Histograms monitor variation, Scatter Charts - Scatter charts demonstrate relationships between a variety of factors, Process Control Charts - A control chart helps to determine what variations to focus upon.

**2.2.3 Models of Total Quality Management**

TQM is a collection of principles, techniques, processes, and best practices that over time have been proven value adding to an organization. Most all world-class organizations exhibit the majority of behaviors that are typically identified with TQM.
No two organizations have the same TQM implementation. There is no recipe for organization success; however, there are a number of great TQM models that organizations can use. These include the Deming Application Prize, the Malcolm Baldrige Criteria for Performance Excellence, the European Foundation for Quality Management, and the ISO quality management standards. Any organization that wants to improve its performance would be well served by selecting one of these models and conducting a self-assessment.

**Deming Application Prize**

The Deming Application Prize is an annual award presented to a company that has achieved distinctive performance improvements through the application of TQM. Regardless of the types of industries, any organization can apply for the Prize, be it public or private, large or small, or domestic or overseas. Provided that a division of a company manages its business autonomously, the division may apply for the Prize separately from the company. Companies or divisions of companies that apply for the Prize (applicant companies hereafter) receive the examination by the Deming Application Prize Subcommittee (the Subcommittee hereafter). Based on the results of the Subcommittee's examination, the Deming Prize Committee selects the winners.

There is no limit to the number of potential recipients of the Prize each year. All organizations that score the passing points or higher upon examination will be awarded the Deming Application Prize.

**Malcolm Baldrige National Quality Award**

The Malcolm Baldrige National Quality Award recognizes U.S. organizations in the business, health care, education, and nonprofit sectors for performance excellence. The Baldrige Award is the only formal recognition of the performance excellence of both public and private U.S. organizations given by the President of the United States. It is administered by the Baldrige Performance Excellence Program, which is based at and managed by the National Institute of Standards and Technology, an agency of the U.S. Department of Commerce. Up to 18 awards may be given annually across six eligibility categories—manufacturing, service, small business, education, health care, and nonprofit. As of 2011, 90 organizations had received the award.
The award promotes awareness of performance excellence as an increasingly important element in competitiveness. It also promotes the sharing of successful performance strategies and the benefits derived from using these strategies. To receive a Baldrige Award, an organization must have a role-model organizational management system that ensures continuous improvement in delivering products and/or services, demonstrates efficient operations, and provides a way of engaging and responding to customers and other stakeholders.

European Foundation for Quality Management Excellence Model (EFQM)

The European Foundation for Quality Management (EFQM) was formed when 14 CEOs came together in 1988 to develop a Management Tool that would increase the competitiveness of European organizations. This approach was supported by the European Commission in the European Quality Promotion Policy.

Following on from other national award models like the Deming Prize in Japan and the Malcolm Baldrige Award in the USA the founding members wanted to have a model which allowed excellence to be judged across an organization and promote and recognize business excellence. As a result they created the EFQM Excellence Model. This was particularly important at the time as there was a gap in quality and productivity between the USA and Japan and that of Europe. From its origins over twenty years ago the model and the associated awards process set out to promote business excellence and the sharing of ideas.

The award process of the EFQM sets out to recognize organizations across Europe for their quality and excellence in business performance and approach. The awards are based around organizations implementing a Total Quality Management philosophy and its focus on innovation, the market and the customer, stakeholder satisfaction and balanced results.

The ISO quality management standards

The ISO 9000 family of standards are related to quality management systems and designed to help organizations ensure that they meet the needs of customers and other stakeholders. The standards are published by ISO, the International Organization for Standardization, and available through National standards bodies while meeting statutory and regulatory requirements.
The term ISO 9000 has two different meanings: it refers to a single standard (ISO 9000) and it refers to a set of three standards (ISO 9000, ISO 9001, and ISO 9004). All three are referred to as quality management system standards. ISO 9000 discusses definitions and terminology and is used to clarify the concepts used by the ISO 9001 and ISO 9004 standards. ISO 9001 contains requirements and is often used for certification purposes while ISO 9004 presents a set of guidelines and is used to achieve sustained success.

It is widely acknowledged that proper quality management improves business, often having a positive impact on investment, market share, sales growth, sales margins, competitive advantage, and avoidance of litigation. The quality principles in ISO 9000:2000 are also sound, according to Wade and also to Barnes, who says that "ISO 9000 guidelines provide a comprehensive model for quality management systems that can make any company competitive." Implementing ISO often gives the following advantages: Creates a more efficient organization, increases customer satisfaction and retention, reduces audits, enhances marketing, improves employee motivation, awareness, and morale, promotes international trade, increases profit, reduces waste and increases productivity, it is a common tool for standardization.

For this study I will adopt the quality management standards model of Total quality management.

2.2.4 The concept of Quality Management

The word “quality” has been derived from the Latin word *qualis*, meaning, “what kind of”. With a wide variety of meanings and connotations attached to it, quality is a difficult and elusive term to define, having thus been referred to as a “slippery concept” (Pfeffer and Coote, 1991). It is slippery because it has a wide variety of meanings. The word implies different things to different people. It has, thus, been defined with different perspectives and orientations, according to the person, the measures applied and the context within which it is considered. Amid the wide gamut of such definitions, there seems to be no consensus definition, but they all deal either with the product or the services producing these products/services. From the perspective of the consumers or users, the product or service based definition is more useful. From the perspective of the organization providing goods/services, the process-perspective is more useful. From a managerial philosophy viewpoint, the elements of QM are varied and this is quite apparent in education.
The different terms like strategic quality management, total quality improvement, and total quality leadership are actually examples showing the different emphasis placed on particular aspects of what is generally called quality management. Seymour (1992) identified four philosophical principles for what he called strategic quality management: “meeting or exceeding customer needs”, “everyone’s job”, “Continuous improvement” and “leadership”.

2.2.5 The Principles of TQM

According to Hannagan (2002), the principles of TQM are built on various pillars which must be emphasized to make quality a reality in organizations. These include;

**Continuous product development;** - The goods and services offered by the company should be examined in a wide perspective in every stage in management then value should be added to achieve total quality products thus ensure customer satisfaction. The Company should therefore conduct a value chain analysis or process analysis to determine which level needs to be improved based on the fact that the success of the business is based on achieving success through customer satisfaction.

**Customer focus;** Customer is believed to be a king, this means that the customer should be respected by all means and should be accorded the best attention as he is the reason for the existence of the business; the absolute conformance to agreed customer requirements. Customer satisfaction should be emphasized in anticipating customer needs and expectations, delivering products and services that delight customers. A good research should be done to identify customer needs and satisfy them.

**Employee empowerment;** - Regular training should be conducted in the organization to confer employees with skills and capabilities required by the organization. The individual competence as well as the collective competence is acquired through collective learning. The strength of the organization partly depends on the competence of employees and good industrial relations. There is need to evaluate the performance of the employees to motivate them and recently, there has been the introduction of the performance contracting especially in the public sector.

According to Reed, (1988), some businesses and government departments, shy away from training as there is a notion that by upgrading the skills of the workforce, their employees might be more marketable to competitors and therefore they might be poached by the competitors.
However, employees have a responsibility to keep pace with the growing technology and to remain relevant to the industry by updating their skills.

**Management commitment:** According to Chebat, (1999), organizational management should initiate a good plan which will drive the objectives and goals of the organization to achieve maximum result. Managers should be in the fore-front to make good decision of the company and should deploy support and participate in companies strategic plans. Managers should also make regular checks to make sure the policies are well implemented and rule out unnecessary policies which will not support growth. Managers are also supposed to act by recognizing, communicating and revising various policies for the interest of the company.

The theoretical framework gives a guideline through which TQM practices should be based as well as practices that guide TQM within organizations. However most of the information presented in the theoretical framework presents a general outlook on what TQM practices have not addressed especially sector specific needs, an indication that a research gap remains as far as matching TQM requirements and quality in organizations is concerned. One such sector that is of relevance to this study is TQM practices in relation to the quality of education in Kenya.

### 2.3 Empirical Review of Literature

#### 2.3.1 Quality of education in Kenya

The focus on the quality of education in Kenya is not a new concept as it has been evidently focused by numerous researchers. A study by Richard et al. (2010) examined, the access, cost and quality tensions in the development of primary education in Kenya. The study highlighted the concern that throughout history tensions in expansion of access and containment of cost had led to massive and unmet social demands which led to negative quality impacts.

#### 2.3.2 The TQM strategy by Kenya public education organizations

Various research have been conducted in different public education institutions among them includes, report by Peterson and Prof. Mbeche(2010), among others from the University of Nairobi through the school of business studies. The investigators compiled a comprehensive report on TQM in higher education. There was a need to streamline the education sector in Kenya and it was believed that the findings should give a solution that to the then status of the schools management in Kenya. The Nairobi university case would be used as a sample to all
Universities education in Kenya began in 1963 with a total population of about 561 students, since then tremendous growth of these institutions has been evidenced. More and more universities have come up and the system has undergone commendable expansion and by 1998 there were a maximum of six public universities and 18 private universities.

There are other institutions of higher learning and these include polytechnics and institutions of science and technology. The University of Nairobi being one of oldest institution of higher learning would provide a good case study due to the fact that it had grown big and its demands for better management were mandatory. The study covered the entire Nairobi University including its branches like the Kabete campus. The study covered all the departments more so the department of information communication technology which has continued to witness major changes.

The statement of the problem emphasized the need for quality education rather than mass production. Considering the huge public and private investment in the education sector, there was urgent need to evaluate how impactively the investment is being utilized by examining the quality of the educational infrastructure, the cadre of qualified tutors and other resources in place, and the quality of teaching and learning. The target population included managers that constituted university of Nairobi management. Random sampling was used to obtain the samples from the population.

The study was a case study on the quality management practices in Kenyan educational institutions, particularly at the University of Nairobi. The research relied on records of events that had already taken place; hence, the researcher did not manipulate any casual factors or challenges that the academic managers/management posed to quality management in Universities.

The following data collection instruments were used: questionnaires (both structured and unstructured); interviews (personal interviews which consisted of structured questions; secondary data such as files, pamphlets, office manuals circulars, policy papers and; observations (was done in a structural way). The main instruments for data collection were questionnaires and
document analysis. Questionnaires were used to obtain information from the University’s Management board.

The study recommended that; there should be total commitment to TQM and institutions of higher learning should offer a model implementation Programme through the management putting more emphasizes on the goals and the objectives of the institution. This would help the institution to be focused and remain committed along one direction. This was referred to from Richard et al. (2010); it was suggested that implementation was to begin with drawing up best policy quality statement, implement it and then establish an organization frame work which would guide the process and the management should encourage the involvement of all parties in attaining quality through teamwork.

The workers should be trained and encouraged to adopt the quality assurance methods, problem solving techniques, good communication and enhance customer’s perception as well. TQM would be very important in solving problems in the institutions such as applying team work to resolve the low staff morale, low student performance, class cutting and student failure; this was practically applied in west house college of USA as it was described by Ferzi, (2003). It was found out that most teaching faculty in higher education walk into classrooms with little or no training on how they should deliver their lecture classes, how to facilitate learning or even how to build a learning program. This has been done deliberately by such institution due to the fact that they want to under pay the non-qualified and gain more income for their own interest. This to a great extent has affected the standards of the education given by higher institution of learning. Only the most qualified professionals should be hired; those who are equal to the task.

TQM is very impactsive in higher education since it keeps a track of the entire system and constant up-gradation keeps the quality high. This effort convinces the students that they will be prepared for the market place Clifford, (2008).

TQM requires a change of attitude on the part of an organization's management and staff wherein all workers are encouraged, empowered, and committed to seek out improvements in the process, products, and services and to accept responsibility for solving problems as they arise. It promotes the use of interdisciplinary teams of workers who must work cooperatively and collaboratively to
achieve common objectives and requires the backing of management as evidenced by allocation of time for team meetings and the identification of areas for staff (Langfield (1997),

These pillars to support the quality improvement process reflect a philosophy that places customer satisfaction as the organization's primary goal, with the word "customer" referring to internal customers (workers in other departments who are dependent on receiving high quality work to do their jobs successfully) as well as to external customers (the ultimate users of the product or service) The company therefore has the responsibility to take care of both the internal and external customer; please them to ensure their loyalty to the organization.

Based on the results from data analysis and findings of the research, it was safely concluded that quality infrastructure has been regarded as critical operational issue for an institution to achieve its desired goal of becoming an international Centre of excellence, a quality management policy is important for an organization which is committed to quality service delivery, the management should show evidence of its commitment to the development and implementation of the quality management systems, organizations should to a great extent establish quality objectives including those needed to meet requirements for a product at each (relevant) function and level, a proper documentation of every process is paramount, education institutions should take a corrective action to ensure conformity of the product, when planned results are not achieved; measure and monitor processes to demonstrate the processes ability to achieve planned results; the institutions should also conduct internal audits at planned intervals to determine whether the quality management systems conforms to the requirements of the ISO 9001:2000. The education organizations should also evaluate the need for changes to the quality management systems and provide training or take other actions to satisfy competence needs. This is according to Peterson and prof. Mbeche, (2010)

The institution is to a very great extent faced with following major challenges in the implementation of its quality management system: failure to define the TQM Challenge in the institution’s function; the impact and validity of distance learning; and lastly there is poor utilization of faculty time.

However there are negative impacts posed by the impacts of implementation of the TQM in that the institution has to take a risk of changing the entire system, leaving their traditional procedure
and spend unlimited amount of time and resources on the new system. Even the faculty gets offended as their level of authority and their methods of instructions changes leading to low morale. Even the lack of focus on the new system could lead to worst outcomes.

2.3.3 Extent of practice of TQM at secondary school level in Kenya

Another study undertaken by Waithanji et al (2006) was purposed to investigate the extent to which secondary schools practiced aspects of total quality management (TQM). The purpose of the study was to solicit secondary school teachers' perception on the extent to which school management practiced TQM as indicated by aspects of TQM that are important for the quality of education to be maintained. The aspects included are leadership, empowerment, strategic quality planning and human resource development.

The objective of the study was therefore to establish teachers' perceptions of the extent to which school administration ensured that the above-mentioned aspects of TQM were practiced in their schools. To do this, the study attempted to answer the question: What were the teachers' perceptions of the school administration's extent of practice of TQM as expressed in the four tenets of leadership, empowerment, strategic quality planning and human resources development?

In the Kenya Education Master Plan for Education and Training 1997-2010 it is argued that quality is not mere passing of examinations or certification, but the development of independent, analytical, creative potential of the individual, including critical imagination, spiritual and ethical values. It implies standard agreed criteria for assessment (Government of Kenya, 1998). Saitoti (2003) posited that the major determinants of quality education include curriculum content, relevant instructional materials and equipment, physical facilities, conducive learning environments, the quality of teaching force and assessment and monitoring of learning achievements.

Saitoti concurs with the Master Plan's view that quality education should shift from merely passing exams to encompass the discovery of talents, development of analytical, cognitive and creative potential. It is enhanced by efficient and impactsive management and prudent utilisation of resources.
Saitoti (2003) observed that issues related to quality and relevance of education in Kenya are nebulous. This author argues that the sources of quality improvements may be traced to the sense of competition and the pride institutions and schools whose students do well feel on finding themselves doing better than their rivals in performance. At tertiary level, there is often pressure exerted on every institution based upon the demand for the graduates in the formal employment sector. Githua (2004) views quality assurance in secondary school education in Kenya as a process with a set of criteria ensuring that the education offered is of the highest possible standard and is driven by individual, professional and social demands. The criteria include the quality of learning environment, educational experiences and learning outcomes. Githua further analyses a number of other factors for quality assurance in secondary school education which include: selective entrance criteria for students; stringent staff recruitment procedures; performance related funding; tools for evaluation; and peer review.

TQM in Kenyan secondary schools has been conceptualized by the Education Master Plan 1997-2010 in terms of human resources, curriculum and financial resources (Government of Kenya, 1998).

The statement of the problem for this study entailed the fact that Total quality management, and specifically continuous improvement, is key to school success in terms of its mission, goal and objectives. It is therefore imperative that school leadership put in place mechanisms to ensure that quality assurance practices are being followed in their schools. However, in Kenyan secondary schools, there have been concerns expressed by government bureaucrats, politicians and a big proportion of the public over what they perceive as lack of and/or inadequate quality management practices in schools.

The Sessional Paper No. 1 of Government of Kenya (2005a, p. 44) notes that secondary education has been characterized by poor performance in national examinations, high pupil-textbook shortages in mathematics, a shortage of science teachers, overburdened curriculum, and teacher promotion based on qualifications rather than performance. However, being outsiders, the concerned parties are seen by educational administrators as “intruders” into an area that they know little about. However, the external efficiency of an education system is judged by those who are outside the system including employers and members of the society. From such a
perspective, "intruders" cannot be ignored. A study by Odebero (2002) established that bureaucrats and politicians, who have a big influence on public opinion, are not always driven by motives that are in the interests of the school, but sometimes their own personal agenda takes centre stage. An alternative school of thought argues that teachers, as insiders, are in a much better position to inform as to the behaviour of school management in practicing some aspects of TQM (Painter, 2000). This research therefore is an attempt to establish the extent to which secondary school management utilize various aspects of TQM, as perceived by teachers.

For data collection a purposive sample of 300 teachers, in their first and second year of study of the M.Ed and PDGE programmes participated in the survey. In essence, all of the M.Ed and PGDE student-teachers who were in residence in the month of April 2005, except student-headteachers (head teachers who had enrolled for the SBP) were included in the sample. All the 300 teachers responded to the questionnaire within a span of two weeks. The high return rate was possible given that the respondents were resident and therefore more accessible to the researchers.

The findings of the research were classified into sub topics like leadership, employee empowerment, strategic quality planning and human resource development. From the teachers' perception on leadership, relatively more (47 per cent) teachers were of the view that BOG chairpersons were not providing the necessary leadership that would promote TQM practices necessary for school's continuous improvement. Overall, slightly more (45 per cent as opposed to 42 per cent) teachers were of the opinion that employees are empowered to act and therefore get an opportunity to participate in decision making that improves quality in the school. The overall perception of teachers on school's strategic quality planning (SQP) showed that most of them (47 per cent) were of the opinion that a large proportion of secondary schools' are not committed to SQP. From the overall teachers' perception on the schools human resource development, the indication is that a larger proportion (43 per cent) thought that schools promote human resource development initiatives, while only 34 per cent thought that they do not.

2.3.4 Certification

Recently TQM experts have emphasized on the importance of certification of TQM. This is because TQM has become one of the most important programs in management. The course
should be offered in schools at an affordable price to encourage many people to enroll in it. The TQM course includes all the important tools, techniques and concepts related to TQM and has been developed keeping in mind the requirements of most modern day industries. The Expert Rating Total Quality Management course (leading to certification) is a well researched 100 page online course that has been developed for people who would like to master the science of TQM. The course has been designed so that it is easily understood by beginners and people new to TQM apart from seasoned project managers. In the institutions of higher learning TQM would play a very vital role in resource management and thus it’s advisable that the management adopt this system as first as possible. (Bourgeois and Brodwin (1984)

2.3.5 Standardization

A framework of agreements to which all relevant parties in an industry or organization must adhere to ensure that all processes associated with the creation of a good or performance of a service are performed within set guidelines. This is done to ensure the end product has consistent quality, and that any conclusions made are comparable with all other equivalent items in the same class.

This suggests the establishment of selection, evaluation and re-evaluation procedures, with a good monitoring system to ensure quality production and enhance integrity in the process. Evaluation of these strategies should be done now and then through identifying several areas of competences important for evaluation, for instance, the ability to describe the object and the content of evaluation. Also, it is important to identify a conceptualization plan and an appropriate frame work for evaluation and identifying the correct procedures and evaluation questions.

Management should be enhanced to have an all-inclusive management through management by objectivity, that is, every person in the institution should be respected and be given an opportunity to give his observation. A good system of management should be adopted to allow the subordinates to give their views. This should be considered by the management to achieve all inclusive management practices.

Customer-sensitive plans should be implemented. Customers should be given the top most priority and should be handled with care. The plans should be directed towards the satisfaction of
the customers. The absolute conformance to agreed customer requirements and customer satisfaction should be emphasized through anticipating customer needs and expectations and delivering products and services that delight customers.

Higher institutions of learning, in Kenya, should adopt quality as the fundamental principle by which the institution should conduct itself using the appropriate structure. Quality function strategies will spearhead the needs of the institutions. Every institution needs to have a quality objective. This should guard against erroneous output. Therefore, a quality management policy is important if the organization is fully committed towards achieving quality service delivery to its customers.

A good communication system is to be adopted within the institutions as management errors are problems related to the human element. Therefore, management training in quality concepts should be promoted and a quality circle implemented to enhance communications among all departments, alongside understanding customer needs.

Management Participation and Attitude: A new concept of quality must be introduced and supported by the management. The management should adopt and endeavour to implement the new strategy in the institutions of higher learning such as universities. This is because the programme will never be impactsive if the management do not follow up to ensure that the Programme is impactsive (Mutafelija, (2008).

Measures and Benchmarks: Benchmarking is one of the best practices of management where an organization compares its performance to others who are performing better in the industry. The efforts to improve quality need to be measured to demonstrate whether improvement efforts make impactsive changes to the desired direction of the primary end point or contribute to unintended results in different parts of the system. It will give a measure of the required additional efforts to bring a process back into acceptable ranges. The rationale for measuring quality improvement is the belief that good performance reflects good-quality practice, and that comparing performance among providers and organizations will encourage better performance. There is, therefore, a need to compare with other institutions which are successful, such as the
Harvard University, to apply some of the concepts in management that have enabled the institution to be one of the best performing.

2.3.6 Accreditation
Accreditation is the official approval of TQM, practices in various organizations this has been done through rating and approvals done in such organizations/institutions. Approval has been done on the basis of meeting certain standards that is where structured, systematic process for creating organization-wide participation in planning and implementing continuous improvement in quality. According to TQM literature, quality is defined as meeting or exceeding the customer's expectations. TQM combines a set of management principles with a set of tools and techniques that enable employees to carry out these Management principles in their daily work activities. The principles and tools that define TQM are as follows: customer Focus, quality first and quality in everything, process management, Cross-functional management, employee involvement as described by Peterson and prof. Mbeche, 2010

TQM has been approved in various organizations all over the world, for instance, in Kenya it was approved in Kenya Breweries, Safaricom among others. Outside Kenya, it was approved in Thailand in the hospital through The Hospital Accreditation Standards where various factors were put in scale. These included information and analysis; strategic quality planning; human resource development and management; management of process quality; quality and operational results; and customer focus and satisfaction.

2.3.7 Continuous Employee training
Training of employee is one of the most important steps in achieving quality management as a well-trained employee is disciplined, informed and have up to date skills which are much important for the prosperity of the organization. Studies have shown that the most successful, productive employees are those who have received extensive training. They’re the cream of the crop, often having the strongest stake in the company’s future.

In an ideal world, you would be able to hire people who already possess the exact skills your business needs. But in today’s competitive labour market, demand for skilled workers far exceeds supply (Bourgeois and Brodwin (1984),
The company’s future depends on the ability of the employee, whether or not they are updating their skills due to the dynamism of the technology and completion in the industry, that’s where training comes in. Not only does information arm your employees with the needed professional or technical skills, but it also shows that you have invested in them and that you are interested in bringing them with you into the company’s future. This helps keep workers motivated and involved.

The management, therefore, should lay emphasis on training the employees to ensure they are equipped with the best skills and they become updated in terms of technological advancement. Through employees training the company increases its output, strengthens its industrial relations, improves the general performance and becomes competitive in the market, Clifford, (2008).

Employees are trained for various reasons, to improve their communication skills due to the increasing diversity of today’s workforce which brings a wide variety of languages and customs. Computer skills have become the most important skills in conducting administrative and office tasks. Some machines, such as the type writers, are becoming obsolete; hence an employee who uses them needs to update themselves with computer skills. Customer service is another skill which is considered important in terms of business development. It is of immense concern due to increased competition in today’s global marketplace which makes it critical that employees understand and meet the needs of customers.

2.3.8 Management support and commitment

Strategy implementation must have the involvement of a focused effort from all the employees of an organization in order to cultivate and maintain a TQM philosophy. The application cannot take a piecemeal basis. TQM requires that management, going down to every member of the organization, commit to the need for continual improvement in the accomplishment of work. Business plans, management actions and strategies to necessitate continual rethinking so as to develop a culture that reinforces the TQM perspective. The challenge is to develop a robust culture where the idea of quality improvement is not only widely understood across departments, but becomes a fundamental, deep-seated value within each function area as well.
The HRM can jumpstart the TQM process by becoming a role model. This means that HRM has two specific tasks: "Serving our customers, and making a significant contribution to running the business." This emphasis on customer-oriented service means that the HR department must see other departments in the firm as their customer groups for whom making continuing improvements in service becomes a way of life.

In their efforts to achieve total quality management, HRM can demonstrate commitment to TQM principles by soliciting feedback from its internal customer groups on current HR services. HRM should include suggestions from its customers in setting objective performance standards and measures. In other words, there are a number of specific TQM principles that the HR department can model (Clinton, Williamson & Bethke, 1994).

To be successful, a TQM system must be wholeheartedly accepted by the top management, who, in turn, must convey their commitment to all organizational members. The policy for implementation and maintenance of the TQM system should be set forth in writing and incorporated into the organization's mission and goals statements. The key elements of senior management's role in implementing TQM include institutionalizing the TQM structure as established by stated goals and formal policies and procedures; and provision of leadership as demonstrated by top management's explicit expectations and behavior in everyday activities (Clinton, Williamson & Bethke, 1994).

It is essential that top management set organizational priorities and goals of the organization. The process of setting goals and allocating authority, responsibility, and resources must be continued throughout every level in the organization. The intent is to have every employee's work support the organizational priorities and to have each person know what to do, in measurable terms, to accomplish the goals. In addition, progress must be monitored regularly, according to agreed upon checkpoints, and employees must be rewarded for attaining specified goals.

2.4 Conceptual Framework

A conceptual framework can be defined as a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation (Raps, and Kauffman, 2005). A conceptual framework is a research tool intended to assist a researcher to develop
awareness and understanding of the situation under scrutiny and to communicate this. A conceptual framework is used in research to outline possible courses of action or to present a preferred approach to an idea or thought. According to Chebat, (1999), a conceptual Framework is a basic structure that consists of certain abstract blocks which represent the observational, the experiential and the analytical aspects of a process or system being conceived. The interconnection of these blocks completes the framework for certain expected outcomes. A variable is a measurable characteristic that assumes different values among subjects.

Independent Variables are changes that occur in an experiment that are directly caused by the experimenter. An independent variable is that variable which is presumed to affect or determine a dependent variable. It can be changed as required, and its values do not represent a problem requiring explanation in an analysis, but are taken simply as given. A dependent variable is a variable dependent on another variable: the independent variable. A dependent variable is what you measure in the experiment and what is affected during the experiment. The dependent variable responds to the independent variable (Goold and Quinn, (1990).
The concept of total quality management can be conceptualized as presented above. In this conceptual framework, the independent variables are depicted as certification of programs, standardization of programs, accreditation of programs, continuous employee training and management support and commitment. The dependent variable is the quality of education in Kenya. It is further hypothesized that these five strategies requisite in the achievement of total quality management in education have a direct impact on the quality of education in Kenya. The five strategies and the dependent variable can be confounded by intervening variables like government policies and budget allocation for TQM.
2.5 Critical review of literature

TQM's theoretical weakness breeds practical ambiguity. The middle part of TQM, the plot that should take users from the beginning to a, hopefully, happy ending (i.e., implementation and embeddedness), is rich with practices, processes, lists, and enlightening philosophical notions about the roles and interactions of human beings in their employing organizations. However, TQM fails to provide a clear path to reaching all the expected goals, or even some of them. Not surprisingly, TQM's theoretical incoherence breeds practical ambiguity which renders the implementation process, which is not self-sustaining, a challenge. This ambiguity manifests itself in several ways. At a most basic level, TQM advocates provide no guidelines for implementation. How should management enroll employees/unions in the TQM vision and campaign? How should management balance the needs to encourage employee creativity and, at the same time, control the production system? How can fear be driven out of the North American workplace?

Paradigm issues. TQM advocates fail to recognize that each of the different workplace groups may react differently to the notion of a TQM transformation. The reason being, each group operates out of its own paradigm regarding the TQM intervention, its own understanding of the important variables involved in change, and its own perception of the likely sequence of events once the TQM transformation is initiated. Paradigms are generalized cognitive structures or frameworks that people use to impose structure on and impart meaning to some particular event or domain.

Built-in contradictions. Whereas TQM emphasizes employee control and discretion, its introduction (design, planning and implementation) is a top-down process. Consequently, if not adequately dealt with, TQM built-in contradictions can result in reducing employee empowerment. For example, the tension between standardization of processes and continuous improvement must be clarified, as is the tension between management by fact and creativity. Additionally, quality programs with their single-minded championing of things like zero defects are especially prone to tunnel vision. The champions of the programs may forget to ask -- what all this mean for customers.
Long-term change/short-sighted society. TQM is a long-range organizational transformation involving high commitment and risk. A transformation of this magnitude, concomitantly, builds new competencies and destroys existing ones. This renders the achievement of short-term successes difficult. At the same time, our natural tendency is to look for short, intensive bursts of activity in search of inventions that are breakthroughs that represent a whole new approach to a problem. Another problematic aspect of the long-term nature of successful TQM implementation is that, if TQM has been launched and the market shifts suddenly in a way that threatens the company's existence, naturally the long-term must give way to the urgent (unless, of course, TQM has become the way business is done). Once a long-term strategy has been shelved, it is hard to get it back on-track and enlist the commitment necessary to move it forward.

Having an on-site continuous education/training program is very costly and probably not feasible in small businesses. Yet, small businesses are the fastest growing segment of the economy. Generally, as we mentioned before, the size of organizations may have significant impacts on successful TQM implementation. More information is needed on this relationship.

2.6 Research gaps

Studies have been carried out in the quest of enhancing quality in Kenya’s education sector. Among the studies contributing to quality enhancement in Kenya’s education sectors include; Efficiency of primary education in Kenya by Abagi (1997), Factors affecting quality of FPE in Kenya by Richard (2010) and Total quality management practices in Kenya’s educational institutions by Peterson and Prof. Mbeche (2010). The studies have recommended, focus teacher recruitment by the government, and accountability measures among educational institutions. These studies conducted on total quality management have so far focused on primary and secondary schools but no studies have been conducted on the parastatals under the ministry of education and this creates a need to conduct a study within the parastatals because these organizations are responsible for to undertaking educational activities on behalf of an owner government and any educational strategic changes in the parastatals trickle down to the primary recipients; the students. Additionally, no studies have been undertaken concerning the impacts of total quality management strategies on the quality of education in Kenya and hence a research gap exists.

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Apparently, the solution to the attainment of total quality management in Kenya is far yet to be achieved. Reports of declining quality of education in Kenyan schools have now prompted some educationists to question the impacts of total quality management strategies adopted in the education sector. This therefore creates the need to carry out this study in pursuit of establishing the impacts of TQM strategies adopted by public institutions under the ministry of education.

2.6 Summary

TQM is a measure of Total Quality Management practices in various Institutions. The use of TQM in management has proved beyond reasonable doubt to be a working plan in organizations which have performed marvelous. According to VanVeen-Dirks and Wijn (2002), other companies and Institutions which are interested in prospering must adopt TQM system which will help them to achieve greatly. Research has shown that institutions and companies which have used TQM have risen tremendously to a great standard hence achieving or even surpassing their goals and objectives. Institutions of learning in Kenya should adopt this system to undergo major transition and be competitive in the market like many other institutions from various parts of the world.
CHAPTER THREE:

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter will discuss the methodology that was used in gathering the data, analyzing the data and reporting the results. The chapter will discuss the method the researcher used to select the target population, sample size, instruments of data collection, method of data collection, analysis and presentation of data.

3.2 Design of the Study

A research design is a plan of action that is used to structure the research; to show how all of the major parts of the research project work together to try to address the central research questions. According to Mugenda and Mugenda (1999) the research design provides the glue that holds the research project together. It constitutes a blueprint for the collection, measurement and analysis of data. The research design that will be employed in this study is descriptive research design. The major purpose of descriptive research design is to describe the state of affairs and analyze as it is at the time. According to Mugenda and Mugenda (1999), a descriptive research is a process of collecting data in order to answer questions concerning the current status of the subjects in the study.

3.3 Target Population

Target population in statistics is the specific population about which information is desired. According to Otley (2001), a population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated. This definition ensures that population of interest is homogeneous. The target population for this study was parastatal heads and managers working in the parastatals under the Ministry of Education specifically, Kenya National Examination Council, Teachers Service Commission, Kenya Education Staff Institute and Kenya Institute of Education. These parastatals were selected due to the ease of data collection and the role they played in Kenyas education in respect to the independent variables.
3.4 Sample size and sampling design

The sampling plan describes the sampling unit, sampling frame, sampling procedures and the sample size for the study. The proposed study was a survey on the impacts of total quality management strategies on the quality of education in Kenya, in particular at the parastatals that are under the Ministry of Education. Random sampling was used to select and obtain an appropriate sample from the population. According to Kaplan and Norton (2004), simple random sampling would assist to subdue bias when choosing the population sample.

The sample consisted of managers and parastatal heads in the parastatals under the ministry of education. Out of these cadres, there was a random selection of respondents from each of them. The sample was to conform to the rule of thumb that for it to be a true representation, there should be 30 or more test units in the sample (Fuerer and Chaharbaghi, 1997). In this simple sampling the sample populations were selected on the basis of convenience in the data collection; a sample population of 70 respondents was selected. The subjects of study were 20 managers from Kenya National Examinations Council (K.N.E.C), 20 managers from Teachers Service Commission (T.S.C), 15 managers from Kenya Institute of Education (KIE) and 15 managers from the Kenya Education Staff Institute (K.E.S.I).

<table>
<thead>
<tr>
<th>Institution</th>
<th>Approximate number of managers</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya National Examination Council</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>Teachers Service Commission</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>Kenya Institute of Education</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>Kenya Education Staff Institute</td>
<td>50</td>
<td>15</td>
</tr>
</tbody>
</table>
3.5 Data collection Methods

The following data collection instruments were used: questionnaires (both structured and unstructured), publications, pamphlets, office manuals circulars, policy papers. The main instrument for the data collection was a questionnaire. The questionnaires were used to obtain primary data from the parastatal heads and managers in different cadres. The questionnaires contained questions which were closed ended, likert and open ended question. This type of questions were accompanied by a list of possible alternatives from which respondents were required to select the answer that best describes their situation. According to Reed, (1988), the main advantage of closed ended questions is that they are easy to analyze since they are in their immediate usable form. They are also easy to administer because each time is followed by an alternative answer and is economical to use in terms of time saving. Secondary data was obtained from the publications, pamphlets, office manuals circulars, policy papers and media reports. The respondents were allowed a fair platform when answering their interview questions.

3.5.1 Data Collection Procedure

For the purpose of collecting primary data, Primary data is the information the researcher obtains from the field. The primary data was sought due to it nearness to the truth and ease for control over errors Rapert, Velliquette and Garretson, (2002). Primary data was collected using semi structured questionnaires. The questionnaires were administered through drop and pick methods. The questionnaires were used because they allow the respondent to give their responses in a free environment and help the researcher get information that would have been given out had interviews be used. The questionnaires were self-administered to all the respondents.

3.6 Data analysis

For data collected to be meaningful, it needs to be analyzed in a way that it is easy to be understood by the common man. This includes analysis of data to summarize the essential features and relationships of data in order to generalise from the analysis to determine patterns of behaviour and particular outcomes. Data analysis was based on the research questions that were designed at the beginning of the research. Descriptive analysis was used
employed; which included mean, frequencies and percentages. The reliability and validity of the research instrument was tested by doing a pre-test.

Responses in the questionnaires were tabulated, coded and processed by use of a computer. 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 analysed quantitatively on the basis of the variables to be highlighted. The Statistical Package for Social Science (SPSS) programme was used to analyse the data quantitatively, make conclusions and recommendations from the study. Descriptive statistics was used, especially the mean, to determine the most frequent response on the factor under study. The mean was also be used to determine the average response of the relationships between the variables under study.

3.7 Data Presentation

The presentation of the data utilized frequency tables and charts. These tools were selected for their clarity, preciseness, ease of understanding and interpretation.
4.0 DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents analysis and findings of the research. From the study population target of 70 respondents, 70 respondents filled and returned their questionnaires, constituting 100% response rate. Data analysis was done through Statistical Package for Social Scientists (SPSS). Frequencies and percentages were used to display the results which were presented in tables, charts and graphs.

4.2 General information

Figure 4.1: Distribution of respondents by Gender

From the findings on the gender of the respondents, the study found that 66.7% of the respondents indicated that they were males whereas 33.3% of the respondents indicated that they were females, this shows that the majority of the managers in the parastatals under the ministry of education were males.
From the findings on the designation, from the results shown in figure 4.3, 84.4% of the respondents indicated that they were managers, whereas 15.6% of the respondents indicated they were departmental heads.

Figure 4.3: Level of education

On the respondent highest level of education, the study found that 21.43% of the respondents indicated they had attained Master’s degree, 47.14% had attained undergraduate degrees, and 31.43% were college graduates. This information shows that majority of the managers and
departmental heads in the parastatals under the ministry of education were graduates from university.

Table 4.1: Length of time in the parastatal

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 3 years</td>
<td>2</td>
<td>2.86</td>
</tr>
<tr>
<td>3 years to 7 years</td>
<td>23</td>
<td>32.86</td>
</tr>
<tr>
<td>8 years to 12 years</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td>More than 12 years</td>
<td>24</td>
<td>34.29</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>

On the length of time the respondents had been in their respective parastatals, the study found out that 2.86% of the respondents indicated that they had been in their respective parastatals for less than three years, 32.86% indicated that they had been in their parastatals for between 3 to 7 years, 30% indicated that they had been in the parastatal for between eight to twelve years whereas 34.29% of the respondents indicated that they had been in their respective parastatals for more than twelve years, this shows that majority of the respondents had been in their respective parastatals long enough to understand the subject under the study and give credible information to the study. The study sought to establish the impacts of total quality management strategies employed by the ministry of education on the quality of education in Kenya.

4.3 Certification of TQM programs in the Parastatals under the ministry of education

Table 4.2: Extent to which the parastatals certify members with TQM

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>low extent</td>
<td>24</td>
<td>34.29</td>
</tr>
<tr>
<td>moderate extent</td>
<td>32</td>
<td>45.71</td>
</tr>
<tr>
<td>great extent</td>
<td>12</td>
<td>17.14</td>
</tr>
<tr>
<td>very great extent</td>
<td>2</td>
<td>2.86</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>
From the findings on the extent to which the parastatals under the ministry of education have had their staff certified with TQM courses the study found out that 2.86% of the respondents indicated to a very great extent, those who indicated great extent were 17.14%, those who indicated moderate extent were 45.71% whereas 34.29% of the respondents indicated to a low extent, this shows that the parastatals under the ministry of education have certified their staff with TQM to a low extent.

Table 4.3: Rating effect of certification style on the implementation of TQM strategies

<table>
<thead>
<tr>
<th>Certification Style</th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>No extent at all</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online certification (e-learning)</td>
<td>32</td>
<td>24</td>
<td>12</td>
<td>2</td>
<td>0</td>
<td>1.3333</td>
<td>.80230</td>
</tr>
<tr>
<td>On the job training</td>
<td>28</td>
<td>22</td>
<td>15</td>
<td>5</td>
<td>0</td>
<td>1.9667</td>
<td>.85029</td>
</tr>
<tr>
<td>Pedagogical lessons and seminars</td>
<td>14</td>
<td>29</td>
<td>9</td>
<td>18</td>
<td>0</td>
<td>1.8333</td>
<td>.69893</td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>38</td>
<td>0</td>
<td>1.8761</td>
<td>.71233</td>
</tr>
</tbody>
</table>

From the findings on the respondent rating the extent to which various types of certification styles of TQM, the study found that majority of the respondents rated online certification to a very great extent as shown by mean of 1.3333, on the job training as shown by mean of 1.9667, pedagogical lessons and seminars as shown by mean of 1.8333 and apprenticeship as shown by a mean of 1.8761. This was supported by low standard deviation an indication that the respondents didn’t vary much in their opinion.
Table 4.4 Rating statements on the impacts of certification of programs on the quality of education in Kenya

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certification of programs has a positive impact on the quality of education</td>
<td>62</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.7333</td>
<td>.58329</td>
</tr>
<tr>
<td>Certification of programs has a negative impact on the quality of education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>68</td>
<td>2.1333</td>
<td>.86037</td>
</tr>
</tbody>
</table>

From the findings on the respondent rating statements on the impacts of certification of programs on the quality of education in Kenya, the study found that the certification of programs has a positive impact on the quality of education as shown by a mean of 1.7333. This was supported by a low standard deviation an indication that the respondents didn’t vary much in their opinion.

Table 4.5. Extent to which certification of programs faces challenges in the parastatals under the ministry of education in Kenya

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>low extent</td>
<td>3</td>
<td>4.29</td>
</tr>
<tr>
<td>moderate extent</td>
<td>9</td>
<td>12.86</td>
</tr>
<tr>
<td>great extent</td>
<td>26</td>
<td>37.14</td>
</tr>
<tr>
<td>very great extent</td>
<td>32</td>
<td>45.71</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From the findings on the extent to which the certification of TQM faces challenges in the parastatals under the ministry of education the study found out that 4.29% of the respondents
indicated to a low extent, 12.86% indicated to a moderate extent, 37.14% indicated to a great extent while as 45.71% indicated to a very great extent. This shows that the certification of TQM by the parastatals under the ministry of education faces challenges to a very great extent.

The study revealed that the various parastatals under the ministry of education have adopted TQM certification programs to a low extent. The fact that most staff in the parastatals under the ministry of education in Kenya have not undertaken assessment and have not been certified with TQM is of immense significance because it means that most staff have not been made aware of the utmost importance of the TQM course. The certification style used by the parastatals under the ministry of education in Kenya was to a very great extent through online certification where online TQM programs were designed and the staff are supposed to read and undertake the various courses on the principles of TQM. The online course is preferred because it is always available in the system and one can always refer to the TQM content at a personal level. The study also revealed that certification of programs has a positive impact on the quality of education in Kenya. This is because certification impacts knowledge, skills and attitudes requisite to improved quality of education. The study also revealed that there exists challenges in the certification of TQM programs a very great extent. This implies that the no stringent measures for follow up on whether all staff have completed the TQM course have been put in place.

4.4 Accreditation of TQM in the parastatals under the ministry of education

Table 4.6: Extent to which the parastatals under the ministry of education have been accredited with TQM

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>very great extent</td>
<td>48</td>
<td>68.57</td>
</tr>
<tr>
<td>great extent</td>
<td>13</td>
<td>18.57</td>
</tr>
<tr>
<td>moderate extent</td>
<td>9</td>
<td>12.86</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>
From the findings on the extent to which the parastatals under the ministry of education have been accredited with TQM, the study found out that 68.57% of the respondents indicated a very great extent, 18.57% indicated great extent while 12.86% indicated moderate extent. This depicts that the parastatals under the ministry of education have been accredited with TQM to a great extent.

Table 4.7 Rating statements on the impacts of accreditation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>No extent at all</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accreditation of TQM has helped to immensely improve the quality standards in my parastatal</td>
<td>54</td>
<td>12</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1.7000</td>
<td>1.31306</td>
</tr>
<tr>
<td>Accreditation resulted to improved employee morale and efficiency</td>
<td>38</td>
<td>18</td>
<td>8</td>
<td>6</td>
<td>0</td>
<td>2.3000</td>
<td>1.11880</td>
</tr>
<tr>
<td>Accreditation has caused my parastatal to change processes to ensure conformance</td>
<td>52</td>
<td>12</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>1.7667</td>
<td>1.36510</td>
</tr>
</tbody>
</table>

From the findings on the respondents rating on the impacts of accreditation of TQM on the parastatals under the ministry of education, the study found that majority of respondents agreed that the accreditation of TQM has helped to improve the quality standards in the parastatals to a very great extent, as shown by a mean of 1.7000. Accreditation of TQM has resulted to improved employee morale and efficiency as shown by a mean of 2.3000, and that accreditation of TQM has caused the parastatals under the ministry of education to change their processes to ensure conformance to the requirements of ISO 9000 as shown by a mean of 1.7667.
Table 4.8. Extent to which accreditation of TQM faces challenges in the parastatals under the ministry of education

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>moderate extent</td>
<td>8</td>
</tr>
<tr>
<td>low extent</td>
<td>20</td>
</tr>
<tr>
<td>No extent at all</td>
<td>42</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
</tr>
</tbody>
</table>

From the findings on the extent to which the accreditation of TQM faces challenges in the parastatals under the ministry of education the study found out that 60% of the respondents indicated to a no extent at all, 28.57% indicated to a low extent, while as 11.43% indicated to a moderate extent. This shows that the accreditation of TQM by the parastatals under the ministry of education on average faces no challenges at all.

The study revealed that the parastatals under the ministry of education in Kenya had been accredited with TQM to a very great extent. This implies that these parastatals have been ISO 9000 certified to a very great extent, and reveals that the parastatals under the ministry of education in Kenya have made significant efforts to provide high quality education to the citizens of this country. The study also revealed that the accreditation of TQM has helped to immensely improve the quality standards in the parastatals to a very great extent. Accreditation has also resulted to improved employee morale and efficiency to a very great extent, and hence the employees are so far satisfied with the impacts of TQM on the quality of education in Kenya.

The study found out that accreditation has caused the parastatals under the ministry of education to change processes to ensure conformance to a very great extent and this signifies that the management in the parastatals under the ministry of education in Kenya are determined to ensure quality is a core focus in their respective institutions. This study also discovered that the quest to have the parastatals under the ministry of education in Kenya accredited for TQM faces challenges to a rating of no extent at all. This means that the Kenyan government is committed to
produce high quality education although there still exists some inherent challenges within the system.

4.5 Standardization of TQM principles in the parastatals under the ministry of education

Table 4.9: Extent to which the parastatals under the ministry of education have standardized TQM principles

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>low extent</td>
<td>42</td>
</tr>
<tr>
<td>moderate extent</td>
<td>14</td>
</tr>
<tr>
<td>great extent</td>
<td>12</td>
</tr>
<tr>
<td>very great extent</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
</tr>
</tbody>
</table>

From the findings on the extent to which the parastatals under the ministry of education have standardized TQM principles the study found out that 2.86% of the respondents indicated to a very great extent, 17.14% indicated to a great extent, 20% indicated moderate extent whereas 60% of the respondents indicated to a low extent, this shows that the parastatals under the ministry of education have standardized TQM principles to a low extent.

Table 4.10 Rating statements on the extent to which the parastatals under the ministry of education have standardized TQM principles

<table>
<thead>
<tr>
<th></th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy objectives</td>
<td>19</td>
<td>24</td>
<td>27</td>
<td>0</td>
<td>1.8333</td>
<td>.69893</td>
</tr>
<tr>
<td>Customer feedback systems</td>
<td>18</td>
<td>52</td>
<td>0</td>
<td>0</td>
<td>1.0664</td>
<td>.25371</td>
</tr>
<tr>
<td>Customer satisfaction surveys</td>
<td>16</td>
<td>54</td>
<td>0</td>
<td>0</td>
<td>1.1682</td>
<td>.26531</td>
</tr>
<tr>
<td>Quality function strategies</td>
<td>19</td>
<td>19</td>
<td>32</td>
<td>0</td>
<td>1.8232</td>
<td>.71221</td>
</tr>
<tr>
<td>Communication systems</td>
<td>17</td>
<td>21</td>
<td>32</td>
<td>0</td>
<td>1.1661</td>
<td>.26623</td>
</tr>
</tbody>
</table>
From the findings on the respondents rating on the impacts of extent to which the parastatals under the ministry of education have standardized TQM principles, the study found out that majority of the respondents rated Customer satisfaction surveys to a great extent as shown by a mean of 1.1682, communication systems as shown by mean of 1.1661, customer feedback systems as shown by mean of 1.0664, Quality function strategies as shown by a mean of 1.8232, and policy objectives as shown by a mean of 1.8333.

Table 4.11. Extent to which the standardization of TQM principles faces challenges in the parastatals under the ministry of education

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No extent at all</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>low extent</td>
<td>18</td>
<td>25.71</td>
</tr>
<tr>
<td>moderate extent</td>
<td>38</td>
<td>54.29</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From the findings on the extent to which the standardization of TQM principles faces challenges in the parastatals under the ministry of education the study found out that 20% of the respondents indicated to a no extent at all, 25.71% indicated to a low extent, while as 54.29% indicated to a moderate extent. This shows that the standardization of TQM principles by the parastatals under the ministry of education on average faces moderate challenges.

The study revealed that the parastatals under the ministry of education in Kenya have standardized TQM principles to a low extent. These means that the parastatals under the ministry of education have not recognized the importance of standardization of TQM principles across all the departments. Standardization of the principles of TQM across all the departments in an organization contributes immensely towards the achievement of the institutions common goals and mission. The study also showed that the parastatals under the ministry of education in Kenya have standardized the following TQM strategies to a moderate extent; Policy objectives, customer feedback systems, customer satisfaction surveys, quality function strategies and
communication systems. The standardization of these TQM principles is of great importance because it contributes in setting performance targets for the workers and also contributes to the workers team spirit. It acts as a guideline for achieving high quality within the organization to ensure customer satisfaction and continuous improvement. The study also revealed that there exists challenges in the standardization of TQM principles but to a moderate extent. This means that the parastatals under the ministry of education have not put in adequate measures to ensure even standardization of TQM strategies within the parastatals under the ministry of education.

4.6 Continuous employee training in the parastatals under the ministry of education

Table 4.12: Extent to which the parastatals under the ministry of education apply continuous employee training on TQM (ISO 9000) to ensure conformance

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>very great extent</td>
<td>4</td>
<td>5.71</td>
</tr>
<tr>
<td>great extent</td>
<td>13</td>
<td>18.57</td>
</tr>
<tr>
<td>moderate extent</td>
<td>53</td>
<td>75.71</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From the findings on the extent to which the parastatals under the ministry of education apply continuous employee training on TQM (ISO 9000) to ensure conformance, the study found out that 5.71 % of the respondents indicated to a very great extent, 18.57% indicated to a great extent, 75.71% indicated to a moderate extent this shows that the parastatals under the ministry of education apply continuous employee training on TQM (ISO 9000) to ensure conformance to a moderate extent.

Table 4.13: Rating effect on how the parastatals under the ministry of education applies continuous employee training on TQM

<table>
<thead>
<tr>
<th></th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>No extent at all</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online (e learning)</td>
<td>52</td>
<td>17</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1.8233</td>
<td>.69893</td>
</tr>
<tr>
<td>Pedagogical lessons</td>
<td>48</td>
<td>16</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>1.9867</td>
<td>.85029</td>
</tr>
<tr>
<td>On-the job learning</td>
<td>24</td>
<td>20</td>
<td>16</td>
<td>10</td>
<td>0</td>
<td>1.3333</td>
<td>.80330</td>
</tr>
</tbody>
</table>
From the findings on the respondents rating on how the parastatals under the ministry of education applies continuous employee training on TQM, the study found out that majority of the respondents rated Online (e learning) to a very great extent as shown by a mean of 1.8233, Pedagogical lessons as shown by mean of 1.9867 and On the job learning as shown by mean of 1.3333. This was supported by low standard deviation an indication that respondent didn’t vary much in their opinion.

Table 4.14 Rating statements on the impacts of continuous employee training on the quality of education in Kenya

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous employee training has a positive impact on the quality of education</td>
<td>62</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.8233</td>
<td>.56629</td>
</tr>
<tr>
<td>Continuous employee training has a negative impact on the quality of education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>67</td>
<td>2.0333</td>
<td>.87337</td>
</tr>
</tbody>
</table>

From the findings on the respondent rating statements on the impacts of continuous employee training on the quality of education in Kenya, the study found that continuous employee training has a positive impact on the quality of education in Kenya as shown by a mean of 1.8233. This was supported by a low standard deviation an indication that the respondents didn’t vary much in their opinion.
From the findings on the extent to which continuous employee training on TQM principles faces challenges in the parastatals under the ministry, the study found out that 2.86% of the respondents indicated to a no extent at all, 24.29% indicated to a low extent, while as 72.86% indicated to a moderate extent. This shows that the continuous employee training on TQM principles by the parastatals under the ministry of education in Kenya faces challenges to a moderate extent.

The study revealed that the parastatals under the ministry of education conduct continuous employee training on the principles of Total quality management to a moderate extent. This should not be the case because a well-trained employee is disciplined, informed and have up to date skills which are much important for the prosperity of the organization. The parastatals under the ministry of education in Kenya conduct e learning, pedagogical lessons and on the job training on the principles of total quality management to a great extent. From the findings on the respondent rating statements on the impacts of continuous employee training on the quality of education in Kenya, the study found that continuous employee training has a positive impact on the quality of education in Kenya. Continuous employee training is meant to ensure that the employees are well updated on what they are required to do in order to ensure high quality standards are maintained in the institutions in which they work.

This continuous training also ensures that there is continuous improvement in the parastatals’ processes and the organization’s culture changes concurrently with the dynamism in the global world. The study also revealed that there exist challenges to continuous employee training in the parastatals under the ministry of education but to a moderate extent. This means that the

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate extent</td>
<td>51</td>
<td>72.86</td>
</tr>
<tr>
<td>Low extent</td>
<td>17</td>
<td>24.29</td>
</tr>
<tr>
<td>No extent at all</td>
<td>2</td>
<td>2.86</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>
parastatals under the ministry of education in Kenya have not completely put in measures to ensure there are no challenges to employee training on total quality management.

4.7 Managerial support and commitment in the parastatals under the ministry of education

Table 4.16: Extent to which the management in parastatals under the ministry of education in Kenya is supportive and committed to TQM (ISO 9000)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>very great extent</td>
<td>56</td>
</tr>
<tr>
<td>great extent</td>
<td>10</td>
</tr>
<tr>
<td>moderate extent</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
</tr>
</tbody>
</table>

From the findings on the extent to which the parastatals under the ministry of education are supportive and committed to TQM, the study found out that 80% of the respondents indicated a very great extent, 14.29% indicated great extent while 5.71% indicated moderate extent. This depicts that the management in the parastatals under the ministry of education are supportive and committed to ISO TQM to a great extent.

Table 4.17: Rating effect of management styles on implementation of TQM practices in the parastatals under the ministry of education in Kenya

<table>
<thead>
<tr>
<th>Management Style</th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>Not at all</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformational style</td>
<td>45</td>
<td>10</td>
<td>9</td>
<td>6</td>
<td>0</td>
<td>2.1</td>
<td>0.99481</td>
</tr>
<tr>
<td>Transactional style</td>
<td>6</td>
<td>14</td>
<td>38</td>
<td>12</td>
<td>0</td>
<td>2.2333</td>
<td>0.86834</td>
</tr>
<tr>
<td>Autocratic style</td>
<td>7</td>
<td>19</td>
<td>14</td>
<td>30</td>
<td>0</td>
<td>2.3333</td>
<td>0.78855</td>
</tr>
</tbody>
</table>

From the findings on the respondent rating on the extent to which the various types of management/leadership styles affect TQM practices in the parastatals under the ministry of education, the study found that the majority of the respondents rated transformational style to a great extent as shown by mean of 2.1000, transactional style as shown by mean of 2.2333 and...
autocratic style as shown by mean of 2.3333. This was supported by low standard deviation an
dICATION that respondents didn’t vary much in their opinion

Table 4.18: Rating statements on management styles

<table>
<thead>
<tr>
<th>Transformational leadership/management attributes are associated with proper implementation of TQM strategies in your parastatal</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>58</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>1.7333</td>
<td>.58329</td>
</tr>
<tr>
<td>Transformational leadership/management role is to show consideration in the implementation of TQM strategies in parastatal management</td>
<td>52</td>
<td>12</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>2.1333</td>
<td>.86037</td>
</tr>
</tbody>
</table>

From the findings on the respondent rating on the extent to which statements on management styles in reference to implementation of TQM strategies in the parastatals under the ministry of education, the study found that majority of respondents agreed that transformational leadership attributes are associated with proper implementation of TQM strategies as shown by mean of 1.7233 and transformational leadership role is to show consideration in the implementation of TQM strategies as shown by mean of 2.3333, this was supported by low standard deviation an indication that respondent didn’t vary much in their opinion.

Table 4.19. Extent to which the managerial support and commitment on TQM principles faces challenges in the parastatals under the ministry of education

<table>
<thead>
<tr>
<th>Extent to which the managerial support and commitment on TQM principles faces challenges</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate extent</td>
<td>3</td>
<td>4.29</td>
</tr>
<tr>
<td>Low extent</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>No extent at all</td>
<td>53</td>
<td>75.71</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>
From the findings on the extent to which managerial support and commitment on TQM principles faces challenges in the parastatals under the ministry of education, the study found out that 75.71% of the respondents indicated to a no extent at all, 20% indicated to a low extent, while as 4.29% indicated to a moderate extent. This shows that the managerial support and commitment on TQM principles by the parastatals under the ministry of education on average faces no challenges at all.

The study revealed that the management in the parastatals under the ministry of education are supportive of Total quality management to a very great extent. This is important because to be successful, a TQM system must be wholeheartedly accepted by the top management, who, in turn, must convey their commitment to all organizational members. Management is the art and science of getting things done by people and for the employees in the parastatals under the ministry of education to implement TQM principles, they need the management to support and guide them. This study also revealed that the management styles within the various departments in the parastatals under the ministry of education also differ in the way they contribute to the impacting of TQM principles.

Transformational management style enhances implementation of TQM strategies to a very great extent. This is because transformational managers are open to change and the fact that transformational leadership enhances the motivation, morale and performance of followers through connecting the follower's sense of identity and self to the mission and the collective identity of the organization; being a role model for followers that inspires them; challenging followers to take greater ownership for their work, and understanding the strengths and weaknesses of followers, so the leader can align followers with tasks that optimize their performance.

On the other hand transactional management contributes to the implementation of TQM in the parastatals under the ministry of education to a moderate extent. This is because it is a style of leadership in which the leader promotes compliance of his followers through both rewards and punishments. Unlike Transformational leadership, managers using the transactional approach are not looking to change the future, they are looking to merely keep things the same. These leaders pay attention to followers' work in order to find faults and deviations.

On the extreme end autocratic management style contributes to a low extent towards the
implementation of TQM strategies. This is because Autocratic management style, also known as authoritarian management style, is a style characterized by individual control over all decisions and little input from group members. Autocratic leaders typically make choices based on their own ideas and judgments and rarely accept advice from followers.

The study also revealed that there exists almost no challenges to management support and commitment to TQM in the parastatals under the ministry of education. This means that the educational parastatals have put in measures to ensure there are no challenges to management support and commitment on total quality management and consequently this reveals the support and commitment of the Kenyan government to TQM in the parastatals under the ministry of education.
CHAPTER FIVE:

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

From the analysis of the data collected, the following discussions, conclusions and recommendations were made. The responses were based on the objectives of the study, which were to study the impacts of certification of programs on the quality of education in Kenya, to establish the impacts of standardization on the quality of education in Kenya, to find out the impacts of accreditation on the quality of education in Kenya, to examine the impacts of continuous employee training on the quality of education in Kenya and to study the impacts of management support and commitment on the quality of education in Kenya.

5.2 Discussions and findings

From the findings on the extent to which the parastatals under the ministry of education have had their staff certified with TQM courses the study found out that 34.29% of the respondents indicated to a low extent, this shows that the parastatals under the ministry of education have certified their staff with TQM to a low extent. From the findings on the respondents rating on the extent to which the various types of certification styles of TQM are used by the parastatals, the study found that majority of the respondents rated online certification to a very great extent. From the findings on the respondent rating statements on the impacts of certification of programs on the quality of education in Kenya, the study found that the certification of programs has a positive impact on the quality of education. From the findings on the extent to which the certification of TQM faces challenges in the parastatals under the ministry of education the study found out that 45.71% of the respondents indicated to a very great extent.

The study revealed that the various parastatals under the ministry of education have adopted TQM certification programs to a low extent. The fact that most staff in the parastatals under the ministry of education in Kenya have not undertaken assessment and have not been certified with TQM is of immense significance because it means that most staff are not made aware of the
utmost importance of the TQM course. The certification style used by the parastatals under the ministry of education in Kenya was to a very great extent through online certification where online TQM programs were designed and the staff were supposed to read and undertake the various courses on the principles of TQM. The online course is preferred because it is always available in the system and one can always refer to the TQM content at a personal level. The study also revealed that certification of programs has a positive impact on the quality of education in Kenya. This is because certification impacts knowledge, skills and attitudes requisite to improved quality of education. The study also revealed that there exists challenges in the certification of TQM programs a very great extent. This implies that there no stringent measures that have been put in place for follow up on whether all staff have completed the TQM course parastatals under the ministry of education.

From the findings on the extent to which the parastatals under the ministry of education have been accredited with TQM, the study found out that 68.57% of the respondents indicated a very great extent, this indicates that the parastatals under the ministry of education have been accredited with TQM to a very great extent. From the findings on the respondents rating on the impacts of accreditation of TQM on the parastatals under the ministry of education, the study found that majority of respondents agreed that the accreditation of TQM has helped to improve the quality standards in the parastatals to a very great extent. From the findings on the extent to which the accreditation of TQM faces challenges in the parastatals under the ministry of education the study found out that 60% of the respondents indicated to a no extent at all.

The study revealed that the parastatals under the ministry of education in Kenya had been accredited for TQM to a very great extent. This implies that these parastatals have been ISO 9000 certified to a very great extent, and reveals that the parastatals under the ministry of education in Kenya have made significant efforts to provide high quality education to the citizens of this country. The study also revealed that the accreditation of TQM has helped to immensely improve the quality standards in the parastatals to a very great extent, accreditation has also resulted to improved employee morale and efficiency to a very great extent, and hence the employees are so far satisfied with the impacts of TQM on the quality of education in Kenya. The study found out that accreditation has caused the parastatals under the ministry of education to change processes to ensure conformance to a very great extent and this signifies that the
management in the parastatals under the ministry of education in Kenya are determined to ensure quality is a core focus in their respective institutions. This study also discovered that the quest to have the parastatals under the ministry of education in Kenya accredited for TQM faces challenges to a level of no extent at all. This means that the Kenya government is committed to produce high quality education although there still exists some inherent challenges within the system.

From the findings on the extent to which the parastatals under the ministry of education have standardized TQM principles the study found out that 60% of the respondents indicated to a very low extent, this shows that the various principles of TQM have sparsely been standardized in the parastatals under the ministry of education. From the findings on the respondents rating on the impacts of extent to which the parastatals under the ministry of education have standardized TQM principles, the study found out that majority of the respondents rated Customer satisfaction surveys and customer feedback systemsto a great extent. From the findings on the extent to which the standardization of TQM principles faces challenges in the parastatals under the ministry of education the study found out that 54.29% of the respondents indicated to a moderate extent.

The study revealed that the parastatals under the ministry of education in Kenya have standardized TQM principles to a low extent. These means that the parastatals under the ministry of education have not recognized the importance of standardization of TQM principles across all the departments. Standardization of the principles of TQM across all the departments in an organization contributes immensely towards the achievement of the institutions common goals and mission. The study also showed that the parastatals under the ministry of education in Kenya have standardized the following TQM strategies to a moderate extent; Policy objectives, customer feedback systems, customer satisfaction surveys, quality function strategies and communication systems. The standardization of these TQM principles is of great importance because it contributes in setting performance targets for the workers and also contributes to the workers team spirit. It acts as a guideline for achieving quality within the organization to ensure customer satisfaction and continuous improvement. The study also revealed that there exists challenges in the standardization of TQM principles but to a moderate extent. This means that
the parastatals under the ministry of education have not put in adequate measures to ensure even standardization of TQM strategies within the parastatals under the ministry of education.

From the findings on the extent to which the parastatals under the ministry of education apply continuous employee training on TQM (ISO 9000) to ensure conformance, the study found out that 75.71% indicated to a moderate extent this shows that the parastatals under the ministry of education apply continuous employee training on TQM (ISO 9000) to ensure conformance to a moderate extent.

From the findings on the respondents rating on how the parastatals under the ministry of education applies continuous employee training on TQM, the study found out that majority of the respondents rated Online (e learning) to a very great extent. From the findings on the extent to which continuous employee training on TQM principles faces challenges in the parastatals under the ministry, the study found out that 72.86% of the respondents indicated to a no extent at all.

The study revealed that the parastatals under the ministry of education conduct continuous employee training on the principles of Total quality management to a moderate extent. This should not be the case because a well-trained employee is disciplined, informed and have up to date skills which are much important for the prosperity of the organization. The parastatals under the ministry of education in Kenya conduct e learning, pedagogical lessons and on the job training on the principles of total quality management to a great extent. From the findings on the respondent rating statements on the impacts of continuous employee training on the quality of education in Kenya, the study found that continuous employee training has a positive impact on the quality of education in Kenya. Continuous employee training is meant to ensure that the employees are well updated on what they are required to do in order to ensure high quality standards are maintained in the institutions in which they work. This continuous training also ensures that there is continuous improvement in the parastatals’ processes and the organization’s culture changes concurrently with the dynamism in the global world. The study also revealed that there exists challenges to continuous employee training in the parastatals under the ministry of education but to a moderate extent. This means that the parastatals under the ministry of education in Kenya have not completely put in measures to ensure there are no challenges to employee training on total quality management.
From the findings on the extent to which the parastatals under the ministry of education are supportive and committed to TQM, the study found out that 80% of the respondents indicated a very great extent. This shows that the management in the parastatals under the ministry of education are highly supportive and committed to TQM standard in education in Kenya. From the findings on the respondent rating on the extent to which the various types of management/leadership styles affect TQM practices in the parastatals under the ministry of education, the study found that the majority of the respondents rated transformational style to a great extent. From the findings on the respondent rating the extent to which statements on management styles in reference to implementation of TQM strategies in the parastatals under the ministry of education, the study found that majority of respondents agreed that transformational leadership attributes are associated with proper implementation of TQM strategies. From the findings on the extent to which managerial support and commitment on TQM principles faces challenges in the parastatals under the ministry of education, the study found out that 75.71% of the respondents indicated to a no extent at all.

The study revealed that the management in the parastatals under the ministry of education are supportive of Total quality management to a very great extent. This is important because to be successful, a TQM system must be wholeheartedly accepted by the top management, who, in turn, must convey their commitment to all organizational members. Management is the art and science of getting things done by people and for the employees in the parastatals under the ministry of education to implement TQM principles, they need the management to support and guide them. This study also revealed that the management styles within the various departments in the parastatals under the ministry of education also differ in the way they contribute to the impacting of TQM principles.

Transformational management style enhances implementation of TQM strategies to a very great extent. This is because transformational managers are open to change and the fact that transformational leadership enhances the motivation, morale and performance of followers through connecting the follower's sense of identity and self to the mission and the collective identity of the organization; being a role model for followers that inspires them; challenging followers to take greater ownership for their work, and understanding the strengths and weaknesses of followers, so the leader can align followers with tasks that optimize their performance.
On the other hand transactional management contributes to the implementation of TQM in the parastatals under the ministry of education to a moderate extent. This is because it is a style of leadership in which the leader promotes compliance of his followers through both rewards and punishments. Unlike Transformational leadership, managers using the transactional approach are not looking to change the future; they are looking to merely keep things the same. These leaders pay attention to followers' work in order to find faults and deviations.

On the extreme end autocratic management style which contributes to a very low extent towards the implementation of TQM strategies. This is because Autocratic management style, also known as authoritarian management style, is a style characterized by individual control over all decisions and little input from group members. Autocratic leaders typically make choices based on their own ideas and judgments and rarely accept advice from followers.

The study also revealed that there exists almost no challenges to management support and commitment to TQM in the parastatals under the ministry of education. This means that the Kenyan government has put in measures to ensure there are no challenges to management support and commitment on total quality management and consequently this reveals the support and commitment of the Kenyan government to TQM in the parastatals under the ministry of education.

5.3 Conclusion

The study found out that the parastatals under the ministry of education had not had their staff fully certified with TQM courses to a great extent. The study concludes that for there to be high quality education in the Kenya, all the departments and offices under the ministry of education should have their staff certified with TQM courses so that they can have the requisite knowledge, skills and attitudes to implement the TQM principles on the ground including but not limited to customer satisfaction, continuous process improvement, management by facts and by objectives.

The study found that most of the parastatals under the ministry of education had been accredited with ISO 9000 quality management standards. The study advocates for TQM accreditation for all the departments and offices under the ministry of education in Kenya so that all the relevant stakeholders may observe quality management systems in reference to conformity to
requirements of ISO 9000. The focus should be on areas like worker training, job description, inspection programs, statistical process control, and methods to monitor quality. Additionally, accreditation should not be an one off event, rather it should be monitored by the relevant professional bodies for continued compliance to the standards.

The study found that the parastatals under the ministry of education have not standardized TQM principles to a great extent. The lack of standardization of TQM principles results to incoherence and inconsistencies in the whole education system. This is because the departments do not work in sync and each works independently of the other resulting to disparate outputs. The study suggests that since all the stakeholders are focusing towards improving the quality of education in Kenya, there should be standardization of TQM principles by all education offices and the various departments working under the ministry of education. Standardization of quality management principles by the various departments under the ministry of education will help all the stakeholder to focus towards the achievement of the ministry’s common goal and mission.

The study concludes that there should be continuous employee training on total quality management in the parastatals under the ministry of education. This is because a well-trained employee is disciplined, informed and have up to date skills which are much important for the prosperity of the institution. Training provides additional skills, knowledge and attitudes requisite for continuous improvement and development of the education sector. The training of the employees on TQM related issues should be as frequent as possible in line with the complexity of the activities carried out by the educational institution.

The study also concludes that there should be managerial support and commitment to TQM in the parastatals under the ministry of education in Kenya. This is because the management is the group that has the onus to make major decisions on the educational policies aimed at addressing quality issues in the education sector in the country. The management in the parastatals under the ministry of education should have at heart the interests of the primary beneficiaries of the educational activities: the student, because any changes that are made at the parastatal level trickle down to the students in the schools. The management should research well before implementing any major changes in the education changes that may compromise the quality of quality.
education in the country.

5.3 Recommendations

From the research findings, the parastatals under the ministry of education have did not have their parastatals fully certified for TQM courses to a great extent. The researcher would like to recommend that an on-line course be introduced in all the parastatals under the ministry of education covering all the principles of total quality management. The course should be mandatory to all staff and relevant stakeholders in the educational departments and those holding offices in the education sector in Kenya. Certification in this case should not mean merely printed paper or card, signed by the authority, telling about one’s expertise in TQM. Rather the certification should be a process in which one proves their technical skills through not only the seriousness of tests but also on the application of the principles of TQM on a working environment. Having been certified with TQM the staff in the parastatals under the ministry of education in Kenya will apply their TQM skills to handle educational matters and the impact will then be felt by the primary recipients of the education process; the students. The certification course should be detailed in TQM principles and should be refreshed by all members of staff after a certain fixed frequency period. Compliance to this should be followed closely.

The research finding also revealed that most of the parastatals under the ministry of education in Kenya had been accredited with Total Quality Management (ISO 9000). The researcher would like to reiterate the importance of ISO 9000 because the accreditation positively impacts the internal functions of an organization by tightening processes and ensuring that all personnel are trained appropriately to comply with the stipulated standards. The upper management should also state specific quality goals that tend to focus the staffs energy onto flawless execution. This top down clarity of corporate direction and the specific job or task instructions from the process documentation will make the work environment more predictable and boost staff morale. The compliance to the quality standards by the parastatals under the ministry of education in Kenya should be audited frequently by selected personnel to prevent the institutions from falling short of the requirements of ISO 9000.

This study has revealed that the parastatals under the ministry of education have not standardized TQM principles to a great extent. The research recommends that the management in the
parastatals under the ministry of education should focus to standardize the TQM principles across all departments. In regards to standardization of TQM in the parastatals under the ministry of education in Kenya the following should be considered; Top management should act as the main driver for TQM and create an environment that ensures its success, Employees should receive regular training on the methods and concepts of quality, Improvements in quality should improve customer satisfaction, Quality decisions should be made based on measurements, there should be use of appropriate methodology and tools that ensures non-conformances are identified, measured and responded to consistently, Continuous Improvement should be adopted, The culture of the parastatals should aim at developing employees ability to work together to improve quality, Employees should be encouraged to be pro-active in identifying and addressing quality related problems.

The study revealed that there is a moderate extent in regards to continuous employee training in the parastatals under the ministry of education in Kenya. The manager in these parastatals should consider sending employees to training opportunities, or bring training opportunities into the parastatal; this would actually infuse the parastatal with new ideas and creative ways of solving old problems. Sometimes, just getting employees out of the day-to-day grind of their everyday work schedule is enough to jump-start energy and encourage employees to recommit to their jobs and the parastatal. Training on TQM principles would help improve employee morale and the more satisfied the employee is and the greater is his morale, the more he will contribute to organizational success. Consistent and rich training will provide the requisite up to date knowledge, skills and attitudes to the staff so that they are able to adhere strictly to the requirements of ISO 9000.

The study revealed that training in TQM principles would lead to many advantages hence positive impacts to the parastatal under the ministry of education and consequently trickle down to the primary recipients of the educational process; the students. Some of these benefits are less supervision, increased productivity, improved customer focus, less paper and waste, less rework, flatter organizations, new initiatives developed within the parastatal, improved parastatal image, reduced complaints, improved facility utility, better team work, lower staff turnover, clear specialization of labour, improved communication within and without the parastatal, improved
processes efficiency and fiscal discipline through elimination of unnecessary steps and wasteful expenditure.

The study also revealed that there should be managerial support and commitment to TQM in the parastatals under the ministry of education in Kenya. This is because the management is the group that has the onus to come up with organizational policies aimed at addressing quality issues in the education sector in the country.

Based on the data collected, researcher would like to recommend that more funds be allocated to implementation of TQM in the parastatals under the ministry of education in Kenya. This will facilitate training and system changes aimed at improving the quality of education in the country.

Based on the fact that TQM has many advantages as indicated in this dissertation, the management in the various parastatals under the ministry of education in Kenya should adopt all the principles of TQM to a great extent so that these advantages may be replicated in these institutions and these impacts will be trickle down to the primary recipients; the students in schools and eventually the quality of education in Kenya will be improved.


Goold, M., Quinn, J.J. (1990), The paradox of strategic control, Strategic Management Journal, Vol. 11 pp.43-57


Kanigel, Robert. The One Best Way: Frederick Winslow Taylor and the Enigma of Efficiency.


Saitoti, G. (2003), Education Sector Review: How Far Have We Come Since Independence and What Still Needs to be Done to Meet the Education Needs of all Kenyans, Report of the


APPENDICES

APPENDIX 1

Questionnaire about Total Quality Management in Education in Kenya

Dear participants,

I would like to take this opportunity to thank you for agreeing to participate in this survey. You will find a few questions included in this survey questionnaire and I would be glad if you could take a few minutes to complete the questionnaire.

All information collected here is strictly for the purpose of analysis. No information of any individual will be disclosed in any form.

SECTION A: GENERAL INFORMATION

1. What’s your gender?
   Male [ ]
   Female [ ]

2. What’s your designation in the parastatal?
   Parastatal Head [ ]
   Head of department [ ]
   Department manager [ ]

3. Please indicate your level of education
   Masters [ ]
   Degree [ ]
   College [ ]
   Secondary [ ]

4. For how long have you been in this parastatal?
   Less than 3 years [ ]
   3 years to 7 years [ ]
   8 years to 12 years [ ]
   More than 12 years [ ]
SECTION B: CERTIFICATION OF TQM IN THE PARASTATAL

11. To what extent does your parastatal certify members with TQM?

Very great extent [ ]
Great extent [ ]
Moderate extent [ ]
Low extent [ ]
No extent at all [ ]

12. If your parastatal does certify members with TQM, to what extent does your institution use the following ways to certify TQM?

<table>
<thead>
<tr>
<th></th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>No extent at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online certification (e learning)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On the job training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedagogical lessons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apprenticeship</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

13. To what extent do you rate the impact of certification of programs on the quality of education in Kenya?

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certification of programs has a positive impact on the quality of education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certification of programs has a negative impact on the quality of education</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
14. To what extent does the certification of TQM face challenges in your parastatal?

Very great extent [ ]
Great extent [ ]
Moderate extent [ ]
Low extent [ ]
No extent at all [ ]

SECTION C: ACCREDITATION OF TQM IN THE PARASTATAL

14. To what extent has your parastatal been accredited for TQM (ISO 9000)?

Very great extent [ ]
Great extent [ ]
Moderate extent [ ]
Low extent [ ]
No extent at all [ ]

26. To what extent do you agree with the following statements on accreditation in reference to implementation of TQM strategies in your parastatal?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>No extent at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accreditation of TQM has helped majorly to improve the quality standard in my parastatal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accreditation resulted to improved employee morale and efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accreditation has caused my parastatal to change processes to ensure conformance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16. To what extent does the accreditation of TQM face challenges in your parastatal?

Very great extent [ ]
Great extent [ ]
Moderate extent [ ]
Low extent [ ]
No extent at all [ ]

SECTION D: STANDARDIZATION OF TQM IN THE PARASTATAL

17. To what extent has your parastatal standardized TQM (ISO 9000) principles?

Very great extent [ ]
Great extent [ ]
Moderate extent [ ]
Low extent [ ]
No extent at all [ ]

18. To what extent has your parastatal standardized the following areas of TQM (ISO 9000) principles?

<table>
<thead>
<tr>
<th>Policy objectives</th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>No extent at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer feedback systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer satisfaction surveys</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality function strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
19. To what extent does the standardization of TQM principles face challenges in your parastatal?

Very great extent [ ]
Great extent [ ]
Moderate extent [ ]
Low extent [ ]
No extent at all [ ]

SECTION E: CONTINUOUS EMPLOYEE TRAINING ON TQM IN THE PARASTATAL

20. To what extent does your parastatal apply continuous employee training on TQM (ISO 9000) to ensure conformance?

Very great extent [ ]
Great extent [ ]
Moderate extent [ ]
Low extent [ ]
No extent at all [ ]

21. How does your parastatal apply continuous employee training on ISO TQM.

<table>
<thead>
<tr>
<th>Training Method</th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>No extent at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online certification (e learning)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pedagogical lessons</td>
<td></td>
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<tr>
<td>Apprenticeship</td>
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</tr>
</tbody>
</table>

22. How often does your parastatal train its staff on ISO TQM?

Quarterly [ ]
Half yearly [ ]
Annually [ ]

Other (please specify)________________
23. To what extent do you rate the impact of continuous employee training on the quality of education in Kenya?

<table>
<thead>
<tr>
<th>Continuous employee training has a positive impact on the quality of education</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Continuous employee training has a negative impact on the quality of education</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
</table>

24. To what extent does the continuous employee training of TQM face challenges in your parastatal?

- Very great extent
- Great extent
- Moderate extent
- Low extent
- No extent at all

SECTION F: MANAGERIAL SUPPORT AND COMMITMENT ON TQM IN THE PARASTATAL

25. To what extent does the management in your parastatal support and are committed to TQM (ISO 9000) to ensure conformance?

- Very great extent
- Great extent
- Moderate extent
- Low extent
- No extent at all
26. To what extent do the following leadership/management styles affect implementation of TQM strategies in your parastatal?

<table>
<thead>
<tr>
<th></th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>Not at all</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformational style</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transactional style</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autocratic style</td>
<td></td>
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</tr>
</tbody>
</table>

27. To what extent do you agree with the following statements on leadership/management styles in reference to implementation of TQM strategies in your parastatal?

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformational leadership/management attributes are associated with proper implementation of TQM strategies in your parastatal</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Transformational leadership/management role is to show consideration in the implementation of TQM strategies in parastatal management</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

28. To what extent does managerial commitment and support on TQM face challenges in your parastatal?

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very great extent</td>
<td>[ ]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great extent</td>
<td>[ ]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate extent</td>
<td>[ ]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low extent</td>
<td>[ ]</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No extent at all</td>
<td>[ ]</td>
<td></td>
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</tbody>
</table>
SECTION G: OTHER INFORMATION ON TQM IN THE PARASTATAL

29. What other quality practice(s) does your parastatal apply to ensure adherence to TQM principles?

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

30. What other benefit(s) does your parastatal gain with ISO/TQM?

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

31. What side effect(s) does your parastatal suffer with ISO/TQM?

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

32. What are some of the challenges your organization faces in the quest to implement TQM?

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

Thank you for your time
## APPENDIX II: Budget Estimates

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit cost @</th>
<th>Cost (KShs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traveling expenses</td>
<td>Item</td>
<td>5,000</td>
</tr>
<tr>
<td>Hiring of research assistant</td>
<td>Item</td>
<td>4,500</td>
</tr>
<tr>
<td>Computer/typing services</td>
<td>Item</td>
<td>600</td>
</tr>
<tr>
<td>Printing and Photocopying of proposal</td>
<td>Item</td>
<td>3,000</td>
</tr>
<tr>
<td>Binding of proposal</td>
<td>150</td>
<td>900</td>
</tr>
<tr>
<td>Data analysis</td>
<td>Item</td>
<td>5,000</td>
</tr>
<tr>
<td>Printing and Photocopying of Research Report</td>
<td>Item</td>
<td>6,000</td>
</tr>
<tr>
<td>Hard binding of the final documents</td>
<td>280</td>
<td>1,960</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Item</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>31,960</strong></td>
</tr>
</tbody>
</table>
APPENDIX III: Time Plan

<table>
<thead>
<tr>
<th>Month /Activity</th>
<th>2\textsuperscript{nd}</th>
<th>3\textsuperscript{rd}</th>
<th>4\textsuperscript{th}</th>
<th>5\textsuperscript{th}</th>
<th>6\textsuperscript{th}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrections</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Analysis</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Report Writing</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Finalization and Submission of Report</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX IV: List of Parastatals under the Ministry of Education in Kenya

1. Kenya Institute of Education
2. Kenya National Examination Council
3. Teachers Service Commission
4. Jomo Kenyatta Foundation
5. Kenya Education Staff Institute
6. Kenya Literature Bureau
7. Kenya Institute of Special Education