

**INTERNATIONAL ORGANIZATION FOR
STANDARDIZATION 9001 CERTIFICATION AND
SERVICE DELIVERY IN GOVERNMENT MINISTRIES IN
KENYA**

DAVID GEORGE GATHII

**A Research Project Submitted in Partial Fulfillment of the
Requirements for the Award of the Degree of Master of Business
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DECLARATION

This research project is my original work and has not been submitted for an award of a degree in any other university.

Signature

Date

David George Gathii

D61/76164/2012

This research project has been submitted for examination with my approval as the university supervisor.

Signature

Date

Prof. Gituro Wainaina

Department of Management Science

School of Business

University of Nairobi

DEDICATION

This study is dedicated to my wife, sons and daughters for their love and support throughout my study period in pursuit of knowledge.

ACKNOWLEDGEMENT

I acknowledge all those who made it possible for me to undertake and complete this research project. I appreciate their contribution and encouragement.

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ABBREVIATIONS AND ACRONYMS

AMSA	Australian Maritime Safety Authority
ANOVA	Analysis of Variance
CEOs	Chief Executive Officers
ERS	Economic Recovery Strategy
GoK	Government of Kenya
ISO	International Organisation for Standardization
KEBS	Kenya Bureau of Standards
Kengen	Kenya Electricity Generating Company Limited
MDAs	Ministries, Departments and Agencies
PC	Performance Contracts
PDCA	Plan, Do, Check and Act
PSRP	Public Service Reforms Programme
PSs	Permanent Secretaries
QMR	Quality Management Representative
QMS	Quality Management System
RBV	Resource Based View
TQM	Total Quality Management

ABSTRACT

Quality Management System (QMS) is an approach to control and direct operations to better manage an organization whereas customer satisfaction is the level of a person's felt state as a result of comparing a product's perceived performance in violation of his/her expectations. The objectives of the research were to determine the challenges faced by government ministries in the attainment of International Organization for Standardization (ISO) certification and the effect of the application of ISO 9001 principles on customer satisfaction. The Research was anchored on two theories, thus Resource Based View Theory and the Systems Theory to explain aspects of ISO certification. The research adopted a descriptive research design. The target respondents were drawn from the 21 government ministries established in Kenya. Primary data was collected from the respondents using a questionnaire administered through a drop and pick method. The questionnaire had three sections; section A on general information, section B on challenges faced in attaining ISO certification under the first objective and section C for the second objective on the effect of on the application of ISO principles on customer satisfaction for services delivered by the ministries. The collected data was analyzed using SPSS computer software version 20 to generate both descriptive and inferential statistics. The descriptive statistics were presented using frequencies, mean and standard deviation while inferential statistics was obtained by performing a regression analysis on the dependent variable (customer satisfaction) and the independent variables that were significant (leadership and engagement of people). The research established that government ministries faced many challenges in their pursuit of ISO certification, key among them inadequate funding, awareness on ISO, benefits and top management support for ISO certification; frequent changes of top management in the ministries, the long duration taken to attain ISO certification, resistance to change and inadequate knowledge and skills on ISO, among others. The research also established that the application of ISO principles had a major effect on customer satisfaction in the services offered by government ministries in Kenya as was evidenced by a p value of 0.007 at 95 percent confidence level. This showed that the model adopted for this study was significant and that ISO principles were significant in predicting the level of customer satisfaction in government ministries in Kenya. The study concluded that attainment of ISO certification in government ministries was critical to improving services rendered to the citizens and increased customer satisfaction. It was, therefore, recommended that the Government should prioritize and mainstream ISO certification in all the ministries and ensure adequate resources were allocated.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Quality Management System (QMS) is an approach to control and direct operations to better manage an organization. The QMSs lead to reduced costs, wastage and rework while increasing productivity, efficient delivery of products and services and revenue (Nigel, Chambers & Johnson, 2007). When organizations adopt QMSs, they attain certification and are, therefore said to have been certified by International Organizations for Standardization (ISO). The adoption of a QMS is a strategic decision taken by an individual organization to ensure quality in managing its processes. Certification simply communicates to customers that the organization has a system to ensure products and services offered consistently meet the international quality standards.

Quality emerged as an important issue in operations management in the 1950s and has evolved through four stages, thus quality inspection, quality control, quality assurance and total quality management (Terziovski, Samson & Dow, 1997). Total quality management (TQM) advocates for continuous improvement of all systems and processes within an organization and focuses on satisfying internal and external customers. It stresses a systematic, consistent, integrated and organization-wide viewpoint involving all employees (Oakland & Sohal, 1996). TQM entails the use of quality management principles in the entire organization and their incorporation in the business processes. ISO certification is centred on TQM as both share the same principles and are about customer satisfaction. The ISO requires that quality process activities are defined, procedures documented and proof of strict adherence to quality standards availed, ISO (2016). Kenya

is a member of ISO, with the Kenya Bureau of Standards (KEBS) as the accredited organization.

Contrary to some popular perceptions, ISO certification does not guarantee better quality of goods and services. The organization may, however still enjoy ISO certification as long as it continues to produce such goods and services strictly according to the documented procedures. Meagan and Taylor (1998) argued that the main objective of ISO is to ensure consistency in quality instead of higher quality of goods and services, ensuring that they are produced in accordance with the procedures. The ISO ensures that any mistake that occurs during production can be traced to the source or the stage it occurred, and corrected.

The ISO certification has many benefits classified as internal and external. An organization that is guided by ISO standards improves the service and significantly reduces complaints by customers, resulting in greater customer satisfaction. The standards, since they are documented, influence employees positively and increase the motivation level. Internal benefits include increased productivity, enhanced efficiency, reduced wastage and costs, improved coordination and management control, clear organizational structures and employee motivation. The ISO also helps to re-engineer processes to make them efficient and effective and ensures that operations and management create value for the organization. External benefits include a bigger market share, increased sales, competitive advantage, improved customer relations and satisfaction leading to customer retention. The ISO is, however blamed for limiting the

creativity and innovation of the employees since they must at all times follow documented procedures, additional costs, increased bureaucratic processes and heavy documentation of processes (Jones, Arndi & Kustan, 1997). Gichohi (2010) studied the factors that affect non-ISO state corporations in the adoption of ISO certification and found the high investment cost, inadequate commitment by the management, employee resistance and sabotage, lack of awareness on relevance and benefits, and inadequate skills to be major challenges.

1.1.1 International Organizations for Standardization Certification

The ISO was established in Switzerland in 1947 to develop scientific, intellectual, economic and technological cooperation among member states. In recognition of the need to guide standardization, ISO established a technical committee in 1979. It is this committee that developed ISO 9000 series of quality management in a period of seven years (Nurre, Gunaman & De-almeida, 2000) and has a membership of 163 countries. The ISO facilitates an internationally recognised QMS that ensures operations and management are benchmarked to the best international practices. This is attested through certification of organizations by reputable certification bodies accredited by the International Accreditation Forum in Geneva. The ISO helps to re-engineer management processes to make them efficient and create competitive advantage. In addition, ISO certification is the minimum assurance of quality for organizations that results in improved products, services and relations with stakeholders (Gotzamani & Tsiotras, 2001). Standards focus on the process as opposed to the goals of an organization.

By 2016, a total of 1,643,529 organizations in different sectors had been ISO certified worldwide and issued with valid certificates, which represented an increase by 8 percent from the 2015 figure of 1,520,368. In Kenya, 1,060 organizations in varied sectors had been ISO certified representing 0.06 percent. The ISO neither undertakes certification nor issues certificates. In Kenya, there are three such accredited bodies KEBS, Societie Generale de Surveillance and Bureau Veritas. ISO is a family of 11 QMSs that ensure quality standards and guidelines developed by ISO are implemented. The ISO 9001 and 14001 for QMSs and environmental management systems are the most adopted standards with a total 1,106,356 and 346,189 certificates issued respectively (ISO Survey, 2016).

Many ways of focusing on quality exist, one being ISO 9000, which is the most popular standard comprising ISO 9000:2000 (fundamentals), ISO 9001:2000 (requirements) and ISO 9004:2000 (performance improvement guidelines). The standard provides guidance to quality management and quality management definitions. ISO 9001 belongs to the family of QMS developed to help organizations conform to the needs of customers and adhere to the statutory and regulatory requirements. ISO 9001 provides details of the necessities which organizations that desire to meet the standards have to fulfill. It also has the seven principles of management that lay the basis for the ISO 9000 series of standards. An ISO certified organization is subject to regular on-site audit to determine whether procedures have been implemented, with emphasis on objective evidence (ISO Survey, 2016). The ISO 14000 provides standards for environmental management and guidelines for improvement of the environment. The ISO 14001 is the most important

standard in the series as it defines the requirements of an environmental management system for large and small organizations (ISO, 2016).

Implementation of ISO in the Kenya's public service was to be tracked through the Performance Contracts (PC) as one of the non-financial indicators. The PC is an agreement between the government and a public entity, which sets targets to be achieved by that entity within a given period and using known resources. Performance contracting was introduced in Kenya in the 2004-2005 financial year to re-focus the public service from inputs, processes and activities to outputs, outcomes and impacts, that is results for the citizens (Government of Kenya (GoK), 2003).

PC guidelines issued at the beginning of each financial year provide consistent details of activities that are to be achieved, complete with corresponding percentage targets weights as follows: contracting an expert, defining scope, appointment of a Quality Management Representative (QMR) and the ISO team (10 percent), training middle management and all other employees and briefing the top management (25 percent), conducting gap analysis and process determination, completion of documentation and launch of the QMS (35 percent), training of Internal Quality Auditors and conducting trial audits, internal audits and management review meetings (20 percent) and applying for certification, undertaking certificate audit corrective actions and certification to ISO 9001:2008 (10 percent). Ministries, Departments and Agencies (MDAs) that start the process but do not complete lose the achievements at the end of the third year and have to start again in the

fourth year. The MDAs that complete certification have targets of maintaining the certification status (GoK, 2017).

Studies have been undertaken on the effects of ISO certification on organizations, mostly from a financial perspective. Johnson and Kaplan (1987) aver that assessment of performance from the financial perspective lays emphasis on the financial effects and not the total information required by managers for appropriate decisions. To overcome some of the limitations, organizations have started to measure customer satisfaction and loyalty, and employee satisfaction among other factors that are not directly linked to financial performance (Ittner & Larcker, 2003). One of the assessment methods that integrate both financial and non-financial perspectives is the balanced scorecard (Kaplan & Norton, 1992). The method proposes that performance should be evaluated on financial, customer, systems and processes and learning and growth perspectives.

Singels, Rue'l and Water (2001) investigated the relationship between performance and ISO certification of organizations by considering five factors, thus production process, company results, customer satisfaction, employee motivation and investment on the means. For purposes of this study, customer satisfaction will be the focus. The indicators that impact on customer satisfaction were improvement in interactions between the organization and external customers and reduction in the number of complaints lodged against products. Study findings indicated no significant difference between certified and non-certified organizations in customer satisfaction levels. The two categories indicated that their customers were satisfied equally. Customer satisfaction will be used in this

study to assess if any differences exist in service delivery between ISO certified and non-ISO certified government ministries.

1.1.2 Government Ministries

A government is a political system by which a people or a country is administered and its affairs regulated. According to the Constitution of Kenya (2010), GoK comprises three arms, thus executive, legislature and judiciary. The executive, which is the largest arm, has the responsibility of implementing laws enacted by the legislature while judiciary arbitrates on legal disputes that arise. The executive is organized into 21 ministries that are assigned mandates in specialized sectors to serve and deliver service to the public, (GoK, 2016).

Governments world over exist to provide services to their citizens. A government earns a good image and reputation from its citizens by the way it manages public affairs and delivers services. Citizens are now increasingly becoming enlightened and continually demand quality and timely services. To respond to these increased demands, public institutions, including ministries, have been adopting and employing private sector ideas, disciplines, practices and management interventions in service delivery, with one of the key tools employed being ISO certification (Chu & Wang, 2002). A government must, of necessity, be responsive to the needs of its citizens by providing quality services.

Citizens expect quality service to be delivered transparently and accountably. The Public Service Reforms Programme (PSRP) in Kenya was started in 1991 with the Voluntary Early Retirement Scheme and the exercise to downsize and right-size the civil service in

2000 aimed at reducing the bloated size of employees and improving the public sector institutions performance and delivery of service to the citizens responsively. In 2003, the government focus was on improved service delivery under the Economic Recovery Strategy (ERS) for wealth and employment creation. In the ERS, developing and institutionalizing performance-based management practices as well as placing all Permanent Secretaries (PSs) and Chief Executive Officers (CEOs) of state corporations under performance contracts were prioritized (GoK, 2003). Pursuant to ERS, the government introduced performance contracting in the public sector in the 2004/05 financial year.

In the 2005/06 financial year, the government further introduced ISO certification in the public service for all MDAs, including state owned business enterprises, aimed at providing ways of improving delivery of service for the benefit of the members of the public. To facilitate efficient delivery of quality service to the citizens, ministries were expected to attain ISO certification within three years, a process that was tracked under the performance contracting framework.

1.2 Statement of the Problem

Findings of studies undertaken on ISO certification, including by Nigel, et al. (2007) and Raja, Bodla, and Malik (2011) indicated that ISO certification is one of the recognized QMSs. Attaining certification was faced with challenges such as inadequate comprehension of the requirements of ISO, training, awareness, support and commitment by the top management. In Singapore, a survey on ISO 9000 implementation found that

assigning time to quality assurance, lack of support by the top management and resistance to change by employees were challenges faced in the implementation of ISO quality standards (Calingo, Mei, Ping & Mohammed, 2005). The same study revealed that the attitude of employees towards ISO was a major problem in attaining certification.

In Kenya, a number of studies on ISO certification in public institutions have been undertaken. Chikophe (2011) conducted a study on challenges faced by the Kenya Ports Authority, a government owned state corporation, in getting ISO certification. He found resistance to change by employees, misunderstanding of the perception of quality efforts, difficulties in understanding new quality processes and procedures, resistance to internal audits and unsupportive organizational structure and culture as challenges.

In a case study on challenges faced by the Kenya Medical Research Institute, also a government owned state corporation, in attaining ISO certification (Mutinda, 2012) found lack of commitment by the management, inadequate resources, massive documentation requirement, negative organizational culture, high cost of hiring external consultants, lack of understanding of the requirements of ISO, inadequate knowledge, awareness and training on the processes; the size of the organization and inefficient internal communication as some of the challenges faced in the ISO certification process.

Kiiru (2006) carried out a study on the perception of employees on implementation of ISO certification and the initiative to improve processes in Kenya Electricity Generating Company (Kengen) Limited. The study established that the certification was very

successful as there was teamwork, employees were highly motivated and performance had improved, job roles were found to be in line with the certification process which resulted in a positive attitude and commitment towards the certification process and delivery of reliable and quality service. Challenges included inadequate representation of lower cadre employees in the certification decision-making echelons, ignorance of ISO certification and failure to follow through the certification process - these studies gave varied findings.

Though ministries and state corporations are public institutions expected to deliver services to the citizens, the former are in-charge of policies and oversight over the latter, which undertake implementation. Although much had been studied on the challenges faced by state corporations in Kenya on ISO certification, the findings could not, therefore, be generalized for ministries owing to the differences in respective mandates. No study had been done specifically on government ministries. Although ISO certification had been under implementation for over 12 years, the total number of ministries that had attained ISO certification stood at five out of 21 that were established. This number of ministries that had attained ISO certification was far too low, the impact on service delivery to the citizens and their level of satisfaction were not known. It was on the basis of the foregoing that the research sought to answer the question: What were the challenges faced by government ministries in the attainment of ISO certification and the effect of the application of ISO principles on the customer satisfaction?

1.3 Objectives

The general objective of the research was to establish the status of ISO certification in government ministries in Kenya. The specific objectives were to:

1. Establish the challenges faced by government ministries in attaining ISO certification
2. Establish the effect of the application of ISO principles on the level of customer satisfaction.

1.4 Significance of the Study

The research findings would provide the government and bodies accredited to undertake certification in Kenya with in-depth understanding and awareness of ISO certification process and empirical evidence on the challenges faced in the attainment of ISO certification by government ministries. The study findings would bring out the effect of compliance with the principles of ISO certification in the delivery of service to the citizens and also aid in decision-making process of whether the continued quest for ISO certification by ministries was worth pursuing. Finally, the findings would benefit academicians as it would add to the body of knowledge on ISO with respect to certification in government ministries.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter provides information obtained from publications on the research topic. It examines what various scholars and authors have written on ISO certification. The chapter also covers the theories of ISO certification and the empirical review.

2.2 Theories of International Organisation for Standardization Certification

The following two theories, Resource Based View Theory and Systems Theory explain aspects of ISO certification.

2.2.1 Resource Based View Theory

The Resource Based View (RBV) theory examines and interprets organizations' resources to establish how they achieve and sustain competitive advantage. The theory postulates that organizations are both active and reactive, with emphasis that use of specialized resources by one organization cannot be replicated in another owing to the peculiar situational frameworks. This assists in creating opportunities for competitive advantage and superior performance. Accordingly, performance difference in performance between organizations depends on their possession of inputs and capabilities that are unique to themselves, Barney (1997).

Studies on RBV theory associate quality management with performance, for example the impact of ISO certification on productivity and the resources applied, Furtado (2009). He found that ISO certified organizations posted higher productivity and revenue growth than those that were not certified. Perreira (2008) focused on the relationship between

financial performance and ISO certification and found the duration of an organization's certification was proportional to its performance. Sousa (2006) found that, in the tourism sector, involvement of the management in ISO certification, training, undertaking audits and implementing corrective actions were critical to the success of the process. This theory will explain why some ministries are ISO certified and others not and the differences in services offered by ministries.

2.2.2 Systems Theory

A system comprises different parts that make one whole but the parts work together to achieve set objectives. The parts perform different tasks and are related to each other by the overall output that each individually contributes to the achievement of objectives. An organization acts as a system whose components (sub-systems) interact amongst themselves to transform various inputs from the outside; meaning the organization interacts with the environment that surrounds it. There exist both open and closed types of system (ZurMuehlen, 2004).

The Systems Theory, developed by Biologist Ludwig Von Bertalanffy in 1928, offers a framework to analyze and describe objects (Cole, 1997). Organizations are open systems that continuously interact with the environment. The theory describes both the structure and behaviour of systems and emphasizes the need for customer satisfaction and the organization to value every part of its system. Quality management systems are anchored in the systems theory since each part or function of an organization is connected to the other. Quality systems seek to connect all parts of the organization, though they may

operate differently, for the common good and overall achievement of optimal goals (Oakland, 2003).

The systems theory has relevance to the study since ISO certification focuses on organizations, which are goal directed systems and achievements are through interactions with people and resources, all drawn from the environment. The contentment derived from the organization by the people who interact with it is relevant to the survival of the organization. The theory will explain the level of satisfaction by the customers who receive services from various government ministries and, since each ministry is a system, the attainment of certification.

2.3 Customer Satisfaction

Kotler (1996) defined customer satisfaction as the level of a person's felt state as a result of comparing a product's perceived performance in violation of his/her expectations. It is also the level of service quality performance that meets customer expectation. Every organization has two types of customers, thus internal and external. Internal customers are the people who work in an organization while external customers are those that procure or receive goods and services from the organization. Both customers should achieve satisfaction from the organization. There are four indicators of customer satisfaction, thus rate of customer retention, compliments by customers, number of repeat customers and customer contentment. Customer satisfaction depends on how customers are treated and their expectations met. The survival of organizations is determined by customers, hence organizations act to attract customers, and then try to satisfy their needs

and even exceed their expectations. This calls for every organization to meet its own standards and those that are set by customers, continually improve the goods and services offered in the market while monitoring the customers' experiences and taking into account their opinions and suggestions, all in an effort to satisfy and retain the customers and more importantly, convert them into repeat customers as well as attract potential customers. The latter is only possible if high customer satisfaction levels are attained based on the principles of ISO 9001 certification.

2.4 Principles of International Organisation for Standardization 9001 Certification

A principle is a basic belief, rule or theory that influences the way of doing things. The seven quality management principles of ISO 9001 are customer focus, leadership, engagement of people, process approach, improvement, evidence-based decision making and relationship management. The principles are acceptable as true for quality management system (Okwiri, 2015) and are explained below. Implementation of the seven principles in an organization leads to the attainment of customer satisfaction.

Customer focus aims at ensuring the requirements of customers are met, they are treated well and their expectations exceeded. Organizations try to understand the current and future needs of customers and create more value for customers so as to attract and retain them for profitability. To achieve this principle, there is need to hold consultations with and listen to customers and regularly monitor and review customer satisfaction.

Leaders in an organization constitute the top management, which is the source of unity of purpose and provides strategic direction to align strategies, policies, processes and resources to achieve the quality management objectives. Top management encourages training and creates an environment for employees to pursue a common direction and improve capabilities of the organization to deliver the results desired by customers.

The principle of engagement of people expounds on the active participation of all people in the promotion of quality and requires organizations to engage competent people, who have the capacity to ably create and deliver value. It is important to involve all people at all levels so as to manage organizations efficiently and effectively. Engaging the people means that employees remain committed to the goals and values of the organization, are motivated enough to contribute to the organization's success and achieve job satisfaction. This leads to their abilities being exploited for the organization's benefit and success as well as satisfaction of the customer.

Through process approach, results that are consistent and predictable can be attained efficiently and effectively when all activities are understood and executed as interrelated processes functioning as one coherent system. Understanding the way resources, processes, interactions and controls produce results in a QMS such as ISO, which itself comprise interrelated processes, enables the organization to optimize its systems and performance. Since the ISO comprises interrelated processes, it enables the organization to optimize its systems and performance. This is achieved through efficient use of resources and effective process management.

Organizations that succeed maintain continual improvement as one of the goals so as to sustain the performance at its present level, cope with changes in the environment and take advantage of any opportunity that may arise. In ISO, setting up improvement objectives, carrying out QMS audits, taking corrective action and innovations rank high in the improvements envisaged in this principle. Organizations can apply the Plan, Do, Check and Act (PDCA) cycle to guide continuous improvement.

Organizations that make decisions based on analysis and evaluation of relevant data and information achieve the desired results because such decisions inspire confidence. Evidence-based decision making occurs when multiple types of information are gathered from multiple sources, facts identified, analyzed and the causal-effect relationship established. Objectivity in decision-making can be improved by facts, evidence and data analysis. The root-cause analysis can be used to determine the source of the problems and the corrective actions to be taken.

An organization and its customers are interdependent and customers influence performance of organizations. Organizations therefore sustain success by managing their relationships with customers. Relationship management means sharing with customers the vision, mission, values and information on future plans, and treating them well. The relationship between organizations and customers such as suppliers and employees should be managed carefully since customers create value for the organization and ensure

sustained success and optimization of performance, otherwise they can undermine the organization's success.

2.5 Empirical Review

Mak (2011) studied ISO certification in the tours operator sector in Hong Kong special administrative region of China, which is a service industry, aimed at finding out whether tour operators implemented quality management and the challenges they faced. This was a case study of the only three tour firms that were then ISO certified in Hong Kong using a questionnaire. The study found that tour operators benefited from ISO certification through enhanced image building of the firms and management control arising from coherence in the operating procedures, increased market share due to improved marketing, financial benefits from savings from improved workflow reduction, increased revenue, better organizational structures and preventive measures to avoid non-conformity. The study also identified challenges faced, such as lack of awareness on the process and the benefits of ISO, lukewarm support by the employees and requirement of a lot of resources. Though the study was conducted in a service sector, it focused on private companies as opposed to public sector where government ministries fall. The need to establish the challenges faced in ISO certification in government ministries arises.

Singels, et al. (2001) undertook a study in Netherlands to investigate the relationship between ISO certification and performance of organizations; whether ISO certification resulted in improved performance. The study adopted a descriptive method of research using a questionnaire administered on 192 organizations identified through stratified

random sampling method. The study did not find any significant difference between ISO certified and non-certified organizations. A significant difference was, however, found on the improved results and investments performance outcomes in favour of the non-certified organizations since they made more savings on costs of production and net profits than those that were certified. The findings contradicted those of other studies that found attainment of ISO certification led to improved overall performance by organizations. Vloeberghs and Bellens (1996) found that ISO certification led to improved client trust, Carlsson and Carlsson (1996) found that ISO certification resulted in improved performance and Jeng (1998) found a positive relationship.

Singh and Nahra (2006) studied ISO 9000 certification in the public sector in Australia focusing on the Australian Federal Government Agency (a statutory body established under an act) that attained ISO certification in 2001, thus Australian Maritime Safety Authority (AMSA). The study investigated the motivation of certification and the process, challenges faced and benefits of ISO certification. This was a descriptive study and the researchers adopted the case study research methodology. The study established that AMSA's certification was as a result of pressure from the Australian Government requiring all its agencies to be certified, top management was fully involved and supported the process, AMSA benefitted from tenders awarded by other countries after certification, reduced and improved operating procedures. Challenges faced included non-embrace of ISO, resistance to change and perceptions that undertaking ISO certification was equivalent to performing extra duties. Being a case study with a singular approach to the investigations, the findings could not be generalized for public sector.

Kimani (2008) undertook a study on the role of ISO certification in developing competitive advantage for Kenyan organizations using a descriptive survey method. The study sought to establish the role of ISO certification in attaining competitive advantage and the challenges faced in the process. Data was obtained from 55 ISO certified private sector organizations using a questionnaire. Findings showed that majority organizations agreed ISO certification was a source of competitive advantage over their rivals who were not certified as it led to increased quality awareness and improved products and customer satisfaction. These findings contradicted those by Singels, et al. (2001) who did not establish any significant difference between ISO certified and non-certified organizations in production processes, customer satisfaction and personnel motivation. The study, however, established challenges in ISO certification were heavy costs of carrying out audits and low level of attaining and sustaining certification where management support was not forthcoming. Apart from the contradiction, the study focused on organizations in the private sector and could not, therefore, be generalized for application in the public service.

Thuo (2013) researched on the adoption of ISO quality management standards and operational performance of service organizations in Kenya. He applied a descriptive survey method by undertaking a census survey of all the 53 service organizations certified by KEBS by 2012 to establish how adoption of ISO affected performance. The findings established that ISO certified organizations benefited from improved operational performance and incorporation of the external customers needs, adherence to standards, improved customer satisfaction, higher productivity and reduction in the cost of quality.

The study also found employee resistance, increased documentation and limiting employees' creativity and critical thinking as the challenges faced in ISO certification. Organizations that participated in the study were all from the private sector, hence leaving out the public sector, which is a major service provider.

Rukaria (2014) researched on ISO quality system certification and customer satisfaction in the aviation industry in Kenya to determine the status of certification of the organizations operating in the industry, level of customer satisfaction and the relationship between certification and customer satisfaction. The study was a cross-sectional research design targeting 120 respondents, to each of whom a questionnaire was administered. The study found that only 26 percent of the firms were not ISO certified, there was no relationship between ISO certification and customer satisfaction and the factors influencing the relationship between customer satisfaction and ISO certification were employee-customer orientation and cross-functional relationships in the organizations. There is need to study whether ISO certification leads to customer satisfaction in Kenya as was the case in the study (Thuo, 2013). The literature review is summarized in the Table 2.1 below.

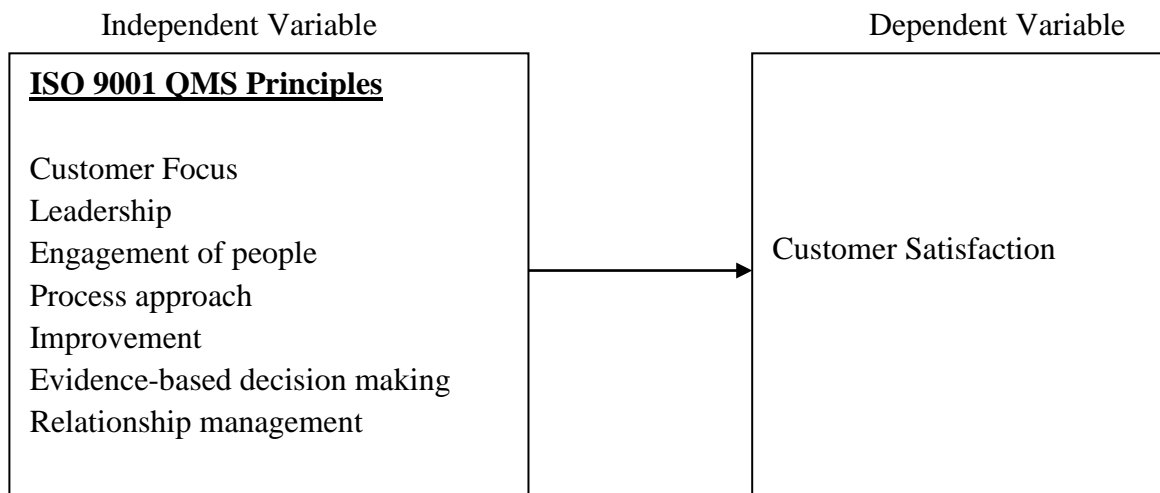
Table 2.1 Summary of Literature Review

Author	Topic	Objectives	Methodology	Findings	Research Gap(s)
Mak (2011)	ISO certification in tour operator sector in Hong Kong	Establish level of implementation of quality management and the challenges faced	Case study method	Benefits enhanced image and control, increased market share and revenue, and cost savings and lack of awareness and benefits, inadequate support by employees, and resources	Focused on private sector organizations, hence cannot be generalized to public sector
Singels et al. (2001)	ISO certification for organizations in Netherlands	Investigate the relationship between ISO certification and organizations' performance	Descriptive study	No difference between ISO certified and non-certified organizations in production process and customer satisfaction non-certified organizations made more profits	Findings contradicted previous studies showing ISO certification led to improved performance by organizations
Singh and Nahra (2006)	ISO 9000 certification in a public sector agency in Australia	Investigate the motivation of certification and challenges faced and benefits of ISO certification	Descriptive study	Top management was fully involved and supported ISO process, and challenges were resistance to change and non-embrace of ISO	Study focused on a state agency hence cannot be generalized for public service
Kimani (2008)	Role of ISO certification in developing competitive advantage for Kenyan organizations	Establish the role of ISO certification in attaining competitive advantage by organizations and challenges faced in the process	Descriptive survey	ISO certification gave competitive advantage, led to increased quality awareness and improved products and customer satisfaction and challenges were high costs for compliance audits and inadequate support by management	Findings contradicted those that did not establish any difference on customer satisfaction and study focused on organizations in the private sector
Thuo (2013)	Adoption of ISO quality management standard and operational performance of service organizations in Kenya	Establish how adoption of ISO affected the performance of organizations	Descriptive research	Improved customer satisfaction and productivity but challenge was resistance and limiting of creativity	Organizations were from private sector, hence cannot be generalized to public sector
Rukaria (2014)	ISO quality system certification and customer satisfaction in aviation industry in Kenya	Establish status of certification, customer satisfaction and the relationship between them.	Cross-sectional	No relationship between ISO certification and customer satisfaction	Findings contradicted previous researches that ISO certification led to improved performance by organizations

2.6 Conceptual Framework

In the conceptual framework, the independent variables were customer focus, leadership, engagement of people, process approach, improvement, evidence-based decision making and relationship management. The application of these principles in the ministries leads to enhanced performance hence customer satisfaction was seen as the dependent variable. The schematic representation of the conceptual framework for the research was as indicated in Figure 2.1 below.

Figure 2.1 Conceptual Framework



Source: Researcher (2018)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design used, the research method, target population, type of data, the data collection method and justification. It also states the research instrument that was used to collect data and data analysis techniques that the researcher applied.

3.2 Research Design

The study used a descriptive research design, which is suitable for studies that seek to describe the characteristics of occurrences, situations or population.

3.3 Population of the Study

The population of the study comprised all the 21 ministries as were then established – see Appendix II. This number of ministries was small and data was easily collected from them. This made the research a census study in which the researcher targeted to collect data from the entire population, hence attaining higher accuracy levels (Mugenda and Mugenda, 2003).

3.4 Data Collection

Primary data was collected using a self-administered questionnaire in Appendix III. The questionnaire were administered on the Quality Management Representatives (QMRs) appointed in each ministry as the officer in-charge of ISO certification and implementation. By virtual of the duties they performed in the ministries with regard to

ISO certification and implementation, QMRs were well versed and had access to all the information on ISO. These officers were, therefore, best suited to provide the information that was included in the questionnaire for the study. The questionnaire had three sections; section A for general information, section B for challenges faced in attaining ISO certification under the first objective and section C for the second objective on the effect of the application of ISO principles on levels of customer satisfaction in services delivered by the ministries. The drop-and-pick method of administering the questionnaire was adopted.

3.5 Data Analysis

Once collected, the data was checked for completeness and cleaned; coded, entered and analyzed through descriptive statistics such as frequency, percentage, mean and standard deviation presented in tables. The study also conducted a regression analysis to establish the relationships between the variables. Data in Section A was analyzed to show general information, Section B brought out the challenges faced by the ministries in attaining ISO certification and Section C the effect of the application of ISO principles on the level of customer satisfaction.

Table 3.1 Summary of Data Analysis

Objectives	Data	Analysis
Establish the challenges faced by government ministries in attaining ISO certification	Primary	Frequency Percentage Mean Standard deviation
Establish the effect of the application of ISO principles on the level of customer satisfaction	Primary	Frequency Percentage Mean Standard deviation Regression analysis

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The research looked at ISO 9001 certification and service delivery in government ministries in Kenya. It had two objectives namely to establish the challenges faced by government ministries in attaining ISO certification and the effect of the application of ISO principles on the level of customer satisfaction in service delivery. The chapter, therefore, entails an analysis of data collected from the field and presentation of the findings.

4.2 Response Rate

A total of 21 questionnaires were issued to the respondents, which were the 21 ministries established by the Government of Kenya, and the response was as shown in Table 4.1 below:

Table 4.1 Response Rate

Response	Frequency	Percentage
Returned	15	71.43
Unreturned	6	28.57
Total	21	100

Source: Research data (2018)

Results in Table 4.1 showed an overall successful response rate of 71.4 percent while 28.6 did not respond. Therefore, the documented response rate was found fit for analysis since it is supported by Mugenda and Mugenda (2003) which states that any response rate of 70 percent and above was considered excellent for analysis and making conclusions.

4.3 Demographic Information

The respondents were required to indicate the position they held in management so as to establish the level at which quality management issues were handled. The findings in Table 4.2 showed that majority of the respondents, at 53.3 percent, were in the middle level management while 46.7 percent worked at the top level management. There was no respondent at the operational level since the questionnaires were only administered on the QMRs appointed in each ministry as the officer in-charge of ISO certification and implementation who were either in top or middle level management. The respondents were, therefore, knowledgeable officers with access to information on the ISO certification.

Table 4. 2 Level of Management

	Frequency	Percentage
Top level management	7	46.7
Middle level management	8	53.3
Total	15	100.0

Source: Research data (2018)

The study sought to establish whether the ministries were ISO certified. The respondents were therefore asked to state whether the ministries they worked in were ISO certified. The findings in Table 4.3 indicated that 26.7 percent of the ministries were ISO certified while 73.3 percent were not.

Table 4. 3 Ministry ISO Certification Status

	Frequency	Percentage
Yes	4	26.7
No	11	73.3
Total	15	100.0

Source: Research data (2018)

4.4 Challenges Faced by Government Ministries in Attaining ISO Certification

To establish the challenges faced by government ministries in attaining ISO certification, respondents were asked to tick the extent to which they agreed with statements posed on challenges that government ministries faced in attaining ISO certification. Rating was expressed in a five-point Likert Scale: 1=very small degree, 2= small degree, 3= moderate degree, 4= large degree and 5= very large degree. Table 4.4 shows the findings:

Table 4. 4 Challenges Faced by Government Ministries (Percent)

	5	4	3	2	1	Sample Size	Mean	Standard Deviation
Inadequate funding for ISO certification	46.7	33.3	13.3	6.7	0	15	4.2000	.94112
Frequent changes of top management in Ministries	40.4	26.7	13.3	13.3	6.7	15	3.8000	1.32017
Inadequate awareness on ISO and its benefits	33.3	33.3	13.3	13.3	6.7	15	3.7333	1.27988
Inadequate support for ISO certification by the top management in the Ministry	20.0	40.0	26.7	6.7	6.7	15	3.6000	1.12122
ISO certification takes very long to be attained	13.3	40	26.7	20	0	15	3.4667	.99043
Resistance to change (such as non-embrace of ISO)	13.3	46.7	13.3	13.3	13.3	15	3.3333	1.29099
Inadequate knowledge and skills on ISO	13.3	20.0	40.0	6.7	20.0	15	3.0000	1.30931
Approach to adoption of ISO certification is more of a requirement	6.7	26.7	26.7	20	20	15	2.8000	1.26491
Public servants negative culture	0	40.0	13.3	26.7	20.0	15	2.7333	1.22280
Inadequate consultations and participation by stakeholders	0	26.7	26.7	20.0	26.7	15	2.5333	1.18723
High fees charged by external consultants	6.7	6.7	26.7	26.7	33.3	15	2.2667	1.22280
Few accreditation institutions	0	20	13.3	6.7	60	15	1.9333	1.27988
Average							3.1167	1.20256

Source: Research 2018

From the findings, the respondents agreed to a large degree that inadequate funding for ISO certification was a big challenge as demonstrated by a mean of 4.2 and standard deviation of 0.94112. Majority of the respondents also agreed to a large extent that frequent changes of top management in ministries impacted negatively on the attainment of ISO certification as shown by a mean of 3.8 and standard deviation of 1.32017. When asked whether inadequate awareness on ISO and its benefits was a challenge in attainment of ISO certification, majority of the respondents agreed to a large degree it was as demonstrated by a mean of 3.73 and standard deviation of 1.279. The study also aimed at establishing whether inadequate support for ISO certification by the top management in the ministries was a barrier towards the attainment of ISO certification and the respondents agreed to a large degree as indicated by a mean of 3.60 and standard deviation of 1.121.

When asked whether the long period taken to attain ISO certification was a challenge, the respondents agreed to a large degree as demonstrated by a mean of 3.46 and standard deviation of 0.9904. The respondents further agreed to a large degree that resistance to change (for example non-embrace of ISO) was a challenge faced in the attainment of ISO certification by government ministries. These findings conform to Gichohi (2010) who established that high investment cost, inadequate commitment by the management, employee resistance and sabotage, lack of awareness on relevance and benefits and inadequate skills as major challenges that affected the adoption of ISO certification by non-ISO state corporations.

The respondents agreed to a moderate degree that the non-attainment of ISO certification among the government ministries was due to inadequate knowledge and skills on ISO, approach to adoption of ISO certification as more of a requirement, public servants negative culture, inadequate consultations and participation by stakeholders as evidenced by means of 3.00, 2.80, 2.73 and 2.53 respectively. The findings agree with (Mutinda, 2012) who found that lack of commitment by the management, inadequate resources, massive documentation requirement, negative organizational culture, high cost of hiring external consultants, lack of understanding of the requirements of ISO, inadequate knowledge, awareness and training on the processes; the size of the organization and inefficient internal communication as some of the challenges faced in the ISO certification process.

However, high fees charged by external consultants and few accreditation institutions were cited to affect the attainment of ISO certification to a small degree as evidenced by means of 2.26 and 1.93 respectively. The findings that few accreditation institutions recorded a small degree among the respondents was because Kenya has accredited KEBS, Societie Generale de Surveillance and Bureau Veritas as bodies that ensure quality standards and guidelines developed by ISO are implemented, hence was not a challenge. The average mean response of all the attributes tested was 3.11 implying that the above challenges indeed affected the attainment of ISO certification by government ministries. The overall standard deviation of 1.203 implied that most responses were clustered around the mean.

Apart from the challenges listed in Table 4.4 above, others mentioned by the respondents from different ministries included frequent transfers of quality management team members which disrupted the continuity of ISO certification process; quality management team being junior to the heads of departments thus limiting their authority to implement changes and suggested improvements, lack of focus on ISO certification following its removal as a target in the performance contracting framework, frequent changes in the ministries through mergers or divisions which often resulted in addition or reduction of functions, thereby affecting the ISO certification process, management of divisions with different cultures within the ministries, understaffing in some ministries and poor reward systems.

4.5 Implementation of ISO 9001 in the Ministries

To establish the level of success of the implementation of ISO 9001 in government ministries, the degree to which the ministries complied with the seven principles of ISO 9001 certification was examined as follows.

The study sought to determine whether the principle of customer focus had been implemented in the ministries. The responses were rated using a five point Likert Scale; 1= strongly disagree, 2= disagree, 3=moderately agree, 4=agree and 5=strongly agree and results presented in Table 4.5 below:

Table 4. 5 Customer Focus

	Sample Size	Mean	Standard Deviation
The Ministry has a complaints handling mechanism	15	3.9333	1.09978
The Ministry holds consultations with its customers	15	3.7333	.70373
The Ministry knows its customers and undertakes customer satisfaction surveys once a year	15	3.6667	1.11270
Recommendations by customers and survey reports are fully implemented	15	3.4000	1.12122
Average		3.6833	1.00936

Source: Research data (2018)

From the findings, customer focus attributes that ministries have complaints handling mechanism which was ranked highest with a mean of 3.933 followed by ministries hold consultations with customers with a mean of 3.733, ministries know their customers and undertake customer satisfaction surveys once a year with a mean on 3.667 while recommendations by customers and survey reports were fully implemented recorded a mean of 3.44. The findings, therefore, showed that the ministries observed the principle of customer focus as evidenced by an overall mean of 3.68. The average standard deviation of 1.009 implies that the responses on all the statements were clustered around the mean response. Therefore, it can be argued from the findings that government ministries try to understand the current and future needs of customers and create more value for customers so as to attract and retain them for profitability.

The study sought to establish whether the principle of leadership had been implemented in the ministries. The responses were rated using a five point Likert Scale; 1= strongly disagree, 2= disagree, 3=moderately agree, 4=agree and 5=strongly agree and results presented as shown in Table 4.6 below:

Table 4. 6 Leadership

	Sample Size	Mean	Standard Deviation
The top management inspires and are positive examples on ISO	15	4.1333	0.7362
The Ministry communicates its vision, mission, objectives and values to all its customers	15	3.6667	.89974
The Ministry holds management review meetings on ISO	15	3.1333	1.59762
The Ministry sets aside resources for training on quality and service delivery	15	2.9333	1.43759
Average		3.4667	1.16779

Source: Research data (2018)

Table 4.6 above indicates that majority of the respondents agreed the top management inspired and were positive examples on ISO as shown by a mean of 4.133 and standard deviation of 0.736, ministries communicate their vision, mission, objectives and values to all its customers as shown by mean of 3.667 and standard deviation of 0.897. The respondents, however, agreed to a moderate extent that the ministries hold management review meetings on ISO and set aside resources for training on quality and service delivery as evidenced by the mean of 3.13 and 2.93 respectively. The overall mean was 3.46 showing that respondents agreed that the leadership principle was alive in their respective ministries due to its role in providing strategic direction to align strategies, policies, processes and resources to achieve the quality management objectives.

The study sought to establish whether individuals were being engaged in the undertakings of the ministries in order to succeed in the implementation of ISO. The responses were rated using a five point Likert Scale; 1= strongly disagree, 2= disagree, 3=moderately agree, 4=agree and 5=strongly agree and results presented as shown in Table 4.7 below:

Table 4. 7 Engagement of the People

	Sample Size	Mean	Standard Deviation
The Ministry has and implements a staff performance management system	14	4.0714	.82874
Employees are trained regularly on ISO (at least once a year)	15	3.5333	2.35635
The Ministry has clear mechanisms to receive feedback from customers	15	3.4000	1.29835
Customers participate and freely contribute to decision making processes in the Ministry	15	2.8667	1.45733
The employees are aware of and clearly understand ISO	15	2.6667	1.39728
Average		3.3076	1.46761

Source: Research data (2018)

The findings show that the ministries had and implemented a staff performance management system followed by holding consultations with its customers with a mean of 4.0714, followed by employees are trained regularly on ISO (at least once a year) with a mean of 3.5333, then customers participate and freely contribute to decision making processes in the ministries with a mean of 2.866 while the employees were aware of and clearly understood ISO was last with a mean of 2.667. It was evident from the findings that individuals were not being fully engaged in the activities of ministries as evidenced by a moderate mean of 3.30. The average standard deviation of 1.46 implied that the responses on all the statements were clustered around the mean response. Engaging the people meant that employees remained committed to the goals and values of the organization, were motivated enough to contribute to the ministries' success and to achieve job satisfaction. The organizations should, therefore, be advised to engage more in the involvement of individuals in all the processes so that capabilities of individual employees were exploited for the organization's benefit and success as well as satisfaction of the customer.

The study sought to establish whether the stipulated processes were being followed to ensure successful implementation of ISO 9001. The responses were rated using a five point Likert Scale; 1= strongly disagree, 2= disagree, 3=moderately agree, 4=agree and 5=strongly agree and results presented as indicated in Table 4.8 below:

Table 4. 8 Process Approach

	Sample Size	Mean	Standard Deviation
The objectives of the quality management system and processes to achieve them are clearly defined	15	3.6000	1.50238
The Ministry has a quality management team and has vested it with authority for ISO	15	3.3333	1.44749
Customers understand and find the Ministry's processes easy to follow	15	3.0667	1.33452
The Ministry complies fully with the provisions of ISO	15	2.8000	1.42428
Average		3.2	1.42717

Source: Research data (2018)

The respondents agreed to a large degree that the objectives of the quality management system and processes to achieve them are clearly defined as evidenced by a mean of 3.60 and that the Ministries had quality management teams vested with authority for ISO as shown by a mean of 1.427. The respondents agreed to a moderate extent that customers understood and found the ministries' processes easy to follow and that ministries complied fully with the provisions of ISO as evidenced by 3.067 and 2.800 respectively. The average mean response was 3.2 implying that the respondents did not fully agree that the process approach was being observed by ministries. The overall standard deviation of 1.42 implied that the responses were clustered around the mean response. Ministries should, therefore, maintain strict adherence to the stipulated processes so that outcomes obtained are consistent and predictable and can be achieved efficiently and

effectively, which goes a long way to understanding the way resources, processes, interactions and controls produce results in a QMS.

The study sought to establish whether improvement programmes were present in the ministries in order to see success in the implementation of ISO. The responses were rated using a five point Likert Scale; 1= strongly disagree, 2= disagree, 3=moderately agree, 4=agree and 5=strongly agree and results presented as shown in Table 4.9 below:

Table 4. 9 Improvement

	Sample Size	Mean	Standard Deviation
The Ministry has established clear improvement objectives	15	3.0000	1.13389
The Ministry undertakes ISO audits as planned	15	2.8000	1.61245
Reports of ISO audits and management reviews, and customers' feedback inform improvements	15	2.9333	1.38701
The Ministry operates an acknowledgement and recognition programme for improvement by its customers	15	2.6000	1.24212
Average		2.8333	1.34387

Source: Research data (2018)

From the findings in Table 4.9 above, the respondents moderately agreed on all the attributes presented on improvement as evidenced by the mean of 2.83. This meant that the respondents agreed, but only to a moderate extent, that different improvement measures were being undertaken in the ministries so as to attain ISO 9001 certification. The overall mean of 1.344 implied that the responses were clustered around the mean response, therefore, ministries should constantly undertake improvement programmes in order to sustain the performance at its present level, cope with changes in the

environment and take advantage of any opportunity that may arise to make improvements.

The study sought to establish whether there was evidence-based decision making in the ministries for success in the implementation ISO. The responses were rated using a five point Likert Scale; 1= strongly disagree, 2= disagree, 3=moderately agree, 4=agree and 5=strongly agree and results presented as shown in Table 4.10 below:

Table 4. 10 Evidence–Based Decision Making

	Sample Size	Mean	Standard Deviation
Decision making and actions taken by the Ministry are based on facts and evidence	15	3.7333	.89120
Information and data held by the Ministry is considered accurate and reliable	15	3.4667	.91548
Information and data in the Ministry is readily accessible to customers	15	3.3333	.72375
Average		3.5111	0.84348

Source: Research data (2018)

The decision making and actions taken by the ministries were based on the attribute of facts and evidence which was ranked the highest with a mean of 3.733, followed by the attribute of information and data held by the ministries was considered accurate and reliable with a mean of 3.4667 while information and data in the ministries were readily accessible to customers came last with a mean of 3.333. The average mean was 3.511 implying that the respondents agreed that the decisions made by the ministries were evidence based. It can, therefore, be said that organizations make decisions based on analysis and evaluation of relevant data and information to achieve the desired results since such decisions inspire confidence. Evidence-based decision making occurs when

multiple types of information are gathered from multiple sources, facts identified, analyzed and the causal-effect relationship established.

The study sought to establish whether ministries were managing relationships for successful implementation of ISO 9001. The responses were rated using a five point Likert Scale; 1= strongly disagree, 2= disagree, 3=moderately agree, 4=agree and 5=strongly agree and results presented as shown in Table 4.11 .below:

Table 4. 11 Managing Relationships

	Sample Size	Mean	Standard Deviation
The Ministry maintains a cordial relationship with its customers	15	3.6667	.81650
The Ministry holds consultations with its customers and takes into account their contributions	15	3.4000	.91026
The Ministry maintains up-to-date information on all its customers	15	3.067	1.1243
Average		3.3779	0.95035

Source: Research data (2018)

From the results in Table 4.11 above, the respondents were in agreement, to a large degree, that the ministries maintained a cordial relationship with their customers as evidenced by a mean of 3.6667, ministries hold consultations with customers and take into account their contributions as shown by a mean of 3.4000 and agreed to a moderate extent that the ministries maintained up-to-date information on all their customers as shown by a mean of 3.067. The overall mean of 0.950 implied that the responses on the different attributes were clustered around the mean response. The organizations need to invest more in building relationships with customers such as suppliers and employees

since they create value for the ministries and ensure sustained success and optimization of performance.

4.6 Effect of the Application of ISO Certification Principles on Customer Satisfaction

This section sought to establish the effects of the application of the principles of ISO certification on level of customer satisfaction. A multiple regression analysis was undertaken. The model summary that was applied is as shown in Table 4.12 below:

Table 4.12 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.943 ^a	.889	.777	.42942
a. Predictors: (Constant), Customer focus, Leadership, Engagement of people, Process Approach, Improvement, Evidence-based Decision Making				

Source: Primary Data

The regression results on model summary can be summarized as follows, the R-square value in the model was 0.889 meaning 88.9 percent of the variation in customer satisfaction could be explained by the seven independent variables utilized for the study while the other 11.1 percent was due to other factors that were not covered in the study.

The overall significance test derived from the Analysis of Variance (ANOVA) was as presented in Table 4.13 below:

Table 4. 13 Analysis of Variance

Analysis of Variance ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.309	7	1.473	7.986	.007 ^b
	Residual	1.291	7	.184		
	Total	11.600	14			
a. Dependent Variable: Customer satisfaction						
b. Predictors: (Constant), Customer focus, Leadership, Engagement of people, Process Approach, Improvement, Evidence-based Decision Making, Managing relationships						

Source: Primary Data

The significance test for the model as represented in the ANOVA Table 4.13 above under F and Sig columns, results indicated that the overall model is significant since p-value is less than 0.05 ($0.007 < 0.05$). This implied that the independent variables, taken together were significant.

Table 4. 14 Individual Significance

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	.903	.780		1.159	.285
	Customer focus	.053	.221	.041	.238	.819
	Leadership	.533	.168	.527	3.166	.016
	Engagement of people	-.355	.153	-.486	-2.325	.053
	Process Approach	.338	.216	.558	1.562	.162
	Improvement	.257	.269	.320	.958	.370
	Evidence-based decision making	-.360	.204	-.362	-1.766	.121
	Managing Relationships	.217	.126	.298	1.721	.129
a. Dependent Variable: Customer satisfaction						
b. Predictors: (Constant): Customer focus, Leadership, Engagement of people, Process approach, Improvement, Evidence-based decision making and Managing relationships						

Source: Primary Data

From the table of individual significance above, the following regression model was established based on the independent variable and two independent variables that were found to be significant, thus leadership and engagement of the people:

$$Y = 0.533 X_1 - 0.355 X_2$$

Where Y was customer satisfaction, X_1 leadership and X_2 the engagement of the people.

When all factors were held constant, the customer satisfaction would be at 0.903. A unit increase in leadership (X_1) would lead to 0.533 positive change in customer satisfaction and a unit change in engagement of people (X_3) would result into -0355 negative change in customer satisfaction. The rest of the independent variables were not significant.

4.7 Discussion on the Findings

The study identified the following as the major challenges experienced in the attainment of ISO principles; inadequate funding for ISO certification, frequent changes of top management in ministries, inadequate awareness on ISO and its benefits, inadequate support for ISO certification by the top management in the ministries, long duration taken to attain ISO certification, resistance to change with non-embrace of ISO as an example, inadequate knowledge and skills on ISO, approach to adoption of ISO certification was more of a requirement, public servants' negative culture, inadequate consultations and participation by stakeholders, high fees charged by external consultants and few accreditation institution which reduced and limited the capacity of government ministries to offer citizens services to their satisfaction. These findings agree with Chikophe (2011) who identified the challenges facing the state owned corporations in attaining ISO

certification as resistance to change by employees, misunderstanding of the perception of quality efforts, difficulties in understanding new quality processes and procedures, resistance to internal audits and unsupportive organizational structure and culture as challenges.

From the findings on the implementation of the different principles of ISO 9001, there was generally a moderate rating on the attributes of the different principles as evidenced by the average of mean scores obtained from the different tables generated to measure the various principles. These were: customer focus mean of 3.6833, leadership mean of 3.4667, engagement of people mean of 3.3076, process approach mean of 3.21, improvement mean of 2.83, evidence –based decision making mean of 3.5111 and managing relationships mean of 3.3779. These findings agreed with Okwiri, (2015) that the application of ISO 9001 principles allowed an organization to attain a quality management system. Thus, government ministries understood the role of ISO principles in enhancing their performance and were implementing them.

From the regression analysis model on the effect of application of ISO certification principles on customer satisfaction, the R square value was 0.889, which implied that 88.9 percent of the variation in customer satisfaction in government ministries could be accounted for by the application of the seven ISO principles. Furthermore, at 95 percent confidence level, the model was found to be significant as demonstrated by a p value of 0.007, which was less than the conventional 0.05. This, therefore, implied that ISO principles were significant in explaining the level of customer satisfaction in services

offered by ministries. Therefore, government ministries must comply with and apply ISO 9001 principles so as to attain improved customer satisfaction. These findings are in line with Oakland and Sohal, (1996) who opined that quality management principles resulted in systematic, consistent, integrated and organization-wide viewpoints that led to satisfaction of both the internal and external customers.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section contains the summary of findings, conclusion, recommendations and limitations.

5.2 Summary

The study objectives were to establish the challenges faced by government ministries in attaining ISO certification and to determine the effect of application of ISO principles on the level of customer satisfaction in government ministries. The study used data collected from the field to derive findings.

The study established there were key challenges experienced by government ministries in the attainment of ISO certification. These were identified as inadequate funding for ISO certification, frequent changes of top management in ministries, inadequate awareness on ISO and its benefits, inadequate support for ISO certification by the top management in the ministries, the long duration taken to attain ISO certification, resistance to change by employees, inadequate knowledge and skills on ISO, approach to the adoption of ISO certification being more of a requirement and public servants negative culture; inadequate consultations and participation by stakeholders and high fees charged by external consultants, among others. These findings concurred with those of other scholars such as (Mutinda, 2012).

The study ascertained the level of success of the implementation of ISO 9001 in government ministries in Kenya by requesting the respondents to indicate the degree to which their ministries complied with the seven principles of ISO 9001 certification. The findings indicated the following mean scores: customer focus 3.6833, leadership 3.4667, engagement of people 3.3076, process approach 3.2100, improvement 2.8300, evidence-based decision making 3.5111 and managing relationships 3.3779. These scores showed that, although majority of government ministries were not certified, they still had practices that were in line with the ISO principles, hence the scores for both ISO certified and non-ISO certified ministries.

From the regression analysis on the effect of application of ISO certification principles on customer satisfaction, the R square value was 0.889. This implied that 88.9 percent of the variation in customer satisfaction in government ministries could be accounted for by the application of the ISO principles. Furthermore, at 95 percent confidence level, the model was found to be significant as demonstrated by the p value of 0.007 which was less than the conventional 0.05. This, therefore, meant that ISO principles were significant in explaining the customer satisfaction. These findings failed to agree with Rukaria (2014) who argued that there was no relationship that existed between ISO certification and customer satisfaction.

5.3 Conclusion

Based on the above findings, the researcher concluded that ISO certification in government ministries was an important undertaking which the Government should pursue vigorously thus, the ministries should be obligated to attain ISO certification. Further, it was imperative that government ministries should adopt ISO certification principles as this would play an integral role in increasing the level of customer satisfaction. Failure to comply with ISO principles would ultimately hamper the satisfaction of the citizens who seek services as evidenced by the P value of the regression analysis of 0.007 at 95 percent confidence level, which meant that ISO principles directly affected customer satisfaction levels. The study noted that ISO 9001 principles were of relevance in improving the ministries' customer satisfaction levels. Further, different challenges such as inadequate funds, awareness and knowledge on ISO; and resistance to change by employees, among many others, affected negatively the attainment of ISO certification in government ministries, thus any organization seeking ISO certification needed to be aware and develop strategies to mitigate and overcome those challenges so as to successfully attain ISO certification.

5.4 Recommendations

From the findings, it is evident that the application of ISO principles had a significant impact on level of customer satisfaction. The government should, therefore, consider prioritizing ISO certification and encourage mainstreaming of its implementation in all ministries so that they deliver quality services and increase the level of customer satisfaction. To achieve this, it is recommended that sufficient resources, including

financial and human resources, should be set aside and availed to each ministry to pursue ISO certification.

The top management should also be sensitized on ISO and obligated to spearhead the certification process to facilitate effective implementation of quality management systems and ensure they are maintained and continually improved with customer satisfaction as a major focus. The top management should also facilitate comprehensive awareness among all employees on the importance and benefits of ISO certification so as to reduce resistance to change.

Government ministries should institutionalize ISO implementation so as to mitigate the disruptions occasioned by frequent changes in top management and mergers/separation of ministries to ensure continuous adherence to the seven principles of ISO 9001. It is recommended that ISO certification be attained and sustained by all government ministries, with an effective mechanism developed to monitor its implementation. Specifically, the Government should reintroduce ISO certification as a major target under the performance contracting framework with each ministry required to achieve and to ensure predictability in the evaluation. Customers' participation in decision making should be enhanced and their data regularly updated to achieve better and effective involvement and enhance customer satisfaction. Ministries should also start adopting ISO 9001-2015. Further research should be considered to determine the savings realized by the public-sector in-service delivery upon adoption and implementation of ISO certification.

5.5 Limitations

The objectives of the research were achieved but with one major limitation. Due to the fact that ISO certification was omitted as a target in the performance contracting framework, the QMRs in the ministries were not very keen to participate in the research, which occasioned delays in filling the questionnaires, their collection and data analysis. Respondents from some of the ministries did not fill the questionnaire, which explains why the researcher was only able to achieve a 71.3 percent response rate.

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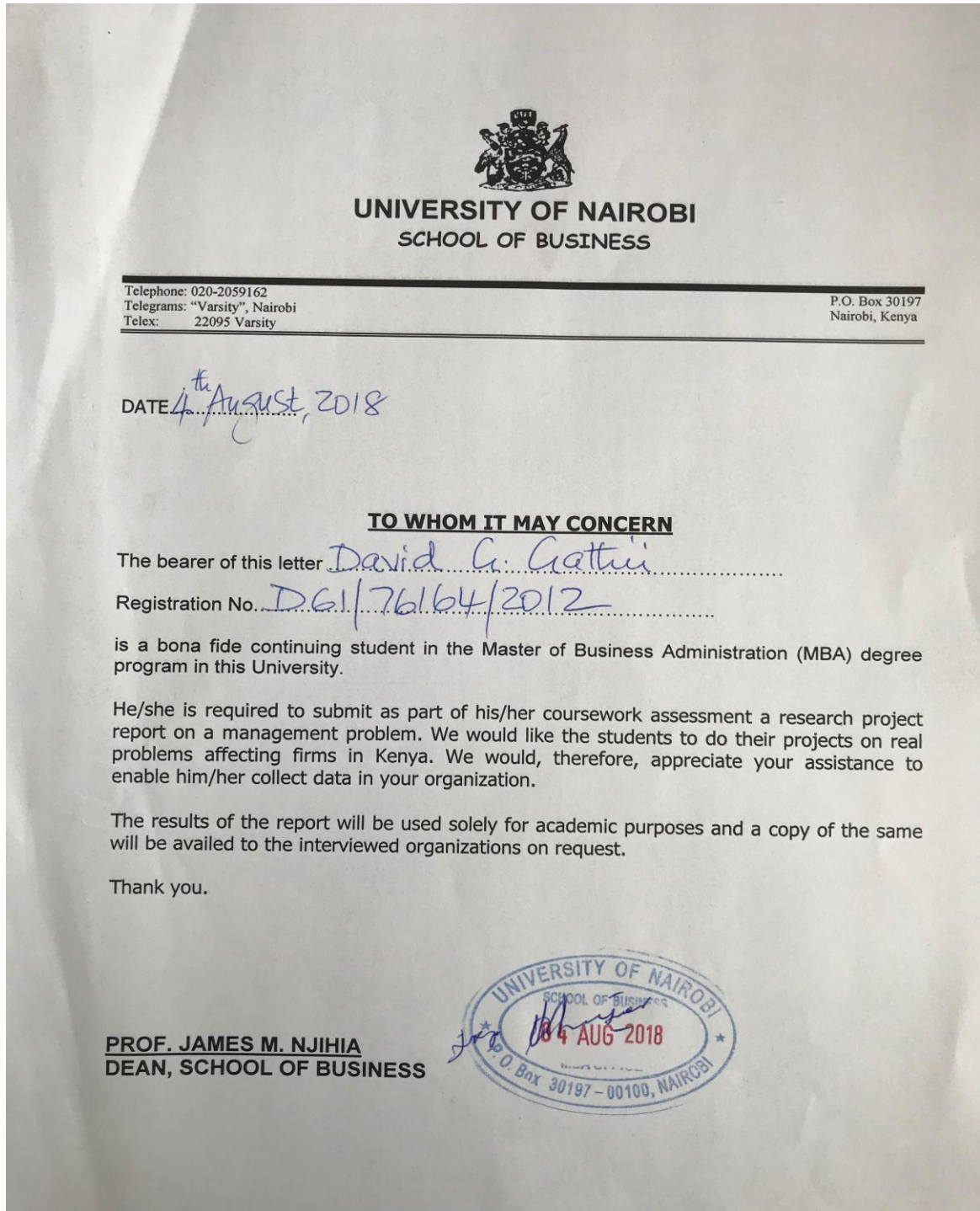
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APPENDICES

Appendix I: Letter of Introduction



Appendix II: Government Ministries Established in Kenya

1. Ministry of Interior and Coordination of National Government
2. Ministry of Defence
3. The National Treasury and Planning
4. Ministry of Foreign Affairs
5. Ministry of Industry, Trade and Cooperatives
6. Ministry of Health
7. Ministry of Agriculture, Livestock, Fisheries and Irrigation
8. Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works
9. Ministry of Devolution and the Arid and Semi-Arid Land Areas
10. Ministry of Information, Communication and Technology
11. Ministry of Sports, Culture and Heritage
12. Ministry of Education
13. Ministry of East African Community and Regional Development
14. Ministry of Labour and Social Protection
15. Ministry of Tourism and Wildlife
16. Ministry of Environment and Forestry
17. Ministry of Water and Sanitation
18. Ministry of Lands and Physical Planning
19. Ministry of Energy
20. Ministry of Petroleum and Mining
21. Ministry of Public Service, Youth and Gender

Appendix III: Questionnaire

Kindly answer the following questions as accurately as possible.

SECTION A: General Information

1. Name of the Ministry.....
2. Which of the following best describes your position in the Ministry? (tick one)
 Top level management Middle level management Operations level
3. State the financial year you were appointed the Ministry’s QMR?
4. Is the Ministry ISO certified? Yes No
5. If your answer to Q4 is yes, please state the year it attained certification
6. If your answer to Q4 is no, please state, in summary, the ISO activities that your Ministry is implementing in the 2018/2019 financial year.....
.....
.....

Section B: Challenges in Attaining ISO Certification by the Ministry

Please indicate by ticking (√) once in each row in a box that best represents your rating of the degree to which the challenge affects the attainment of ISO certification, with the following guidance: 1 = very small degree, 2 = small degree, 3 = moderate degree, 4 = large degree and 5 = very large degree.

No	Challenge	Rating				
		1	2	3	4	5
7.	Inadequate funding for ISO certification					
8.	ISO certification takes very long to be attained					
9.	Few accreditation institutions					
10.	Approach to adoption of ISO certification is more of a requirement					
11.	Inadequate awareness on ISO and its benefits					
12.	Frequent changes of top management in Ministries					
13.	Inadequate knowledge and skills on ISO					
14.	High fees charged by external consultants					
15.	Inadequate support for ISO certification by the top management in the Ministry					
16.	Inadequate consultations and participation by stakeholders					
17.	Resistance to change (for example non-embrace of ISO)					
18.	Public servants negative culture					

19. Explain briefly other challenges (if any) faced in your ministry on ISO certification:

.....

.....

.....

.....

(a separate sheet may be used).

20. Based on the answers that you provided for questions 7-18, please state any recommendations that you may have:

.....

.....(a separate sheet may be used).

Section C: Level of Customer Satisfaction

To what extent do you agree with the following statements in respect of the implementation of principles of ISO 9001 in your Ministry? Please tick (√) once in each row in a box that best represents the answer to the question, with the following guidance: 1 = strongly disagree, 2 = disagree, 3 = moderately agree, 4 = agree and 5 = strongly agree.

No	ISO 9001 Certification Principles	Rating				
		1	2	3	4	5
21.	Customer focus:					
	a) The Ministry holds consultations with its customers					
	b) The Ministry has a complaints handling mechanism					
	c) The Ministry knows its customers and undertakes customer satisfaction surveys once a year					
	d) Recommendations by customers and survey reports are fully implemented					
22.	Leadership:					
	a) The Ministry communicates its vision, mission, objectives and values to all its customers					
	b) The Ministry holds management review meetings on ISO					
	c) The top management inspires and are positive examples on ISO					
	d) The Ministry sets aside resources for training on quality and service delivery					
23.	Engagement of People:					
	a) Employees are trained regularly on ISO (at least once a year)					
	b) The employees are aware of and clearly understand ISO					
	c) Customers participate and freely contribute to decision making processes in the Ministry					
	d) The Ministry has clear mechanisms to receive feedback from customers					
	e) The Ministry has and implements a staff performance management system					
24.	Process Approach:					
	a) The objectives of the quality management system and processes to achieve them are clearly defined					

	b) The Ministry has a quality management team and has vested it with authority for ISO					
	c) Customers understand and find the Ministry's processes easy to follow					
	d) The Ministry complies fully with the provisions of ISO					
25.	Improvement:					
	a) The Ministry has established clear improvement objectives					
	b) The Ministry undertakes ISO audits as planned					
	c) Reports of ISO audits and management reviews, and customers' feedback inform improvements					
	The Ministry operates an acknowledgement and recognition programme for improvement by its customers					
26.	Evidence-based Decision Making:					
	a) Information and data held by the Ministry is considered accurate and reliable					
	b) Information and data in the Ministry is readily accessible to customers					
	c) Decision making and actions taken by the Ministry are based on facts and evidence					
27.	Managing Relationships					
	a) The Ministry maintains up-to-date information on all its customers					
	b) The Ministry holds consultations with its customers and takes into account their contributions					
	c) The Ministry maintains a cordial relationship with its customers					

28. Based on the answers that you provided for questions 21 - 27, please state any recommendations that you may have:

.....

.....

.....

.....

(a separate sheet may be used).

29. Customers are fully satisfied with the services offered by the Ministry (tick (✓) one).

- Strongly disagree
- Disagree
- Moderately agree
- Agree
- Strongly agree