AN ASSESSMENT OF THE EFFECT ISO 9001:2008 CERTIFICATION ON ORGANIZATIONAL PERFORMANCE: A CASE OF MOI TEACHING AND REFERRAL HOSPITAL

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CBM12/10340/13

A Research Thesis Submitted To the Graduate School in Partial Fulfillment of the Requirements for the Conferment of Master of Business Administration Degree, Faculty of Commerce

KISII UNIVERSITY

SEPTEMBER 2014
DECLARATION AND RECOMMENDATION

DECLARATION

This Research thesis is my original work and has not been presented for examination in any other university nor institution of higher learning.

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Sign Date

KENNEDY OTIENO ODONGO
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RECOMMENDATION

This Research thesis has been submitted for examination with our approval as university supervisors.

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Sign Date

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Kisii University, Faculty of Education

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Sign Date

MR. CALEB AKUKU

Kisii University, Faculty of Commerce
DEDICATION

This research thesis is dedicated to my mother Clementine Odongo, my wife Doreen, daughter Shania and the entire family of my late father Mr. Antony Odongo for their much support this far. Also to my colleagues Paul, Grace, Beatrice, Lydia, Sammy and Meshack for their much assistance during study period.
ACKNOWLEDGMENTS

I want to acknowledge God, for the gift of wisdom; knowledge and strength to finish this thesis. I want to appreciate my supervisors Dr. Yambo M. John and Mr. Caleb Akuku who have dedicated most of their time in supervising the writing of this thesis. Through their expert guidance, discipline, thoroughness and patience, I was able to take the challenge of every step until I completed this thesis. I would also like to express my sincere gratitude to the management of Moi Teaching and Referral Hospital for having given me the chance to undertake this study.
ABSTRACT

In today’s global environment, firms continually seek means to improve their business in terms of both quality and quantity. Certification of these organizations with the ISO 9001 has been noted to be a key strategy in improving organizational performance. The study sought to address the effect of ISO 9001:2008 certification in improving organizational performance and it was guided by the following objectives; to assess the effects of ISO 9001 certification on organizational productivity, to establish the effects of ISO 9001 certification on quality of service, to examine the effects of ISO 9001 certification on cost of service and to determine the effects of ISO 9001 certification on reputation of an organization. The study was necessitated by the lack of ample literature linking ISO 9001 certification to organizational performance. A case study research design was adopted in the study. The study focused on 20 top managers, 48 middle level managers and 235 operational managers. A sample size of 169 respondents was selected using purposive sampling for top managers, both purposive and stratified sampling for middle level managers and simple random sampling for operation level; managers. Data regarding the effect of ISO 9001:2008 certification on organizational performance was collected using questionnaires and interviews. The collected data was then analyzed using descriptive statistics such as frequencies, tables, graphs and charts and descriptive analyses such as mean. Inferential statistics, Analysis of Variance (ANOVA) was also employed in testing the effect of ISO 9001 certification on organization performance. Analysis was done using SPSS version 20, a computerized statistical package, by encoding responses from the questionnaires. The study findings indicated that ISO 9001 certification has led to an increase in the number of customers in the Hospital. Also that ISO 9001 certification has led to provision of work instructions and conducive working environment that ensures efficiency in task performance. There’s also an indication that ISO 9001 certification has improved performance in organizations through prevention of defects and has also helped to improve the reputation of the organization through providing a unique image in the market. However, the study also points out that ISO certification remains an expensive tool to apply in the organizational processes due to the high costs associated with maintaining the standards. This is especially true since rework of processes for example contract procedures and order placements is a common occurrence in order to meet the customer requirements. In order to improve performance through ISO 9001 certification, the study recommends that the top management of the hospital should be committed and active in implementing the requirements stipulated in the ISO 9001:2008 certification. Regular training as well as adhering to team work approach should also be applied. The top management should also adopt ISO 9001:2008 as a marketing tool since it has been observed that the certification helps improve the company’s image.
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<td>AMC</td>
<td>Australian Manufacturing Council</td>
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<tr>
<td>AMPATH</td>
<td>Academic Model Providing Access to Health Care</td>
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<td>ANOVA</td>
<td>Analysis Of Variance</td>
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<td>EFQM</td>
<td>European Foundation for Quality Management</td>
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<td>HSR</td>
<td>Health Services Research</td>
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<td>IREC</td>
<td>Institutional Research and Ethics Committee</td>
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<td>ISE</td>
<td>Istanbul Stock Exchange Market</td>
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<td>ISO</td>
<td>International Organization for Standardization</td>
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<td>KEBS</td>
<td>Kenya Bureau of Standards</td>
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<td>KEMRI</td>
<td>Kenya Medical Research Institute</td>
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<td>MTRH</td>
<td>Moi Teaching and Referral Hospital</td>
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<td>NSC</td>
<td>National Standards Council</td>
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<td>NSQHS</td>
<td>National Safety and Quality Health Standards</td>
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<td>NQI</td>
<td>National Quality Institute</td>
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<td>QMS</td>
<td>Quality Management System</td>
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<td>ROA</td>
<td>Return on Assets</td>
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<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<td>UAE</td>
<td>United Arab Emirates</td>
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<td>WHO</td>
<td>World Health Organization</td>
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CHAPTER ONE

INTRODUCTION.

1.0 Overview

This chapter introduces the study by giving a background of the study and a statement of the problem. It also highlights objectives of the study as well as formulates the hypotheses. The chapter also points out the assumptions made in the study and finally enumerates the significance, scope and limitations of the study.

1.1 Background of the Study

Organizations worldwide have various ways of enhancing their organizational performance although the ways vary from one organization to another depending on the actual functions of each organization. This is done in a bid to improve the performance of the organizations. Meisinger and Wagner, (2006) state that in majority of organization world wide, ISO certification is the most important management tool for performance and for organizations to perform well, resources must be well utilized and customers well served. To achieve such ends, all of an organization’s human and materials resources must be well utilized in the right way and the right time to create high quality products at minimal cost. ISO 9001 certification has emerged as the most important organizational phenomenon in most organizations including the health sector that enables managers to harness the energies of all employees to determine their strength and maximize productivity and customer satisfaction.

In an attempt to facilitate and impact the issues of quality globally, International organization for standardization(ISO) was first published in 1987 and later revised in 1994, 2000 and then 2008. Currently the family of ISO 9000 standards is made up of four
standards namely ISO 19011:2002; ISO 9000:2005; ISO 9001:2008 and ISO 9004:2009. The standards require employees to consistently follow the documented procedures. ISO 9001 provides guidelines on the establishment of a quality system to manage the processes that affect its products or services. The requirements of ISO 9001 are built on the quality management principles including; customer focus, leadership, involvement of people, process approach, system approach to management, continual improvement, factual approach to decision making and mutually beneficial supplier relationships (Mangula, 2013). These requirements reflect time-proven, universally accepted business practices. The aim of ISO 9001 is to ensure that organizations consistently meet customer needs, resulting in customer satisfaction.

Formally defined, performance is a summary measure of the quantity and quality of work productivity, with resources utilization taken into account. It can be measured at the individual, group, or organizations level, performance may be expressed as success into dimensions of organizations productivity, effectiveness and efficiency (Drucker, 2004). According to Richard (2009) organizational performance encompasses three specific areas of firm outcomes: financial performance (profits, return on assets and return on investment); product market performance (sales and market share); and shareholder return (total shareholder return and economic value added).

Health providers around the world are defining new performance requirements to protect patients from poor services as well as substandard and defective products and ever more sophisticated counterfeits, especially pharmaceuticals, although medical devices are also raising concerns. Health providers especially in the developed world are embracing quality standardization so as to provide quality services to patients. Pharmaceutical manufacturers
are also being required to serialize products with unique identifiers at the unit of sale level, which often requires new capabilities and large investments in hardware and software. Some countries, including China, India and Turkey, have embraced standardization in their health facilities (Heras, 2002). In the global arena, the health industry plays an increasingly important role in the economy of many countries. In today’s global competitive environment delivering quality service is considered as an essential strategy for success and survival (Parasuraman., 1985; Reichheld and Sasser, 1990; Zeithaml., 1990).

However, in the African context, despite the growing interest and importance of ISO 9001 certification in many health institutions and other organizations, the implementation of such innovations in African organizations and especially the health care sector has remained low, the adoption rates among clients and its usage has not brought significant outputs in the way organizations perform and clients become happy with the services offered (Zeithaml, Valerie and Bitner, 2000). For instance this has been seen in Uganda, Zimbabwe and Cameroon that some of the organizations have adopted the ISO 9001 certification aspects however its implementation has not been effective. One of the benefits the organizations derive from ISO 9001 certification in health operations especially with respect to organizational performance is improved efficiency and effectiveness of their operations so that more controls, evaluation, planning and implementation can be processed faster and most conveniently, which will undoubtedly impact significantly on the overall performance of the organization (Tsim, Yeung, Leung, Edgar, 2002).

In Kenya, Patients and Health Service Stakeholders are becoming increasingly more sophisticated, better informed and more demanding on the ISO 9001 certification implementation in their organizations. In Kenya, a lot of emphasis has been put on ISO 9001
certification, with all ministries and public institutions required to be ISO certified by 2012 and government favoring ISO certified suppliers during procurement processes (Macharia, 2010). According to ISO Survey-2008, in East and Central Africa, Kenya was found to be having the highest number of ISO 9001 certifications with a total of 257, followed by Uganda with 44 and Tanzania 12 (Macharia, 2010). Out of the 257 ISO 9001 certified, 20 were manufacturing companies of which 15 were in Nairobi.

At the same time, Health Service Providers are faced with ever increasing compliance obligations, for which funding depends. As expectations grow, the only way for Health Service Providers to meet increased demands is to offer a commitment to patient outcomes and quality service. Health Service Providers, whatever their size have given themselves a secure future by introducing a Quality Management System (QMS) such as ISO 9001:2008, incorporating the Core Standards for Safety and Quality in Healthcare (2007) and in 2013 the implementation of the National Safety and Quality Health Standards (NSQHS).

Quality Service in Kenya is the chief function the health system needs to perform WHO (2001). So far, Kenya has only two referral hospitals and they handle very complex cases at very high intervals which call for excellent service quality in the form of good customer relations management, speed in service delivery, adequacy and availability of resources for service delivery, as well as innovation to serve the patients better in a more refined manner (Massoud, 2001). Basically, for a hospital to provide good service to the patients, there needs to be a proper framework like the quality assurance that ensures that the patients/customers who visit are well taken care of to their contentment and satisfaction (MOH, 2006). It is against this background the study will investigate the relationship
between ISO 9001 certification to organizational performance within Moi Teaching and Referral Hospital.

1.2 Statement of the Problem

Organizational performance has become an essential concept in all institutions. Ideally, customers expect reliance and availability of services from organizations whether public or private. This concept has become more of a necessity in the recent past where certification has been viewed as key determinant in customer satisfaction and a way of organizational branding.

Currently however, despite efforts by organizations to improve performance, there are still cases of complaints resulting from poor performance. Moi Teaching and Referral Hospital (MTRH) is one such organization where despite its ISO certification status; there are still complaints from various stakeholders on the organizations operations and performance. Patients have complained of slow service delivery in the organization and even deaths resulting from patients neglect and inadequacy of facilities at the hospitals.

All these have been sufficient indicators to the organizational performance problem indicating that more still needs to be done to ensure a satisfied customer base. The lack of literature on how ISO 9001 certification in the various activities leading to organizational performance at the hospital also necessitate the need to undertake a study to provide sufficient information on the effect of ISO 9001 certification on organizational performance.
1.3 Objectives of the study

The main purpose of the study is to assess the effects of ISO 9001 certification on organizational performance at Moi Teaching and Referral Hospital. The study was guided by the following objectives;

i. To assess the effects of ISO 9001 certification on organizational productivity at Moi Teaching and Referral Hospital.

ii. To establish the effects of ISO 9001 certification on quality of service at Moi Teaching and Referral Hospital.

iii. To examine the effects of ISO 9001 certification on cost of service at Moi Teaching and Referral Hospital.

iv. To determine the effects of ISO 9001 certification on reputation of an organization at Moi Teaching and Referral Hospital.

1.4 Hypothesis of the Study

i. $H_01$: ISO 9001 certification has no significant effect on organizational productivity.

ii. $H_02$: ISO 9001 certification has no significant effect on quality of service.

iii. $H_03$: ISO 9001 certification has no significant effect on cost of service.

iv. $H_04$: ISO 9001 certification has no significant effect on reputation of an organization.

1.5 Assumptions of the Study

For the purposes of this study the following assumptions were made in performing the analysis and evaluation of the stated research problem. First the study assumes that Moi Teaching and Referral Hospital had adhered to ISO 9001 standards and therefore has been
awarded the certification. Second, it was assumed that the respondents would answer the questions with openness, candor, and honesty with regards to the questionnaires. Finally, the third assumption was that the results were not biased towards one outcome over another.

1.6 Significance of the study

As a result of this study, it is significant to various stakeholders.

1.6.1 Hospital Management

Foremost, the management of Moi Teaching and Referral Hospital will benefit as a result of the study because they will get to know the importance of ISO 9001 certification on organizational performance enhancement and this will encourage them to implement the same thus improving the level of service delivery at the hospital and will find the study and more so its findings important not only in implementing for organizational success but also for managing employees and customers/patients through plans to maximize productivity.

1.6.2 Government

The government will get the credit when the referral hospital starts to practice good service quality since it is a government facility and this will impact on other stakeholders as well including the members of the public who visit the facility as patients. Other organizations and stakeholders will find the study significant in that it provides a useful framework for managing their organizations through ISO 9001 certification, thus understanding the relationship of quality assurance in the accomplishment of organizational objectives more especially organizational performance. This way, ISO 9001 certification becomes a motivational tool for the management, stakeholders, government, customers and employees.
1.6.3 Decision and Policy Makers

The study will also provide decision making and policy formulation in both public and private organizations with some key guidelines and targets on the importance of ensuring effective quality assurance through ISO 9001 certification in an organization.

1.6.4 Future Researchers and Scholars

The study is also significant in that it forms a useful foundation against which future studies can be undertaken by other researchers taking into account the suggestions for further studies. Equally so, researchers interested in quality assurance and service quality will find the study a useful literature for reference.

1.7 Scope and limitations of the Study

In content, the study focused on ISO 9001 certification as the independent variable and organizational performance as the dependent variable using Moi Teaching and Referral Hospital as a case study. The study was limited to Moi Teaching and Referral Hospital. Conducting the research in the hospital with quite a good number of employees would enable the researcher to get better outcomes of the research. The study was conducted for a period of three months in the months of July 2014 to September 2014.

The study was limited to the relationship between ISO 9001 certification as the independent variable and organization performance at M.T.R.H and not any other organization. Moreover, the respondents were too busy in their duties and some would hesitate to give out information due to fear of victimization by top management. The researcher overcame all these by assuring the respondents that the study was for academic purpose only and the information they would present would be treated with utmost confidentiality.
1.9 Justification of the study

Organizations today are encouraged to adopt the ISO 9001 certification requirements in their management activities in order to improve on their performance (ISO, 2005). Organizations that are ISO 9001 certified are expected to enhance customer satisfaction and consistently provide products that meet customer expectations, regulatory as well as statutory requirements. ISO survey also reveals that ISO certified organizations should improve performance in terms of quality, volume of products, employee motivations and organizational competitiveness (Mangula, 2013). While most organizations including MTRH have been ISO 9001 certified, its effect on the organizational performance remains unknown to many. The study assessed the effect of ISO 9001 to organizational performance and more specifically the study sought to identify if there are any significant effects of ISO 9001 certification to productivity, cost of service, quality of service and reputation of the organization.

1.10 Operational definitions

**Customer satisfaction** - a measure of how products and services supplied by a company meet or surpass customer expectation and can be measured by the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified goals.

**Organizational branding** - a creation of a coherent outward expression by an organization and is a product of an organization's corporate strategy, mission, image, and activities. It distinguishes organizations from their competitors, orient the organization in the minds of customers and employees, and create a perception of what an organization stands for.
**Organizational performance** - comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives).

**Organizational productivity** - The capacity of an organization to produce desired results with a minimum expenditure of energy, time, money, personnel and material.

**Organizational reputation** - the overall estimation in which an organization is held by its internal and external stakeholders based on its past actions and probability of its future behavior.

**Product quality** - features that have a capacity to meet consumer needs (wants) and gives customer satisfaction by improving products and making them free from any deficiencies or defects.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter contains literature materials from a number of books, journals, periodicals, magazines and other publications in the field under study. The literature gives the study background necessary to evaluate the variables with regards to the variables under study. The chapter outlines the theoretical review, explains the concept of ISO 9001 certification and organizational performance. It also establishes the relationship between the two and attempts to find the effect of ISO 9001 on the performance of an organization. Finally it critically reviews the subject and presents a conceptual framework of the study.

2.1 Concept of ISO Certification

ISO certification is an international quality standard that requires a company to possess capabilities that enable the delivery of high-quality services and maximize client satisfaction. ISO-certified organizations must follow well-defined processes, ensure delivery of problem-free services, guarantee client confidentiality, and continually improve their quality and service delivery systems. ISO standards cover all aspects of a business that contribute to service quality and a satisfactory client experience. The ISO 9000 family of standards is related to quality management systems and designed to help organizations ensure that they meet the needs of customers and other stakeholders while meeting statutory and regulatory requirements related to the product.

The standards are published by ISO, the International Organization for Standardization, and available through National standards bodies Tsim (2002). ISO 9001 is one of the standards
developed by the International Organization for Standardization (ISO). The purpose of this family of standards is to increase customer satisfaction through the deliverance of quality products and services. ISO 9000 deals with the fundamentals of quality management systems, including the eight management principles on which the family of standards is based. ISO 9001 deals with the requirements that organizations wishing to meet the standard have to fulfill. Third party certification bodies provide independent confirmation that organizations meet the requirements of ISO 9001. Over a million organizations worldwide are independently certified, making ISO 9001 one of the most widely used management tools in the world today. Despite widespread use, however, the ISO certification process has been criticized as being wasteful and not being useful for all organizations (Tsim, 2002).

The ISO 9001 Quality Management System represents a set of standards designed by technical committees formed by representatives from several nations and issued by the International Organization for Standardization, located in Geneva, Switzerland. The ISO 9001 principles aim at creating a corporate environment that generates error-free products and achieves high customer satisfaction. Of the documents that have been updated every four years and logged under the terminologies of ISO 9001:2000, 9001:2004 and 9001:2008, ISO 9001:2008 represents the latest version of the guidelines (Clifford, 2005). The International Organization for Standardization has issued more than 18,000 standards since 1947. Its platform has attracted 162 nations that actively participate in the technical committees. Each country receives one seat at the table and benefits from equal power of influence with its co-participants. These nations represent 97 percent of the world's population and guide 98 percent of the world's economy. 982,832 organizations in 176 countries have been ISO 9001-certified since 2000, according to David Levine, professor of
business administration in the Haas School of Business at University of California, Berkeley. These organizations have renewed their certification every three years and follow the guidance of 2001:2008 today (Clifford, 2005).

2.2 Theoretical Review

2.2.1 Deming’s Theory of Management

According to Barbara (2010), Deming’s theory of profound knowledge is a management philosophy grounded in systems theory. It views the organization as a system with a mesh of interrelated components pitting processes and people. The success of the organization therefore depends on how well the management is capable of handling the delicate balance of the components for the optimization of the system.

Deming believed profound knowledge generally comes from outside the system and is only useful if it is invited and received with an eagerness to learn and improve.

A system cannot understand itself without help from outside the system, because prior experiences will bias objectivity, preventing critical analysis of the organization. Critical self-examination is difficult without impartial analysis from outside the organization. Also, insiders can rarely serve as hostile critics who speak frankly without fear of reprisals, Barbara (2010)

Deming also observed that the journey from the prevailing management style to quality requires the understanding of systems which is composed of interrelated components and that quality is the optimization of performance of these components relative to the goal or aim of the system. In order to achieve quality, the components are required to reinforce, and not compete with, each other.
Quality being a systematic process, first an organization is required to establish the aim: vision, mission, goals or constancy of purpose of the system. According to Deming, without aim, there is no system (Identity). Then, identify the components and processes and the interrelationships of the components within the system (relationships). Finally, constantly improve on the processes of the system (Information/Learning/Knowledge). Deming also pointed out that Profound Knowledge is made up of four interrelated components namely: appreciation of a system, theory of knowledge, the psychology of change and knowledge about variation. These four components cannot be separated.

2.2.2 The EFQM Framework/Model

The EFQM Framework/Model was advanced by Hendricks, (1996). The European Foundation for Quality Management (EFQM) Model is based upon nine criteria for quality management. There are five enablers (criteria covering the basis of what a company does) and four results (criteria covering what a company achieves). The result is a model that refrains from prescribing any one methodology, but rather recognizes the diversity in quality management methodologies (Hendricks, 1996). The nine criteria as defined by the EFQM Model are: Focus on results shows that pleasing company stakeholders with results achieved by stakeholders is a primary focus. Focus on Customers - it is vital that a company's quality management leads to customer satisfaction; Constancy of purpose and consistent, visionary leadership. Process and Facts form the Management Focus - Management breaks down everything into systems, processes and facts for easy monitoring. Training and Involving Employees - Employees should receive professional development opportunities and be encouraged to remain involved in the company. Continuous Learning - everyone should be provided with opportunities for learning on the job. Developing Partnerships - It is important
to encourage partnerships that add value to the company's improvement process. Social Responsibility of the Corporation - The Company should always act in a way where it is responsible towards the environment and society at large (Hendricks, 1996).

### 2.2.3 Kenya Bureau of Standards

The Kenya Bureau of Standards (KEBS) is a government agency responsible for governing and maintaining the standards and practices of metrology in Kenya. It was established by an Act of Parliament of Kenya's National Assembly, The Standards Act and Chapter 496 of the Laws of Kenya. The Bureau started its operations in July 1974. It has main offices in Nairobi, and regional offices throughout Kenya (KEBS). The KEBS Board of Directors is known as the National Standards Council ("NSC") and is the policy-making body for supervising and controlling the administration and financial management of the Bureau. The Bureau's chief executive is the Managing Director, whose responsibilities are the day-to-day running and administration of the Bureau within the broad guidelines formulated by the Council.

The aims and objectives of KEBS include preparation of standards relating to products, measurements, materials and processes and their promotion at national, regional and international levels; certification of industrial products; assistance in the production of quality goods; quality inspection of imports at ports of entry; improvement of measurement accuracies and dissemination of information relating to standards. To keep close liaison with and render efficient service to industry, trade and commerce in different parts of the country, KEBS has opened Regional Offices in Mombasa, Kisumu, Nakuru, Garissa, Edoret and Nyeri and has import inspection offices at all the legal points of entry in Kenya. KEBS is a member of the International Organization for Standardization (ISO). It is therefore
noteworthy to consider KEBS as one of the bodies vested with the responsibility of standardization in Kenya.

Today, more than ever before, it is important to match your services and products to the needs of your customer. As the international business environment becomes increasingly competitive, customers are more and more demanding where quality is concerned. The adoption of QMS therefore should be a strategic decision by an organization to ensure Delivery of service and/or product that meets customer requirements. Therefore locally; KEBS which is a member of ISO 9001 has the mandate to ensure that products supplied to the customers meet the set standards of ISO9001 Certification.

2.2.3.1 KEBS and ISO.

The Kenya Bureau of Standards as a member of the International Organization for Standardization (ISO) provides training to industry as part of its task of creating awareness and technical expertise in areas of Quality management and conformity assessment. The ISO 9001 implementation training is meant for Management staff in organizations that intend to or are implementing ISO 9000 Quality Management Systems. The aim of the training is to familiarize industry with the contents and requirements of ISO 9001:2008 Standard on Quality Management Systems.

The three day course interprets the scope of ISO 9001:2008 as it relates an organization and gives a practical experience on developing and implementing a Quality Management system that conforms to the requirements. At the end of the three-day course participants are able to understand the requirements of ISO 9001 and how to translate them into activities within
their processes. They will also be able to develop the necessary documentation as required by the standard.

KEBS offers quality management role through two main entities; the national standards council (NSC) and the National Quality Institute (NQI).

NQI was established on 18th February 2008 and was officially launched on 24th July 2008 by Mr. Alan Bryden ISO Secretary General. Its core mandate is to entrench a culture of quality in the Kenyan society. It also advances quality management principles, practices and techniques within the Kenyan industry in support of vision 2030. In championing this, NQI offers technologies, concepts, tools, and training to industry, quality professionals, quality practitioners and everyday consumers to entrench quality in our daily lives.

The development or the existence of a National Quality Institute (NQI) is directly related to the level of maturity of a country’s quality infrastructure and it is in this respect that the Kenya Bureau of Standards has attained a level of maturity that necessitates the setting up of a National Quality Institute as a natural progression towards realization of the practical application of standards as tool for competitive advantage in global markets. NQI broadly performs the following roles;

i. Raises awareness of the importance of standardization and conformity assessment and to entrench the culture of quality in the Kenyan society by promoting practical usage of standards and development of quality related curricula in schools, colleges and universities.
ii. Promotes the advancement of quality management practices to enhance the competitiveness of Kenyan goods and services in the world market.

iii. Trains the industry in collaboration with other stakeholders in order to increase industrial efficiency and productivity.

iv. Recruits and registers members of different categories.

v. Enhances advancement of continuing professional development in quality and compliance management through alliances with academia and to provide recognition to members associated with quality as a specialized profession.

vi. Manages the Kenya Quality Award in order to promote excellence of Kenyan industries.


viii. Develops strategic alliances with quality organizations throughout the world and to provide the sharing of information and knowledge concerning quality among individuals and organizations.

2.3 ISO 9001 Certification

In today’s global environment, organizations are constantly looking for the ways to expand and improve their business in terms of quality and quantity. Adoption and subsequently certification of these organizations with ISO 9001 has revealed to be the pro-active strategy to improve organizational performance. ISO 9000 is a series of standards, developed and published by the International Organization for Standardization (ISO), that define, establish, and maintain a quality assurance system for manufacturing and service industries. The standards are available through national standards bodies (Zhang, 2000).
ISO 9000 deals with the fundamentals of quality management systems, including the eight management principles upon which the family of standards is based. ISO 9001 deals with the requirements that organizations wishing to meet the standard must fulfill. Third-party certification bodies provide independent confirmation that organizations meet the requirements of ISO 9001. Over a million organizations worldwide are independently certified, making ISO 9001 one of the most widely used management tools in the world today. Despite widespread use, the ISO certification process has been criticized as being wasteful and not being useful for all organizations (Subba, Ragu-Nathan, and Solis, 1997).

Various scholars have been arguing on the significant impact of ISO 9001 on the organizational performance. There is evidence which suggests that firms can achieve internal improvements, or that certification can help firms maintain or increase their market share, or both. Others argue that the standard is too generic to cause improvement, but can be seen as a good management tool. An empirical study in the United States by Corbett, Curkovic, S., Pagell (2004), however, determined that three years after certification, firms displayed strongly significant abnormal performance. The 1991 International Quality Study of the American Quality Foundation studied over 500 organizations in the USA, Canada, Germany, and Japan. It concluded that some practices, particularly supplier certification and process improvement, did have a significant effect on performance (Quazi and Jacobs, 2004).

Similar findings were reported by a 1994 Australian Manufacturing Council (AMC) study of 1,300 manufacturing sites revealed that more than 50% of the certified sites agreed that the certification process had been a significant factor in improving business performance. The
AMC cautioned that certification is not a substitute for delivering high quality products and services. Certification could risk systematizing some poor practices.

The study by Heras, et al. (2002) on ISO 9001 registration’s impact on sales and profitability confirmed that certified companies perform better. The study by David Kirsch and Charles Corbett (2002) analyzed 7,598 publicly-traded firms listed in the New York Stock Exchange and found a direct correlation with a firm's return on assets (ROA). The certified firms improved their performance while the non-certified firms experienced substantial deterioration. They concluded that something changed specifically at the certified firms in the year prior to the actual certification. Given the magnitude of the improvements, it seems likely that other circumstances other than ISO 9001 contributed. However, the findings strongly suggest that the preparation also contributed to superior performance.

Another study by Pinar, et al. (2003) examined the monthly and average 48-month market returns of sixty-seven (67) certified and thirty seven (37) non-certified firms listed in the Istanbul Stock Exchange Market (ISE) overtime periods of one-year, two years, three-years, and four-years. The results of these different scenarios showed that for all time periods the certified firms had higher mean returns. The other interesting finding is that the certified firms have reduced stock returns volatility for all time periods, except one. It appeared that ISO 9000 certification also seems to reduce risk. A source of performance improvement from adopting the ISO 9001 program arises from increases in revenue as ISO 9001 certified firms are able to access new markets and increase production volume (Colbert, et al., 2005).

The fact that ISO 9000 series certification may be important in gaining access to markets has been recognized in several works (Brown, 1998; Aarts and Vos, 2001). According to a study carried out in the UK (Casadesus and Jimenez, 2000) depicted that among the benefits of
ISO Certification include; improvement of market relations, increases the possibility of obtaining new contracts and considerably helps to enter new or international markets. Another important aspect related to the ISO 9001 certification is linked to the analysis of the faster reaction to the market request (McGuire, et al, 2008). All these will lead to improvement/increase in units of product produced annually.

The study by Helmi (1998) stipulates that the most important factor affecting performance is the quality of products and services relative to those of the competition and there is a direct relationship between customer satisfaction and profitability. One of the major significant improvements reported as an influential impact coming from the ISO 9001 is related to the improved product/service quality (Brown, et al., 1998 and Quazi, et al., 1998). This aspect, affirming that ISO9001 facilitates the improvement of the product quality as well as the satisfaction of customer’s requirements. Many other works sustain this consensus, i.e. the product improvement and enhanced service quality and, more broadly, improvement in business productivity (Chang, 2005; Sun, H., 1999; Poksinska, 2002; Tan, 2001; Yeung, 2003). Other aspects highlighted by Casadesus and Jimenez (2000) in which the standard has positive influences are: the possibility of improving the level of delivery time, the consequential savings in production cost and finally the reduction of lead time. By standardizing the ISO 9001 program structured and detailed procedures provide a deeper understanding of the processes involved in the supply of product or service. Written procedures and instructions will provide a better process thus reducing the variability of product (Curkovic, et al., 1999).
2.4 Organizational Performance

Organizational performance comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives) in terms of its profits. Organizational performance includes multiple activities that help in establishing the goals of the organization, and monitor the progress towards the target (Johnson et al. 2006). It is used to make adjustments to accomplish goals more efficiently and effectively. Organization performance is what business executives and owners are usually frustrated about. However, for any business to be successful, functions must be defined and accomplished. It is important for an organization to develop strategies that are designed around the skills that would enhance the performance of the organization (Athiyaman, 1995).

Gibson, R., Kehoe, D.(2010) argued that organizational performance is the final achievement of an organization and contains a few things, such as the existence of certain targets are achieved, has a period of time in achieving the targets and the realization of efficiency and effectiveness.

On the other hand, organizational performance refers to ability of an enterprise to achieve such objectives as high profit, quality product, large market share, good financial results, and survival at pre-determined time using relevant strategy for action (Koontz and Donnell, 2003). According to Swanson (2000), organizational performance is the valued productive output of a system in the form of goods or services. Organizational performance can be subdivided into three categories: financial performance (profit), internal non-financial performance (productivity) and external non-financial performance (e.g., customer satisfaction). There are a number of indicators by which company performance may be judged. The balanced scorecard offers both qualitative and quantitative measures that
acknowledge the expectations of different stakeholders and related to assessment of performance in choice of strategy.

In this way performance is linked both to short term outputs and process management. (Johnson et al. 2006). The balanced score card allows managers to look at the business from four important perspectives namely; the customer perspective which deals with critical success factors which include market share, customer retention rates and relevant products; the internal business perspective deals with critical success factors which include process cycle times, and productivity or capacity utilization; the financial perspective deals with critical success factors which include survival, profitability and revenues; the innovation and learning perspective which takes into consideration the critical success factors which include training, quality improvement and service leadership. The ability to launch new products, create more value for customers and improve operating efficiencies continually results in penetration of new markets, increase in revenues and margins.

Organizational performance can also be used to view how an enterprise is doing in terms of level of profit, market share and product quality in relation to other enterprises in the same industry. Consequently, it is a reflection of productivity of members of an enterprise measured in terms of revenue, profit, growth, development and expansion of the organization. Due to the realization that people are the most valuable assets in an organization, the important of performance management has been pushed to the fore (Bartlett and Ghoshal, 2005). The performance measurement system employed in an organization must therefore measure the performance of all assets including the human ones. The Balance Scorecard of Kaplan and Norton (1996) is a mechanism which provides a holistic measure of organizational performance. It is a set of measures that provide managers
a fast but comprehensive view of the business. The Balanced Scorecard is not only a measurement system but also a management system, which enables organizations to clarify their vision and strategy and translate them into action (Kaplan and Norton, 1996). It provides feedback around both the internal business processes and external outcomes in order to continuously improve strategic performance and results. When fully deployed, the Balance Scorecard transforms strategic planning from an academic exercise into the nerve centre of an enterprise (Norton, 1999). The Balance Scorecard includes both financial measures that tell the results of actions already taken, and operational measures that are the drivers of future financial performance (Kaplan and Norton, 1996).

2.5 Relationship between ISO 9001 Certification and Organizational Performance

ISO 9001 certification is important in today’s fast-paced manufacturing world with companies increasingly becoming ISO 9001 certified. However, impact of ISO 9001 certification on performance remains controversial with a number of empirical studies alluding to nullity of ISO certification on performance. International Organization for Standardization (ISO) 9001 is a quality management system which ensures that organizations, manufacturing and service, meet the needs of customers and other stakeholders (Poksinska, Dahlgaard and Antoni, 2002). Adoption of ISO 9001 certification yields visible and concrete benefits to organizations in the form of sustained product quality, enhanced market image, increased customer satisfaction, and long-term profitability. Globalization has radically changed the competitive landscape and process flows of business.

Kenya has a large manufacturing sector serving both the local and international market which is dominated by subsidiaries of multi-national corporations and contributes
approximately 13% of the Gross Domestic Product (Muhoho, 2006). To compete in today’s turbulent competitive business environment and global economy, organizations are focusing on the satisfaction of customers’ needs as a means of obtaining advantage, and even survival (Lai, Weerakoon and Cheng, 2002). A major strategic change is that many organizations are striving to achieve customer satisfaction through an emphasis on quality products and services. A greater need exists for shrewder investment in infrastructure and process standardization for business success.

In this regard, the International Organization of Standardization (ISO) seeks to promote standardization and the development of related activities worldwide in order to facilitate the international exchange of goods and services, and cooperation in the spheres of intellectual, scientific, technological and economic activities (Chow-Chua, Goh and Wan, 2003). The International Organization for Standardization, National Accreditation Registrars and 3rd party certification bodies based in Europe and America attest to ISO 9001 accreditation leading to enhancements in business performance (Dick, 2000). The British Standards Institute (BSI, 2000) avers that the consequent advantages accruing from ISO 9001 certification are greater responsibility, quality consciousness and accountability from staff. It also leads to better use of time and resources greater consistency and traceability of product or service, less wastage through product or service failure; continual improvement to your quality and efficiency; improved profit and wider market opportunities. Sun, (1999) investigated ISO 9001 certification in Norwegian companies and found that it was significantly correlated with quality results, especially the reduction of defective products and customer complaints, and the improvement of business performance such as
profitability and productivity. Tan and Lim-TeckSia (2001) investigated the benefits of ISO 9001 among a sample of 100 Malaysian companies. The study found a number of benefits: improved communication within the organization (78 per cent); improved product quality (63 per cent); increased process efficiency (53 per cent); improved human resource management (41 per cent); reduction in production costs (31 per cent); increased market share (12 per cent) and improved export potential (12 per cent). The United Kingdom research of Mann and Kehoe (1994) noted that quality certification was associated with improved business performance at the operational level, while Buttle’s (1996) survey of 1,220 certified UK companies found that improving operations as well as marketing gains were claimed by most of the firms following quality certification. Similar findings were found by Casadesus, Heras and Ochoa (2000) in their study of 500 Spanish firms. In Singapore, Quazi et al., (1998) found that in addition to marketing gains there were improvements in product quality.

Another study reported by Heras, Casadesus and Dick (2001) demonstrated that organizations which have implemented ISO 9001 systems have managed to achieve continuous enhancement and improvement and a better-run organization. Sissell (1996) surveyed 1,880 respondents and found that 95 per cent of companies had reported internal benefits such as better documentation, greater quality awareness by employees, enhanced internal communication and increased operational efficiency, while 85 per cent had experienced external benefits such as higher perceived quality, competitive advantage, reduced customer quality audits, improved customer demand, increased market share and quicker product to market. A study conducted by Zhang (2000) reported that registered
firms tended to achieve improvement in employee morale and personal accountability for job performance as a result of employees understanding their role in the total process. However, recent empirical studies have concluded that the most important benefits sought from ISO 9001 certification are profit improvements, process improvements and marketing benefits. Moreover, financial benefits have been found in certified companies; they had a significantly higher rate of return than before they were certified (Heras et al., 2000). Supporting evidence from Leung, Chan and Lee (1999) indicates that the majority of organizations investigated were happy with the benefits derived from ISO 9001 certification. A high percentage of the companies agreed with the following benefits having been achieved: clearer work procedures (96 per cent); improved quality of products and services (88 per cent); improved team spirit (77 per cent); a better control of subcontractors (73 per cent); increased efficiency (65 per cent) and less customer complaint (62 per cent). The implementation of ISO 9001 is a vital component in achieving business performance and customer satisfaction in organizations (Leung, H.K.N., Chan, K.C.C., and Lee, T.Y., 1999). There is, however, some evidence that being ISO 9001 certified does not guarantee improved performance due to the high explicit and implicit costs associated with implementation. Stevenson and Barnes (2001) identified four factors that tend to generate costs in achieving ISO 9001: time, training, consultants and the registration itself. According to Street and Fernie (1993), many manufacturers found ISO 9001 registration too expensive, time consuming, too formalized and impersonal. The costs of ISO 9001 certification tend to vary depending on the suitability and efficiency of existing systems and the competence of the staff (Mo and Chan, 1997). Therefore, the cost of ISO 9001 certification has been
identified as a major complaint against the standard (Mc Teer and Dale, 1994 and Stevenson et al., 2001).

2.6 Related Literature Review

2.6.1 Effects of ISO 9001 Certification on Organizational Productivity

Since its introduction in 1987 the ISO 9000 series of standards has become a worldwide success, with it now considered as the minimum standard for a quality management system. The number of ISO 9001 certified companies is increasing annually. Benefits of ISO 9001 certification reported in the literature can be classified in one of two categories: “operational benefits or “business” benefits. Operational benefits relate to organizations “internal operations, such as productivity and quality, whereas business benefits relate to finance and marketing.

In Indonesia SGS (2001) found that certification was done with the belief that it would bring external benefits such as greater productivity and operational efficiency, greater management control and greater employee awareness.

A number of studies have been undertaken to investigate the perceived benefits of ISO 9001 certification. Oakland (2005) examined the impact of ISO 9001:2000 certification on business performance by comparing certified and non-certified companies and concluded that ISO 9001 certified organizations achieved greater results than non-certified organizations. Certified organizations were also seen to achieve greater operational results than non-certified organizations. However, this study only samples one specific industry sector; the furniture industry. Also, the study only included organizations with 45 or more employees. This excludes small and micro furniture organizations and raises questions whether similar findings would be seen in other sectors, or within smaller organizations.
Zaramdini [8] investigated the benefits of certification by studying certified organizations in the United Arab Emirates (UAE). He concluded that organizations perceived that ISO9001 certification had generated more operational benefits than business benefits including: improved process and procedures, more quality aware employees, improved product and/or service quality and better customer service.

These positive impacts support the findings of Augustyn and Pheby (2000) who found that there was indeed a relationship with larger (100 and over employees) and medium (20-99 employees) firms experiencing greater operational benefits from ISO 9001 certification than small organizations (1-19 employees). However, these results contradict the findings of Beattie and Sohal (1999) who did not find any relationship between organizational size and operational benefits derived from ISO9001 certification in their empirical research of Greek organizations. Unlike Cañón and Garcés (2006), Dick (2000) did not focus on one specific industry.

Their sample was a cross-sectional “snapshot” and included organizations from various industries; however, they did not investigate if there were differences in the benefits between industrial sectors. Dimara (2004) studied both certified and non-certified organizations in Singapore finding that there was no statistical difference in the operational performance between certified and non-certified organizations. These results contradict the later study of Gupta (2000) as discussed previously, and support the findings of Haversjo (2000) who found no difference in the operational performance in certified and non-certified organizations. The various studies measure the benefits of ISO 9001 certification on different dimensions of performance. These studies were also undertaken in many countries which may affect the findings. Another factor that differentiates studies Kioko (2002) and Kufidu
and Vouzas (1998) from study Mc Teer and Dale (1994) which sampled companies certified to ISO9001:2000, is that companies examined in studies Miyumo (2003) and Morhman(1995) were certified to the earlier ISO 9001:1994 revision

2.6.2 Effects of ISO 9001 Certification on Quality of Service

Most of the retail industry has suddenly witnessed a major boom. Being a globalized market, the customers seek and demand world class products. In today’s global market, the competitive advantage lies in delivering high quality service to the customers. The need to achieve customer satisfaction lies in its ability to deliver better quality products to the customers. Wagwa (2005) reinforces the above argument by pointing out that customer satisfaction is considered as a pre-requisite for customer retention, loyalty and convenience which ultimately helps in realizing the goals of profitability, market share, growth, return on investment, productivity among others. Service quality is one of the highly debatable topics in marketing theory. There is a wide range of literature on customer satisfaction and service quality though both are different concepts but are closely related to each other. Therefore, in order to judge the link between two, a deep study of both concepts is required. Quality is a concept which requires a concern both in products as well as in services.

Various experts have defined it as fitness for use conformance to requirements of freedom from variation. To market a product, quality plays a pivotal role to sell a product. In fact, quality is considered as most important factor that influence on the buying behavior of the customer and now the question arises to measure quality of service or a product. In tangible goods like products, quality can be measured by its durability and number of defects, usage of product, packaging, handling among others. However measuring the quality in intangible products is a different one. As services are intangible so they are very difficult to measure
(Hassan, 2010). Services have a lot of intangible dimensions like communication, credibility, security, competence, reliability, responsiveness which are qualitative by nature and their value is subjective. Service quality is an abstract and elusive construct because of 4 unique features of services. Intangibility (Holmegaard, 1990) heterogeneity (Kufidu and Vouzas (1998), inseparability (Carman and Langeard, 2000) and perishability (Stanton, J. William 2004).

Services are those economic activities that typically produce an intangible product such as education, entertainment, food and lodging, transportation, insurance, trade, government, financial, real estate, medical, repair and maintenance. Intensified competition and deregulation has led many services and retail businesses to seek profitable ways to differentiate them; one strategy that has been related to success in these businesses is the delivery of high service quality (Lai, 2002). So service quality has become a significant research topic in past decade due to high revenues, increased cross sell ratios, higher customer retention, purchasing behaviors (Leung, 1999). So product and service quality, customer satisfaction and company profitability are inter-related with each other. The higher the quality level, the higher will be the customer satisfaction which supports high prices and low costs which in turn will help in improving the company’s profit (Mann and Kehoe, 1994).

2.6.2.1 Measuring the Service Quality

Service providers must understand two attributes of service quality. Firstly, the quality is defined by the customer and not by the product seller. Secondly, customers assess service quality by comparing their expectations to their perception of how the service is performed. In this process, there is no guarantee that expectations will be reasonable, nor are there any
assurances that a customers’ perception of performance will be based on more than a single experience. Mc Adam and Mc Keown (1999) point out that to deliver better quality services to the customers, it is required that services must be standardized and for standardizing the quality of a service, the delivery of the service must be substituted with machines and the employees wherever possible.

For example, machines, websites and electronic procurement gives the same kind of services to all the customers irrespective of any human biasness in delivering the service and at the same time the machine will not suffer from any fatigue, forgetfulness and stress. But if the customer is not adapt at surfing the internet, forgets the required number and becomes impatient with the branch process on a recorded telephone answering system then the quality of the service will be hampered and inconsistent. So, despite standardization and reliability of machines, this is one fact that may explain why internet shopping accounts for merely 2% of the total retail sales. So, it could be judged that although quality could be standardized by using machines, at the same time it depends upon the customers’ adaptation and willingness in terms of how much the customer is patient, aware and satisfied with the machines in place of humans. This is one of the reasons that despite total automation in the banking sector still human resource plays a vital role in delivering and explaining the service (Taylor and Baker, 2004).

2.6.2.2 Measuring Service Quality in service providing organizations

Customer is the kingpin for the development of trade, industry and service sector particularly in retail services. So, the significance of customer service in the supermarket came to force to compete in a market driven environment. Measuring service quality in the service sector particularly in the retail sector is more difficult than measuring the quality of
manufactured goods. The service sector as a whole is very heterogeneous and what is heterogeneous may hold true for one service and may not hold for another service sector. For example, the nature of services provided by a hospital and those provided by a hotel are very different. In fact, in the retail industry, there are a variety of services like cashiering, customer care and each has a variety of services within it. Taylor, 2004 stipulates that it is due to this differentiation that services in this industry could not be standardized; moreover these services are intangible in nature and therefore can neither be compared nor seen.

The concepts of customer satisfaction and service quality are interrelated and satisfaction of a customer depends upon service quality which is increasingly offered as a strategy by marketers to position themselves more effectively in the market (Parasuraman 2005). Due to the era of e-procurement, quality of service has been improved a lot as compared to traditional services. Electronic fund transfer and services has totally changed the way of providing services. However, some banks like in the private sector are providing it in a very efficient way while others are making efforts to adopt it (Hackl, Scharitzer and Zuba, 2000).

2.6.2.3 SERVQUAL Scale

The SERVQUAL model, later renamed RATER, an acronym for reliability, assurance, tangibles, empathy and responsiveness, is a quality management framework which was developed in the mid-1980s by Zeithaml, Parasuraman & Berry to measure quality in the service sector. The SERVQUAL authors originally identified ten elements of service quality, but in later work, these were collapsed into five factors - that create the acronym RATER.
Businesses using SERVQUAL to measure and manage service quality deploy a questionnaire that measures both the customer expectations of service quality in terms of these five dimensions, and their perceptions of the service they receive. When customer expectations are greater than their perceptions of received delivery, service quality is deemed low. In addition to being a measurement model; SERVQUAL is also a management model. The SERVQUAL authors identified five Gaps that may cause customers to experience poor service quality (Zeithaml, Parasuraman& Berry, 1990)

Gap 1: **between consumer expectation and management perception**: This gap arises when the management does not correctly perceive what the customers want. For instance, hospital administrators may think patients want better food, but patients may be more concerned with the responsiveness of the nurse. Key factors leading to this gap are: Insufficient marketing research; poorly interpreted information about the audience's expectations; research not focused on demand quality and too many layers between the front line personnel and the top level management (Zeithaml, Parasuraman& Berry, 1990).

Gap 2: **between management perception and service quality specification**: Although the management might correctly perceive what the customer wants, they may not set an appropriate performance standard. An example would be when hospital administrators instruct nurses to respond to a request ‘fast’, but may not specify ‘how fast’. Gap 2 may occur due to the following reasons: Insufficient planning procedures; lack of management commitment; unclear or ambiguous service design and unsystematic new service development process(Zeithaml, Parasuraman& Berry, 1990).
Gap 3: **between service quality specification and service delivery**: This gap may arise through service personnel being poorly trained, incapable or unwilling to meet the set service standard. The possible major reasons for this gap are: Deficiencies in human resource policies such as ineffective recruitment, role ambiguity, role conflict, improper evaluation and compensation system; ineffective internal marketing; failure to match demand and supply and lack of proper customer education and training (Zeithaml, Parasuraman & Berry, 1990).

Gap 4: **between service delivery and external communication**: Consumer expectations are highly influenced by statements made by company representatives and advertisements. The gap arises when these assumed expectations are not fulfilled at the time of delivery of the service. For example, the hospital printed on the brochure may have clean and furnished rooms, but in reality it may be poorly maintained, in which case the patients' expectations are not met. The discrepancy between actual service and the promised one may occur due to the following reasons: Over-promising in external communication campaign; failure to manage customer expectations and failure to perform according to specifications (Zeithaml, Parasuraman & Berry, 1990).

Gap 5: **between expected service and experienced service**: This gap arises when the consumer misinterprets the service quality. For example, a physician may keep visiting the patient to show and ensure care, but the patient may interpret this as an indication that something is really wrong (Zeithaml, Parasuraman & Berry, 1990).

The above five gaps are represented by a SERVQUAL gap model shown below.
The ten SERVQUAL components that may influence the appearance of a gap are:

**Competence** which is the possession of the required skills and knowledge to perform the
service. For example, there may be competence in the knowledge and skill of contact personnel, knowledge and skill of operational support personnel and research capabilities of the organization; **Courte$$y**-is the consideration for the customer's property and a clean and neat appearance of contact personnel, manifesting as politeness, respect, and friendliness; **Credibility** includes factors such as trustworthiness, belief and honesty. It involves having the customer's best interests at prime position. It may be influenced by company name, company reputation and the personal characteristics of the contact personnel; **Security** enables the customer to feel free from danger, risk or doubt including physical safety, financial security and confidentiality; **Access** is approachability and ease of contact; for example, convenient office operation hours and locations; **Communication** means both informing customers in a language they are able to understand and also listening to customers. A company may need to adjust its language for the varying needs of its customers. Information might include for example, explanation of the service and its cost, the relationship between services and costs and assurances as to the way any problems are effectively managed; **Knowing the customer** means making an effort to understand the customer's individual needs, providing individualized attention, recognizing the customer when they arrive and so on. This in turn helps to delight the customers by rising above their expectations; **Tangibles** are the physical evidence of the service, for instance, the appearance of the physical facilities, tools and equipment used to provide the service; the appearance of personnel and communication materials and the presence of other customers in the service facility; **Reliability** is the ability to perform the promised service in a dependable and accurate manner. The service is performed correctly on the first occasion, the accounting is correct, records are up to date and schedules are kept; **Responsiveness** is
the readiness and willingness of employees to help customers by providing prompt timely services, for example, mailing a transaction slip immediately or setting up appointments quickly (Zeithaml, Parasuraman& Berry, 1990).

By the early 1990s, the authors had refined the model to five factors that enable the acronym RATER: **Reliability**: the ability to perform the promised service dependably and accurately; **Assurance**: the knowledge and courtesy of employees and their ability to convey trust and confidence; **Tangibles**: the appearance of physical facilities, equipment, personnel and communication materials; **Empathy**: the provision of caring, individualized attention to customers; **Responsiveness**: the willingness to help customers and to provide prompt service. The simplified RATER model allows customer service experiences to be explored and assessed quantitatively and has been used widely by service delivery organization (Zeithaml, Parasuraman& Berry, 1990).

Nyeck, Morales, Ladhari, and Pons (2002) stated the SERVQUAL measuring tool “appears to remain the most complete attempt to conceptualize and measure service quality”. The SERVQUAL measuring tool has been used by several researchers to examine numerous service industries such as healthcare, banking, financial services, and education (Nyeck, Morales, Ladhari, & Pons, 2002).

The relative importance of these variables is also measured. This enables you to compute the relative importance of any gaps between expectation and perceptions. Management can then focus on strategies and tactics to close the important gaps. SERVQUAL can be used or adapted to measure service quality in a variety of service settings. Another advantage is that it can be used to compare competitors and wide range of services. This method could also be
used for internal marketing. It is based on the idea that every individual in an organisation, particularly a service organisation, should recognise that they have customers to serve. There is a positive link between internal service quality and external service quality and hence customer satisfaction, customer loyalty and the profitability of the organisation. McCabe, Rosenbaum, and Yurchisin (2007) assessed the variations in the SERVQUAL scale by employing its use in ascertaining organizational performance through employee satisfaction. Personnel can be given the opportunity to give feedback to management about working conditions, company policy in general and workers’ own understanding about what comprises quality for the customer. The study found out that the relationship between organisational subunits and their relationship to top management play a very important role in employee performance.

2.6.3 Effects of ISO 9001 Certification on Cost of service

The provision of high-quality, affordable, health care services is an increasingly difficult challenge. Due to the complexities of health care services and systems, investigating and interpreting the use, costs, quality, accessibility, delivery, organization, financing, and outcomes of health care services is key to informing government officials, insurers, providers, consumers, and others making decisions about health-related issues. Health services researchers examine the access to care, health care costs and processes, and the outcomes of health services for individuals and populations. The field of health services research (HSR) is relied on by decision makers and the public to be the primary source of information on how well health systems in the United States and other countries are meeting this challenge. The goal of HSR is to provide information that will eventually lead to improvements in the health of the citizenry. Transformation in government hospital service
delivery is taking place around the world, as the public sector adopts citizen-centric service ideals. Leading governments are shifting from a programmatic model of service delivery to a citizen-focused model where service delivery is focused on people, not programs. Governments are realizing that more efficient service delivery can dramatically improve public sector value.

In recent years, society and customers, have shown concerns about the performance of products or/and services that are achieved. These concerns have forced companies to rethink their strategies assigning more importance to quality standards. The certification according to the ISO 9001 standard is recognition of products and/or services conformity, customer satisfaction and continuous improvement. The number of certified companies in Portugal has steadily increased, and in 2009 there were 7,110 ISO 9001 certifies companies, which corresponds to approximately 14% of certified companies with 10 or more employees (Sampaio and Saraiva, 2010). The cost of service had become an important research topic because of its relation to costs, profit, customer satisfaction, customer service, driver marketing, financial performance and strategy (Dick, 2002; Pires, 2004).

Based on literature review carried out we are able to find a unique definition of quality. The concept and its definition vary according to the measurement instruments used and are related to different perspectives. However, a broad definition we agree on is that quality is based on the needs, expectations, perceptions and customer satisfaction (Caro and Garcia, 2009). Companies that decide to implement and certify their quality management system based on internal motivations get larger and more significant improvements in organization and management. Moreover, when top management is deeply involved and committed, the
customer is found to demonstrate greater satisfaction (Poksinska et al., 2006; Sampaio, 2008; Sampaio, et al., 2009; Wahid e Corner, 2009).

According to Buttle (1997), in one of the largest surveys in the UK involving 1200 ISO certified companies, it was found that firms sought ISO in order to enjoy both operational and marketing benefits which impact on costs, revenues inferring on profits. The top three benefits sought were profit improvement and marketing benefits.

Thus, companies have started to engage in the evaluation of customer’s satisfaction. This was also influenced by the fact that the ISO 9001 requires methods for measuring and monitoring if the process by which the service is delivered is according to customer specifications (Dick, 2002). In order to support an ISO 9001 implementation it is necessary to analyze its impact on customer’s, checking the level of satisfaction and confidence in the processes and services provided by the certified companies (Dick, 2002). Several studies addressed customer satisfaction, including their perception and expectations (Parasuraman et al., 1988; Wisniewski, 2001; Muffatto and Panizzolo, 1995; Bond and Fink, 2003; Hall, 1997). One of the most widespread methodologies related to this issue is the SERVQUAL that can be used by managers in order to improve product/service performance. Moreover, ISO 9001 effects have been analyzed regarding customers perception of management issues, such as benefits of certification and productivity improvements. Nevertheless, customer’s feedback concerning the perceived differences between certified and non-certified firms has not been systematically analyzed (Brown, Van Der Wyle, and Loughton, 1998).
2.6.4 Effects of ISO 9001 Certification on Reputation of an Organization

Reputation of a social entity (a person, a social group, an organization) is an opinion about that entity, typically a result of social evaluation on a set of criteria. It is important in business, education, online communities, and many other fields. Reputation may be considered as a component of identity as defined by others. Reputation is known to be a ubiquitous, spontaneous, and highly efficient mechanism of social control in natural societies (Casadesus, Heras, and Ochoa, 2000). It is a subject of study in social, management and technological sciences. Its influence ranges from competitive settings, like markets, to cooperative ones, like firms, organizations, institutions and communities. Furthermore, reputation acts on different levels of agency, individual and supra-individual. At the supra-individual level, it concerns groups, communities, collectives and abstract social entities (such as firms, corporations, organizations, countries, cultures and even civilizations). It affects phenomena of different scales, from everyday life to relationships between nations. Reputation is a fundamental instrument of social order, based upon distributed, spontaneous social control (Ragothaman and Korte, 1999).

Corporate reputation is the overall estimation in which an organization is held by its internal and external stakeholders based on its past actions and probability of its future behavior. The organization may have a slightly different reputation with each stakeholder according to their experiences in dealing with the organization or in what they have heard about it from others. Many organizations put the importance of a good reputation to the back of their minds while they attend to more hard-edged, day-to-day urgencies. On the other hand, many organizations consider their greatest asset to be their good name or reputation. This is
especially true in knowledge-based organizations such as professional services firms in the consulting, legal, medical, and financial sectors and in universities (Dimara, 2004).

According to Raphael (2010), Bonite Bottlers was the first company to be ISO 9001 certified in Tanzania in the year 2000. He also observed that the common factor to most ISO 9001 certified companies is that they trade internationally. A study by Casadesus and Jimenez (2000) also indicated that ISO 9001 certification served to improve the possibility of obtaining new contracts and accessing new markets.

They work actively to build their good reputation, to build the ‘bank of goodwill’ towards them (Ozgur, Meek, and Toker, 2002). The main benefits of a good corporate reputation can be found in: Customer preference in doing business with you when other companies’ products and services are available at a similar cost and quality; ability to charge a premium for products and services; Stakeholder support for your organization in times of controversy and organization’s value in the financial market. Although reputation is an intangible concept, research universally shows that a good reputation demonstrably increases corporate worth and provides sustained competitive advantage. A business can achieve its objectives more easily if it has a good reputation among its stakeholders, especially key stakeholders such as its largest customers, opinion leaders in the business community, suppliers and current and potential employees (Sroufe, and Curkovic, 2008).

While the utilization of the workmanship improvement system is easily accomplished by ISO certification, the most effective results may be achieved in conjunction with experienced, skilled personnel, and the judgment of the management (BSI, 2000). Considering the competitive nature of the market and high demand for quality projects and
products from consumers, governments, and corporate organizations, the system will serve as an important tool for managers to compete and remain in the market (Beattie, and Sohal, 1999). It will enhance their organizational image, and reputation, and increase customer patronage and the quality of their work. Besides, if applied properly by managers, it will eliminate operational failures, project delays, and problems of rework, defects, and systemic factors (Street, and Fernie, 1993).

2.7 Critical Review

A common criticism of ISO 9000 and 9001 is the amount of money, time, and paperwork required for registration. Miyumo (2003) cites the "inordinate and often unnecessary paperwork burden of ISO, and says that quality managers feel that ISO's overhead and paperwork are excessive and extremely inefficient. According to Barnes, "Opponents claim that it is only for documentation. Proponents believe that if a company has documented its quality systems, then most of the paperwork has already been completed. Wilson suggests that ISO standards elevate inspection of the correct procedures over broader aspects of quality, and therefore, the workplace becomes oppressive and quality is not improved (Clifford, 2005).

According to Mann and Kehoe (1994) ISO 9001 promotes specification, control, and procedures rather than understanding and improvement. Wade (2010) argues that ISO 9000 is effective as a guideline, but that promoting it as a standard helps to mislead companies into thinking that certification means better quality (undermining) the need for an organization to set its own quality standards. Paraphrased, Wade's argument is that reliance on the specifications of ISO 9001 does not guarantee a successful quality system (Kioko, 2002).
The standard is seen as especially prone to failure when a company is interested in certification before quality. Certifications are in fact often based on customer contractual requirements rather than a desire to actually improve quality. If you just want the certificate on the wall, chances are you will create a paper system that doesn't have much to do with the way you actually run your business, said ISO's Roger Frost. Certification by an independent auditor is often seen as the problem area, and according to Barnes, "has become a vehicle to increase consulting services (Haversjo, 2000).

Dimara (2004) argues that while quality has a positive effect on return on investment, market share, sales growth, better sales margins and competitive advantage, that taking a quality approach is unrelated to ISO 9000 registration (Garvin, 1988). In fact, ISO itself advises that ISO 9001 can be implemented without certification, simply for the quality benefits that can be achieved. Abrahamson (2011) argues that fashionable management discourse such as Quality Circles tends to follow a lifecycle in the form of a bell curve, possibly indicating a management fad (Chow-Chua, 2003).

2.8 Conceptual Framework

Conceptual framework is defined as the result of when a researcher conceptualizes the relation between variables in the study and shows the relationship graphically or diagrammatically. It is therefore a linked set of variables that are backing up in the critical analysis. It is made of the dependent and the independent variables. The dependent variable in this study is organizational performance conceptualized by organizational productivity, quality of service, cost of service and the reputation of organization. The independent variable of this study is ISO 9001 certification conceptualized by senior management commitment, supplier vetting, handling and storage and internal audits. These constructs and
relationships are presented in the following hypothetical framework as conceptualized by the researcher. This is as shown on figure 2.1

**Figure 2.2 ISO 9001 Certification and Organizational Performance**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ISO 9001 Certification)</td>
<td>(Organizational Performance)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ISO 9001 Certification</th>
<th>Organizational Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Senior management commitment</td>
<td>• Organizational productivity</td>
</tr>
<tr>
<td>• Supplier vetting</td>
<td>• Quality of Service</td>
</tr>
<tr>
<td>• Handling and storage</td>
<td>• Cost of Service</td>
</tr>
<tr>
<td>• Internal &amp; external audits</td>
<td>• Reputation of an organization</td>
</tr>
<tr>
<td>• Management Committees</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Moderating variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Organizational policies</td>
</tr>
<tr>
<td>• Government policies</td>
</tr>
<tr>
<td>• Market dynamics</td>
</tr>
</tbody>
</table>

*(Researcher’s Own Work, 2014)*

Figure 2.1 show that ISO 9001 certification affects organizational productivity, quality of service, cost of service and reputation of the organization.

**2.8.1 Elements ISO 9001 Certification**

According to Wilson (2010), the following are the main elements of ISO 9001: 2008;
2.8.1.1 Senior Management Commitment

In order to receive ISO accreditation, the organization must prove that senior management is fully committed to implementing and maintaining the relevant quality control procedures. Without this, the business would lack the drive required to carry out the regular audits and checks that ISO 9001 requires. In order to demonstrate commitment, the senior management team should ensure that one of its members oversee the implementation and maintenance of ISO 9001 procedures.

2.8.1.2 Supplier Vetting

Under ISO 9001 procedures, the organization must ensure that all new suppliers undergo an extensive and thorough vetting process. This will ensure that the supplier has good references and adequate resources to meet demand and uses materials that are of the highest quality. This is an important part of ISO 9001, and it forms the basis for long-lasting and mutually beneficial relationships.

2.8.1.3 Design Control

An organization that wishes to achieve ISO 9001 accreditation must ingrain quality management into its culture. Businesses must ensure their employees are trained in carrying out regular quality checks and looking for ways to improve processes where possible. The company must document any changes to a design or product and inform all relevant parties at once.
2.8.1.4 Handling and Storage

ISO 9001 procedures require companies to handle and store products in a safe and careful manner so that they do not become damaged or susceptible to disrepair. The company should write up its processes for procedures such as loading transport vehicles and communicate them to employees. Employees should store products away from the floor so as to avoid damage from frost and water.

2.8.1.5 Internal and external Audits

An organization that has implemented ISO 9001 must carry out regular audit checks to ensure that procedures are being adhered to at all times and that they are being updated regularly to come into line with the company's demands. The board of management must review the audit results and correct any defects or faults within a given time frame.

2.8.2 Measures of organizational performance

2.8.2.1. Organizational Productivity

ISO 9001 certification enhances organizational productivity through achieving and sustaining outstanding levels of performance that meet or exceed the expectations of all their stakeholders. It allows the management and its employees to understand the cause and effect relationships between what their organization does and the results it achieves. Organizational productivity is seen within the organization through.

2.8.2.2 Quality of Service

According to the figure above ISO 9001 certification is likely to lead to improved customer relations in the organization in that the organization gets to relate to its customers well
leading to higher level of quality service in the long run. Quality ensures speed in service delivery which means that the implementation of ISO 9001 certification will ensure that the customers get their services fast and reliably and at the same time.

2.8.2.3 Cost of Service

ISO 9001 certification has an effect on the cost of services whereby, the services offered at the hospital are of affordable rates to the customers, the rates are cheaper as compared to other hospitals hence customer referrals and the needy cases are able to benefit from the waiver services.

2.8.2.4 Reputation of an organization

ISO 9001 standards provide an avenue through which the hospital workers are always available ensuring continuous flow of service delivery. It also ensures that the institutions have a stronger competitive position in the industry. Availability of required skills and knowledge is another important factor through which reputation of an organization is built through ISO certification bases. All the above create a satisfied customer base.

2.8.3 Moderating variables

2.8.3.1 Organizational policies

The successful implementation of the ISO certification standards would, to a large extent, depend on whether or not the organizational policies provide an enabling environment for such implementation. The hospital must have internal policies that ensure customer satisfaction and provision of quality service to complement the intended standards by the organization.
2.8.3.2 Government policies

The government through its agencies such as the Kenya medical research institute (KEMRI) and the Kenya bureau of standards (KEBS) has a responsibility of outlining standards that healthcare providers have to meet in their operations. These standards bridge the gap between ISO certification and organizational performance and provide an external audit avenue for certification.

2.8.3.3 Industry dynamics

The market or industry dynamics also plays an important part in influencing the extent to which ISO certification affects the performance of an organization. A constantly changing Macro and Micro environment of the organization has led to the constant revision of organizational strategies which in turn makes it hard for an effective implementation of the ISO standards.
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction
This chapter describes the research design, the target population, sample and sampling procedures, reliability and validity of the research instruments as well as the techniques used in data analysis.

3.1 Research Design.
Research design is a plan for collecting and utilizing data so that desired information can be obtained with sufficient precision (Miles and Huberman, 2004). The study adopted a case study research design. According to Yin (1994) a case study research method is an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used. A study by Mugenda (2003) also points out that case study research excels at bringing us to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research. Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships (Orodho, 2003).

3.2 Research Area
The study was conducted in Moi Teaching and Referral Hospital. Moi Teaching and Referral Hospital is located in a rural setting of Western region of Kenya in Eldoret town, Uasin-Gishu County. It is about 320km North West of Nairobi. The hospital is located along the Nandi Road, East of Eldoret town. This area is selected because there is no evidence of a
similar study having been done in the study area. The area was also selected because the hospital is ISO 9001 certified and it is therefore believed that the study area would give a wide and varied view of the problem under study.

### 3.3 Target Population

Target population is a study of a group of individuals taken from the general population who share a common characteristic, such as age, and sex.. Target population about which information is desired for the study is derived from the population. The population that is actually surveyed is the study population (Mugenda and Mugenda, 1999). The population of interest in the study consisted of the employees at Moi Teaching and Referral Hospital. The study focused on 20 Top Managers, 48 Middle Level Managers and the 235 Operational Managers totaling to 303 managers across all levels of management as shown on table 3.1

**Table 3.1 Target Population**

<table>
<thead>
<tr>
<th>Target Group</th>
<th>Target Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Managers</td>
<td>20</td>
</tr>
<tr>
<td>Middle Level Managers</td>
<td>48</td>
</tr>
<tr>
<td>Operational Managers</td>
<td>235</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>303</strong></td>
</tr>
</tbody>
</table>

*Source: (Moi Teaching and Referral Hospital, 2014)*

### 3.4 Sample and Sampling Procedures

Kothari (2004) define a sample as part of the target population that has been procedurally selected to represent it. Sampling is the process of systematically selecting representative elements of a population. A sample size of 169 respondents was chosen for the study. The study employed purposive sampling to select the top management, purposive and stratified sampling for middle level managers while simple random sampling was used to select the
operational managers within the hospital. In purposive sampling, Subjects are selected because of some characteristic. Purposive sampling is popular in qualitative research. Patton (1990) has proposed that among other cases, purposive sampling can be appropriate where there’s maximum variation in responses and it serves to identify important common patterns that cut across variations. Again it was important to purposively sample the top management since it was noted from the hospital sources that some top managers would not have had the time for interviews. It was also found that certain managers were directly involved with the organizational strategies. Therefore the sampling procedure was chosen since the study would have more knowledgeable and readily available respondents. Stratified sampling techniques are generally used when the population is heterogeneous, or dissimilar, where certain homogeneous, or similar, sub-populations can be isolated (strata). Sub groups from each of the offices of the assistant deputy directors; allied and clinical services, clinical services, administration and finance were taken to give diverse and representative views of the organization. Simple random sampling was used to avoid biasness and every individual to have an equal chance to participate in the study. It also ensured that the cost per observation was greatly reduced.

The sample size of the study was calculated using the formula below as recommended by Mugenda (2003):

\[ nf = \frac{n}{1 + \frac{n}{N}} \]

Where;

- \( nf \) = Sample size (when the population is less than 10,000).
- \( n \) = Sample size (a constant when the population is more than 10,000); 384
Sample size for the respondents

\[ nf = \frac{384}{1 + \frac{384}{303}} \]

The desired sample size thus comprised of 169 respondents.

Table 3.2 Sample Frame of the Respondents

<table>
<thead>
<tr>
<th>Category</th>
<th>Target Population</th>
<th>Procedures</th>
<th>Sample Frame</th>
<th>Sampling Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Management</td>
<td>20</td>
<td>20/303*169</td>
<td>11</td>
<td>Purposive Sampling</td>
</tr>
<tr>
<td>Middle Level Managers</td>
<td>48</td>
<td>48/303*169</td>
<td>27</td>
<td>Purposive and stratified Sampling</td>
</tr>
<tr>
<td>Operational managers</td>
<td>235</td>
<td>235/303*169</td>
<td>131</td>
<td>Simple Random Sampling</td>
</tr>
<tr>
<td>Total</td>
<td>303</td>
<td></td>
<td>169</td>
<td></td>
</tr>
</tbody>
</table>

Source: (Moi Teaching and Referral Hospital, 2014)

3.5 Data Collection Instruments

This refers to the tools to be used for collecting data and how these tools will be developed.

The data collection instruments that were used to collect data from the selected respondents were questionnaires. Selection of this tool was guided by the nature of data to be collected, time available and objectives of the study.

3.5.1 Questionnaires

The study used primary data which was collected through self-administered questionnaires.

The structured questionnaires were used to collect data on the effect of ISO 9001 certification to organizational performance. The questionnaires consisted closed ended
questions for quantitative analysis. The questionnaires were administered through “drop and pick later” method.

Adequate time was given for the respondent to answer questions, and the respondent used semi-structured questionnaires to avoid misunderstanding or wrong interpretation. The questionnaires utilized a five point likert scale namely Strongly Agree (SA), Agree (A), Neutral (N), Disagreed (D) and Strongly Disagree (SD) which were assigned scores of between 1 and 5. This allowed the researcher to draw conclusions based on comparisons made from the responses. The researcher opted to use questionnaires so as to collect a lot of information over a very short period of time.

3.6 Reliability of the Research Instruments

It was necessary to ascertain the validity and reliability of the instruments used to collect data so that the research findings could be reliable. Bless and Higson-Smith (2005) highlight that reliability is “concerned with the consistency of measures”, thus, the level of an instrument’s reliability is dependent on its ability to produce the same score when used repeatedly. The questionnaires used for the purposes of this study were designed by a panel of experts at the University.

The researcher also used the test re-test method to determine the reliability. To ensure reliability of the instruments the researcher conducted a pilot study at Academic Model Providing Access to Health Care (AMPATH), a USAID funded institution which works closely with but independent from MTRH, before the actual study. The results from the pilot study were not included in the main study. The main purpose of the pilot study was to check on suitability and the clarity of the questions on the instruments designed, relevance of the
information being sought, the language used and the content validity of the instruments from the responses given.

### 3.7 Validity of the Research Instruments

According to Miles and Huberman (1994) validity on the other hand refers to whether an instrument actually measures what it is supposed to measure, given the context in which it is applied. In order to ascertain content and face validity, the questionnaires and interviews were presented to the supervisors in the University for Scrutiny and advice. The contents and impressions of the instruments were improved based on the lecturer’s advice and comments. The questionnaire was then constructed in a way that they related to each question. That ensured that all research questions were covered. The questionnaires used in this study were given to the independent experts in consultation with a statistician to evaluate it for face and content validity as well as for conceptual clarity and investigative bias. In terms of using the information gathered through the questionnaire, it must be emphasized that no summative scores were used for interpretation purposes but rather the answers to individual items in the questionnaire. According to Polit and Hungler (2007), a pre-test is a trial run to determine whether an instrument solicits the type of information envisioned by the researcher.

### 3.8 Data Collection Procedures

The researcher obtained a letter of introduction from Kisii University, Faculty of Commerce. Once the research proposal was approved, a research permit was then obtained from the National Commission for Science, Technology and Innovation before the researcher proceeded to the Moi Teaching and Referral Hospital administration through Institutional Research and Ethics Committee (IREC) to seek the consent to conduct the research. Once
the permission was granted, the researcher arranged to visit the respondents within Moi
Teaching and Referral Hospital for familiarization purposes and to seek permission from the
management concerning the intended date of data collection within their organization. After
their participation was confirmed, a date was set and appointment booked with the
organization authorities as well as the participants in the study. The participants were given
time to respond to all the items in the questionnaires. Then the questionnaires were collected
for data analysis.

3.9 Pilot Study
A pilot experiment, also called a pilot study, is a small scale preliminary study conducted
before the main research in order to check the feasibility or to improve the design of the
research. Pilot studies therefore may not be appropriate for case studies. They are frequently
carried out before large-scale quantitative research in an attempt to avoid time and money
being wasted on an inadequately designed project.

The researcher conducted a pilot study at AMPATH in order to test the validity and
reliability of the research instruments. The organization and the respondents that were taken
for pilot study were not included in the main study.

3.10 Data Analysis techniques
Data analysis is the process of creating order, structure and meaning to the mass of
information collected (Mugenda, 2003). The data collected was analyzed using descriptive
statistics. Descriptive statistics is the discipline of quantitatively describing the main features
of a collection of data which provides simple summaries about the sample and about the
observations that have been made (Dodge, 2003). The descriptive statistics that were used
included frequencies tables and percentages. Graphs and charts were also used to analyze data.

Another descriptive statistics that was used is correlation to determine the relationships between the variables of the study. The inferential statistics ANOVA was also used to test research hypothesis. It was used to measure the relative influence of the independent variable based on its covariance with dependent variable and was useful in forecasting. Usually, it is most appropriate when both the independent and dependent variables are interval, though some social scientists also use ordinal data.

To establish this relationship between the variables, the study employed correlation analysis and the ANOVA model. The correlation analysis established the relationship between the dependent variables while the ANOVA was used to establish the relationship between the independent and the dependent variables.

Analysis was done using SPSS a computerized statistical package by encoding responses from questionnaires and interview guides. Presentation of this information was done using tables.

3.11 Ethical Issues

To ensure that the study complied with the ethical issues pertaining research undertaking, a permission to conduct the research was sought from the respective authorities. A full disclosure of all the activities concerning the study were explained to the authorities and this involved the study intention which was only for learning purposes. A high level of confidentiality and privacy was observed and the findings of the study will only submitted to the University and the Moi Teaching and Referral Hospital.
A letter of introduction was also obtained from the University to serve as evidence of the purpose of the study. A permit to conduct the research was also obtained from the National Commission for Science and Technology. Another important authority for the research was obtained from the study area, Moi Teaching and Referral Hospital through the Institutional Research and Ethics Committee. All this was done in a bid to ensure that the research was to be conducted in strict regard to spelt out ethical guidelines.

In respect for the informants and in order to protect them from abuse resulting from the data they gave for the research, data was presented in such a way that it did not link to individuals who gave it except by the researcher who might have needed to seek clarification during analysis of data.
CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.0 Introduction

This chapter provides a background of the respondents, presents analysis and findings of the study as set out in the research thesis methodology. A sample of 23 middle level managers and 123 operational managers constituting a total sample population 146, which is 92.4% of the 158-targeted sample, returned their questionnaires. The analysis was done using the 146 filled questionnaires out of the 158 questionnaires that were distributed. Since the number of questionnaires collected was 92.4%, it was deemed to be reasonably adequate and sufficient for purposes of data analysis as suggested by Field (2005). The respondents were quite cooperative and the data provided was taken to be a true representation of the respondents views due to independence of the study carried out.

4.1 Background Information

4.1.1 Gender of the respondents.

The researcher classified the middle level managers and operational managers according to their gender to get representation from both genders hence eliminating biasness that could be generated by getting information from one gender. The gender consideration was necessary since the responses would be determined by personal likes and dislikes that tend to vary across gender. Female respondents are generally known to be hastier in their responses compared to their male counterparts.

The gender information was as represented by the table 4.1 and shown by fig. 4.1
Table 4.1: Gender of the respondents

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle Management</td>
<td>9</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>39.1</td>
<td>60.9</td>
<td>100</td>
</tr>
<tr>
<td>Operational managers</td>
<td>48</td>
<td>45</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>61</td>
<td>100</td>
</tr>
</tbody>
</table>

Key: F- frequency

The total number of the respondents among the middle level managers was 23, 14 of them were female forming 60.9% and 9 were male forming 39.1%. Similar proportions were realized among the operational managers; 75(61.0%) out of 123 were female and 48(39%) were male. This means therefore that the representation of the middle level managers and operational managers in this survey was unbiased.

Fig 4.1: Gender of the Respondents

Source: (Author’s Data, 2014)
4.1.2 Age Distribution of the Respondents

The researcher sought to establish the age distribution of the respondents. This demographic feature affects behaviors or perception of respondents. It was necessary to assess the age of respondents, as this would affect the way each would behave in the work place. At an early age, many people may only be interested in those aspects of organizational processes that contribute to their motivation. Most of them do not seem to care about the success of the organization. Older people on the other hand seem to believe in goals other than personal and therefore would be expected to give responses that affect the organization. A mix of both views would give a better position though.

Table 4.2: Ages of the respondents

<table>
<thead>
<tr>
<th></th>
<th>Less than 30 years</th>
<th>Between 31 and 40 years</th>
<th>Between 41 and 50 years</th>
<th>Over 50 years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle Management</td>
<td>F 12</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>% 52.2</td>
<td>13</td>
<td>17.4</td>
<td>17.4</td>
<td>100</td>
</tr>
<tr>
<td>Operational managers</td>
<td>F 58</td>
<td>37</td>
<td>22</td>
<td>6</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>% 47.2</td>
<td>30.1</td>
<td>17.9</td>
<td>4.9</td>
<td>100</td>
</tr>
</tbody>
</table>

Key: F- frequency

Responses showed that for the middle level managers those who were aged less than 30 years were 52.2%, between 31 and 40 years among were 13% between 41 and 50 years were 17.4%, while those who had more than 50 years were 17.4%.

From the operational managers; 47.2% were below 30 years between 31 and 40 years were 30.1%, 22(17.9%) were between the ages of 41-50, while those who had more than 50 years 4.9%.
4.1.3 Educational Level

The establishment of educational levels was important since it is known that at higher educational level one is more exposed to a deeper understanding of, an especially dynamic subject as, ISO certification and therefore will be better placed to give a more informed response. However, it is also important to include those with a lesser educational qualification to reflect how well the concept of ISO certification has been understood at different educational levels in the organization. An all inclusive study would be able to elicit a more balanced and representative responses.
Table 4.3 Educational level of the respondents

<table>
<thead>
<tr>
<th></th>
<th>Post graduate</th>
<th>Undergraduate</th>
<th>Tertiary college</th>
<th>Secondary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle Management</td>
<td>F</td>
<td>1</td>
<td>7</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>4.3</td>
<td>30.4</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>Operational managers</td>
<td>F</td>
<td>14</td>
<td>28</td>
<td>78</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>11.4</td>
<td>22.8</td>
<td>63.4</td>
<td>100</td>
</tr>
</tbody>
</table>

Key: F- frequency

Responses obtained indicate that from the middle level; 4.3% had attained post graduate education, 30.5% had Bachelors degrees, and 70 % had achieved tertiary college level while 4.3% had achieved secondary education. On the other hand for the operational managers, 11.4% had attained post graduate education, 22.85% had attained undergraduate level, and 63.4% had achieved tertiary college while 2.4% had achieved secondary education.

Fig 4.3: Educational Level of the Respondents

Source: (Author’s Data 2014)
4.1.4 Work Experience of the respondents

The researcher sought to establish the work experience of the respondents. The periods over which the respondents had worked in the hospital was grouped into time frames that the respondent was supposed to pick from. This was done for a number of reasons. At an early stage in one’s employment, employees are known to pay a very close attention to the operations of the organization and therefore little would be expected to escape their attention. Again, the longer one stays in a job, the better understanding of the organization he/she has. It is also true that some employees will have very little understanding of the organization in their earlier years. Varied degrees of experience would be important in eliciting unbiased responses by virtue of respondents’ too much or too little knowledge contributed by either many years of experience of too little experience.

The results are presented in the table 4.4 and figure 4.4 below

Table 4.4: Work experience of the respondents

<table>
<thead>
<tr>
<th></th>
<th>Over 10 years</th>
<th>Between 5 and 10 years</th>
<th>Less than 5 years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>2</td>
<td>7</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>%</td>
<td>10.6</td>
<td>30.1</td>
<td>59.3</td>
<td>100</td>
</tr>
<tr>
<td>Operational managers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>5</td>
<td>48</td>
<td>70</td>
<td>123</td>
</tr>
<tr>
<td>%</td>
<td>4.1</td>
<td>39</td>
<td>56.9</td>
<td>100</td>
</tr>
</tbody>
</table>

For the middle level managers; 59.3% of the respondents had worked in the institution for less than 5 years, 30.1% had worked in the institution for a period between 5-10 years, while 10.6% had worked for over ten years. On the other hand for the operational managers, 56.9% had worked in the institution for less than 5 years, 39.1% had worked for a period between 5-19 years while 4.3% had worked for more than 10 years. This therefore implied
that a majority of the respondents had not worked for long in the hospital, suggesting that they are still cautious in their work and very little escapes their attention. As source of information they form a good basis since one can get all the information they need from this very attentive and informed group.

Key: F- frequency

**Fig 4.4 Work Experience of the Respondents**

4.2 Effects of ISO 9001 Certification on Organizational Productivity

The researcher sought to determine the effects of ISO 9001 certification on organizational productivity. The researcher did this by posing questions related to ISO certification and productivity. The findings are presented in the table 4.1 below.
Table 4.5 ISO 9001 Certification on Organizational Productivity

<table>
<thead>
<tr>
<th>Statement</th>
<th>Middle level</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>There is increased number of customers to the hospital.</td>
<td>F 17</td>
<td>F 82</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>23</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>% 73.9%</td>
<td>% 66.7%</td>
<td>4</td>
<td>4</td>
<td>3.3</td>
<td>1.6</td>
<td>82%</td>
<td>94%</td>
</tr>
<tr>
<td>There is an increased revenue to the hospital.</td>
<td>F 2</td>
<td>F 19</td>
<td>2</td>
<td>3</td>
<td>2.4</td>
<td>1.6</td>
<td>23</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>% 8.7%</td>
<td>% 15.4%</td>
<td>4</td>
<td>71</td>
<td>22.8</td>
<td>2.4</td>
<td>36%</td>
<td>76%</td>
</tr>
<tr>
<td>There is increase in the number of patient referral in the hospital.</td>
<td>F 5</td>
<td>F 45</td>
<td>11</td>
<td>59</td>
<td>21.7</td>
<td>10.6</td>
<td>4.5</td>
<td>82%</td>
</tr>
<tr>
<td></td>
<td>% 21.7%</td>
<td>% 36.6%</td>
<td>5</td>
<td>13</td>
<td>4.3</td>
<td>3.3</td>
<td>52%</td>
<td>90%</td>
</tr>
<tr>
<td>There is better customer satisfaction level.</td>
<td>F 12</td>
<td>F 69</td>
<td>10</td>
<td>43</td>
<td>35.0</td>
<td>7.3</td>
<td>23</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>% 52.2%</td>
<td>% 56.1%</td>
<td>1</td>
<td>9</td>
<td>4.3</td>
<td>1.6</td>
<td>100%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Source: (Author’s Data, 2014)

Key: F: Frequency, %: Percentage, 5: Strongly Agree, 4: Agree, 3: Undecided, 2: Disagree, 1: Strongly Disagree, T: Total, M: Mean

The findings showed that a majority of the respondents among the middle level managers (94%) were of the opinion that there is increased number of customers to the hospital. Among the respondents, 90% for the middle level managers held the opinion that the hospital had a better customer satisfaction level. 82% of the middle level managers were for the opinion that there are increased revenues to the hospital. While 76% of the middle level managers said that, there were increases in the number of patient referral to the hospital.

From the operational managers; the findings indicate that (92%) were of the opinion that there is increased number of customers to the hospital, 90% held the opinion that the hospital had a better customer satisfaction level. 76% said there is increased revenues to the
hospital, while 76% said that there were increase in the number of patient referral to the hospital.

The interview schedule indicated that a majority of the top level managers said that the effects of ISO 9001 certification on organizational productivity are, there is increased number of customers to the hospital, increased revenues to the hospital, increase in the number of patient referral in the hospital, and there is better customer satisfaction level.

These findings are in agreement with Zaramdini (2008) who asserted that ISO certification had generated more operational benefits, better customer service which leads to a better customer satisfaction level. It therefore implied that the hospital mainly through ISO 9001 Certification has increased number of customers to the hospital. Oakland (2005) agrees with these findings by stating that the impact of ISO 9001:2000 certification on business performance by comparing certified and non-certified companies and concluded that ISO 9001 certified organizations achieved greater results that the non-certified organizations. Certified organizations were also seen to achieve greater operational results (including productivity) than non-certified organizations.

4.3 Effects of ISO Certification on Quality of Service

The researcher sought to establish the effects of ISO certification on quality of service of an organization. The researcher did this by posing questions related to ISO certification and quality of service offered. The findings are represented in the table 4.2.
Table 4.6  ISO Certification on Quality of Service

<table>
<thead>
<tr>
<th>Statement</th>
<th>Middle level</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>There is improved communication, increased employee participation,</td>
<td>F: Frequency</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>T</td>
</tr>
<tr>
<td>continuous assessment visits that leads to improved efficiency in service.</td>
<td>%: Percentage</td>
<td>8.7%</td>
<td>78.3%</td>
<td>8.7%</td>
<td>4.3%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Operational managers</td>
<td>F: Frequency</td>
<td>29</td>
<td>73</td>
<td>10</td>
<td>9</td>
<td>2</td>
<td>123</td>
</tr>
<tr>
<td>%: Percentage</td>
<td>23.6%</td>
<td>59.3%</td>
<td>8.1%</td>
<td>7.3%</td>
<td>1.6%</td>
<td>100%</td>
<td>80%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>Middle level</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>There are identified means for resolving problems and prevention of</td>
<td>F: Frequency</td>
<td>2</td>
<td>15</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>recurrence.</td>
<td>%: Percentage</td>
<td>8.7%</td>
<td>65.2%</td>
<td>8.7%</td>
<td>8.7%</td>
<td>8.7%</td>
<td>100%</td>
</tr>
<tr>
<td>Operational managers</td>
<td>F: Frequency</td>
<td>23</td>
<td>70</td>
<td>15</td>
<td>11</td>
<td>4</td>
<td>123</td>
</tr>
<tr>
<td>%: Percentage</td>
<td>18.7%</td>
<td>56.9%</td>
<td>12.2%</td>
<td>8.9%</td>
<td>3.3%</td>
<td>100%</td>
<td>76%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>Middle level</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>There is provision of work instructions, training and conducive working</td>
<td>F: Frequency</td>
<td>13</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>23</td>
</tr>
<tr>
<td>environment that ensures people perform tasks efficiently</td>
<td>%: Percentage</td>
<td>56.5%</td>
<td>39.1%</td>
<td>4.3%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Operational managers</td>
<td>F: Frequency</td>
<td>73</td>
<td>41</td>
<td>4</td>
<td>4</td>
<td>123</td>
<td>4.4</td>
</tr>
<tr>
<td>%: Percentage</td>
<td>59.3%</td>
<td>33.3%</td>
<td>3.3%</td>
<td>.8%</td>
<td>3.3%</td>
<td>100%</td>
<td>88%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>Middle level</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision of data that can determine the performance of operating process,</td>
<td>F: Frequency</td>
<td>12</td>
<td>7</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>23</td>
</tr>
<tr>
<td>services for improving organization performance and customer satisfaction.</td>
<td>%: Percentage</td>
<td>52.2%</td>
<td>30.4%</td>
<td>17.4%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Operational managers</td>
<td>F: Frequency</td>
<td>43</td>
<td>53</td>
<td>21</td>
<td>6</td>
<td>0</td>
<td>123</td>
</tr>
<tr>
<td>%: Percentage</td>
<td>35.0%</td>
<td>43.1%</td>
<td>17.1%</td>
<td>4.9%</td>
<td>0%</td>
<td>100%</td>
<td>82%</td>
</tr>
</tbody>
</table>

Source: (Author’s Data, 2014)

Key: F: Frequency, %: Percentage, 5: Strongly Agree, 4: Agree, 3: Undecided, 2: Disagree, 1: Strongly Disagree, T: Total, M: Mean

The findings indicate that a majority of the respondents (90%) middle level managers were of the opinion that there is provision of work instructions, training and conducive working environment that ensures people perform tasks efficiently. 86% middle level managers said that there is provision of data that can determine the performance of operating process, services for improving organization performance and customer satisfaction, 76% of the middle level managers agreed that there is improved communication, increased employee participation, continuous assessment visits that leads to improved efficiency in service.
While 72% of the middle level managers confirmed that, there are identified means for resolving problems and prevention of recurrence.

On the other hand 88% of the operational managers were of the opinion that there is provision of work instructions, training and conducive working environment that ensures people perform tasks efficiently, 82% said that provision of data that can determine the performance of operating process, services for improving organization performance and customer satisfaction, 80% agreed that there is improved communication, increased employee participation, continuous assessment visits that leads to improved efficiency in service, While 76% confirmed that, there are identified means for resolving problems and prevention of recurrence.

From the interview schedule, by top level managers a majority of the respondents were of the opinion that there is provision of work instructions, training and conducive working environment that ensures people perform tasks efficiently. There has been provision of data that can determine the performance of operating process, services for improving organization performance and customer satisfaction. There is improved communication, increased employee participation, continuous assessment visits that leads to improved efficiency in service and there are identified means for resolving problems and prevention of recurrence.

The researcher also interviewed the Deputy Director in charge of Administration and Finance in whose docket monitoring and evaluation services fall and who was therefore responsible for assigning the investigation of customer complaints and receiving stakeholder compliments. It was noted that during the period between the period between 21st March 2014 and 27th August 2014, the hospital recorded a total of three(3) complaints
against 24 compliments (MTRH, 2014). This was an indication that customers were generally satisfied with the quality of service being offered at the Hospital. According to Pokinska (2006), Sampaio (2008) and Wahid Corner (2009), top management commitment, which is an element of ISO 9001, was found to be a great contributor to customer satisfaction. This is in agreement with the findings of the study that indicates that ISO certification led to provision of data that can determine the performance of operating process, services for improving organization performance and customer satisfaction level.

The findings of the study imply that majority of the middle level employees and operational level thought that ISO certification major effect on quality of service was that it led to provision of work instructions, training and conducive working environment that ensures people perform tasks efficiently.

4.4 Effects of ISO Certification on Cost of Services

The study sought to determine the effect of ISO certification on the cost of service. The findings are presented in the table 4.3 below.
Table 4.7 ISO Certification on Cost of Services

<table>
<thead>
<tr>
<th>Statement</th>
<th>Middle level</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>T</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is efficiency in the hospital operations hence reduction in cost</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>T</td>
</tr>
<tr>
<td>that would have been incurred and factored in patients’ bill.</td>
<td></td>
<td>F</td>
<td>6</td>
<td>5</td>
<td>11</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td>26.1%</td>
<td>21.7%</td>
<td>47.8%</td>
<td>4.3%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers.</td>
<td></td>
<td>F</td>
<td>48</td>
<td>46</td>
<td>23</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td>39.0%</td>
<td>37.4%</td>
<td>18.7%</td>
<td>4.9%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>82%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Due to ISO certification standards the hospital has increased access to</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>T</td>
</tr>
<tr>
<td>donor funding which in turn helps in reducing cost.</td>
<td></td>
<td>F</td>
<td>2</td>
<td>20</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td>8.7%</td>
<td>87.0%</td>
<td>0%</td>
<td>4.3%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>80%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers.</td>
<td></td>
<td>F</td>
<td>14</td>
<td>82</td>
<td>14</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td>11.4%</td>
<td>66.7%</td>
<td>11.4%</td>
<td>5.7%</td>
<td>4.9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISO certification has helped in preventing defects in service quality</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>T</td>
</tr>
<tr>
<td>hence reduced cost that would have been incurred in attending to them</td>
<td></td>
<td>F</td>
<td>18</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>after they occurred.</td>
<td></td>
<td>%</td>
<td>78.3%</td>
<td>8.7%</td>
<td>4.3%</td>
<td>4.3%</td>
<td>4.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>90%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers.</td>
<td></td>
<td>F</td>
<td>73</td>
<td>31</td>
<td>7</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td>59.3%</td>
<td>25.2%</td>
<td>5.7%</td>
<td>4.1%</td>
<td>5.7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>86%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is a systematic way of managing the hospital, which affects</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>T</td>
</tr>
<tr>
<td>consistency in their operations and reduction of rework job hence</td>
<td></td>
<td>F</td>
<td>3</td>
<td>17</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>reduction in cost.</td>
<td></td>
<td>%</td>
<td>13.0%</td>
<td>73.9%</td>
<td>8.7%</td>
<td>4.3%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>80%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers.</td>
<td></td>
<td>F</td>
<td>43</td>
<td>62</td>
<td>8</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td>35.0%</td>
<td>50.4%</td>
<td>6.5%</td>
<td>6.5%</td>
<td>1.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>82%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Author’s Data, 2014)

Key: F: Frequency, %: Percentage, 5: Strongly Agree, 4: Agree, 3: Undecided, 2: Disagree, 1: Strongly Disagree, T: Total, M: Mean

The findings of the study indicate that a majority of the respondents among the middle level (90%) held that ISO certification has helped in preventing defects in service quality hence reduced cost that would have been incurred in attending to them after they occurred. 80% of them were of the opinion that there is a systematic way of managing the hospital, which affects consistency in their operations and reduction of rework job hence reduction in cost,
regarding having increased access to donor funding which in turn helps in reducing cost. 80% of the middle level managers were in agreement. While 74% of the middle level managers agreed that there is efficiency in the hospital operations hence reduction in cost that would ultimately mean the customers pay more.

On the other hand (86%) of the operational managers held that ISO certification has helped in preventing defects in service quality hence reduced cost that would have been incurred in attending to them after they occurred. 82% were of the opinion that there is a systematic way of managing the hospital, which affects consistency in their operations and reduction of rework job hence reduction in cost. 74% said that increased access to donor funding which in turn helps in reducing cost. While 82% agreed that there is efficiency in the hospital operations hence reduction in cost that would have been incurred and factored in patients’ bill.

The capability of ISO certification to help check defects in service quality thereby ensuring a reduction in costs that would have been incurred in tending to them after they occurred reinforces a finding by Street and Fernie (1993) who indicated that ISO certification, if properly implemented by managers will eliminate operational failures, project delays and problems of re-work, defects and systematic factors.

From the interview schedule the top level managers personnel held that ISO certification has helped in preventing defects in service quality hence reduced cost that would have been incurred in attending to them after they occurred, there is a systematic way of managing the hospital, which affects consistency in their operations and reduction of rework job hence reduction in cost. There has been increased access to donor funding which in turn helps in reducing cost.
The findings therefore imply that the main effect ISO certification has on the cost of services was that helped in preventing defects in service quality hence reduced cost that would have been incurred in attending to them after they occurred.

Therefore one can conclude that most institutions employ ISO certification to help them ascertain affordable cost of services that result in increase of clients.

4.5 Effects of ISO Certification on Reputation of an Organization

The researcher sought to assess the effects of ISO certification on reputation of an organization. The findings are indicated in the table 4.4

Table 4.8 ISO Certification on Reputation of an Organization

<table>
<thead>
<tr>
<th>Statement</th>
<th>Middle level</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>T</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>There has been increased ability to bid for contracts and has helped the institution enter international markets.</td>
<td>F 2 12 6 2 1 23 3.5 % 8.7% 52.2% 26.1% 8.7% 4.3% 100% 70%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers</td>
<td>F 32 42 29 17 3 123 3.7 % 26.0% 34.1% 23.6% 13.8% 2.4% 100% 74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There has been increased customer retention.</td>
<td>F 7 6 8 1 1 23 3.7 % 30.4% 26.1% 34.8% 4.3% 4.3% 100% 74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle level</td>
<td>% 18.7% 42.3% 29.3% 7.3% 2.4% 100% 74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers</td>
<td>% 18.7% 42.3% 29.3% 7.3% 2.4% 100% 74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There have been increased referrals by satisfied customers that almost ensure winning new customer.</td>
<td>F 2 13 8 0 0 23 3.7 % 8.7% 56.5% 34.8% 0% 0% 100% 74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle level</td>
<td>% 22.8% 33.3% 35.8% 8.1% 0% 100% 74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers</td>
<td>% 22.8% 33.3% 35.8% 8.1% 0% 100% 74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides the hospital with a unique image in the market.</td>
<td>F 10 11 1 1 0 23 4.3 % 43.5% 47.8% 4.3% 4.3% 0% 100% 86%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle level</td>
<td>% 51.2% 37.4% 8.9% 2.4% 0% 100% 88%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers</td>
<td>% 51.2% 37.4% 8.9% 2.4% 0% 100% 88%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Authors Data, 2014)

Key: F: Frequency, %: Percentage, 5: Strongly Agree, 4: Agree, 3: Undecided, 2: Disagree, 1: Strongly Disagree, T: Total, M: Mean

The findings from the study indicated that a majority of the respondents (86%) in the middle level said that the hospital has created a unique image in the market. 74% agreed that ISO
certification has played a significant role in increasing referrals by satisfied customers that almost ensure winning new customer. 74% said that there has been increased customer retention. While 70% of the middle level managers were of the idea that, there has been increased ability to bid for contracts and has helped the institution enter international markets.

During an interview with Assistant Deputy Director Allied Clinical Services who is the officer responsible for training and research, it was established that MTRH had received international interns on a steadily increasing trend since its initial ISO certification from 32 in the year 2008 to 58 in the year 2013 (MTRH, 2014). The steady increase in the number of international customers was interpreted to mean that the hospital has managed to enter international markets as a result of ISO certification which has served to build its reputation. The revelation is in agreement with a study by Casadesus and Jimenez (2000) which depicted that the benefits of ISO certification include, improvement of market relations, increases in the possibility of obtaining new contracts and considerably helps to enter new or international markets.

For the operational managers, 88% said that the hospital has provided a unique image in the market. In addition, 74% agreed that ISO has played a significant role in increasing referrals by satisfied customers that almost ensure winning new customer. 74% said that there has been increased customer retention. While 74% of the middle level managers were for the idea that, there has been increased ability to bid for contracts and has helped the institution enter international markets.

From the interview schedule On the effects of ISO 9001 certification on reputation of an organization, a majority of the top-level managers said that the hospital has provided a
unique image in the market, ISO has played a significant role in increasing referrals by satisfied customers that almost ensure winning new customer and that there has been increased customer retention. This is in agreement with Street and Fernie (1993) who said organizational image and reputation increase customer patronage and quality of their work. Besides, if applied well by managers, it will eliminate operational failures, project delays and problems of rework, defects and systematic factors.

The findings of the study therefore imply that in regard to effect of ISO certification on the reputation of an organization; most of the respondents thought that creating a positive image of the hospital to other new customers and stakeholders was the main effect.

The findings are in agreement with (Dimara, 2004) who said that many organizations consider their greatest asset to be their good name or reputation. This is especially true in knowledge-based organizations such as professional services firms in the consulting, legal, medical, and financial sectors and in universities. (Sroufe, 2008) also confirms that the main benefits of a good corporate reputation can be found in customer preference in doing business with you when other companies’ Products and services are available at a similar cost and quality. Furthermore, the ability to charge a premium for products and services, stakeholders support for your organization in times of controversy and organization’s value in the financial market. Although reputation is an intangible concept, research universally shows that a good reputation demonstrably increases corporate worth and provides sustained competitive advantage. A business can achieve its objectives more easily if it has good reputation among its stakeholders, especially the key stakeholders such as its largest customers, opinion leaders in the business community, suppliers and current and potential employees.
4.6 Indicators of ISO 9001 Certification

The study sought to determine the indicator of an institution that has received ISO certification. The findings are presented in the table 4.5 below.

Table 4.9 Indicators of ISO 9001 certification

<table>
<thead>
<tr>
<th>Statement</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>T</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>The availability of necessary operations resources at the hospital.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle level</td>
<td>F</td>
<td>2</td>
<td>12</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>% 8.7% 52.2% 26.1% 8.7% 4.3% 100% 78%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers</td>
<td>F</td>
<td>32</td>
<td>42</td>
<td>29</td>
<td>17</td>
<td>3</td>
<td>123</td>
</tr>
<tr>
<td>% 26% 34.1% 23.6% 13.8% 2.4% 100% 74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The leaness and efficiency of process and procedures governing the hospital.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle level</td>
<td>F</td>
<td>7</td>
<td>6</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>% 30.4% 26.1% 34.8% 4.3% 4.3% 100% 80%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers</td>
<td>F</td>
<td>23</td>
<td>52</td>
<td>36</td>
<td>9</td>
<td>3</td>
<td>123</td>
</tr>
<tr>
<td>% 18.7% 42.3% 29.3% 7.3% 2.4% 100% 74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The conduciveness of the environment in which the hospital is located.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle level</td>
<td>F</td>
<td>2</td>
<td>13</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>23</td>
</tr>
<tr>
<td>% 8.7% 56.5% 34.8% 0% 0% 100% 76%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers</td>
<td>F</td>
<td>28</td>
<td>41</td>
<td>44</td>
<td>10</td>
<td>0</td>
<td>123</td>
</tr>
<tr>
<td>% 22.8% 33.3% 35.8% 8.1% 0% 100% 74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The competence of staff at the hospital.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle level</td>
<td>F</td>
<td>10</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>23</td>
</tr>
<tr>
<td>% 43.5% 47.8% 4.3% 4.3% 0% 100% 94%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational managers</td>
<td>F</td>
<td>63</td>
<td>46</td>
<td>11</td>
<td>3</td>
<td>0</td>
<td>123</td>
</tr>
<tr>
<td>% 51.2% 37.4% 8.9% 2.4% 0% 100% 88%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Authors Data, 2014)

Key: F: Frequency, %: Percentage, 5: Strongly Agree, 4: Agree, 3: Undecided, 2: Disagree, 1: Strongly Disagree, T: Total, M: Mean

The findings indicate that a majority of the respondents (94%) middle level managers were of the opinion that the competence of staff at the hospital is one of the indicators of ISO certification on performance. 76% middle level managers said that another indicator of ISO certification on performance is the conduciveness of the environment in which the hospital is located, 80% of the middle level managers agreed that another indicator of performance is the leanness and efficiency of process and procedures governing the hospital. While 78% of
the middle level managers confirmed that the availability of necessary operations resources at the hospital is also another indicator of performance as a result of ISO certification.

On the other hand (88%) operational managers were of the opinion that the competence of staff at the hospital is one of the indicators of ISO certification on performance. 74% middle level managers said that another indicator of ISO certification on performance is the conduciveness of the environment in which the hospital is located, 74% of the middle level managers agreed that another indicator of performance is the leanness and efficiency of process and procedures governing the hospital. While 74% of the middle level managers confirmed that the availability of necessary operations resources at the hospital is also another indicator of performance as a result of ISO certification.

The findings of the study imply that majority of the middle level employees and operational level thought that the competence of staff at the hospital is strong indicator of ISO certification.

Therefore one can conclude that ISO certification emphasizes on the competence of staff at the hospital as an indicator on organizational performance.

4.7 Relationship between the Variables

4.7.1 Relationship between the Dependent Variables

The study sought to determine if there was a relationship between the dependent variables. To do this a correlation test was done to determine how correlated they were the findings are represented in table 4.6
Table 4.10 Relationship between the dependent variables

<table>
<thead>
<tr>
<th></th>
<th>ISO 9001 Certification on Organizational Productivity</th>
<th>ISO Certification on Quality of Service</th>
<th>ISO Certification on Cost of Services</th>
<th>ISO Certification on Reputation of an Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 9001 Certification on Organizational Productivity</td>
<td>Pearson Correlation</td>
<td>.267**</td>
<td>.260**</td>
<td>.349**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td>.002</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>146</td>
<td>146</td>
<td>146</td>
</tr>
<tr>
<td>ISO Certification on Quality of Service</td>
<td>Pearson Correlation</td>
<td>.267**</td>
<td>1</td>
<td>.203* .267**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td>.014</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>146</td>
<td>146</td>
<td>146</td>
</tr>
<tr>
<td>ISO Certification on Cost of Services</td>
<td>Pearson Correlation</td>
<td>.260**</td>
<td>.203*</td>
<td>1 .103</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.002</td>
<td>.014</td>
<td>.218</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>146</td>
<td>146</td>
<td>146</td>
</tr>
<tr>
<td>ISO Certification on Reputation of an Organization</td>
<td>Pearson Correlation</td>
<td>.349</td>
<td>.267**</td>
<td>.103 1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.001</td>
<td>.218</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>146</td>
<td>146</td>
<td>146</td>
</tr>
</tbody>
</table>

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

*. Correlation is significant at the 0.05 level (2-tailed)

Source: (Authors Data, 2014)

The study findings indicated that there was a significant relationship (p = 0.001) between ISO certification on organizational productivity and ISO certification on quality of service. There was a significant relationship (p=0.002) between ISO certification on organizational productivity and ISO Certification on Cost of Services. There was a significant relationship (p=0.000) between ISO certification on organizational productivity and ISO Certification on Reputation of an Organization.
The findings also showed that there was a significant relationship \( (p=0.001) \) between ISO Certification on quality of Services and ISO 9001 Certification on Organizational Productivity. There was a significant relationship \( (p=0.014) \) between ISO Certification on quality of Services and ISO Certification on Cost of Services. There was a significant relationship \( (p=0.001) \) between ISO Certification on quality of Services and ISO Certification on Reputation of an Organization.

It was also found that there was a significant relationship \( (p=0.002) \) between ISO Certification on Cost of Services and ISO certification on organizational productivity and that there was a significant relationship \( (p=0.014) \) between ISO Certification on Cost of Services and ISO Certification on Quality of Service. Concerning cost of services and reputation of an organization, it was revealed that there was an insignificant relationship \( (p=0.218) \) between ISO Certification on Cost of Services and ISO Certification on Reputation of an Organization.

Further, it was found there was a significant relationship \( (p=0.000) \) between ISO certification on the reputation of the organization and ISO 9001 Certification on Organizational Productivity. The study indicated that there was a significant relationship \( (p=0.001) \) between ISO certification on the reputation of the organization and ISO 9001 Certification on quality of services and that there was an insignificant relationship \( (p=0.218) \) between ISO Certification on Reputation of an Organization and ISO Certification on Cost of Services.

The above results therefore mean that there is a strong positive relationship between ISO certification on organization productivity, on quality of services and ISO certification on cost of services.
4.7.2 Relationship between the Independent and Dependent Variables

The study sought to determine if there was a relationship between the dependent and independent variables. This was done by carrying out an ANOVA test. The findings are represented in the table 4.7

Table 4.11 Analysis of Variance (ANOVA)

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 9001 Certification on Organizational Productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>8.316</td>
<td>8</td>
<td>1.039</td>
<td>10.504</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>13.558</td>
<td>137</td>
<td>.099</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>21.873</td>
<td>145</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISO Certification on Quality of Service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>4.491</td>
<td>8</td>
<td>.561</td>
<td>3.060</td>
<td>.003</td>
</tr>
<tr>
<td>Within Groups</td>
<td>25.129</td>
<td>137</td>
<td>.183</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>29.620</td>
<td>145</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISO Certification on Cost of Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>5.087</td>
<td>8</td>
<td>.636</td>
<td>4.027</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>21.634</td>
<td>137</td>
<td>.158</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>26.721</td>
<td>145</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISO Certification on Reputation of an Organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>9.232</td>
<td>8</td>
<td>1.154</td>
<td>2.929</td>
<td>.005</td>
</tr>
<tr>
<td>Within Groups</td>
<td>53.976</td>
<td>137</td>
<td>.394</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>63.209</td>
<td>145</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Authors Data, 2014)

From the Analysis of Variance (ANOVA) model computed in table 4.7 above, the research hypotheses were tested at significance level; the research aimed to test the hypothesis with an aim of accepting whether there was any effect of ISO certification on the variables of organizational performance. The research hypothesis for the study included.

\[ H_0: \text{ISO 9001 certification has no significant relationship with organizational productivity.} \]

The research results rejected the null hypothesis one which stated that: ISO 9001 certification has no significant relationship with productivity. The results indicated that there was a
significant positive relationship (p = 0.000) between Organizational Productivity and ISO 9001 Certification. This was interpreted to mean that the hospital was involved with ISO certification to ensure a constant and consistent organizational productivity.

**H₀₂**: ISO 9001 certification has no significant relationship with quality of service

The research results rejected the null hypothesis two which stated that: ISO 9001 certification has no significant relationship with quality of service. There results indicated that there was a significant positive relationship (p = 0.003) between quality of service and ISO certification. This was interpreted to mean that the hospital was involved in ISO Certification exercise as a way to attain the best quality of service.

**H₀₃**: ISO 9001 certification has no significant relationship with cost of service

The research results rejected the null hypothesis three which stated that: ISO 9001 certification has no significant relationship with cost of service. The findings indicated that there was a significant positive relationship (p = 0.000) between cost of service and ISO certification. This was interpreted to mean that the hospital was involved in ISO Certification implementation as a way that will contribute to moderating of cost of services resulting in fair and affordable services to the clients.

**H₀₄**: ISO 9001 certification has no significant relationship with reputation of an organization.

The research results rejected the null hypothesis four which stated that: ISO 9001 certification has no significant relationship with reputation of an organization. There exists no significant relationship between the findings indicated that there was a significant relationship (p = 0.005) between reputation of an organization and ISO certification. This
was interpreted to mean that the hospital involved the implementation of ISO Certification so as to ensure that it attains a good public image that will ensure confidence to the clients and in the market.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The chapter presents a summary of the findings, conclusions and recommendations of the study.

5.1 Summary of the Findings

5.1.1 Effects of ISO 9001 Certification on Organizational Productivity

The findings showed that a majority of the respondents among the middle level managers (94%) were of the opinion that there is increased number of customers to the hospital. Among the respondents, 90% for the middle level managers held the opinion that the hospital had a better customer satisfaction level. 82% of the middle level managers were of the opinion that there are increased revenues to the hospital. While 76% of the middle level managers said that, there was increase in the number of patient referral to the hospital.

From the operational managers; the findings indicate that (92%) were of the opinion that there is increased number of customers to the hospital, 90% held the opinion that the hospital had a better customer satisfaction level. 76% said there is increased revenues to the hospital, while 76% said that there were increase in the number of patient referral to the hospital. The finding that ISO certification contributed positively to customer satisfaction level was reinforced by evidence detailing rise in compliments and a reduction in customer complaints.
The interview schedule indicated that a majority of the top level managers said that the effects of ISO 9001 certification on organizational productivity are, there is increased number of customers to the hospital, increased revenues to the hospital, increase in the number of patient referral in the hospital, and there is better customer satisfaction level.

5.1.2 Effects of ISO certification on Quality of Service.

The findings indicate that a majority of the respondents (90%) middle level managers were of the opinion that there is provision of work instructions, training and conducive working environment that ensures people perform tasks efficiently, 86% middle level managers said that provision of data that can determine the performance of operating process, services for improving organization performance and customer satisfaction, 76% of the middle level managers agreed that there is improved communication, increased employee participation, continuous assessment visits that leads to improved efficiency in service. While 72% of the middle level managers confirmed that, there are identified means for resolving problems and prevention of recurrence.

On the other hand 88% of the operational were of the opinion that there is provision of work instructions, training and conducive working environment that ensures people perform tasks efficiently, 82% said that provision of data that can determine the performance of operating process, services for improving organization performance and customer satisfaction, 80% agreed that there is improved communication, increased employee participation, continuous assessment visits that leads to improved efficiency in service, While 76% confirmed that, there are identified means for resolving problems and prevention of recurrence.
From the interview schedule by top managers, a majority of the respondents were of the opinion that there is provision of work instructions, training and conducive working environment that ensures people perform tasks efficiently. There has been provision of data that can determine the performance of operating process, services for improving organization performance and customer satisfaction. There is improved communication, increased employee participation, continuous assessment visits that leads to improved efficiency in service and there are identified means for resolving problems and prevention of recurrence.

The findings of the study imply that majority of the middle level employees and operational level thought that ISO certification major effect on quality of service was that it led to provision of work instructions, training and a conducive working environment that ensures people perform tasks efficiently.

5.2.3 Effects of ISO Certification on Cost of Services

The findings of the study indicate that a majority of the respondents among the middle level (90%) held that ISO certification has helped in preventing defects in service quality hence reduced cost that would have been incurred in attending to them after they occurred. 80% of them were of the opinion that there is a systematic way of managing the hospital, which affects consistency in their operations and reduction of rework job hence reduction in cost, regarding having increased access to donor funding which in turn helps in reducing cost. 80% of the middle level managers were in agreement, while 74% of the middle level managers agreed that there is efficiency in the hospital operations hence reduction in cost that would have been incurred and factored in patients bill.
On the other hand (86%) of the operational managers held that ISO certification has helped in preventing defects in service quality hence reduced cost that would have been incurred in attending to them after they occurred, 82% were of the opinion that there is a systematic way of managing the hospital, which affects consistency in their operations and reduction of rework job hence reduction in cost. 74% said that increased access to donor funding which in turn helps in reducing cost. While 82% agreed that there is efficiency in the hospital operations hence reduction in cost that would have been incurred and factored in patients’ bill.

From the interview schedule the top level managers held that ISO certification has helped in preventing defects in service quality hence reduced cost that would have been incurred in attending to them after they occurred. Also, that there is a systematic way of managing the hospital, which affects consistency in their operations and reduction of rework job hence reduction in cost. There has been increased access to donor funding which in turn helps in reducing cost.

The findings therefore imply that the main effect ISO certification has on the cost of services was that helped in preventing defects in service quality hence reduced cost that would have been incurred in attending to them after they occurred

Therefore one can conclude that most institutions employ ISO certification to help them ascertain affordable cost of services that result in increase of clients.

5.3.4 Effects of ISO Certification on Reputation of an Organization

The findings from the study indicated that a majority of the respondents 86%, middle level said that the hospital has provided a unique image in the market. 74% agreed that ISO has
played a significant role in increasing referrals by satisfied customers that almost ensure winning new customer. 74% said that there has been increased customer retention. While 70% of the middle level managers were for the idea that, there has been increased ability to bid for contracts and has helped the institution enter international markets through wining international interns.

For the operational managers, 88% said that the hospital has provided a unique image in the market. In addition, 74% agreed that ISO has played a significant role in increasing referrals by satisfied customers that ensures winning new customer. 74% said that there has been increased customer retention. While 74% of the middle level managers were of the opinion that, there has been increased ability to bid for contracts and has helped the institution enter international markets.

From the interview schedule on the effects of ISO 9001 certification on reputation of an organization, a majority of the top-level managers said that the hospital has provided a unique image in the market, ISO has played a significant role in increasing referrals by satisfied customers that ensure winning new customer and that there has been increased customer retention. This is in agreement with Street and Fernie (1993) who said organizational image and reputation increase customer patronage and quality of their work. Besides, if applied well by managers, it will eliminate operational failures, project delays and problems of rework, defects and systematic factors.

The findings of the study therefore imply that in regard to effect of ISO certification on the reputation of an organization; most of the respondents thought that creating a positive image of the hospital to other new customers and stakeholders was the main effect.
5.4.5 Indicators of ISO 9001 Certification

The findings indicate that a majority of the respondents (94%) middle level managers were of the opinion that the competence of staff at the hospital is one of the indicators of ISO certification on performance. 76% middle level managers said that another indicator of ISO certification on performance is the conduciveness of the environment in which the hospital is located, 80% of the middle level managers agreed that another indicator of performance is the leanness and efficiency of process and procedures governing the hospital. While 78% of the middle level managers confirmed that the availability of necessary operations resources at the hospital is also another indicator of performance as a result of ISO certification.

Again, 88% middle level managers were of the opinion that the competence of staff at the hospital is one of the indicators of ISO certification on performance. 74% middle level managers said that another indicator of ISO certification on performance is the conduciveness of the environment in which the hospital is located, 74% of the middle level managers agreed that another indicator of performance is the leanness and efficiency of process and procedures governing the hospital. While 74% of the middle level managers confirmed that the availability of necessary operations resources at the hospital is also another indicator of performance as a result of ISO certification.

The findings of the study imply that majority of the middle level employees and operational level thought that the competence of staff at the hospital is strong indicator of ISO certification.

Therefore one can conclude that ISO certification emphasizes on the competence of staff at the hospital as an indicator on organizational performance.
5.2 Conclusions

Study findings showed that ISO certification has a substantial impact on organizational productivity. This is because ISO certification played a key role in ensuring efficiency of services production, quality of services and improved customer satisfaction which results in improved organizational productivity.

The study results emphasized the need of ISO certification on quality of service to organizations as it proved to bring out a systematic way of handling activities within the institution thereby attaining best of quality services.

From the study we can conclude that ISO certification had a noteworthy effect in the organization concerning attaining affordable cost of services that resulted in increase of clients.

In conclusion, the study findings showed that ISO certification has proved to be a successful marketing tool in identifying, attracting and retaining clients to the organizations. Thus, ISO certification can act as marketing avenues for institutions that aim to target a variety of clients. In addition ISO certification enhanced the corporate image by influencing the impressions and reputation of the institution.

5.3 Recommendations

Organizations should aim at satisfying their customers by creatively managing their marketing mix in order to have a competitive advantage over others.

Effective implementation of ISO certification should be adopted by organizations since they are a rather efficient way to communicate with both current and potential target markets.
The hospital should stress senior management commitment towards the implementation of ISO certification since this has been noted to be the most important element if a reasonable impact is to be felt in relation to organizational performance.

Organizations should adopt ISO certification as an important marketing tool since it has the potential to affect how customers perceive the company. The hospital should seek to incorporate ISO certification elements in its marketing aspects since the findings indicate that ISO certification serves as a key avenue through which the organizational reputation can be enhanced. Building strong bonds with the customers should thus be a core objective in relationship marketing.

5.4 Suggestions for Further Studies
This study aimed to assess the effects of ISO 9001 certification on organizational performance, by assessing whether ISO certification could make a positive influence on organizational productivity, reputation of an organization, quality and cost of services.

Future studies should be carried out with specific focus on the customer respondents since it was noted that a good of performance measurements especially those related to quality of service need to take into account the opinions held by the customers themselves about the quality of service they receive. It would also be important to include much more stakeholders such as suppliers in the determination of how organizational performance can be affected by ISO 9001 certification. Finally, future studies could employ other tools such as focus group discussions to provide a deeper understanding of the subject.
REFERENCES


Miles, K. and Huberman, O. (2004) Research design Michigan; USA


Richard, W. (2009 Organizational performance; Michigan; USA


APPENDICES

APPENDIX I: QUESTIONNAIRE FOR MIDDLE LEVEL AND LOWER LEVEL MANAGEMENT

I am a Masters student of Business Administration Degree, Faculty of Commerce of the Kisii University. As a partial requirement of the coursework assessment, I am required to submit a research report on: **AN ASSESSMENT OF ISO 9001 CERTIFICATION ON ORGANIZATIONAL PERFORMANCE: A CASE OF MOI TEACHING AND REFERRAL HOSPITAL, ELDORET**. I would highly appreciate if you could kindly complete the Questionnaire to assist me collect data. Your information alongside others will help me in my research and will be used strictly for academic purposes and will be treated as confidential, therefore, do not write your name on the questionnaire.

Thank you in advance,
Yours faithfully,
Kennedy Odongo

Please give answers in the spaces provided and tick (✓) in the box that matches your responses to the questions where applicable.

**PART A: Demographic and Respondents profile.**

1. Gender (Tick as applicable)
   - Male ( )
   - Female ( )

2. What is your age bracket (Tick as applicable)
   a) Under 30 years ( )
   b) 31-40 years ( )
   c) 41-50 years ( )
   d) Over 50 years ( )
3. What is your highest level of education qualification? (Tick as applicable)
   a) Post graduate ( )
   b) Undergraduate ( )
   c) Tertiary college ( )
   d) Secondary ( )

4. Length of continuous service with the hospital? (Tick as applicable)
   a) Less than 5 years ( )
   b) 5-10 years ( )
   c) Over 10 years ( )

PART B: GENERAL INFORMATION.

OBJECTIVE 1: EFFECTS OF ISO 9001 CERTIFICATION ON ORGANIZATIONAL PRODUCTIVITY.

5. To what extent do you agree with the following statements regarding effects of ISO 9001 certification on organizational productivity?

   KEY SA: STRONGLY AGREE, A: AGREE, U: UNDECIDED; D: DISAGREE; SD: STRONGLY DISAGREE

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<tr>
<td>There is increased number of customers to the hospital.</td>
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<td>There are increased revenues to the hospital.</td>
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<td>There is increased in the number of patient referrals in the hospital</td>
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<td>There is better customer satisfaction level.</td>
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**OBJECTIVE 2: EFFECTS OF ISO 9001 CERTIFICATION ON QUALITY OF SERVICE.**

6. To what extend do you agree with the following statements regarding ISO 9001 certification on quality of service

**KEY SA: STRONGLY AGREE, A: AGREE, U: UNDECIDED; D: DISAGREE; SD: STRONGLY DISAGREE**

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<td>There is improved communication, increased employee participation,</td>
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<td>continuous assessment visits that leads to improved efficiency in service.</td>
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<td>There are identified means for resolving problems and prevention of</td>
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<td>recurrence.</td>
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<td>There is provision of work instructions, training and conducive working</td>
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<td>environment that ensures people perform tasks efficiently.</td>
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<td>Provision of data that can determine the performance of operating process,</td>
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<td>services for improving organization performance and customer satisfaction.</td>
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**OBJECTIVE 3: EFFECTS OF ISO CERTIFICATION ON COST OF SERVICES.**

7. To what extend do you agree with the following statements regarding effects of ISO 9001 certification on cost of service?

**KEY SA: STRONGLY AGREE, A: AGREE, U: UNDECIDED; D: DISAGREE; SD: STRONGLY DISAGREE**

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<td>There is efficiency in the hospital operations hence reduction in cost</td>
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<td>that would have been incurred and factored in patients' bill.</td>
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<td>Due to ISO certification standards the hospital has increased access to</td>
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<td>donor funding which in turn helps in reducing cost.</td>
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<td>ISO certification has helped in preventing defects in service quality</td>
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<td>hence reduced cost that would have been incurred in attending to them</td>
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<td>after they occurred.</td>
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<td>There is a systematic way of managing the hospital, which affects</td>
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<td>consistency in their operations and reduction of rework job hence</td>
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<td>reduction in cost.</td>
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OBJECTIVE 4: EFFECTS OF ISO 9001 CERTIFICATION ON REPUTATION OF AN ORGANIZATION.

8. To what extent do you agree with the following statements regarding the effects of ISO 9001 certification on reputation of an organization?

KEY SA: STRONGLY AGREE, A: AGREE, U: UNDECIDED; D: DISAGREE; SD: STRONGLY DISAGREE

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<tr>
<td>Provides the hospital with a unique image in the market.</td>
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<td>There has been increased customer retention.</td>
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<td>There has been increased referrals by satisfied customers that almost ensure winning new customer.</td>
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<td>There has been increased ability to bid for contracts and has helped the institution enter international markets.</td>
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Q9 To what extent do you agree with the following statement regarding the indicators of the effect of ISO9001 certification

KEY SA: STRONGLY AGREE, A: AGREE, U: UNDECIDED, D: DISAGREE, SD: STRONGLY DISAGREE

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<tr>
<td>The availability of necessary operations resources at the hospital.</td>
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<td>The leanness and efficiency of process and procedures governing the hospital.</td>
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<td>The conduciveness of the environment in which the hospital is located.</td>
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<td>The competence of staff at the hospital.</td>
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APPENDIX II: INTERVIEW SCHEDULE FOR UPPER LEVEL MANAGEMENT

1. What are the effects of ISO certification on organization productivity?

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2. What are the effects of ISO 9001 certification on quality of services?

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3. What are the effects of ISO 9001 certification on cost of services

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4. What are the effects of ISO 9001 certification on reputation of an organization?

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APPENDIX III: APPROVAL TO CONDUCT RESEARCH FROM MTRH

MOI TEACHING AND REFERRAL HOSPITAL

Telephone: 2033471/2/3/4
Fax: 61749
Email: director@mtrh.or.ke

Ref: ELD/MTRH/R.6/VOL.II/2008
Mr. Kennedy Odongo,
Kisii University,
Eldoret Campus,
P.O. Box 6434-30100,
ELDORET-KENYA.

16th September, 2014

RE: APPROVAL TO CONDUCT RESEARCH AT MTRH

Upon obtaining approval from the Institutional Research and Ethics Committee (IREC) to conduct your research proposal titled:
"An Assessment of ISO 9001 Certification on Organizational Performance: A Case Study of Moi Teaching and Referral Hospital".

You are hereby permitted to commence your investigation at Moi Teaching and Referral Hospital.

DR. JOHN KIBOSIA
DIRECTOR
MOI TEACHING AND REFERRAL HOSPITAL

CC - Deputy Director (CS)
    - Chief Nurse
    - HOD, HRISM
APPENDIX IV: PERMISSION FOR DATA COLLECTION FROM KISII UNIVERSITY

KISII UNIVERSITY
ELDORET CAMPUS
OFFICE OF THE DEPUTY DIRECTOR-ACADEMIC AFFAIRS

Phone: 0720 094 039 P. O. Box 6434- 30100
ELDORET - KENYA

10TH AUGUST, 2014

TO WHOM IT MAY CONCERN.

Dear Sir / Madam,

RE: KENNEDY OTIENO ODONGO REG. CBM12/10340/13

The above mentioned is a bonafide student of this university undertaking his Master’s degree. He has successfully defended, his Thesis Proposal:

“An Assessment of ISO 9001 Certification on Organizational Performance: A Case of Moi Teaching And Referral Hospital”.

We are kindly requesting your office to provide him with the permit to proceed to the field for data collection and completion of his research.

Please do not hesitate to call the undersigned for any verification.

Thanks.

[Signature]

Charles O. Ong'ayo (0720 094 039)
DEPUTY DIRECTOR-ACADEMIC AFFAIRS.
APPENDIX V: FORMAL APPROVAL LETTER FROM IREC

INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE (IREC)

MOI TEACHING AND REFERRAL HOSPITAL
P.O. BOX 3
ELDORET
Tel: 20471020
Reference: IREC/2014/199
Approval Number: 0001267

MOI UNIVERSITY
SCHOOL OF MEDICINE
P.O. BOX 4806
ELDORET
16th September, 2014

Mr. Kennedy Odongo,
Kisii University,
Eldoret Campus,
P.O. Box 6434-30100,
ELDORET-KENYA.

Dear Mr. Odongo,

RE: FORMAL APPROVAL

The Institutional Research and Ethics Committee has reviewed your research proposal titled:

"An Assessment of ISO 9001 Certification on Organizational Performance: A Case of Moi Teaching and Referral Hospital."

Your proposal has been granted a Formal Approval Number: FAN: IREC 1267 on 16th September, 2014. You are therefore permitted to begin your investigations.

Note that this approval is for 1 year; it will thus expire on 15th September, 2015. If it is necessary to continue with this research beyond the expiry date, a request for continuation should be made in writing to IREC Secretariat two months prior to the expiry date.

You are required to submit progress report(s) regularly as dictated by your proposal. Furthermore, you must notify the Committee of any proposal change (s) or amendment (s), serious or unexpected outcomes related to the conduct of the study, or study termination for any reason. The Committee expects to receive a final report at the end of the study.

Sincerely,

[Signature]

PROF. E. WEARE
CHAIRMAN
INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE

cc: Director - MTRH
    Principal - CHS
    Dean - SOP
    Dean - SON
    Dean - SOM
    Dean - SOD

16 SEP 2014
APPROVED
P.O. Box 4806- Eldoret
APPENDIX VI: RESEARCH PERMIT

THIS IS TO CERTIFY THAT
MR. KENNEDY OTIENO ODONGO
of KISII UNIVERSITY, 2-30100
eldoret, has been permitted to conduct
research in Uasin-Gishu County
on the topic: AN ASSESSMENT OF ISO
9001 CERTIFICATION ON
ORGANIZATIONAL PERFORMANCE, A
HOSPITAL, ELDORET
for the period ending: 31st December, 2014

Applicant's Signature

NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY & INNOVATION

CONDITIONS

1. You must report to the County Commissioner and
the County Education Officer of the area before
embarking on your research. Failure to do that
may lead to the cancellation of your permit.

2. Government Officers will not be interviewed
without prior appointment.

3. No questionnaire will be used unless it has been
approved.

4. Excavation, filming and collection of biological
specimens are subject to further permission from
the relevant Government Ministries.

5. You are required to submit at least two (2) hard
copies and one (1) soft copy of your final report.

6. The Government of Kenya reserves the right to
modify the conditions of this permit including
its cancellation without notice.

RESEARCH CLEARANCE PERMIT

Serial No. A. 3149

CONDITIONS: see back page
APPENDIX VII: RESEARCH AUTHORIZATION LETTER FROM NACOSTI

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

NACOSTI/P/14/8107/3093

Kennedy Otieno Odongo
Kisii University
P.O. Box 408-40200
KISII.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "An assessment of ISO 9001 Certification on organizational performance, a case of Moi Teaching and Referral Hospital, Eldoret," I am pleased to inform you that you have been authorized to undertake research in Uasin-Gishu County for a period ending 31st December, 2014.

You are advised to report to the Medical Superintendent, Moi Teaching and Referral Hospital, the County Commissioner and the County Director of Education, Uasin-Gishu County before embarking on the research project.

On completion of the research, you are expected to submit two hard copies and one soft copy in pdf of the research report/thesis to our office.

Said Hussein
FOR: SECRETARY/CEO

Copy to:
The Medical Superintendent
Moi Teaching and Referral Hospital

The County Commissioner
The County Director of Education
Uasin-Gishu County.