THE PERFORMANCE OF ISO CERTIFIED FIRMS IN KENYA WITH REFERENCE TO ORGANIZATIONAL RESOURCES, VALUES SYSTEM, AND MANAGEMENT CAPABILITIES

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DECLARATION

This thesis project is my original work and has not been submitted for an academic work in any other institution of learning.

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This thesis is dedicated to my late parents, Julius Otulia Imongura and Naomi Toto Otulia, and family.

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ABBREVIATIONS AND ACRONYMS

BE	Business Excellence
BPR	Business Process Reengineering
CoK	Constitution of Kenya
ER	Expense Ratio
GoK	Government of Kenya
ISO	International Organisation for Standardization
JUSE	Japanese Union of Scientist and Engineers
MC	Management Capabilities
OM	Operations Management
OP	Organisational Performance
OR	Organisational Resources
QMS	Quality Management Systems
RFT	Religion Functionalism Theory
ROCE	Return on Capital Employed
ROE	Return on Capital Employed
ROI	Return on Investment
SBSC	Sustainable Balanced Score Card
SPSS	Statistical Package for Social Sciences
TQ	Total Quality
TQM	Total Quality Management
UNOCHR	United Nation Office for Commissioner Human Rights

ABSTRACT

The study aimed at establishing the relationship between organisational resources and performance; the intervening/mediating effect of management capabilities on the relationship between organisational resources and performance; the moderating effect of values system (values and principles of governance) on the relationship between organisational resources and performance; and the joint effect of organisational resources, management capabilities and values system on performance in International Organisation for Standardization (ISO) certified firms in Kenya. The study was mainly based on Total Quality Management (TQM) theory. The study was guided by the philosophy of positivism. A cross-sectional research design was adopted targeting the population of all 1,060 ISO certified firms accredited in Kenya from which a sample size of 282 firms was drawn and the response rate was 90 percent. Primary data was collected by use of a questionnaire. Secondary data was obtained from financial statements of 27 organizations which were randomly selected from the sample size. Data was analyzed by descriptive and inferential statistics. Multiple regression models were used to estimate the effect of organisational resources, values system and management capabilities on the performance of ISO certified organizations including tests of the hypotheses. The findings revealed that there was a statistically significant relationship between organisational resources and performance and that organisational resources had a negative influence on performance ; there was a partial intervening effect of management capabilities on the relationship between organisational resources and performance with a positive effect on that relationship; there was moderation effect of values system on the relationship between organisational resources and performance with a positive effect on that relationship; and there was a statistically significant joint effect of organisational resources, management capabilities and values system on performance . The results of this study add to existing knowledge in the area of organisational resources and performance by showing that the relationship between organisational resources and performance of ISO certified firms is not direct but rather is intervened and moderated by management capabilities and values system respectively and therefore would guide these firms in decision making. This study contributes to the principles and tools of TQM which help in ensuring that management of ISO certified firms perform with minimum organisational resources and as shown by the positive Fulmer H score. Due to the linkage established between the Constitution of Kenya (CoK) and TQM theory, this theory is applied in materializing the values and principles contained in article 10 of the constitution and therefore the management should be guided by CoK and TQM theory. The study, therefore recommends among others that the management of ISO certified firms should develop management capabilities including train their staff in managerial skills and sensitize on organizational values system in order to improve performance of their organizations.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Values are things or relationships that people would like to have or to enjoy (Starling, 2002). Values motivate action towards achieving goals and give reasons to do what needs to be done (Salonek, 2016). Only those values that are relevant to Operations Management (OM) are of concern in this study, being qualities people consider right, worthwhile or desirable and would therefore like to see in their organisation. These values are organisational resources, values system, management capabilities and performance, each of which is essential for the preservation of organisational responsibility (Leithy, 2017). In OM, ultimately, stakeholder satisfaction is what firms seek to attain as they address operations issues. However, stakeholder satisfaction can be achieved if only there is benefit in performance through values system and management capabilities (Taslimi, 2015). Schonberger and Knod (1997) state that customers generally have six basic requirements from firms: high levels of quality, a high degree of flexibility, high level of service, low costs, quick response levels (speed) and little or no variability (reliability) in the products or service and to this, add innovation. Any organisation basically competes on its reputation on these seven basic requirements. This study looks at the quality management of the seven requirements (Nikpour, 2017).

The TQM, a part of OM, is a transformation system and is itself the desired culture of an organisation committed to customer satisfaction through continuous improvement (Goetsch & Davis, 1994; Kanji, 1990; Cameron & Sine, 1999). Culture is that whole complex of learned human behavior patterns and perceptions (Neyestani, 2017; Tylor, 1971) which includes knowledge, belief, art, morals, law, custom, and institutions,

products of human work and thought, and habits acquired by man as a member of society. Culture makes human beings interpret their experience and guide their action, binding them together and providing direction. It is constantly changing; an ever-present ethereal medium in which members live, think and through which they act (do or make things) as they pursue human perfection, survival and solve their problems of external adaptation and internal integration (Salajegheh, Chamanifard, Chamanifard, & Nikpour, 2015; Schien, 1990).

The TQM principles, concepts and practices are on close examination similar to the values and principles of governance stipulated under Article 10 of the Constitution of Kenya (Cok) 2010 (Government of Kenya (GoK), 2010). This provision of the constitution contains human values that are universal. These values provide a means to focus on goal setting in society including firms. Thus, firms are obliged to make these values concrete and tangible for people so that they can relate to them and blend them in their daily life, to retain their very purpose of existence.

Human values have a longer historical standing than modern day business management principles like TQM (Neyestani & Juanzon, 2016; Srinivasan, 2005). Management principles draw on human values and they must also be compatible with them, in order to make sense and be sustainable. Schmidheiny (1992) argues that "business will play a vital role in the future health of this planet (earth) if together they are committed to meet the basic needs of the present without compromising the welfare of the future generations." King (2009) emphasizes the principles of governance and sustainability that seek to balance profits, people and planet in achieving organisational objectives.

1.1.1 Organisational Resources

Organisational Resources (OR) are usually represented by people, materials and technologies (Mankiw, 1998), information (Dusenbery, 1992), capital and entrepreneurship (Drucker, 1985; Nickles, McHugh & McHugh, 2002), needs (Gough, 1994) and expectations (Lazarus, 1991). The ever-extending reach of globalization, continuously rising productivity, growing complexity of information, expanded sensitivity of the environment, the swelling pace of technological innovation, the speedy rise in employee expectations and the competition for closer partnerships are all increasing the demand for alternative organisational practices and the way of work (Cloke & Goldsmith, 2002; Ferreira & Fernandes, 2017). Technology enables produce things plentifully with greater ease and at lower cost. Moreover new technology makes redundant existing products or ways of making them and reduces the cost of what it takes to make something. Innovation and adaptation are essential in enhancing firms' competitiveness in such increasingly complex, fast-paced, unpredictable economic environment. Firms, therefore urgently need immediacy, responsiveness, agility, flexibility, and a heightened sensitivity to the subtle emergence of future trends and directions (Mwai, Namada & Katuse, 2018).

Organisational resources can be grouped into two categories; first, "transformed resources such as information and materials, the state of which changes because of the process of conversion." Second, "transforming resources such as employees, equipment and buildings that help the transformation process but their state does not change because of the conversion process" (Ferreira & Fernandes, 2017; Slack, Chambers & Johnson, 2004). Based on the argument of Ahmed and Othman (2017)

the OM is concern with creation, operation as well as management of a system transformation that combines application of various resources together with outputs in terms of production of goods and services required by customers, the essence of performance. Goods and services, Moyo (2012) emphasizes, are produced using resources.

1.1.2 Values System

The Values System (VS) would be national values and principles of governance comprising 20 legal concepts stipulated under Article 10 of CoK 2010, which fosters a rights-based culture. These concepts are in four categories (GoK, 2010). First concept is that of patriotism which refers to the emotional attachment, feeling, or sense of pride in loyalty to one's nation. National unity refers to the cohesion while recognizing diversity. Sharing and devolution of power, refers to distribution of power, political, economic and social resources between the different levels of government (for example, national and county).

The rule of law means everyone is subject to the law and refers to the requirement that everyone should respect and obey the law-the law is preeminent and can serve as a check against the abuse of power (Oleksandr, Shuxing & Mao, 2018). Democracy and participation of the people, refers to a political culture of involving people at all levels of decision-making; including the exercise of personal skills, access to information, utilize opportunities, elect their representatives, express their views, participate in governance without prohibition. It also refers to the right to contribute to societal and national issues particularly in reference to leadership and governance (Onday, 2016).

Second, “human dignity, equity, social justice, inclusiveness, equality, human rights, non-discrimination and protection of the marginalized” (GoK, 2010). Human dignity refers to the honor bestowed on individuals and people regardless of one’s status. Equity refers to fairness, impartiality, justice and provision of equal access to national resources and opportunities regardless of gender, disability, age, race, ethnicity, religion or status. Social justice refers to the enjoyment of the rights that enhance the well-being of an individual in all aspects of their interaction with one another and promotes solidarity. Inclusiveness, refers to affording all people an opportunity to participate in activities, including decision making, that affect their lives and taking into consideration the plight of everyone (Oleksandr, Shuxing & Mao, 2018). Equality refers to treatment of everyone with equal measure in society without discrimination. Human rights, refers to God-given, inherent, inalienable liberties and entitlements to be enjoyed by all people. Non–discrimination and protection of the marginalized, refers to offering services and taking care of all persons without bias. Protection of the marginalized refers to safeguarding livelihood of those who have challenges or those that do not have a voice in the society. It refers to the deliberate consideration of the weaker members of the society or previously disadvantaged, through affirmative action (Kebaya, Okibo & Nyangau, 2015).

Third, accountability, integrity, good governance, as well as transparency (GoK, 2010). Good governance refers to having systems and structures through which the exercise of power and authority can be controlled and held to account and the prudent management of resources by those entrusted with the responsibility of overseeing them-rule by leaders who are benevolent and virtuous. Integrity refers to adherence to virtuous, moral and ethical principle. Transparency and accountability refers to the

requirement to share information and act in an open manner while being held responsible for one's actions, conduct and management of resources. Fourth, sustainable development (GoK, 2010); sustainable development refers to "progress that meets the needs of the present generation without compromising the ability of future generations to meet their needs".

The second category of this system centers on human rights. These are applicable to everywhere and at every time in the sense of being universal (Nickel, 2013) and they are egalitarian (United Nation Office for Commissioner Human Rights ((UNOCHR), 2014)) in the sense of being the same to everyone. They require empathy (Moyn, 2010) and impose an obligation on persons to respect the rights of others. These principles underpin everything that is agreed and must be visible in the targets established by the organisation. The CoK 2010 in Article 11(1) further "recognizes culture as the foundation of the nation and the cumulative civilization of the Kenyan people and the nation" (GoK, 2010). Denison (1990) in a study of organisational culture found that involvement, consistency, adaptability and mission had an impact on organisational effectiveness.

The principles and values of governance stipulated under article 10 of the Kenyan Constitution 2010 and discussed above represent values system. These values system have been borrowed from religion: First, patriotism (Matt. 6:21, 24; Luke 12:34, 16:13), national unity (Durkheim, 1964; Tole, 1993), sharing (Luke 3:11, John 15:15; Gal. 6:2) and devolution of power, the rule of law (Matt 5:17-20, 7:12 ; Luke 6:31, 10:25-28; John 1:17, 7: 10-20; 1 Pet 2:13, 18, Eph 6:5; Rom 2:13, 5:19, 13:1; 1 Tim 8-9; Gal 3:19), democracy and participation of people (Phil. 2:1-4). Second, human dignity (Acts 10:28; 1 Pet 2:17), equity (2 Sam 8:15; 1 Chr. 18:14; Ps. 67:4; 75:2; Pro.

1:3; 2:9; Isa. 11:4) social justice (John 7:24; Matt 7:12, 23:23-24; Luke 6:31, 11:42), inclusiveness, equality (Gal 4:12; Col 4:1), human rights, non-discrimination and protection of the marginalized (Mk 9:41). Third, good governance, integrity (Mk 8:36, 12:28-34, 18:13-21; Matt 16:26, 23:5-22; Eph 4:28; Prov 16:8; Luke 9:25, 12:1-3, 16:1-12, ; Acts 20:33; Phil 4:8, 2 Pet 1:5), transparency and accountability (Luke 12:48, 16:10; 1 Cor 9:19; Rom 14:12; Gal 6:2, 5; John 18:31, 21:15-16).Fourth, sustainable development (Gen 2:15; Munroe, 2001). Bekker, Rautenbach and Goolam (2006) support the linkage between religion, Article 10 of Cok 2010 and TQM principles. Thus religion conserves values.

1.1.3 Management Capabilities

Management Capabilities (MC) would be management systems concepts emanating from TQM characteristics grouped into six, management (Beatty, 2001; Deming, 2010; Drucker, 1985); organisation culture (Schien, 1990); structure (Osada, 1991); processes (Hammer & Champy, 2012); systems (Harrington & Reid, 2007); and integration (Cloke & Goldsmith, 2002). Rush (2006) asserts that management in a religion approach means meeting the needs of people as they work at accomplishing their jobs. By this, a leader's job is to serve those under him by helping them to maximize or optimize effectiveness (Kariuki & Kilika, 2016).

The people voluntarily, eagerly and continually will in return meet the leader's needs. TQM adopts this religion approach. Ferreira and Fernandes (2017) and Ishikawa (1985) also supported this view by holding that the first order of a business was to seek the happiness of their employees and the second order was to strive to satisfy and please customers (external) whenever they provide their products. In contrast, management under the secular approach means getting work done through others by

using power and authority to manipulate, control and exploit people. Soltani, Lai and Phillips (2008) and Wilkinson , Godfrey and Marchington (2007) in their studies found that control mechanism set by managers to monitor employee performance and work-related processes served to drive in fear and compliance rather than liberation and commitment.

Raiborn and Payne (1996), GoreJr (1999), Corbett and Rastrick (2000) assert that TQM "strives for the following in any business environment". Firstly, it deals in establishment of vision based on long-term basis together with strategies under strong top management leadership. Second, "it properly utilizes the concepts, values, and scientific methods of TQM." Third, "it regards human resources and information as vital organisational infrastructures." Fourth, "it effectively operates a quality assurance system and other cross-functional management systems such as cost, delivery, environment, and safety under an appropriate management system." Fifth, "fundamental organisational powers such as core technology, speed, and vitality support it." Sixth, it ensures sound relations with stakeholders- customers, employees, society, suppliers, and stockholders. Seventh, it continuously realizes organisation objectives in the form of achieving a firms' mission, building an organisation with a respectable presence. Finally, it continuously secures profits or other metrics through customer satisfaction. The above eight concepts and practices are derived from TQM principles of customer-focused, people-centered, and process-oriented.

Business transformation is the fundamental process that allows change of systems, processes, human resource as well as technological change across the entire business or unit in a business, to attain improvements measuring effectiveness, efficiency, together with satisfaction of stakeholder. Transformation of business project tends to

involve a given number of projects in management change (Bak, 2016). Transformation consists of a number of processes, which comprise of drafting an system which can be used for planning purposes, operations, controlling, as well as activities for improvement which are essential for production and provision of goods and services to customers. Therefore, managing operations with competence is vital to meeting strategic goals- survival, growth and development. All operations involve resources and nothing is transformed, if nothing is resourced. An output comes from resources that enter the process and are transformed, more or less successfully, by the resources of the process (Galloway, 1996; Ferreira & Fernandes, 2017).

1.1.4 Performance

Performance (P) is outputs usually represented by customer satisfaction, employee satisfaction, economic sustainability, social/environmental responsibility and public information. Performance is often identified with effectiveness and efficiency in the use of organisational resources and the achievement of organisational goals (Mwai, Namada & Katuse, 2018). March and Sutton (1997) extends performance to a wide range of research that seeks to understand firms' competitive survival. Neely (2004) postulates that performance refers "simultaneously to the action, the result of the action, and to the success of the result compared to some benchmark." Performance, therefore are "set of parameters that describe the process through which the various types of outcome and results are achieved" (Kaplan & Norton, 1996; Victer, 2014).

Most of the management science studies have measured performance using traditional financial measures thereby failing or ignoring the inclusion of less tangible factors as well as non-financial aspects like customer satisfaction, employee morale, and quality

(Kaplan & Norton, 1996). A general consensus exits that the financial measures are today still valid and relevant (Yip, Devinney & Johnson, 2009), but that these need to be balanced with more contemporary such as intangible and externally oriented measures. The growing importance of satisfying stakeholder requirements has seen the development of the Sustainable Balanced Score Card (SBSC) as a contemporary stakeholder centric measure (Hubbard, 2009). The SBSC encompasses six perspectives of financial, customer, internal business, learning, social and environmental. Products and services are performance the purpose of which is to satisfy customers' requirements and operation, and to achieve strategic business objectives so that the organisation can continuously compete on the market.

Performance of ISO and non ISO certified firms differ in number perspectives. Wu and Chen (2011) used a performance measurement model to compare performance of ISO certified manufacturing firms against non ISO certified ones and concluded that the comparative findings indicated that the firms which ISO-certified demonstrated significant performance as compared to firms with no ISO certification within every perspectives related to performance. Furthermore, they argued that the companies which are ISO certified tend to have higher significance in various relationships than the uncertified companies. With such results, it can be said that certification of ISO has a significant impact on the performance of manufacturing firms.

1.1.5 International Organisation for Standardization Certified Firms in Kenya

Adopting ISO 9001 Quality Management System (QMS), a family of quality management and quality assurance standards and guides, developed by ISO in Geneva ensure that an organisation is managed in a systematic and visible manner in the quest

to achieve its strategic business objectives. The standards address the process rather than the goals (Padma, Ganesh & Rajendran, 2008). Certification is the process of assuring compliance with the standard (Rosenberg, 1976). It contributes "to improved worker productivity, increased process efficiency, reduced errors, time saving, and access to real time information, data for decision-making, positive customer surveys and empowered workers." The development and certification of ISO quality assurance system helps boost TQM performance (Irvine, 1991). However, Whittington (1988) in his study was concerned that the "failure to implement the standard for the right reason may prevent firms from gaining potential benefits from the system" (Kuo, Chang, Hung & Lin, 2009).

By June 2016, 1,060 firms in different industries were ISO certified in Kenya through accreditation agencies like Kenya Bureau of Standards, Societie Generale de Surveillance and Bureau Veritas. The ISO certified firms were chosen for a number of factors firstly, the manifestation of the values system and management capabilities is expected to be more profound in ISO certified firms than in any other population as ISO 9000 series sets out methods that can be implemented in an organisation to assure that the customer's requirements are fully met. Secondly, the variation in performance of the firms, notwithstanding that they operate in the same macro environment perhaps explained by the values system and management capabilities, (Mishra, 2007). Thirdly, ISO certified firms practice TQM because ISO requirements belong to a Total Quality (TQ) process, and finally, the choice of ISO certified firms, as opposed to non-ISO certified firms, is motivated by a desire to make the results generalizable through inclusion and comparison of performance of both ISO and non-ISO certified firms.

Over the recent years, ISO certified firms witnessed significant changes. There are several clear advantages of ISO certification-building a quality system and providing a foundation for a management system, facilitating trade through assurances of contract performance, providing international recognition and engendering global uniformity, eliminating or diminishing customer audits or surveys, enhancing credibility and improving documentation and traceability activities, and it leads to an organized, written collection of fundamental practices. Najmi and Kehoe (2001) among other researchers argue that "ISO 9000 is a stepping-stone towards TQ, necessitating improving the quality system beyond the level of simply meeting specifications". Acquisition of ISO certification reinforces the firms' product quality, reinforce corporate image, increase customer satisfaction, improve operation efficiencies, enhance standardized procedures, leads to expansion of market share, as well as enhancement of the general performance of a companies (Wu & Chen, 2011).

1.2 Research Problem

In management science, organisational resources, values system and management capabilities affect performance (Harris & Moran, 1979). These underlying behaviors are grounded on the complexity theory as a measurement proxy (Von Krogh & Roos, 1995). The methodology however creates a 'black box' of transformation hence the need to study values-based characteristics, which are rich measures of behavior (Dezs & Ross, 2012). Despite the great emphasis on the link between values system, management capabilities and performance, studies that have investigated resources are limited (Juran, 1986; Mankiw, 1998; Teece, Pisano & Shuen, 2007; Moyo, 2013; Kishtainy, 2014).

Whereas ISO certification plays a key role in developing standards for both quality management and environmental management, ISO certified firms in Kenya are challenged for lack of a comprehensive implementation guide, hence making it difficult for the firms to operationalize resources more successfully. Due to not combining the various resources, values system and management capabilities, firms need to not only transform the whole system of management, but also have a comprehensive guide for practitioners (Hackman & Wageman, 1995; Gorecki, 1995). These firms also continue to lag behind in converting resources to performance due to the wrong reasons for seeking ISO registration (Kuo, et al., 2009). The ISO 9000 quality management system does not actually promise to improve quality but offers documentation tools that have the potential to improve quality (DuPont, 1989).

Scholars recognize that values system and management capabilities matter but there are limited studies, which have examined the influence of values system and management capabilities on the relationship between organisational resources and performance (Beatty, 2013). The studies may also not have adequately taken into account the intermediate role of values system and management capabilities on the relationship between organisational resources and performance. In particular, values system and management capabilities through commitment to values needs to be examined (Cloke & Goldsmith, 2002; Ferreira & Fernandes, 2017; Hill & Wetlaufer, 1998). Studies have not measured transformation, but instead inferred them from TQM characteristics. Scholars have linked organisational resources to performance (Li & Hambrick, 2005) but most of these studies have measured performance using

the traditional financial measures hence the need to explore use of contemporary performance measures.

Locally, there have been limited studies to identify the inherent limitations of performance and it therefore calls for the need to examine organisational resources against performance (Okwiri, 2012). Gatimu (2008) did a study on the "strategic benefits and challenges faced by manufacturing firms in the adoption of ISO 9000 quality management systems in Kenya." Mbeche (2010) while considering the huge public and private investment on institutions of higher learning, argued that there was an urgent need to evaluate how effectively the investment is utilized by examining the quality of the processes being undertaken to check on quality systems infrastructure, the cadre of qualified personnel and other resources in place. The results of another study by Nyang'au and Magus, (2011) on managing institution "amid information and computer technology, paradigms in Kenya", revealed that firms are transforming their business from traditional mode of service delivery to technology-based delivery systems. The studies above provide input to the conceptual and methodological issues in terms of varying sample sizes and different analytical procedures which were the emphasis of the relevance in this study.

Most of the studies summarized above were done in both developing and developed countries. It was necessary to undertake a study in Kenya, which is in a different environment. Hope and Muehleman (2001) concluded "that national culture influences management behaviour, so that management differs from nation to nation. Flynn and Saladin (2006) supported this view and held that national culture has a significant effect on the implementation of performance excellence. Pike and Barnes

(1994) in their study also found that every organisation is different with characteristics and cultures of their own which are a product of a unique combination of different variables.

Methodologically, previous studies have focused mainly on the direct effect of organisational resources on performance (Pike & Barnes, 1994; Hope & Muehleman, 2001; Nyang'au & Magus, 2011; Mbeche, 2010; Okwiri, 2012). This study, therefore sought to contribute to the operation management field by addressing the various unresolved issues or research gaps that are eminent such as incorporating the intervening and moderating effect of management capabilities and values system that warrants the need for this study. In bridging this gap, the study sought to ascertain the effect of organisational resources on performance by answering the following question: How is performance of ISO certified firms in Kenya affected by organizational resources, values system, and management capabilities?

1.3 Research Objectives

The broad objective of this study was to determine the influence of the performance of ISO certified firms in Kenya with reference to organizational resources, values system, and management capabilities. The specific objectives were to:

i. Determine the relationship between organisational resources and performance of ISO certified firms in Kenya;
ii. Determine the moderating influence of values system on the relationship between organisational resources and performance of ISO certified firms in Kenya;

iii. Determine the intervening influence of management capabilities on the relationship between organisational resources and performance of ISO certified firms in Kenya; and,

iv. Examine the joint effect of organisational resources, values system and management capabilities on performance of ISO certified firms in Kenya.

1.4 Value of the Study

The results of the study will contribute to the existing body of knowledge on organisational resources and performance including the effect of values system and management capabilities on the study variables. The research output will be a source of literature among the study variables on theories and policies that inform them. Theories such as the interest's theory, stakeholder theory, complexity theory, behavioral operations theory and TQM theory are likely to benefit from the findings of this study.

Regulatory bodies will find the study useful when they might need to develop regulations relating to the wise use of resources and assessing standards. Researched organisation and the public will find the study as an aid in information sharing and for benchmarking for competitiveness and decision making on benefits of social capital.

To government, the study has policy implications in terms of explaining organisational factors that determine values system and management capabilities role by likely inclusion to the existing policy tools that may guide in resource use toward performance. The study findings will inform policy on when alternative intervention to improve performance is necessary.

This study will contribute to managerial practice on organisational resources, values system, management capabilities and aligning firms to these aspects and managerial practices. Essentially all managerial practice should get to above average and lead to establishment of a proper link between organisational resources, values system and management capabilities to ensure better performance.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter summarizes the theoretical review, the empirical review that summarized concepts on organisational resources and performance; organisational resources, values system and performance; organisational resources, management capabilities and performance; organisational resources, values system, management capabilities and performance. A conceptual framework was also provided to indicate the relationship between independent, moderating and intervening variables against dependent variable. The chapter ends with the statement of the hypotheses tested in this research.

2.2 Theoretical Foundation

This section summarized various theories including: TQM theory, religion functionalism theory, interest's theory, stakeholder theory, complexity theory, and behavioral operations theory. This study was anchored on these theories.

2.2.1 Total Quality Management Theory

Ho (2007) argues that "TQM/Business Excellence (BE) is the systematic use of quality management principles and tools in business management, with the goal of improving performance based on the principles of customer focus, stakeholder value, and process management." He further holds that everyone associated with the organisation is fully committed and involved in continuous improvement to meet fully the customers' expressed and implied requirements.

The TQM, itself a behavioral theory, primarily entails a change in an firms' technology, its way of doing work; a change in an firms' culture its norms, values and

belief systems about how firms function; and a change in an firms' political system-decision making processes and power bases (Fields, Hague, Koby, Lommel & Melby, 2014; Tichey, 1983). Cameron (1995) in a study of automotive, electronics and educational institutions and Khurana (1994) in a study of the worldwide picture of color tube manufacturing industry found that firms with strong quality cultures performed better than those without. The U.S. General Accounting Office (1991) in a study found that firms that implemented the quality process advocated by the Malcolm Baldrige program related on TQM principles experienced continuous improvement in performance indicators and exceeded the industry average in employee and customer-related indicators, operational and financial results.

The TQM theory is overarching as it incorporates aspects of the other five anchors. Philosophy, vision, strategy, skills, resources, rewards and organisation are the seven elements required for success in TQM (Aized, 2012; Ersoz, 1992). However, inadequacy or lack of resources leads to frustration. The principles and tools of TQM ensure that management of ISO certified firms perform with minimum organisational resources (Radin & Coffee, 1993). However, TQM has not delivered as expected largely due to implementation failures rather than the philosophy itself (Aole, 2013; Radin & Coffee, 1993). In addition, there was the difficulty in gaining a true understanding of the concept of customers or quality, and the importance of quality in business management (JUSE, 1997). The TQM theory benefited this study through the joint effect of organizational resources, values system and management capabilities on performance of ISO certified organizations in Kenya.

2.2.2 Religion Functionalism Theory

The Religion Functionalism (or functionalist) Theory (RFT) was first developed by Emile Durkheim (1858 -1917). This theory underscores the functional impact of religion in human society (Tole, 1993). Functionalism is a perspective where society is based on shared norms and values. Functionalists see society as a system of social institutions such as religion, economy, politics, and family. These institutions help in performing the socialization of people living there. Functionalists argue that religion is necessary for any society to function appropriately.

Durkheim (1964) said that the crucial factor in the social function of religion was its division of the world into the sacred and profane. Religion deals with sacred things – things set apart and forbidden. This is why rituals are as important as belief in the social functioning of religion. Rituals emphasize and reinforce the dependence of the individual on society. According to him, Totem (religion) is the symbol of society and God at the same time. Durkheim used totemism, a religion from the aboriginal people of Australia to show that religion and society are one and the same thing. Durkheim added that one of the most important roles of religion is to promote solidarity in any society. Religion thus acts as the mechanism, for the imposition of the society's authority.

Malinowski (1954) postulated that religion reinforces social values and norms of the society. He also concurred with Durkheim in arguing that religion plays a key role in promoting social solidarity. Malinowski also contended that religious rituals are performed to provide the feeling of control and reduce anxiety in the society. He used the example of traumatic death to support his claim that religion functions to reduce anxiety and emotional stress in the society. Talcott argued that people use religion to

answer “big” questions in their lives (Mews, 1975). Some of these questions include why do people die, why do we exist, and what shall happen after death among others. He further contended that religion act as the source of meaning to these questions and its ability to answer them help to deal with certain events that may arise in the society. For example, Christians believe that there is eternal life after death and this belief help them to deal with the loss of their loved ones. Parsons added that religion exists to adjust and create the values of the society. It is able to do this through making sacred the values and norms of a particular society. For example, some societies believe in charitable works and acting selflessly. Similarly, their religions promote such good acts and help those in needs. He concluded that religion makes the norms and values of the society sacred.

Bellah (1973) posited also that in any society, there exists a civil religion that integrate society more than the mainstream religions. In the contemporary world, people worship society using symbols but not using divine and supernatural elements that marked the traditional religions. He gave the example of the American God, which does not really represent an actual God, but the norms and values of the American society. It is something socially constructed to represent the way of life of the people of that particular society. According to him, the American God promotes the loyalty of the people to the state and unites them as one nation since it appeals to them.

The functionalists have been criticized on several points: That it has difficulty coping with the phenomenon of secularization. That is, if religion has a vital function in society, then why has society moved towards greater secularization; Some functionalists argue that the function of religion survives the process of secularization;

The difficult question to ask and answer is whether what is indispensable is religion itself or merely the function of religion (i.e. social cohesion); Again, functionalists tend to view the society as homogeneous without recognizing the fact that almost all societies have divisions based on sex, class or ethnicity; That one section of society may use religion as a tool for the domination of other section (e.g. patriarchy); Functionalists have also been criticized for being a historical, i.e. believing that functioning of a society can be understood just by examining its present status without reference to its past; The division of the world into sacred and profane is equally breached in many social situations, e.g. illness which often involves responses that have elements of both the sacred and profane; The role of religious ritual as means of integrating the individual in society is breached too, in that some ethnic groups may meet together for ritual purposes but may live in separate communities with other clans; This therefore, denies the point of reaffirming through rituals, the groups solidarity that does not in fact live together as a social unit; The opponents of this theory argue that religion can serve a dysfunctional in the society (Oliver ,1976). For example, fundamentalist religious groups can use religion to cause violence in the society; nevertheless, despite these existential criticisms, the social impact of religion in human history as an instrument of harmony and even distraction can hardly be denied. The functionalism theory therefore benefited this study by examining the influence of values system on the relationship between organisational resources and performance of ISO certified firms in Kenya.

2.2.3 Interest's Theory

The Pound's interest theory (1919), as cited in Van Blerk, (1996), under sociological jurisprudence defined an interest as "a claim, a want, a demand of a human being or

group of human beings which the human being or group of human beings seeks to satisfy and of which social engineering in a civilized society must therefore take account". These interests are secured through the device of the legal person and the attribution of claims, duties, privileges, powers, and immunities (Comelli, 2014). The interests are balanced by the remedial machinery behind them, which aims at punishment, sometimes at redress, and sometimes at prevention. Van Blerk (1996) believed that "every culture has its definite postulates of law, and it is the duty of society from time to time, to shape the law according to these requirements". The law is a highly specialized form of social control by which fellow men bear pressure on each man in order to constrain him to do his part in upholding civilized society and to deter him from anti-social conduct that offends social order (Bindseil, 2016).

The Pound's interest theory informs the current study in understanding performance of ISO certified firms since it promotes the aspect of gaining maximally by ensuring that there is less friction as well as less waste of resources. Human expectations and their needs require to be satisfied to the maximum with less sacrifices (Kakada, 2012). However, the theory is in real sense giving the priority on public interest as compared to interests of individuals and therefore, upon strict interpretation, it might lead to elimination of individual's freedom. The theory advocates for the idea of social order which can be infused with a moral purpose, in which the acceptance of responsibilities, duties, and obligations justifies the assertion of rights (Beatty, 2013). Its purpose was "social engineering", the adjusting of relationships to meet prevailing ideas of fair play.

According to Stigler (1972), regulation can be captured by incumbent firms for self-preservation from competition. Gertler and Kiyotaki (2010) hold that "regulation is

supplied in response to the demand of the public for the correction of inefficient or inequitable practices." Regulation is assumed initially to benefit society as a whole rather than particular vested interest. The interest theory therefore benefited this study by examining the influence of values system on the relationship between organisational resources and performance of ISO certified firms in Kenya.

2.2.4 Stakeholder Theory

The establishment of the stakeholder theory was by Freeman (1984); its argument is based on its application to managers of firms in modern day, with an implication on the linkage to shareholders as well as stakeholders. De Villiers and Van Staden (2011) contend that a compliance platform is set up by regulation of reporting. Kock, Santalo and Diestre (2012) reasoned that if compliance is enforced, such reporting frameworks personally held managers accountable and responsible in case of them misbehaving. Further argument is based on intervention of government organs viable policies adding energy to an organization to adopt related practices of good corporate governance (De Villiers & Van Staden, 2011).

The stakeholder management enabled this study understand ISO certified organizations in ways of creation and managing various groupings as well as relationships formulated strategically. From Freeman's (1984) viewpoint, the stakeholders' notions or management of stakeholders or their approaches to business management are formulated and implemented through process of satisfaction of various groups and individuals with business stake. The essential duty is the management and integration of the interests and relationship of employees, shareholders, suppliers, communities, customers as well as other business related groups. Thus, the approach of stakeholder is focused on active management of various

business relationships, environment as well as promotion of interests shared to enable the development of business strategies (Harrison, Wicks, Parmar & De Colle, 2010). This theory is important to this study as it challenges the usual analysis frameworks, by suggesting shareholders' needs should be given priority.

Stakeholder's theory has been faced by many criticisms and most of them have based on the argument that firm's success solely depending on maximization of wealth of the shareholders is not enough since the organization is recognized as a link of implicit and explicit contracts among the organization with its stakeholders. Nonetheless, Mansell (2013) argues that application of the concept of politics to stakeholder theory, contradicts the entire principle based on market economy. Harrison, Wicks, Parmar & De Colle (2010) also made critique on stakeholder theory by arguing that it assumes that the welfares of some stakeholders are balanced or compromised among each other.

Stakeholder theory is important to this study as it challenges the usual analysis frameworks, by suggesting putting stakeholders' needs at the beginning of any action (Harrison, Wicks, Parmar & De Colle, 2010). Somba (2017) applied stakeholders in the field of strategic management to examine the role played by procurement practices towards the performance of funded projects in constituency development fund within the Kenyan constituencies. The stakeholder theory therefore, benefited this study through the joint effect of organisational resources, values system and management capabilities on performance of ISO certified firms in Kenya.

2.2.5 Complexity Theory

While seeking to explain the linkages between sociological jurisprudence and TQM theory, Salmador, Bueno and Maranhao (2008) suggested that in a complex organisation and a complex environment the implementation of a management system requires an organic approach based on the complexity theory. They are complex because they are dynamic networks of interactions and relationships and not aggregations of static entities (Boulton, Allen & Bowman, 2015). They are adaptive because their individual and collective behaviour changes due to experience (Battiston, Farmer, Flasche, Garlaschelli, Haldane, Heesterbeek, Hommes, Jaeger, May & Scheffer (2016).

Cairney and Geyer (2017) sums it by stating that "a large number of parts that interact with each other in non-linear ways. As a result, the unexpected, surprising, emergent behavior shown by the whole system is not a simple sum of its parts; the impact of these systems focuses on the aggregate behavior, the behavior of the whole" (Boulton, 2010; Byrne & Callaghan, 2014). Eppel and Rhodes (2018) stated that "complexity theory is not a complete break from the traditional organisation theory and scientific methods, in that it can be seen as a continuation and deepening of systems and behavioral approaches to organisation theory."

The application of complex system in firms has been an underway activity enhancing formulation of strategies, processes as well as structures that enables a given organisation to self-adjust to environmental changes (Gupta & Anish, 2015). This could imply that new duties and knowledge should be given to management of ISO certified firms in order to guide and facilitate their transformations, since, a company with 'complex adaptive system' is not only a technique or a metaphor but also an

understanding of the general system features, and this can necessitate better understanding as well as working in various business environments (Eppel, 2017). The complexity theory, therefore benefited this study through the joint effect of organisational resources, values system and management capabilities on performance of ISO certified firms in Kenya.

2.2.6 Behavioral Theory

The assumption of many recognized analytical models of operations is based on participation of people in operation rationalized systems. This is because the reaction of people information relevance and discarding of information which is irrelevant depends on their consistent preferences and the process of decision making (Duhigg, 2012). Scholars, however have realized that depending absolutely on, formal theories and models can lead to errors in the entire operation and predictability systems (Thaler, 2017). Based on the contention that process of addressing and making decisions (specifically of a complex nature) individuals tend to conduct themselves in an inconsistent ways and levels within theories that are available.

Through behavioral management, the performance of any given ISO certified organisation will be informed of impact of the management intervention that are neither predictable nor explainable without reference to the underlying behavioral and cognitive factors at work in the operating system (Goodman, Cryder & Cheema, 2013). Cognitive psychology deals with what is happening within individuals minds when new information is received and how people respond to these information, how reaction is linked to individuals' behavior and emotions. Samson and Voyer (2014) clarify that human being are limited in their capacities to learn, think, and act and hence limited in their ability to process information due to biases and heuristics.

Important to OM are issues related to bound rationality (Thaler, 2015) and findings from studies on judgment and decision-making (Allcott, 2011). Bazerman, 2005; Plous, 1993; Gilovich, Griffin & Kahneman, 2002). Social psychology deals with the nature and causes of human social behavior, with an emphasis on how people think about and relate to each other (Aronson, Wilson & Akert, 2004) such as goal setting, fairness and equity, trust and interdependence and feedback mechanism in OM issues.

Gino and Pisano (2007), therefore argue that from a Behavioral Operations Theory (BOT) perspective, technical aspects alone are not enough. To enhance operations outcome and processes, such as flexibility, efficiency and productivity, the human factor and behavioral issues such as motivation and perception have to be considered as core in the design, management, and improvement of operating systems into OM (Etzioni, 2011). There has to be deliberate aggressive action on dealing with the human and cognitive factors. However, the behavioral approach suffers from a lack of analytical tractability and predictive power (Levy, 1994). The behavioral operations theory benefited this study through the joint effect of organisational resources, values system and management capabilities on performance of ISO certified firms in Kenya.

2.3 Empirical Review

Studies in this section focus on organisational resources, values system, management capabilities and performance. In addition, the section reviews various studies on how organisational resources, values system, management capabilities influence performance.

2.3.1 Organisational Resources and Performance

Ferreira and Fernandes (2017) argued that the source of a firms' competitive advantage is its resources: its assets, competences, and capabilities. Assets refer to physical resources (such as buildings, machines and employees) as well as intangible resources (such as patents and brands). Competences are bundle of skills, knowledge, expertise, systems and technologies (Mwai, Namada & Katuse, 2018; Sanghai, 2004) applied in the utilization and mobilization of its assets (Peppard & Ward, 2004; Victer, 2014). Capabilities refer to a firms' ability to strategically use and deploy competences to achieve business objectives by satisfying customer needs such as cost, quality, flexibility and on-time delivery (Ahmed & Othman 2017).

The building block of change is recognized needs, mandate, direction, approach, complete scope, resources, willingness to change and monitoring/intervention. Factors of production, its physical capital, human capital, natural resources and technological knowledge determine productivity (Ahmed & Othman 2017; Mankiw, 1998). A country's resource campaign and the infrastructure that supports and facilitates their extraction and delivery, guarantees its continued economic development, more so when supported by vast wealth, vast economic and political discipline (Moyo, 2013). Firms grow when more resources are put into production, and when new technologies make the resources more productive (Kishtainy, 2014).

Cloke and Goldsmith (2002) propose that successful democratic firms require a context of values, ethics, and integrity. The TQM consists of values, techniques and tools (Hellsten & Klefsjo, 2000). Juran (1986), in the Korean study established that "an understanding of the human situations associated with the job would go far to

solve the technical problems." Tamimi and Sebastianelli (1998) also state that people account for 48 percent of the barriers identified to TQM.

Using a cross-sectional descriptive survey, Juma (2014) carried out a research to test the relationship between organizational resources and corporate governance structures on performance of state corporations in Kenya. He used questionnaire to collect data from a sample of 95 state corporations. The results gotten from analysis done through multivariate and hierarchical regressions, show that there exist a statistically significant relationship between aggregated organizational resources and performance. Furthermore, Gakenia (2015) research was on "organizational resources and performance of mobile phone companies in Kenya." In order to achieve her objective, she employed the use of both explanatory and descriptive survey research designs, with a total population of interest of 381 respondents where a sample size of 170 respondents was drawn. Descriptive and inferential statistics were employed in data analysis. The findings revealed that there was a positive significant effect of human capital on performance of mobile phone companies in Kenya.

Cania (2014) in the study of the impact of strategic human resource management on performance investigated how much firms appear competitive in the market through achieving the performance indicators. Further Cania investigated how important is the management of human resources in achieving performance. The findings are that human resources through the skills, behaviors and attitudes would be expected to achieve the required performance in the organisation.

2.3.2 Organisational Resources, Values System and Performance

Complying with article 10 of the Kenya Constitution is a form of social engineering by legislation (Kleyn & Viljoen, 2002). A more ethical approach to business is essential for long-term success (Kebaya, Okibo & Nyangau, 2015; Roberts, 2008). The UK Institute of Business Ethics suggests a simple 'test' for ethical decision-making in business (Roberts, 2008): faced with a judgment call, first consider the ethical trilogy of transparency, then effect and finally fairness (Onday, 2016).

Socrates in 399 BC, as cited in Popkin and Stroll (1998), proclaimed that the unexamined life is not worth living. Aristotle centuries ago, as cited in Cloke and Goldsmith, (2002), discerned that the test of ethics occurs when they run counter to ones' self-interest rather than when they serve them. Cloke and Goldsmith (2002) in a study of the National Aeronautics and Space Administration (NASA) conducted in USA, found that suppression of the truth was used to rationalize the goal of financial gain. A bottom-line commitment to values system contributes greatly to the development of collaboration, diversity, creativity, participation, responsibility, morale, and unity. When these are valued, performance improves as well (Cloke & Goldsmith, 2002). Values bring meaning to goals and serve as guiding principles when executing the work plan of goals (Salonek, 2016).

Rosete (2006) study focused on how performance management systems and organisational values affect the job satisfaction and commitment of employees. The survey was conducted on 325 civil service of Australia. The study classified the target respondents into four major value types namely: meritocratic, collegial, elite, and leadership this was based on the typological theory of organizational values. From the factor analysis results, it was discovered that performance management items rely on

two key aspects which include developing an individual and compensation. On the same topic, Gorenak and Košir (2012) did a research on the importance of organizational values for organization. Their study was done on 303 companies operating in Slovenia. The findings of their survey gave a revelation that there were performance such as relationships with suppliers, employee productivity, return on assets, organizational reputation, number of costumers, added value, costs per employee, employee affiliation, absence from work, fluctuation of employees, as well as efficiency in client proceedings are statistically significant to organizational values.

Ainin, Salleh, Bahri and Faziharudean (2015) relied on a sample size of 104 small and medium sized enterprises in the service industry in Malaysia through the use of a cross-sectional survey to conduct a research on the effect of performance of organization and customer value on functional capabilities of information systems. Their study discovered that capabilities of IS functionality influence customer value creation and eventually intervenes in the performance of Malaysian medium-sized enterprises within the service industry.

Fitriya and Locke (2012) explored "the relationship between corporate governance mechanisms, ownership structure and firm performance but yielded different results due to the nature of the prevailing governance system for each country." Their study also stated that majority of the scholars only tested a linear relationship between variables, and found a non-linear relationship between board structures, ownership structures and firm performance. Their study, equally confirmed the non-linear relationship. The study used a balanced panel of 79 New-Zealand listed firms and employed a generalized linear model for robustness. The results revealed positive and

significant impact of managerial ownership board committees, and board of directors, on firm performance. However, non-executive directors, female directors on the board and block-holder ownership did not have any significant relationship on firm performance. Noriza (2010) looked at the "compliance level among public listed companies with the implementation of corporate governance code of best practices and the association to the firm's capital structure."

Bhagat and Bolton (2008) examined "how corporate governance was measured and what the relationship between corporate governance and performance." Tsifora and Eleftheriadou (2007) studied corporate governance mechanisms and financial performance of Greek manufacturing sector. Findings showed that companies that had an expanding board of directors had better internal control and therefore performed better than companies, with a limited number of members on the board of directors. Companies which belonged to an expanded group of shareholders performed better than those companies which belonged to a small group of shareholders or are family owned. Companies that introduced corporate governance systems were characterized by high profitability.

2.3.3 Organisational Resources, Management Capabilities and Performance

Mbeche (2010) affirmed that it was important to examine the quality of the processes used to check on quality systems inputs. All management policies, strategies and decisions cause resource movement of various kinds for expected gain in a dynamic interrelationship (Helfert, 2008; Kariuki & Kilika, 2016). The decisions provide the funding of these resources (Ferreira & Fernandes, 2017). Many researchers link TQM/ (BE) to organisational culture, since organisational success recognizes culture as a long acknowledged as an important component (GoreJr, 2007; Kariuki & Kilika,

2016). Lau and Idris (2001) found that soft rather than hard elements were more critical in achieving tangible TQM effects.

Yong and Wilkinson (2007) established that "piecemeal" quality management activities were not TQM implementation. Nair (2006) also found that investment in TQM built competence and capability in operations that led to improved performance. Firms as part of monitoring of TQM programmes are encouraged to benchmark the best practices presented at the periodic workshops and adapt with the characteristics of their own organisation. According to Goldratt (1997), every system has at least one constraint limiting it from getting more of what it strives for. Therefore, the weakest link is the constraint that prevents the system from doing any better at achieving its goal and all other links are non-constraints. After strengthening one constraint, the system is stronger. This gives an opportunity to identify the next weakest link for systems improvement.

Based on a sample size of 14 manufacturing firms in Turkey, Nalcaci and Yagcib (2014) carried out a study on the effects of capabilities of marketing on performance of export on manufacturing companies. With application of critical incident method and by use of resource-based view, the study found out that resources and marketing capabilities are main components of companies involved in manufacturing processes that play major roles in the export performance. On the same note, Chiu and Chen (2016) did a research to test the relationship on which management capabilities have on effectiveness of the organization among the public services of Taiwan. They used role of organizational commitment as a mediator. Their research distributed 302 questionnaires and structural equation model was used in testing the hypotheses. It was found that significant relationship only existed between knowledge process

capabilities and organizational effectiveness. On other hand, knowledge infrastructure capability was found to have an insignificant effect.

A research carried out by Ismail, Raduan, Uli and Haslinda (2012) on the effect of organizational resources, capabilities, systems on competitive advantage indicated that a combination of organisational resources, capabilities and systems have a positive significant effect on competitive advantage, supported by resource-based view. Similarly, Carmelia and Tishlerb (2004) did a research to test the effect of resources and capabilities on performance of industrial firms. Their survey was conducted on 93 industrial enterprises operating in Israel and through the use of multivariate analysis, their study discovered that the superiority of any given industrial enterprise, based on performance measures like return on equity, return on sales, customer satisfaction and market share change are explained by key managerial capabilities and organizational resources namely: organizational communication, managerial skills, perceived organizational reputation as well as organizational culture.

Furthermore, a research carried out by Osisioma and Nzewi (2016) was based on testing the relationship between dynamic capabilities and performance of selected commercial banks in Awka, Anambra State, Nigeria. The researchers used descriptive survey research design where they collected data through structured questionnaire and analyzed it by use of correlation statistics. This study found out that the relationship between sensing capability and performance is positive and significant. Ainin, Salleh, Bahri and Faziharudean (2015) studied “firms’ performance, customer value and the functional capabilities of information systems.” Their survey found that information

systems functional capabilities do influence the creation of customer value and ultimately performance.

2.3.4 Organisational Resources, Values System, Management Capabilities and Performance

Lorsch (1986) in a study of the American Telephone and Telegraph Company (AT & T) found that organisation "culture is the key to understanding why some firms succeed in implementing their strategies while others fail". Swann (2018) lamented that the old structures and systems inhibited behavior change necessary for a paradigm shift. Management is the "social technology" of how things can be done better, differently, and in the process creating new value (Drucker, 1985).

Management is also the organ of society explicitly charged with making resources productive and economic health depends on management performance (Beatty, 2001). Management's function is, first, to manage a business, second, to manage managers and third, to manage the worker and work. This focuses on results of managerial actions rather than the supervision of activities shifts emphasis from management thought to productivity and away from work efforts. Change needs management and suitable measurement helps managing change (Ferreira & Fernandes, 2017).

Measurement drives behavior and performance assists in measurement. Okwiri's (2013) study, however confirmed that ISO certification status alone was not an indicator of effectiveness. McGregor's (1960) theory Y contains a set of core values of effective TQM strategies. "King III" code encourages the integration of governance and sustainability into the strategy, operations, and reporting of an organisation (King, 2009). Gorecki (1995) found that it was the implementation failures rather than the

philosophy itself that was responsible for TQM's shortcomings. Studwell (2013) found that the quality of governance and policymaking determined a country's prospects. Hence, a right policy mix combined with superior disciplined policy implementation by competent people led to faster realization of objectives through outcomes. Good governance is primarily about market-enhancing measures but also require implementing explicit growth-enhancing measures (Khan, 2007). This includes the ability to monitor resource use and withdraw support from actors who do not contribute to the economy combined with highly effective bureaucracies. Further, in recent times public firms in Kenya are required to be ISO certified as part of their performance contracting. Performance (results), the test of morale in the organisation, comes from focusing resources into exploiting decisive opportunities and solving problems, however, only restores normality.

Acemoglu and Robinson (2012) assert that the existence of different institutions, the rules influencing their behaviour, and the incentives given to motivate their people determine the performance of countries (and firms alike). The synergies between inclusive institutions create a virtuous cycle. This leads to constrain on the exercise of power and have a pluralistic distribution of power. It gives people incentives to become educated, to save and invest, to innovate and adopt new technologies; features secure private property rights and an unbiased system of law. They lead to a more equitable distribution of resources, income and wealth. In contrast, the synergies between extractive institutions create a vicious cycle. This leads to a situation where narrow elite would do the opposite, design institutions to amass wealth and power for themselves at the expense of the majority of the people in society. Resources matter but even that need an institutional framework to transform them into a positive force.

A study was done by Özçelika, Aybasb and Uyargil (2016) on high performance work systems and organisational values based on resources. The sought to find out whether selected firms, on which the survey was done, incorporate components of high performance work systems in the value statements of their organizational. The findings indicated that management of human resource capabilities were essential in creating attraction, employee development, selection, retention, as well as motivation of labour force in any given organization.

Another research carried out by Gil-Padilla and Espino-Rodrı´guez (2008) on "strategic value and resources and capabilities of the information systems area and their impact on performance in the hotel sector." The research was done in Gran Canaria, Spain on a representative sample of hotels and was based on the Bharadwaj's framework in helping organizations tackle the information system management as well as developing a capability that is superior in that area. The findings show that an increase in inimitable, non-substitutable and valuable of an information systems area, can increase the performance of a firm non-financially. Furthermore, the resources and capabilities were found to affect performance of firms both external and internal.

A study done by Wilden, Gudergan and Lings (2010) on relationship between dynamic capabilities and performance. Their study presented a conceptual model in testing the relationship of their variables and the results indicate that the marketing and research development capabilities as organisational resource-base, are capable of mediating the relationship between dynamic capabilities and performance. In addition, strategic orientation of marketing was found to play a key role in both development and deployment of dynamic capabilities of which eventually have an indirectly effect on performance.

Lo (2012) conducted a census review on managerial capabilities, organisational culture and performance in Chinese lodging industry under the resource-based perspective. The objective was to identify the effects of managerial capabilities and organisational culture on hotel's financial performance and customer satisfaction. He found that managerial capabilities and organisational culture both have no impact on financial performance but that managerial capabilities have significant impacts on customer satisfaction.

Ombaka, Machuki and Mahasi (2015) conducted a critical review of literature on organisational resources, external environment, innovation and firm performance. The objective was to ascertain why firms in the same industry and markets differ in their performance. They found that external environment and innovation were found to have independent effect on performance.

2.4 Summary of Previous Studies

The studies reviewed in section 2.3 present mixed findings on influence of organisational resources, values system and management capabilities on performance, arising from different methodologies used, and definition of variables or contextual factors. These studies have not tested the causal linkages of all the variables and consequently their joint impact on performance. This study addresses the identified gaps (see Table 2.1 below) by investigating the joint effect of organisational resources, values system and management capabilities on performance of ISO certified firms in Kenya.

Table 2.1: Summary of Previous Studies

Author(s) / Year	Topic	Objectives	Methodology	Findings	Knowledge Gap/ (Nature of gap)	Gaps Addressed by this Study
Osisioma & Nzewi, (2016)	The relationship between dynamic capabilities and performance of selected commercial.	To determine the type of relationship that exists between sensing capability and performance of selected Commercial Banks in Awka.	Descriptive survey research design was used where data was collected through structured questionnaire and analyzed by use of correlation statistics.	This study found out that the relationship between sensing capability and performance is positive and significant.	This study only tested capabilities and performance on a small sample of only two banks.	The present study brought on board the concept of organizational resources and values system and it also relied on large sample of all the ISO certified institutions in Kenya.
Wilden, Gudergan & Lings (2016)	Relationship between dynamic capabilities and organisational performance.	To find out how complementary capabilities controlled by an organisation, affect transaction costs. To establish the effect of complementary capabilities on governance costs.	Their study presented a conceptual model in testing the relationship of their variables.	The results indicate that marketing and research development capabilities as organisational resource-base, are capable of mediating the relationship between dynamic capabilities and organisational performance.	The research was not quantitative in nature and it was based only on capabilities and performance of organizations	The present research was quantitative in nature and included tests that organizational resources and values system have on performance
Özçelika, Aybasb & Uyargilc (2016)	The influence of high performance work systems and	To find out whether selected organizations incorporate components of High Performance Work Systems (HPWS) in the	The study was founded on resource-based view and employed	Management of human resource capabilities were essential in creating attraction, employee	Performance was measured as independent variable and values as	Organizational performance was measured as dependent and values systems as

	organizational `values based on resources.	value statements of their organizational	qualitative analysis	development, selection, retention, as well as motivation of labour force in any given organization.	dependent variable with aid of qualitative analysis	intervening and it employed use of quantitative methods
Chiu, & Chen, (2016)	Relationship between management capabilities and effectiveness of organization among the public services of Taiwan.	To explore the mediating effect of a human capital in the relationship between management capabilities and effectiveness of organization. To understand how the current situation and the actual needs of employees help organizations in implementing key success factors to sharpen their management strategies, and improve overall competitiveness and performance.	Their research distributed 302 questionnaires and structural equation model was used in testing the hypotheses.	It was found that significant relationship only existed between knowledge process capabilities and organizational effectiveness. Also, knowledge infrastructure capability was found to have an insignificant effect. Furthermore, their research supported that the mediating role of organizational commitment was significant.	They used role of organizational commitment as a mediator and their study sample size was only drawn from the staff of the Taipei Water Department as target populations	The current research tested the combined effect of organizational resources, management capabilities, and values system on organizational performance among all the ISO certified institutions in Kenya
Gakenia (2015)	Organizational resources and performance of	To establish whether human capital affect organisation performance.	Employed the use of both explanatory and	The findings revealed that there was a positive	The study was limited to organizational	The current research incorporated management

	Kenyan mobile phone companies	To establish whether technology competencies affect performance of organisation. To examine the mediating effect of competitive advantage on relationship between organizational resources and performance of organisation. To determine the moderating effect of environmental factors on the relationship between organizational resources and organisation performance.	descriptive survey research designs, with a total population of interest of 381 respondents where a sample size of 170 respondents was drawn. Descriptive and inferential statistics were employed in data analysis.	significant effect of human capital on performance of mobile phone companies in Kenya.	resources and performance. This research relied only on self-reported data from opinion given by managers in mobile phone industry.	capabilities and values systems in the linkage between resources of organizations and their performance
Ainin,, Salleh, Bahri, & Faziharudean, (2015)	The effect of performance of organization and customer value on functional capabilities of information systems.	To identify emerging organization-wide IS functional capabilities. To predict the link between IS functional capabilities and customer value that leads to organization performance.	Relied on a sample size of 104 small and medium sized enterprises in the service industry in Malaysia through the use of a cross-sectional survey	Their study discovered that capabilities of IS functionality influence customer value creation and eventually performance of organizational	Study focused on organization performance and customer value as independent variables and IS functional capabilities as dependent variable and that it only	To counter this, the study used management capabilities as a moderating variable of the relationship of organizational resources and performance of ISO certified organizations. Apart from self-reporting responses, the

					relied on self-reporting by key respondents	current study also embrace the use of secondary data
Juma (2014)	Organizational resources and corporate governance structures on performance of state corporations of Kenyan.	Establish the influence of organizational resources on performance of Kenyan state corporations. Determine the influence of corporate governance structures on the relationship between organizational resources and performance of Kenyan state corporations. Determine the joint influence of organizational resources and corporate governance structures on performance of Kenyan state corporations.	Used a cross-sectional descriptive survey and questionnaire was used to collect data from a sample of 95 state corporations. Multivariate and hierarchical regressions were used in analysis	There exist a statistically significant relationship between aggregated organizational resources and performance.	The study focused on organizational capabilities and governance structures as independent variables	The study addressed this issue through inclusion of organizational resources as independent variable, management capabilities as moderating variable and values system as intervening variable.
Nalcaci & Yagcib, (2014)	The effects of capabilities of marketing on performance of export on manufacturing companies.	To establish the influence of marketing capabilities on performance	Was based on a sample size of 14 manufacturing firms in Turkey and applied critical incident method	The study found out that resources and marketing capabilities are main components of companies involved in manufacturing processes that play	This study was relied on a small sample of 14 manufacturing firms	The present research was done on a large sample population of the entire ISO certified Institutions

				major roles in the export performance.		
Gorenak & Košir (2012)	The importance of organizational values for organization performance	To establish the influence of organizational values on the performance	Their study was done on 303 companies operating in Slovenia and variables were analyzed through Correlation analysis.	The findings of the survey gave a revelation that there were performance factors are statistically significant to organizational values.	The focus of their study was based only on organizational value and performance	The present study inquired to know the influence of organizational resources, management capabilities and values system on performance of organization
Ismail, Randuan, Uli, & Abdullah, (2012)	The effect of organizational resources, capabilities, systems on competitive advantage	To examine the importance and emphasis placed on organisational resources, capabilities and systems in their relationships with competitive advantage.	This research was conducted on 1000 manufacturers who were randomly selected from the 2008 Federation of Malaysian manufacturers on stock exchange directory. Used a cross-sectional study which was done using a questionnaire	Indicated that a combination of organisational resources, capabilities and systems have a positive significant effect on competitive advantage, supported by resource-based view (RBV).	The concept of values system lacked in this research and it was only limited to listed companies.	In the current research, values system was introduced and a large sample size from Kenyan ISO certified organizations were used and this led to gaining better inferences

			based on a 5-point Likert-scale.			
Gil-Padilla, & Espino-Rodríguez (2008)	The impact of strategic value, resources and capabilities of the information systems area on organizational performance in the hotel sector.	To analyze the relationship between the strategic value of the IS area and organizational performance. To evaluate the management of the IS area according to the contribution of the resources and capabilities used in that activity to hotels' organizational performance.	The research was done in Gran Canaria, Spain on a representative sample of hotels and was based on the Bharadwaj's framework in helping organizations tackle the information system (IS) management as well as developing a capability that is superior in that area.	The findings show that an increase in inimitable, non-substitutable and valuable of an IS area, can increase the performance of a firm non-financially. Furthermore, the resources and capabilities were found to affect performance of firms both external and internal.	The results of the study context cannot be generalized since their interpretation was only based on the study sample population of hotels in Gran Canaria, Spain.	The current research found it crucial to have a replica of the same in the ISO certified organizations in Kenya in order to contribute in expansion of the framework.
Rosete (2006)	The effect of performance management systems and organisational values affect	To establish the influence of performance management systems on job satisfaction and commitment. To determine the effect of	The survey was conducted on 325 civil service of Australia. factor analysis was used to	It was discovered that performance management items rely on two key aspects which include developing	The study relied only on the typological theory of organizational values in	This study was anchored on interest's theory, stakeholders' theory, complexity theory, behavioural theory

	the job satisfaction and commitment of employees.	organisational values systems on job satisfaction and commitment.	determine the results	an individual and compensation.	classified the target respondents into four major value types namely: meritocratic, collegial, elite, and leadership	and TQM theory using of organizational resources as independent variable, management capabilities as moderating variable and values system as intervening variable
Carmelia, & Tishler, (2004).	The effect of resources and capabilities on performance of industrial firms.	To find out whether intangible resources and capabilities contribute to performance of firms. To establish the link between organizational resources and capabilities on firm performance.	Their survey was conducted on 93 industrial enterprises operating in Israel and through the use of multivariate analysis,	Their study discovered that the superiority of an industrial enterprise based on performance measures, have the ability to be explained by key managerial capabilities and organizational resources	This study did not include values system in determining the organizational performance.	The present study brought on board the intervention of values systems in determination of performance of ISO certified organizations.

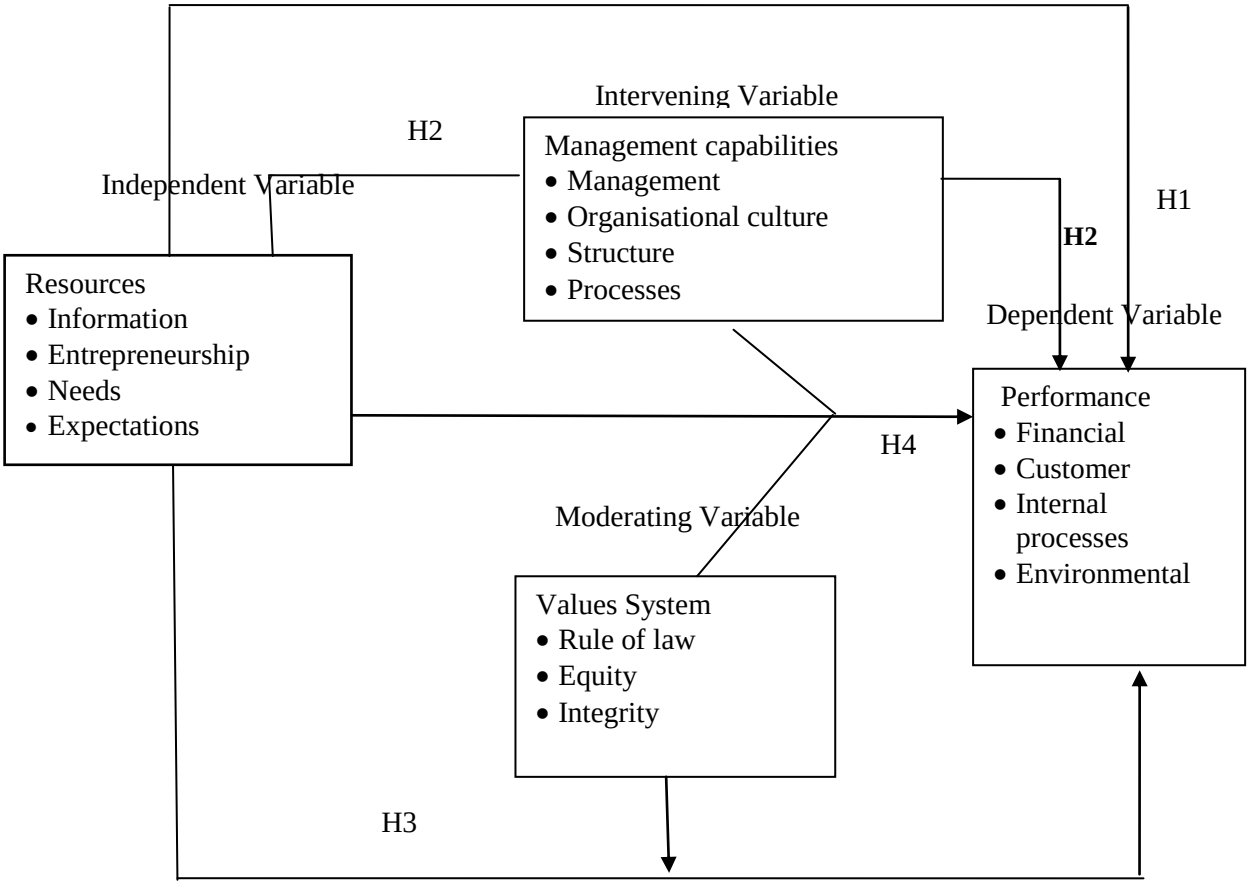
Source: Author (2018)

2.5 Conceptual Framework

The knowledge gaps highlighted above led to the development of the conceptual framework below (Figure 2.1) that was adopted to guide empirical research in addressing the gaps identified from literature review. From the framework, performance was the dependent variable, whereas organisational resource was the independent variable. Values system was the moderating variable on the relationship between organisational resources and performance. Values system explains changes in the strength or direction of the relationship between organisational resources and performance rather than why the relationship exists. The theorized relationship between the organisational resources and performance exists only when moderating variable is present or absent. Management capabilities was the intervening variable that comes between the organisational resources and performance and explains all or part of the relationship between the two and helps explain the influence of resources on performance.

Studies reviewed in section 2.3 have, however, provided different results and other variables that intervene and moderate the relationships were suggested. It is explicit from the review of literature in 2.3 that the variables were investigated individually and the relationships established. The studies established the relationship between organisational resources and performance. The framework in Figure 2.1 below supports this direct relationship between organisational resources and performance. The framework further proposes that the relationship between organisational resources and performance is intervened by management capabilities and moderated by the values system. This is the relationship that has not been established which this study sought to investigate.

Figure 2.1: Conceptual Framework



Source: Author (2018)

2.6 Research Hypotheses

The null hypotheses that were tested were:

H_1: Organisational resources have no significant influence on performance of ISO certified firms in Kenya.

H_2: Values systems have no significant moderating influence between organisational resources and performance of ISO certified firms in Kenya.

H_3: Management capabilities have no significant mediating influence between organisational resources and performance of ISO certified firms in Kenya.

H_4: Organisational resources, values system and management capabilities have jointly no significant influence on the performance of ISO certified firms in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Chapter three discussed the methods used study. In particular, the chapter discusses the research philosophy, research design, population of the interest, sampling procedure; data collection, operationalization of research variables, reliability and validity of research instruments, data analysis and ethical issues in the study.

3.2 Philosophical Foundation of the Study

The study adopted an epistemological rather than ontological approach to philosophy as it is concerned with the nature and scope of knowledge and provides an excellent way to investigate phenomenon or subject matter of research (Cohen, Manion & Morrison 2007), instead of the study of nature of existence or being. Epistemology consists of three paradigms: positivism, interpretism and realism. This study used a positivism point of view. Positivism is directly associated with the idea of objectivism.

Punch (2005) argued that "positivism school of thought is based on the philosophy that only one reality exist though can only be known imperfectly due to human limitations and researchers can only discover this reality within the realm of probability". Besides, the paradigm informs that researchers and the subject under study tend to be independent since they do not affect one another or the output (Kasi, 2009).

3.3 Research Design

The cross-sectional research design was utilized by this study. Collins and Hussey (2009) asserted that cross-sectional surveys entail collection of responses from

population or a subset of representation. Besides, cross-sectional design involves data collection at a point in time. This research design was appropriate in giving a better understanding of the relationship between independent and dependent variables.

According to Sedgwick (2014), a cross sectional research design in particular is good in estimation of behaviours' prevalence whose existence is found in a particular population. Studies which are cross sectional usually tend to be easy, cheap and quick, to undertake. They usually rely on a questionnaire as a research instrument. The participants' follow-ups are minimal since the respondents are interrogated once in a given time.

3.4 Population of Study

The population of interest was all 1,060 ISO certified firms in Kenya accredited through Kenya Bureau of Standards, Societie Generale de Surveillance and Bureau Veritas. By June 2016, ISO certified firms in Kenya are as shown in Appendix IV. These firms belong to different industries/sectors as shown in Table 3.1 below.

Table 3.1: Distribution of International Organisation for Standardization Firms in Kenya

Code	Sector	Number of Firms
a	Agriculture	104
b	Manufacturing	206
c	Education and Research Institutions	62
d	Regulatory Bodies	90
e	Telecommunication, Technology and Utilities	108
f	Financial Institutions	72
g	Energy and Petroleum	41
h	Hospitality and Tourism	64
i	Commercial and Services	301
Total		1,060

Source: Author (2018)

These firms were industry assorted hence providing a within and without industry comparison. In addition, there exists reliable performance data on these firms in line with conformity to ISO reporting requirements.

3.5 Sampling Design, Sample Size Determination and Sampling Adequacy

In order to determine a representative sample for the survey, first the Fisher's (1970) model for sample size calculation for study populations was used, because the population elements were heterogeneous and diverse. This sample size was determined by employing the equations below:

$n = (Z^2pq)/e^2$…… (1)

Where Z is the corresponding standard score with a confidence level of 95 percent

The corresponding standard score was 1.96

p is the occurrence level of the phenomenon under study

0.5 where the occurrence level is not known

q is the absence of the phenomenon under consideration

0.5 where the value is not known

e is the selected probability of error (error margin) of the study corresponding with 95 percent confidence level

n is sample size

The ISO certified firms in Kenya constitute the sample frame, from which the subjects were chosen. The sample size was selected based on 95 percent confidence level and 5 percent margin of error using the Fisher's (1970) model. The limits between 30 and 500 units were considered adequate (Cooper & Schindler, 2004). Samples less than 30 were usually too small while those greater than 500 units were seldom necessary. Factors considered in arriving at this size are cost, data collection methods was used,

desired level of precision and the fact that the sample was drawn from firms that implemented or are implementing TQM. Thus, n = [(1.96*1.96*0.5*0.5)] / (0.05*0.05) = 384.16.

Since the number of ISO certified firms was less than 10,000 in population, the study further employed the Fishers' modified model for sample determination by help of the following equation:

nf = n/ [1+ ((n–1)/N) …… (2)

where nf is the sample size, n is the sample size in equation 1 above; and N is the population size, that is, number of firms. In this survey, the probability error/error margin had high influence on the sample size. Thus, nf = 384.16/ [1+ ((384.16–1)/1060)] = 281.8 ≈ 282 ISO certified firms as shown in Table 3.2. Observation of existing records was done on 27 ISO certified firms which were randomly picked from the main sample size (Table 3.2) based on the nine sector categories.

Table 3.2: Distribution of Sample Size

Code	Sector	Number of Organizations	Percent of Total	Sample size
a	Agriculture	104	9.9	28
b	Manufacturing	206	19.7	56
c	Education and Research Institutions	62	5.9	17
d	Regulatory Bodies	90	8.6	24
e	Telecommunication, Technology and utilities	108	10.3	29
f	Financial Institutions	72	6.9	19
g	Energy and Petroleum	41	3.9	11
h	Hospitality and Tourism	64	6.1	17
i	Commercial and Services	301	28.7	81
	Total	1,060	100.0	282

Source: Author (2018)

The method has major advantages over the indirect method in that it can value services that were normally difficult to assess with the indirect method (Kotari, 2005). According to Anderson, Strunk and Temesgen (2011) in "stratified random, sampling of the elements in the population were first divided into groups called strata such that each element belongs to only one stratum. The value of stratified random sampling depends on how homogenous the elements are in the strata."

A stratified random sampling technique was used because of the homogeneity of ISO certified firms making other sampling technique like simple random sampling inappropriate, as they do not cater for representativeness of ISO certified firms in different industries or sectors. In order to establish the validity of study variables, tests of sampling adequacy were done using Kaiser-Meyer-Olkin (KMO) test of sampling adequacy and Bartlett's test of sphericity.

3.6 Data Collection

Primary and secondary data were used in this study and both types of data were quantitative in nature as they complement each other (Gill & Johnson, 2007). Thus, data in the study was collected using semi-structured questionnaires and examination of records as specified below through the Management Representatives (MR), being persons institutionally appointed by management and charged with ISO matters. The MR distributed the questionnaires randomly across the different levels in the organisational structure. Primary data covered organisational resources, values system, management capabilities and the performance data. The target respondent firms were randomly sampled. The open-ended questionnaire also contained a portion for unstructured response on general information. To eliminate ambiguity, the questionnaire initially was piloted within Nairobi.

The organisational resources section captured the resources data. The values system section was designed to collect data on the national values and principles of governance. The management capabilities section captured the context that the firms operate in. The performance section was designed to capture the firms' non-financial performance as enumerated in the Software Business Solutions Consulting (SBSC) which captured customer relation outcomes, efficient and effective outputs, innovativeness, social equity and green performance whose management is mandated to incorporate the environmental idea in each and every stage of the product and service delivery. Secondary data included financial and operational performance indicators across target firms.

3.7 Operationalization of Variables

Nachmias and Nachmias (2009) contend that operationalization of variables is the measurement procedure bridging the conceptual-theoretical level with the empirical observation level. A researcher assigns numerals or numbers and other symbols to the study variables in the procedure. The independent variable was resources, which was measured on a five-point Likert scale (5 PLS) using a 10 item psychological capital questionnaire against indicators comprising people, materials and technologies (Mankiw, 1998), information (Dusenbery, 1992), capital and entrepreneurship (Nickles, McHugh & McHugh, 2002), needs (Gough, 1994) and expectations (Lazarus, 1991). The moderating variable was values system, which was measured on 5 PLS using 21-item questions shown against each indicator comprising patriotism, national unity, sharing and devolution of power, the rule of law, democracy and participation of people; human dignity, equity, social justice, inclusiveness, equality, human rights, non-discrimination and protection of the marginalized; good

governance, integrity, transparency and accountability; and sustainable development (GoK, 2010).

The intervening variable was management capabilities that were measured on 5 PLS using 33-item questions on indicators given comprising management (Beatty, 2001; Deming, 2010); organisation culture (Schien, 1990); structure (Osada, 1991); processes (Hammer & Champy, 2012); systems (Harrington & Reid, 2007); and integration (Cloke & Goldsmith, 2002). The dependent variable was performance that was measured on 5 PLS using 11-item questions and two unstructured questions on indicators comprising given customer satisfaction, employee satisfaction, economic sustainability, social/environmental responsibility and public information (Hubbard, 2009). Table 3.3 below shows the operationalization of the study variables.

Table 3.3: Operationalization of Variables

Variable/(Category)	Indicator	Support Literature	Questions on Part B of Appendix II and Appendix III	Scale
Organisational resources/ (independent variable)	Information	Dusenbery (1992)	1iii	5PLS
	Entrepreneurship	Nickels, McHugh, & McHugh (2002)	1iv	5PLS
	Needs	Gough (1994)	1i	5PLS
	Expectations	Lazarus (1991)	1ii	5PLS
	Physical capital	Samuelson & Nordhaus (2004)	1iv	5PLS
	Intangible assets	Lev & Daum (2004)	1vii	5PLS
	Ethical capital	Cloke & Goldsmith (2002)	1v	5PLS
	Human capital	Mankiw (1998)	1viii	5PLS
	Natural resources	Mankiw (1998)	1x	5PLS
	Technological knowledge	Mankiw (1998)	1vi	5PLS
Values system/ (moderating variable)	Patriotism	GoK (2010)	2i	5PLS
	National unity	GoK (2010)	2ii	5PLS
	Sharing and devolution of power	GoK (2010)	2iii-iv	5PLS
	The rule of law	GoK (2010)	2v.	5PLS
	Democracy and participation of	GoK (2010)	2vi-vii;	5PLS

	people			
	Human dignity	GoK (2010)	2viii	5PLS
	Equity	GoK (2010)	2ix	5PLS
	Social justice	GoK (2010)	2x	5PLS
	Inclusiveness	GoK (2010)	2xi	5PLS
	Equality	GoK (2010)	2xii	5PLS
	Human rights	GoK (2010)	2xiv	5PLS
	Non-discrimination and protection of the marginalized	GoK (2010)	2xiii	5PLS
	Good governance	GoK (2010)	2xv-xvi	5PLS
	Integrity	GoK (2010)	2xvii	5PLS
	Transparency and accountability	GoK (2010)	2xviii-xix	5PLS
	Sustainable development	GoK (2010	2xx-xxi	5PLS
Management capabilities/ (mediating variable)	Management	Deming (2010)	3i-xvii	5PLS
	Organisation culture	Schien (1990)	3viii-xxi	5PLS
	Structure	Osada (1991)	3xii-xiii	5PLS
	Processes	Hammer & Champy (2012)	3xiv-xxvii	5PLS
	Systems	Harrington & Reid (2007)	3xxviii-xxix	5PLS
	Integration	Cloke & Goldsmith (2002)	3xxx-xxxiii	5PLS
Performance / (dependent variable)	Financial perspective	Hubbard (2009)	4ix-xi (App. II)	5PLS
		Lovemore & Brummer (2003)	1-7 (App. III)	RS
	Customer perspective	Hubbard (2009)	4i-ii	5PLS
	Internal processes perspective	Hubbard (2009)	4iii	5PLS
	Learning and growth perspective	Hubbard (2009)	4iv	5PLS
	Social perspective	Hubbard (2009)	4v	5PLS
	Environmental perspective	Hubbard (2009)	4vi-viii	5PLS

Source: Author (2018)

Assessment of secondary data was on ratio scale based on items in Appendix III on indicators and to assess performance involved analyzing the cumulative financial and economic effects of management decisions and judging the results using comparative measures. Firms are dynamic interrelationships of resource movements activated by management decisions on investments, operations, and financing which impact, for better or worse, on performance (Helfert, 2008). Performance was analyzed based on

published financial data as reflected in the financial statements prepared according to generally accepted accounting principles. Financial statements are the periodic “score cards” that track the results of management decisions on investment, operations, and financing. This focused on key financial relationships and indicators to assess past performance as well as project assumed future results. To achieve this purpose, the objectives of the analysis and the potential standards of comparisons were clearly defined. Any insights gained are relative because firms and operating conditions vary among firms and industry.

The investment segment consists of the investment base already in place and the addition of new investments. These comprise capital employed (working capital, fixed assets and major spending plans), the basic driving force and operational ‘’trigger’’ for action in the organisation. Rate of return concepts such as Return on Capital Employed (ROCE) are the measures for assessing the effectiveness in the use of investment.

The operations segment illustrates the operational interplay of price, volume of product or services, and fixed plus variable costs including managing operating resources in ways that maintain the ability to meet current obligations (liquidity). The key measures include various operating ratios that measure the effectiveness with which resources are used, as well as specific expense for cost effectiveness and profit indicators.

The financing segment represents the basic financing decisions for resourcing investment and operations for the organisation in two parts. The first is the disposition of the operating profit achieved for a period, which is normally is divided between

dividends paid to owners, interest paid to lenders, and retained earnings kept in the business. The second deals with the firms' long-term capital sources (structure) in the form of ownership equity and long-term debt held by outsiders, which, after taking into account the business risk-reward trade-off and debt service requirements, should in an acceptable level of overall profitability. The key measures here include net earnings, cash flow, interest cover, return on equity and debt-equity ratios (Helfert, 2008).

3.9 Data Analysis

Data was analyzed through a combination of both descriptive and inferential statistics to summarize data in an understandable way and infer characteristics of the population respectively. Descriptive analysis involved the use of frequencies and relative forms (percentage). The study used, where necessary the measures of central tendencies such as mean, median and mode and measures of dispersion such as range and standard deviation. For data presentation, the study employed tables, graphs and charts for easy understanding and describing the data. Descriptive analysis on primary data included an assessment of the organisational resources, values system, management capabilities and performance. Descriptive measures included mean, Standard Deviation (SD), skewness and kurtosis.

Secondary data from the records examination in the form of ratio scale were analyzed quantitatively by computing key ratios as shown in appendix III. It comprised of performance analysis whose results were compared with the outcome of the questionnaires in order to ascertain whether there was any causal link and draw inferences. Ratios served as a gauge measuring the value proposition delivered by the organisation, values performance being a good indicator of quality achievement in the

context of the four objectives and Appendix III provides the formulae for computing the ratios. A type of ratio was identified by $R_{i.}$ and a target organization was coded for confidentiality as i_a_i, where i denotes serial number of the organisation and a-i identify the sector the organisation belongs. The study used 27 firms that were randomly picked based on nine sector categories as shown in Table 3.1 above. The sectors were agriculture; manufacturing; education and research institutions; regulatory bodies; telecommunication, technology and utilities; financial institutions; energy and petroleum; hospitality and tourism; and commercial and services.

Specifically, ratios used in this study were given different codes as follows: R_1 represented H-factor, R_2 was ROCE, R_3 was used to represent return on investment, R_4 was return on equity, R_5 was net profit margin, R_6 was expense ratio, R_7 represented human resources effectiveness, R_8 signified debt ratio, R_9 was current ratio, R_{10} represented comprehensive liquidity index, R_{11} denoted quick ratio, R_{12} was interest cover, R_{13} was total assets turnover, R_{14} represented accounts receivable days, R_{15} was the inventory days while R_{16} denoted accounts payable days as displayed in Appendix III. It should be noted that the ratios were classified according to certain important financial ratios: liquidity, solvency, activity, profitability and bankruptcy.

Inferential statistics were used to determine the relationships between organisational resources, values system, management capabilities and performance as well as testing the hypotheses. According to Flynn (2006) correlation analysis was used to determine the correlation between variables and coefficient of determination to test for goodness of fit of the models. Simple and multiple linear regression analysis was applied with the performance as the dependent variable and organisational resources as independent variables while values system and management capabilities was

moderating and intervening variables, respectively. The t-test was used to determine individual significance. Assessment of the overall significance of the regression models was done using the F-test. In both cases above, if p-value was ≤ 0.05 the null hypothesis was rejected otherwise the null hypothesis was not rejected.

Multicollinerarity, an unacceptably high level of interaction among the independents such that the effects of the independents could not be separated and ascertained using the Variance Inflation Factor (VIF), the reciprocal of tolerance. Tolerance was defined as 1-R-squared, where R-squared is the multiple R of a given independent regressed on all other independent variables and if VIF > 4.0 then there of a multicollinerarity problem. Other diagnostic test performed was normality and homoscedasticity. Baron and Kenny's (1986) tests were used for both moderator and mediator hypothesis for significance. In addition the Sobel z-test was used to test for mediation (Preacher &Hayes, 2004; 2008). The research objectives, hypotheses, analytical model and threshold for tests done are as summarized in table 3.4.

Table 3.4: Objectives, Hypotheses, Analytical Methods and Interpretation of Results

Research Objectives	Hypothesis	Questions in Part B of Appendix II	Analytical Model	Tests Done
Determine relationship between Organisational Resources (OR) and Performance (P) of ISO certified firms in Kenya.	$H_{1:}$ OR have no significant influence on P of ISO certified firms in Kenya.	1 on 4	$P = \beta_0 + \beta_1 OR + Ɛ$ where: P = aggregate mean score of P β_0 = intercept β_1 = regression coefficient OR = aggregate mean score of OR Ɛ = error term	F-test $p \leq 0.05$ R^2
Determine influence of Value System (VS) on the relationship between	$H_{2:}$ VS have no significant moderating influence between	2 on 1 and 4	$P = \beta_0 + \beta_1 VS + \beta_2 OR + \beta_3 (OR*VS) + Ɛ$ where, $\beta_1 – \beta_3$= regression	F-test t-test

OR and of ISO certified firms in Kenya.	OR and P of ISO certified firms in Kenya.		coefficients VS = aggregate mean score of VS	$p \leq 0.05$ R^2
Determine influence of Management Capabilities (MC) on the relationship between OR and P of ISO certified firms in Kenya.	$H_{3:}$ MC have no significant intervening influence between OR and P of ISO certified firms in Kenya.	3 on 1 and 4	$\hat{P} = \beta_0 + \beta_1 MC + \beta_2 OR + \varepsilon$ where, MC = aggregate mean score of MC	F-test t-test $p \leq 0.05$ R^2
Examine the joint effect of OR, VS and MC on P of ISO certified firms in Kenya.	$H_{4:}$ OR, VS and MC have jointly no significant influence on P of ISO certified firms in Kenya.	1 to 3 on 4	$P = \beta_0 + \beta_1 OR + \beta_2 VS + \beta_3 MC + \varepsilon$	F-test t-test $p \leq 0.05$ R^2

Source: Author (2018)

3.10 Ethical Issues

Nachmias and Nachmias (2009) assert that ethical issues are related to research participants' rights, welfare, and researcher's obligations as key issues in the social sciences. In conducting this research, there was neither intent nor interest in violating the rights and welfare of research participants. The sole objective of this research, therefore, was to contribute to the development of systematic and verifiable knowledge. In this regard, the information was kept private, anonymous and confidential.

The study addressed all ethical issues during the entire research process. Privacy and confidentiality of the respondents was considered. Confidentiality was assured as the questionnaires are self-administered without writing respondents names (identity). Data collected was also handled in an appropriate way thus, only for the intended purpose of academic research work. This was based on the ethical principles and consideration, adhering to the study topic under study.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

The chapter dealt with various methods applied by this study in analysis. They included descriptive statistics involving frequencies, percentages, means, and standard deviations; test of normality; test of assumptions; test of association; as well as test of study hypotheses.

4.2 Study Response Rate

The research was conducted on sample size of 282 respondents out of which 254 respondents completed and returned the questionnaires duly filled, which was a response rate of 90 percent. Mugenda and Mugenda (2003) stated that a response rate of 70 percent and above is excellent for statistical reporting and based on this assertion, the response rate was exemplary for analysis and drawing conclusions. In addition, financial statements were analyzed from 27 ISO certified firms which were randomly selected from the studies response rate based on categories of sectors under study. To ensure high response rate, the researcher interpreted each of the sections of the questionnaire to the respondents to ensure that they fully understood the questions before answering. This was done through follow-ups which were made through use of e-mails, phone calls, and personal visits.

4.3 Sampling Adequacy and Sphericity

The sampling adequacy and sphericity test are as shown in Table 4.1. This was done using KMO test of sampling adequacy and Bartlett's test of sphericity.

Table 4.1: Kaiser-Meyer-Olkin and Bartlett's Test

Factors	KMO Test	Bartlett's Test of Sphericity			Determinant
		Approx. Chi-Square	df	Sig.	
Organizational Resources	0.804	352.056	10	0.000	0.058
Values System	0.720	150.838	3	0.000	0.297
Management Capabilities	0.814	585.613	11	0.000	0.009
Organizational Performance	0.779	192.378	6	0.000	0.212

Source: Author (2018)

The test results show that the scales had values above the threshold of 0.7 as established by Williams, Volberg and Stevens (2012): Bartlett's test of sphericity which analyzes if the samples are from populations with equal variances produced p-values less than 0.05 ($p < 0.001$) thus indicating an acceptable degree of sampling adequacy. Organizational resources had a Chi-square value of 352.056 ($p < 0.001$), values system (150.838, $p < 0.001$), management capabilities (585.613, $p < 0.001$) and organizational performance (192.378, $p < 0.001$). Determinant values are more than 0 organizational resources (0.058), values system (0.297), management capabilities (0.009) and organizational performance (0.212). Thus, it was acceptable to proceed with the analysis

4.4 Reliability and Validity Tests

This study used a 0.7 Cronbach alpha coefficient cut-off point in line with Nunnally (1978). Kaloki (2001) and Kyalo (2007) used the same test successfully to assess the reliability of their research instruments and the computed alpha coefficient in this study was 0.7 Validity is the accuracy of a measure or the extent to which a score truthfully represents a concept (Zikmund, Babin, Carr & Griffin, 2010). The instrument was pre-tested in 30 organizations. The respondents were asked to evaluate the statements for relevance, loading, clarity and effectiveness.

Table 4.2: Reliability and Validity Analysis

Reliability and Validity Analysis	Cronbach's alpha value
Organizations' performance	.810
Organization resources	.814
Values system	.854
Management capabilities	.971

Source: Author (2018)

The results shown in Table 4.2 indicate that the data collection tool returned a highly acceptable score since all coefficients are above 0.70. According to Zinbarg (2005) alpha coefficients higher than 0.70 indicates that the gathered data have a relatively high internal consistency and could be generalized to reflect the opinion of the respondents in the target population. The instrument was reviewed based on the pre-test experience. The data obtained was cross-checked to establish any deficiency in the instrument. Therefore the results of the pilot study indicated that most questions were clear and appropriate, though a few aspects were found unnecessary. In response, corrections and adjustments were done accordingly.

4.5 Tests for Normality, Multicollinearity and Homogeneity

The following statistical assumptions, which included test of normality, multicollinearity and homogeneity were done.

4.5.1 Tests for Normality

Normality was tested in this study using descriptive statistics with skewness, kurtosis, histograms and Probability-Probability (P-P) plots as well as Sharpiro-Wilk statistics to check if there were variations in the data under study. For the normality test, the skewness and kurtosis values should be somewhere in the span of -1.00 and 1.00 or

three times the values for the standard error is less than the statistic values then the data would be approximately normally distributed. From Table 4.3, the skewness value for organisational resources was -0.340 (SE= 0.153); values system was -0.568 (SE = 0.157); management capabilities was -0.127 (SE = 0.153) and performance was 0.046 (SE = 0.153). Similarly the kurtosis value for organisational resources was -0.855 (SE= 0.304); values system was -0.625 (SE = 0.313); management capabilities was -0.587 (SE = 0.312) and performance was -1.178 (SE = 0.304). This implies that the data was approximately normally distributed.

Table 4.3: Tests of Normality of the Study Variables Using Skewness and Kurtosis

		Organisational resources	Values system	Management capabilities	Performance
N	Valid	254	240	242	254
	Missing	0	14	12	0
Skewness		-.340	-.568	-.127	.046
Std. Error of Skewness		.153	.157	.156	.153
Kurtosis		-.855	-.625	-.587	-1.178
Std. Error of Kurtosis		.304	.313	.312	.304

Source: Author (2018)

Furthermore, the assumption of normality was tested using the Shapiro-Wilk test as demonstrated in Table 4.4 below. The Shapiro-Wilk statistic (1965) is "the ratio of the best estimator of the variance to the usual corrected sum of squares estimator of the variance to test for normality of a distribution." When the statistic is positive and less than or equal to one, it shows normality. On the other side, if the p-value is greater than the chosen alpha level (0.05), then that shows that the data came from a normally distributed population (Razali & Wah, 2011). From the results showed in Table 4.4 below, all values were greater than 0.05 (criterion decision), an indication that the study variables were normally distributed.

Table 4.4: Test of Normality Using Shapiro-W Test

Variables	Sample Size	Shapiro-Wilk Test
Organisation resources	254	0.39
Values system	254	0.66
Management capabilities	254	0.10
Firms performance	254	0.10

Source: Author (2018)

Multicollinearity occurs when there is a strong correlation between two or more independent variables in a regression model. Multicollinearity is a problem especially in situations where there is multiple linear regression. Low levels of collinearity pose little danger to the regression model. Multicollinearity assumption is that VIF threshold value should be 10 or less (Robinson, Brown & Currie, 2009) and was used to test for non-dependence of the independent variables because when independent variables are highly correlated it is difficult to determine the actual contribution of respective predictors. Multicollinearity was tested by computing VIF and its reciprocal, the tolerance. The tolerance reported in this research was in ranges of between 0.60 and 0.80, and the results are presented in Table 4.5 below.

Table 4.5: Test of Multicollinearity Using Tolerance Test

Variables	Sample Size	Collinearity VIF (Tolerance Test)
Organisation resources	254	1.25 (0.80)
Values system	254	1.59 (0.63)
Management capabilities	254	1.51 (0.66)
Firms performance	254	1.47 (0.71)

Source: Author (2018)

Homoscedasticity, which implies that the relationship under investigation is the same for the entire range of the dependent variable (Garson, 2012) was tested using test of

variance through Levene's test. The homogeneity was confirmed based on a critical alpha value ($\alpha = 0.05$) as shown in Table 4.6 below. All the variables were found to be have equal variability as they gave p – values of >0.5.

Table 4.6: Tests of Homogeneity of the Study Variables Using Levene Test

Tests of Homogeneity	N	Homogeneity (Levene Test)	Comment
Organisation resources	254	0.32	Assumed equal variance
Values system	254	0.47	Assumed equal variance
Management capabilities	254	0.78	Assumed equal variance
Firms' performance	254	0.75	Assumed equal variance

Source: Author (2018)

Table 4.7: Test for Homoscedasticity Using Total Variance

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.226	30.653	30.653	1.226	30.653	30.653	1.169	29.237	29.237
2	1.092	27.293	57.945	1.092	27.293	57.945	1.148	28.708	57.945
3	.894	22.358	80.304						
4	.788	19.696	100.000						
Dependent variable: organizational performance									

OR – Organizational Resources, MC – Management Capabilities, VS - Values systems and P – Organizational Performance

Source: Author (2018)

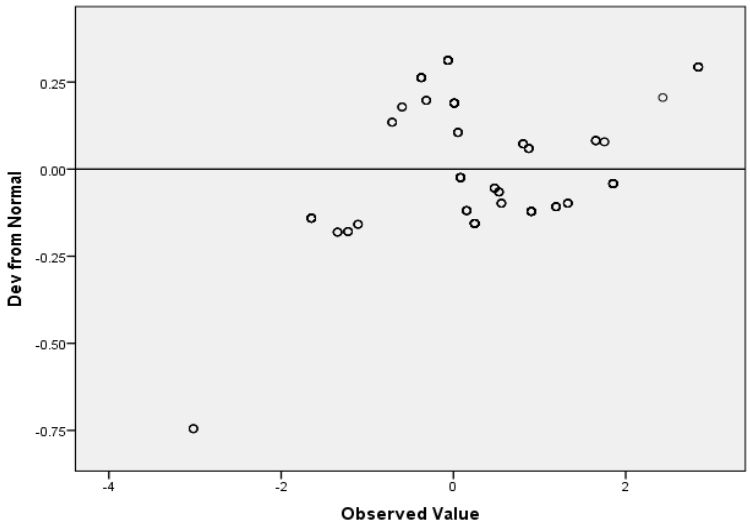
The test for homoscedasticity of total variance was conducted to establish the extent of the difference between the variance estimator and the true parameter. From Table 4.7 above, the parameter VS was the expected absolute change of the response variable Y (P), if the predictor variable (OR and MC) was increased by 29.237 and

28.708 respectively, and all other predictor variables remain the same. The sign shows the direction of the expected change: If VS> 0, then the change of (OR and MC) and Y (P) goes into the same direction. If Z< 0, then the change of (OR and MC) and Y goes into different directions. If Z = 0, then a change in (OR and MC) has no influence on Y.

Heteroskedasticity was tested using a scatter plot which has an ability to show variance of statistical dispersion. As Figure 4.1 below shows, the pattern of the data points is concentrated together with no pattern to the residuals plotted against the fitted values. This implied that the variance of the residuals was constant and therefore inferring that the variance of the residuals was homogeneous across levels of the predicted values. In addition, the residuals exhibited most of the scores concentrated in the center, around zero. The pattern formed a pattern-less cloud of dots implying that the heteroskedasticity assumption was met in performance (Field, 2009).

Figure 4.1: Tests of Heteroskedasticity Using Scatter Plots

Dependent variable: organizational performance



4.6 Respondents Demographic Characteristics

The respondent's demographic characteristics included gender, occupation and level of management. The target respondents for this study were the employees of ISO certified firms. The respondents were requested to indicate their gender and the findings are as presented in the Table 4.8 below. Majority (59.4 percent) of the respondents was males and 40.6 percent were women. This implied that most information emanated from males and that there was inclusiveness in gender representation in the study. The results of gender distribution have indication that the respondents comprised of mixed gender and that ISO firms in Kenya observe the guidelines of gender balance as advocated by the Kenyan constitution.

Table 4.8: Respondents Gender

Gender	Frequency	Percent
Male	151	59.4
Female	103	40.6
Total	254	100.0

Source: Author (2018)

The respondents were asked to indicate the category they belonged in the management hierarchy. The results are as presented in the Table 4.9 below. According to the findings in Table 4.9, most (27.6 percent) of the respondents indicated that they were in the senior management, 19.7 percent indicated that they were in the middle level management, 19.3 percent indicated that they were in the supervision, 17.7 percent were in the top management and 15.7 percent of the respondents indicated that they were in operational level of management. This implied that all the management hierarchy was fairly participated in this research.

Table 4.9: Management Hierarchy

Management Hierarchy	Frequency	Percent
Senior	70	27.6
Middle	50	19.7
Supervisor	49	19.3
Top	45	17.7
Operational	40	15.7
Total	254	100.0

Source: Author (2018)

Further, the respondents were required to indicate the period they had been in operation and the results are shown in Table 4.10 below. Majority (96.1 percent) of the respondents indicated that they had been in operations for over 15 years, 2.8 percent of respondents between 5 years and less than 10 years and 1.2 percent of the respondents between 10 and 15 years. This implied that they had adequate knowledge on the effects of organisational resources, values system and management capabilities on performance of ISO certified firms in Kenya.

Table 4.10: Period in Operation

Period in Operation	Frequency	Percent
Between 5 years, less than 10 years	7	2.8
Between 10 and 15 years	3	1.2
Over 15 years	244	96.1
Total	254	100.0

Source: Author (2018)

In addition, the respondents were required to indicate the size of their firms in terms of number of permanent employees. The findings in Table 4.11 indicated that majority (69.3 percent) of the respondents indicated that they had between 500 and 1,000 permanent employees and 30.7 percent indicated that they had between 100 and

less than 500 employees. This implied that a majority of the respondents were from medium to large firms.

Table 4.11: Number of Permanent Employees

Number of Permanent Employees	Frequency	Percent
Between 100 employees, less than 500 employees	78	30.7
Between 500 and 1000 employees	176	69.3
Total	254	100.0

Source: Author (2018)

The study required the respondents also to indicate the ownership of the firms. As shown in Table 4.12, majority (88.6 percent) of the respondents indicated that their firms were private, 8.7 percent indicated their firms as parastatal and 2.8 percent indicated that their firms were public. Further, 100 percent of the respondents indicated that their firms were product providers.

Table 4.12: International Organisation for Standardization Certification

ISO Certification	Frequency	Percent
Public	7	2.8
Private	225	88.6
Parastatal	22	8.7
Total	254	100.0

Source: Author (2018)

The respondents were required to indicate the sectors of their organisation and the results are shown in Table 4.13 below. The study found out that majority (71.7 percent) of the respondents were in the manufacturing sector; 9.1 percent indicated commercial and services: 5.5 percent indicated agriculture sector; 3.9 percent

indicated education and research institutions; 3.5 percent indicated telecommunications, technology and utilities; 2.8 percent indicated energy and petroleum; and 2.0 percent of the respondents indicated that they were in the regulatory bodies sector. This implied that the firms were widely spread across sectors. The results further show that overwhelming majority of ISO firms are in manufacturing where they are involved in production, processing and merchandising of goods/services through use of labour force, equipment/tools and/or machines.

Table 4.13: Firms' Sectors

Firms' Sectors	Frequency	Percent
Manufacturing	182	71.7
Commercial and Services	23	9.1
Agriculture	14	5.5
Education and Research Institutions	10	3.9
Telecommunications , Technology and Utilities	9	3.5
Energy and Petroleum	7	2.8
Regulatory Bodies	5	2.0
Financial Institution	4	1.6
Total	254	100.0

Source: Author (2018)

4.7 Organisational Resources of ISO Certified Firms

The responses on organisational resources of ISO certified firms were based on a five Likert scale which ranged from 1 (strongly disagree) to 5 (strongly agree). Standard deviation was used to indicate the variation from the mean. The findings are tabulated in Table 4.14 below. The results show that the respondents agreed that adequacy of information in the organisation for decision-making had highest mean score. This implied that ISO certified firms were very strong in terms of openness and

transparency. The firms embraced the use of technology; firms had adequate equipment and structures in good condition to meet its mandate and firms had access to adequate natural resources it needed.

In addition, the firms are run based on values, ethics and integrity. There was willingness to take considerable initiative and risk in use of the firms' resources. There were adequate intangible assets to enable the firms' meet their mandates. Firms had adequate number and mix of human resources to serve their needs. Human needs formed part of the sources of the firms' decisions making and that the firms always considered what people required from them in decision-making. The overall mean score was 4.19, which implied that ISO certified firms in Kenya were strong in organisational resources. The spread about the mean was low (coefficient of variation = 11.2 percent) and therefore more consistent or less variable. From the study, skewness average score of organisational resources constructs was positively skewed (0.648) and was relatively near to zero, which clarified that the constructs were asymmetrical. Kurtosis values indicated that all the sub constructs have a flat peak (0.763). Most of the ISO certified firms have embraced technological resources, adequate working equipment and structures, enjoy presence of natural resources, own adequate intangible assets, and have adequate mix of human resources. Gakenia (2015) findings revealed that there was a positive significant effect of human capital on performance of mobile phone companies in Kenya. Cania (2014) findings are that human resources through the skills, behaviors and attitudes would be expected to achieve the required performance in the organization.

Table 4.14: Descriptive Statistics for Organisational Resources

Organisational Resources	Sample	Mean Score	Standard Deviation	Skewness	Kurtosis
There is adequate information in the organisation for decision-making	254	4.56	0.605	-1.021	0.029
Organisation embraces the use of technology	254	4.37	0.632	-0.480	-0.654
Organisation has adequate equipment and structures in good condition to meet its mandate	254	4.33	0.661	-0.490	-0.724
Organisation has access to adequate natural resources it needs	254	4.26	0.633	-0.281	-0.656
There is commitment to run the organisation based on values, ethics and integrity.	254	4.15	0.353	2.021	2.100
There is willingness to take considerable initiative and risk in use of the firms' resources	254	4.06	0.467	0.188	1.544
There are adequate intangible assets to enable the organisation meet its mandate	254	4.06	0.458	0.246	1.692
Organisation has adequate number and mix of human resources to serve its needs	254	4.05	0.463	0.185	1.632
Human needs form part of the sources of the organisation decisions making.	254	4.04	0.420	0.280	2.662
Organisation always considers what people require from it in decision-making	254	4.00	0.000		
Average scores	254	4.19	0.469	0.648	0.763

Source: Author (2018)

4.8 Values System of ISO Certified Firms

The responses on values system of ISO certified firms were based on five Likert scale. Standard deviation was used to indicate the variation from the mean. The findings are tabulated in Table 4.15 below. Respondents strongly agreed that work standards, laws and regulations were obeyed and maintained; there was honesty in all dealings; firms invested in sustainable community programs compatible with their goals; and firms structure allowed more authority at lower levels in both planning and

execution of work. This implied that ISO certified firms in Kenya were very strong in terms of power sharing, honesty, community commitment and the rule of law

Table 4.15: Descriptive Statistics for Values System

Values System	Sample	Mean Score	Standard Deviation	Skewness	Kurtosis
Work standards, laws and regulations are obeyed and maintained.	254	4.68	0.468	-0.762	-1.430
There is honesty in all dealings.	254	4.68	0.581	-1.634	1.627
Organisation invests in sustainable community programs compatible with its goals.	254	4.53	0.626	-0.995	-0.063
Organisation structure allows more authority at lower levels in both planning and execution of work.	254	4.50	0.652	-0.949	-0.214
There is mutual trust and respect in the organisation.	254	4.46	0.499	0.175	-1.985
All affairs are conducted with openness.	254	4.40	0.491	0.404	-1.851
People entrusted with resources in the organisation manage them properly.	254	4.39	0.490	0.438	-1.823
People appreciate each other's differences.	254	4.30	0.669	-0.432	-.774
Organization committed to managing activity in environmentally responsible manner.	254	4.18	0.866	-0.359	-1.575
Diversity and inclusivity is a major consideration in the firms' employment policy.	254	4.12	0.464	0.410	1.204
People generally enjoy their God-given, inherent, inalienable liberties and entitlements in the organisation.	254	4.09	0.293	2.789	5.825
Equal opportunities are given to all people.	254	4.06	0.243	3.619	11.185
Employees are dedicated to and proud of belonging to the organisation.	254	4.05	0.221	4.098	14.908
Accountability in the organisation belongs to the people who choose the responsibilities they want and are answerable for the results.	254	4.05	0.588	-0.008	-0.091
Organisation ensures that everyone has part to play in the management process and that they understand that part.	254	4.03	0.371	0.321	4.317
Work environment provides adequate income and opportunity for work enjoyment, happy living, subsistence, growth and respect for humanity.	254	4.02	0.402	0.158	3.267

There is harmony in the organisation.	254	4.01	0.295	0.230	8.728
Employees are involved in decisions related to their work and problem solving appropriate to their level.	254	4.00	0.000		
Organisation pursues environmental excellence by implementing best policies, systems and procedures	254	4.00	0.000		
Fairness and equity is observed in all dealings.	254	3.90	0.304	-2.639	5.005
Power and authority in the organisation is controlled and answerable.	254	3.90	0.304	-2.639	5.005
Average scores	254	4.21	0.420	0.106	2.441

Source: Author (2018)

The results also indicated that firms ensured that everyone had part to play in the management process and that they understood that part. The work environment provided adequate income and opportunity for work enjoyment, happy living, subsistence, growth and respect for humanity; there was harmony in the firms; employees were involved in decisions related to their work and problem solving appropriate to their levels; firms pursued environmental excellence by implementing best policies, systems and procedures to bring about a continual improvement in environmental management; fairness and equity was observed in all dealings; and agreed that power and authority in the firms was controlled and answerable.

The results in Table 4.15 had an overall mean score of 4.21. This implied that ISO certified firms in Kenya are strong in values system. The spread about the mean was low (coefficient of variation = 9.98 percent) and therefore more consistent or less variable. From skewness, the findings show that the average score of the values system constructs were positively skewed (0.106) and was very near to zero that clarified that the constructs were asymmetrical. Kurtosis values indicated that all the sub constructs had platykurtic distribution (2.441). The results are supported by

Salonek (2016) study which revealed that values are significant in guiding principles of executing the work plan of goals. Gorenak and Košir (2012) survey gave a revelation that there existed performance such as relationships with suppliers, employee productivity, return on assets, organizational reputation, number of costumers, added value, costs per employee, employee affiliation, absence from work, fluctuation of employees, as well as efficiency in client proceedings are statistically significant to organizational values.

4.9 Management Capabilities of ISO Certified Firms

The responses on management capabilities of ISO certified firms in Kenya were based on a five Likert scale. Standard deviation was used to indicate the variation from the mean. The findings as shown in Table 4.16 above, indicated that respondents strongly agreed that leaders helped in creating harmony in the firms; customers' complaints were responded promptly; work was accomplished through self-managed teams in identifying and solving problems; leaders' support and direct changes for progress; technology was used to empower rather than control employees; and leaders practiced what they said employees. There were open, two-way communication systems employees; and there were alliances across the firms' boundaries for service delivery.

In addition, the respondents agreed that compensation and rewards were tied to individual, team and firms' performance; there were ways to resolve conflict whenever they arise; processes were continuously redesigned to improve customer service, reduce costs, eliminate waste and respond quickly to business opportunities and threats; complaints were treated as opportunities to learn; employees got work that was challenging, interesting and motivating; and firms' changes were

accomplished by promoting willingness to experiment with new ideas without the feeling of being punished for failures or losses. Ideas for service and quality improvement from employees were positively valued and rewarded; targets set were capable of achievement and further improvement; and employees got tools and technology, information and authority to act in the service of the organisation.

Table 4.16: Descriptive Statistics for Management Capabilities

Management Capabilities	Sample	Mean Score	Standard Deviation	Skewness	Kurtosis
Leaders help create harmony in the organisation.	254	4.99	0.089	-11.202	124.468
Customer complaints are responded promptly.	254	4.80	0.404	-1.472	0.169
Work is accomplished through self-managed teams in identifying and solving problems.	254	4.70	0.702	-1.998	2.056
Leaders' support and direct changes for progress.	254	4.69	0.465	-0.801	-1.368
Technology is used to empower rather than control employees.	254	4.68	0.581	-1.634	1.627
Leaders practice what they say.	254	4.57	0.660	-1.244	0.303
There is an open, two-way communication system.	254	4.53	0.500	-0.127	-2.000
There are alliances across the organisation boundary for service delivery.	254	4.53	0.500	-0.127	-2.000
Compensation/ reward is tied to individual, team and organisation performance.	254	4.35	0.635	-0.464	-0.666
There are ways to resolve conflict whenever they arise.	254	4.35	0.635	-0.464	-0.666
Processes are continuously redesigned to improve customer service, reduce costs, eliminate waste and respond quickly to business opportunities and threats.	254	4.30	0.457	0.903	-1.194
Complaints are treated as an opportunity to learn.	254	4.27	0.563	-0.033	-0.473
Employees get work that is challenging, interesting and motivating.	254	4.27	0.563	-0.033	-0.473
Organisation change is accomplished by promoting a willingness to experiment with new ideas without the feeling of being punished for failures or losses.	254	4.24	0.634	-0.242	-0.643

Targets set are capable of achievement and further improvement.	254	4.20	0.398	1.534	0.356
Employees get tools and technology, information and authority to act in the service of the organisation.	254	4.16	0.584	-0.038	-0.239
Feedback from customers is delivered directly and immediately to the individuals and teams who need it to improve performance.	254	4.10	0.414	0.698	2.228
Technological innovation is used to change the base of competition and achieve competitive advantage.	254	4.09	0.583	-0.011	-0.090
Immediate action is taken with top priority to identify and resolve the root cause of the problem if quality deteriorates.	254	4.06	0.523	0.070	0.650
Employees have learning opportunities in appropriate work skills and service quality concepts.	254	4.05	0.357	0.698	4.609
Systems are designed to detect and correct errors at source, rather than at a later stage.	254	4.05	0.357	0.698	4.609
Technology is used to interact with and manage customer relations.	254	4.04	0.493	0.090	1.128
There are customer satisfaction indicators for External customer.	254	4.03	0.371	0.321	4.317
Teams cooperate with each other and are aligned with the vision and mission of your organisation.	254	4.03	0.371	0.321	4.317
Leaders set aggressive targets beyond incremental improvements.	254	4.02	0.417	0.106	2.844
Leaders communicate quality values.	254	4.00	0.000		
Controls are less emphasized as people are expected to take personal responsibility for their choices.	254	4.00	0.000		
There are customer satisfaction indicators for internal customer.	254	4.00	0.000		
Operations, employees and service are effectively integrated in the form of a network of capabilities to meet customer expectations.	254	4.00	0.000		
Quality policy is practiced at all levels not just aspirations or lofty goals in statements.	254	3.86	0.349	-2.067	2.289
Employees use quality control tools and techniques in their workplace.	254	3.80	0.404	-1.472	0.169
Average Scores	254	4.11	0.419	-0.508	4.538

Source: Author (2018)

Feedback from customers was delivered directly and immediately to the individuals and teams who needed it to improve performance; technological innovation was used to change the base of competition and achieve competitive advantage; and immediate actions were taken with top priority to identify and resolve the root causes of the problems if quality deteriorated. Employees had learning opportunities in appropriate work skills and services quality concepts; systems are designed to detect and correct errors at source, rather than at a later stage; technology was used to interact with and manage customer relations; there were customer satisfaction indicators for external customer; teams cooperate with each other and are aligned with the vision and mission of your organisation; and leaders set aggressive targets beyond incremental improvements; leaders communicated quality values; controls were less emphasized as people were expected to take personal responsibility for their choices; there were customer satisfaction indicators for internal customer; and operations, employees and service are effectively integrated in the form of a network of capabilities to meet customer expectations.

The results in Table 4.16 above show that the overall mean score was 4.11. This implied that ISO certified firms in Kenya have strong in management capabilities. The spread about the mean is low (coefficient of variation = 10.2 percent) and therefore more consistent or less variable. From skewness, the average score of the management capabilities constructs was negatively skewed (-0.508) that indicated that the constructs were asymmetrical. Kurtosis value indicated that all the sub constructs had leptokurtic distribution (4.538). Nalcaci and Yagcib (2014) study found out that resources and marketing capabilities are main components of companies involved in manufacturing processes that play major roles in the export performance. Chiu and

Chen (2016) found that significant relationship only existed between knowledge process capabilities and organizational effectiveness.

4.10 Performance of ISO Certified Firms

The responses performance of ISO certified firms in Kenya were on a five Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Standard deviation was used to indicate the variation from the mean. The findings in Table 4.17 below, respondents agreed that customers increasing patronize the organisation due to its high quality products and services; employees were happy to belong to the organisation; the processes for product delivery were efficient and effective; firms innovated for growth; and organisation enjoyed goodwill from the community. Organisation published a sustainability performance report annually; firms carried out annual environmental audits of all operations; firms were viable and generated more income than they spent in order to exist; firms were viable and spent most or all the allocated funds to achieve the goals for which they existed; firms used capital in order to gain the greatest returns; and firms were more concerned with long term rather than short-term agendas.

Table 4.17: Descriptive Statistics for Performance

Performance	Sample	Mean Score	Standard Deviation	Skewness	Kurtosis
Customers increasing patronize the organisation due to its high quality products and services.	254	4.40	0.490	.421	-1.837
Employees are happy to belong to the organisation.	254	3.93	0.360	-0.938	4.198
Processes for product delivery are efficient and effective.	254	4.17	0.530	0.150	0.168
Organisation innovates for growth.	254	4.12	0.464	0.410	1.204
Organisation enjoys goodwill from the community.	254	4.20	0.398	1.534	0.356
Organisation publishes a sustainability performance report	254	4.05	0.357	0.698	4.609

annually.					
Organisation meets the needs of the present generation without compromising the ability of future generations to meet their needs.	254	4.27	0.563	-0.033	-0.473
Organisation carries out annual environmental audits of all operations.	254	4.35	0.635	-0.464	-0.666
Organisation is viable and generates more income than it spends in order to exist. (for profit organisation) or	254	4.53	0.500	-0.127	-2.000
Organisation is viable and spends most or all its allocated funds to achieve the goals for which it exist (for not-for-profit organisation).	254	4.00	0.000		
Organisation uses capital in order to gain the greatest return.	254	4.03	0.371	0.321	4.317
Organisation is more concern with long term rather than short-term agenda.	254	4.40	0.490	0.421	-1.837
Average Scores	254	4.204	0.430	0.199	0.670

Source: Author (2018)

The results in Table 4.17 showed an overall mean score of 4.20. This implied that ISO certified firms in Kenya have strong in performance. The spread about the mean was low (coefficient of variation = 10.23 percent) and therefore more consistent or less variable. The data distribution was asymmetrical - skewness and kurtosis values were 0.199 and 0.670, respectively. Thus, the peakedness was platykurtic and the distribution was positively skewed. Özçelika, Aybasb and Uyargil (2016) findings indicated that management of human resource capabilities were essential in creating attraction, employee development, selection, retention, as well as motivation of labour force in any given organization. Wilden, Gudergan and Lings (2010) study revealed that strategic orientation of marketing was found to play a key role in both development and deployment of dynamic capabilities of which eventually have an indirectly effect on performance . Ombaka, Machuki and Mahasi (2015) They found that external environment and innovation were found to have independent effect on performance.

The study used an open-ended item asked the respondents to list three important issues of concern to them about the firms' performance. Out of the responses, the key concerns were identified as communication mode used the firms, employee motivation, conflict resolution, delays in disbursements and budgetary constraints. Further, the researcher requested the respondents to list three suggestions for performance improvement and out of the responses, the key suggestions for performance improvement were given as employee engagement, training, development programs, adoption of competitive differentiation strategies, timely disbursement of grants and adequate budgetary support.

Responses of Average Ratios

Liquidity ratios assess short-term financial position. They include current ratio, comprehensive liquidity index and quick ratio. These ratios, measure organizations' ability to meet its current obligations, the higher the better. The study findings are given in appendix IV, which include results of the three types of liquidity ratio (current ratio (R9), comprehensive liquidity index (R10), and quick ratio (R11) for the target organizations by sectors. The results are further analyzed separately in tables 4.19 to 4.21 below.

The current ratio is a liquidity ratio that was used by this study to determine whether or not a given ISO certified organization had adequate resources which could enable it to meet its short-term obligations. It was used for comparison of organization's current assets and current liabilities. The study determined the current ratio of selected organizations.

From the findings given, it can be seen that most (41 percent) of the organizations had reported a current ratio of greater than two, 29 percent of the organizations gave a current ratio of less than one, 22 percent provided a current ratio of greater than one, while 8 percent indicated that they were equal to one. Overall 71 percent of the organizations under study provided a current ratio of one and above. Whether or not this degree of liquidity is adequate will depend on the degree of operating risk that is prevalent in the organizations' sector of operation. The reported overall results of 71 percent, indicated the current assets exceeded current liabilities, which means that there is sufficient potential cash invested in current assets and that cash could be released fairly easily to repay or settle current liabilities should any of the organizations have liquidity problems and therefore an implication that management has adequately protected creditors as stakeholders.

The study used a liquidity index in calculating the number of days necessary in conversion of trade receivables and inventory of a given ISO certified into cash. This index was utilized in estimation of the capabilities of a firm to make cash required to counter current liabilities. From the results provided, it can be revealed that majority (48 percent) of the ISO certified organizations under investigation, had a comprehensive liquidity index of less than one, 37 percent had of them gave comprehensive liquidity index of greater than two, 11 percent had a liquidity index of greater than one, and 4 percent indicated a liquidity index equal to one.

Overall 52 percent of the organizations researched on provided a comprehensive liquidity index of one and above and therefore, it can be assumed that whether or not this degree of liquidity is adequate will depend on the degree of operating risk that is prevalent in the organizations' sector of operation. The fact that in this overall 52

percent the current assets exceed current liabilities means there is sufficient potential cash invested in current assets and that cash could be released fairly easily to repay or settle current liabilities should any of the organizations have liquidity problems. This implies that management has adequately protected creditors as stakeholders.

Quick ratio also known as acid-test is normally used to estimate the capability of an organization to utilize its near quick assets or cash to extinguish or retire its current liabilities immediately. Quick assets are comprised of the current assets, which are assumed to be converted quickly into cash at close to their book values. Any organization with an acid-test or quick ratio of less than 1 might not be in position to pay back its current liabilities in full. The application of this ratio in the study was of greater value as it is one of the most appropriate and reliable tool used to assess liquidity position of organizations. The results indicate that the quick ratio for the majority of organizations was 41 percent greater than two, 22 percent of them indicated that it was greater than one, while 37 percent were less than one.

Overall 63 percent have a quick ratio above one. Again, whether or not this degree of liquidity is adequate will depend on the degree of operating risk that is prevalent in the organizations' sector of operation. From the observation of the findings given, it can as well be seen that the current assets exceeded current liabilities, meaning that there is sufficient potential cash invested in current assets and that cash could be released fairly easily to repay or settle current liabilities should any of the organizations have liquidity problems. This implies that management has adequately protected creditors as stakeholders. Therefore, would imply that ISO certified organizations are in a majority able to meet their short-term and long-term obligations as they fall due.

Solvency ratios assess the ability of the organization to meet long-term liabilities at maturity and cover interest regularly. Debt ratio and interest cover measure the degree of protection of long-term lenders. The study findings are given in appendix IV, which includes the two types of solvency ratios (debt ratio (R8) and interest cover (R12) for the target organizations by sectors. The results are further analyzed separately in tables 4.22 and 4.23.

Debt ratio which is also referred to as debt to assets ratio, was used in the current study to help in the measurement of debt level of a particular organizations under survey as a percentage of its total assets. Debt ratio was handy in determining the percentage of total assets which were being financed by debt and therefore, assisted in assessment of sustainability of the ISO certified organization. In the case where the percentage was too high, could therefore indicate that that organization experiences difficult in continuation of its operations as well as paying off its debts.

The results of debt ratio of eight firms out of the twenty seven from which the survey was done, had a debt ratio of greater than 75 percent with a representation of 30 percent. This was followed by those organizations of debt ratio of 25 percent and below which provided a representation of 29 percent. The firms with debt ratio of greater than 25 percent to 50 percent gave an estimation of 22 percent while those with debt ratio of greater than 50 percent to 75 percent had 19 percent. This could imply that a total of 70 percent of the ISO certified organizations under investigation had a sustainable debt management position.

Interest coverage ratio can also be referred to as debt service ratio, interest coverage or debt service coverage ratio. It aids in measurement of organization's ability to meet

its interest payments. This ratio was used by this study to determine the number of times a given ISO certified organization was able to make interest payments on its debt with its earnings before interest and taxes. Therefore, can be a measure of how an organization can easily pay interest expenses on outstanding debt. The results gotten from the available records indicate that interest coverage ratio for the majority (48 percent) of the ISO certified organizations was between zero and one times, 44 percent of them had an interest cover ratio of greater than one times, while 8 percent of the ISO certified organizations provided an interest cover ratio of below zero. This is to mean that an overall 92 percent of the organizations comfortably covered their interest obligations and therefore, an implication that most of the ISO certified organizations successfully cover their debt obligations.

Activity or turnover ratios indicate how effectively the organization uses its resources to generate revenue or deliver services. Accounts receivable turnover, inventory turnover, accounts payable turnover and total asset turnover measure the efficient use of organizations' assets. The study findings are given in appendix IV, which includes the four types of activity ratios (total asset turnover (R13), receivables days (R14), inventory days (R15) and payables days (R16) for the target organizations by sectors. The results are further analyzed separately in tables 4.24 to 4.25 below.

The total asset turnover ratio was used in this study as a measurement of organization's capacity to generate sales from its assets through comparison of net sales and average total assets. Thus, the ratio aided in showing how efficiently a given ISO certified organizations are able to utilize its assets in sales generation. The study findings revealed that the total asset turnover for the majority (78 percent) of the ISO certified organizations was less than one times, 15 percent of them had an asset

turnover of between one and two times, and a few (7 percent) had a total asset turnover of greater than two times. Judging from the outcomes it was clear that total assets to turnover for majority of the ISO certified organizations in Kenya takes more than a year to generate revenue.

Accounts receivable turnover can be explained as the annual number of times of an organization collects its average accounts receivable. The study used this ratio to aid in evaluation of the ability of a given ISO certified organization to issue credit efficiently to its customers as well as the collection of funds within a given period. The findings of the study have revealed that the receivables collection days for the majority (56 percent) was between zero and 30 days, 18 percent of the organization collected their receivables in greater than 90 days, 15 percent were between 60 and 90 days while 11 percent were between 30 and 60 days. An indication that many of the ISO certified organizations in Kenya collect from their debtors within a year, most of which is within 30 days.

The study employed the use of inventory turnover ratio as a measurement of number of times of which an inventory has been sold and replaced (turned over) within the year. It was used because is a good indicator to the quality of a given inventory. It helps in telling whether the inventory is obsolete or not, ensures buying practice that are efficient as well as management of inventory.

Majority (89 percent) of the ISO certified organizations turned over their inventory in between zero and 30 days, 7 percent inventory turnover were between 30 and 60 days, while 1 percent were greater than 90 days. This indicates that majority of the ISO certified organizations have inventory systems which seem to be effective and

efficient. Therefore, the assessment of organizations' inventory turnover was essential since each time such turnover occurs, gross profit is earned.

The study further used accounts payable turnover ratio in evaluation of how fast a given ISO certified organization can pay off its suppliers (creditors). This ratio was employed to indicate the number time an organization pays its average accounts payable in a given period based on annual records or accounting period. It was as well, used to determine the incoming cash flow of organizations, as it displays the way in which firms handle their outgoing payments. The results indicate that the accounts payables settlement days for the majority (44 percent) of the ISO certified organizations were carried within 30 days, 19 percent were more than 90 days, 19 percent were between 30 to 60 days and 19 percent were between 60 to 90 days. This implies that a majority of the organizations settle their short-term obligations within a month.

Profitability ratios assess performance by assessing changes in profit. Return on investment; return on equity and net profit margin measure the earning ability of the organization. Expense measures waste management. The study findings are given in appendix IV, which includes the six types of profitability ratios (return on capital employed (R2), return on investment (R3), return on equity (R4), net profit margin (R5), expense ratio (R6) and human resources effectiveness ratio (R7) for the target organizations by sectors.

Under profitability ratios, the study used Return on Capital Employed (ROCE) to estimate how efficiently an ISO certified organization in Kenya can make profits from its capital employed by comparing net operating profit to capital employed. ROCE

being one of the long-term ratios that measures performance/profitability it normally indicate the effectiveness of performance in terms of assets of organizations.

It can therefore be deduced that majority (48 percent) of the ISO certified organizations had return on capital employed of greater than 10 percent, 26 percent of the organizations were between zero and 5 percent, 15 percent were between 5 percent and 10 percent while 11 percent were below zero. This gives an overall positive ROCE of 96 percent. Thus, an implication that majority of organizations are successfully using their assets to achieve their purpose.

Return on Investment (ROI) ratio is a measure of performance that was used by this study in evaluation of the investment efficiency or rather applied in making comparisons of the efficiency of investments made by various ISO certified organizations under investigation. Based on the frequency results, majority (56 percent) of the ISO certified organizations from which data was collected reported a ROI of between zero and 5 percent, 26 percent of them provided a ROI of greater than 10 percent, 7 percent of these organizations obtained a ROI of between 5 percent and 10 percent, while 11 percent gave a ROI of below zero. Generally, there was an overall positive ROI of 89 percent, and therefore an indication that effective use of resources to cover all expenses with a margin of reasonable compensation for the owners for putting their capital at risk and with withal for community programmes.

Return on Equity (ROE) also referred to as return on shareholders' equity, is a ratio that was utilized by the study to get the estimations on return rates received by shareholders on the investments made in ISO certified organizations. This ratio came in handy as it helped in giving a revelation on the earnings of the ISO certified

organizations and therefore, an essential indicator of the effectiveness of organizations management team in utilization of equity in funding their operations as well as growth.

It can be seen that 52 percent of the ISO certified organizations under study obtained a ROE of greater than 10 percent. Similarly, 22 percent had a ROE of between zero and 5 percent, 11 percent were between 5 percent and 10 percent, while 15 percent obtained a ROE of below zero. Thus, an overall positive ROE obtained by organizations was 85 percent. This could therefore indicate that profitable operations build up owners' equity. It is understood that a good number of potential and existing investors would prefer a high ratio of ROE, as it is an indication that a given organization is utilizing the funds invested efficiently.

The use of net profit margin was essential in looking at how much revenue of ISO certified organizations kept as net income. Net profit margin is among the best methods used to gauge whether the business of any given organization is profitable or not. The study conducted a frequency analysis and the responses. From the results it is clear that net profit margin for the majority (51 percent) of the organizations was greater than 10 percent, 19 percent of them obtained a net profit margin of between 5 percent and 10 percent, 19 percent of them were between zero and 5 percent, while 11 percent of the ISO certified organizations were below zero. An overall outcome of 89 percent positive net profit margin was obtained by the organizations. This implies that a majority of organizations have operations that are cost/price effective.

The expense ratio also known as asset fund is the fund assets' overall percentage used in advertising, management, administrative, as well as any other expenses and this ratio does not take into account brokerage commissions or sales loads. The ratio was

utilized by this study as was found to be essential in selection of a fund of an organization, since it can affect returns significantly.

The research findings has a presumption that 52 percent of the ISO certified organizations under study had an expense ratio of between 75 percent to 100 percent, 26 percent of the organizations had an expense ratio of between 50 percent and 75 percent, 7 percent of them had an expense ratio of between 25 percent and 50 percent, 4 percent were between zero and 25 percent, while the expense ratio of remaining 11 percent exceeded 100 percent. Therefore, reporting most of the ISO certified organizations show cost containment to an estimate of 89 percent. A lower ratio indicates improvement in resources used.

Majority (67 percent) of the ISO certified organizations were within 25 percent, 19 percent of them were between 25 percent and 50 percent and 14 percent were between 50 percent and 75 percent. A low cost-to-hire reported in most of the organizations is an indication that they had an efficient human resource system. This can be lauded by majority (67 percent) of the organization who had a human resource effectiveness analysis of zero to 25 percent and therefore an implication that they successfully managed their wage bill for productivity.

However, the remaining 33 percent should not be ignored as they represent the presence of a hiring decision which might be inefficient and this could sometimes be very effective as compared to an efficient one since despite the organizations reporting high cost-to-hire, they may on other hand reap well when they hire the best talents and skills available.

Bankruptcy ratios assess the likelihood of an organization collapsing. The study findings are given in appendix IV, which includes the bankruptcy ratio (Fulmer H-factor (R1) for the target organizations by sectors. The Fulmer H Factor can also be referred to as Fulmer H Score and is a model used in classification of bankruptcy of any given organization. This model states that if the Fulmer H Factor score is below zero, then an organization or a company is supposed to be classified to be bankrupt, and if this score is well above zero then should be otherwise.

The findings indicate that majority (74 percent) of the ISO certified organizations provided a positive Fulmer H score, while 26 percent of them had a negative one. This could clearly imply that a majority of organizations have successfully deployed resources coupled with management capabilities and values system for the purpose of creating value addition.

It was interesting to know the overall mean of ratios/factors used in this study to analyze the records gotten from secondary sources of the ISO certified organizations. Table 4.18 gives a summary of the main ratios of factors used to gauge organizational resources, values system and management capabilities on performance of ISO certified organizations in Kenya. The table demonstrates the average number of observations of each factor/ratio as used in the study. The results on the Fulmer H score of ISO certified organizations indicates that the organizations were stable as they provided a mean Fulmer H score of 2.51 and therefore is considered to be fit since it is above the critical margin of zero.

Table 4.18: Summary Means of Ratios

Ratio	Ratio Type	Critical	Mean	Comment

Code		Value	Ratio	
R1	Fulmer H-factor analysis	> 0	2.51	Solvent
R2	Return on capital employed	> 0	0.16	Profitable
R3	Return on investment	> 0	0.06	Profitable
R4	Return on equity	> 0	0.14	Profitable
R5	Net profit margin	> 0	0.15	Profitable
R6	Expense ratio	> 0	0.79	Profitable
R7	Human resource effectiveness	≤ 0.35	0.23	Efficient
R8	Debt ratio	≤ 0.50	0.50	Solvent
R9	Interest cover	> 1	20.14	Solvent
R10	Current ratio	≥ 1	2.81	Liquid
R11	Comprehensive liquidity index	≥ 1	2.39	Liquid
R12	Quick ratio	≥1	2.62	Liquid
R13	Total assets turnover	> 1	0.71	Efficient
R14	Accounts receivable turnover	≤60	50 days	Efficient
R15	Inventory turnover	≤30	11 days	Efficient
R16	Accounts payable turnover	≤ 90	106 days	Efficient

Source: Author (2018); Lovemore and Brummer (2003).

The overall estimation on efficiency of the Return on Capital Employed (ROCE) in ISO certified firms in Kenya, it is revealed that on average these organisation have a mean of 0.16 in capability of making profits from its capital employed. Return on Investment had an average ratio of 0.06, and return on Equity provided a mean ratio of 0.14. The mean score for net profit margin of ISO certified firms in Kenya was 0.15. Furthermore, the results on expense ratio indicate that on average, ISO certified firms in Kenya use 0.79 of their resources in advertisement, management, administrative as well as any other expenses. The human resource effectiveness has a

mean of 0.23 which could imply that in general the firms spent less cost in hiring. The results also reveal a mean of 0.50 as the total assets that were being financed through debts and this shows that ISO certified firms in Kenya have stable management position, particularly for those firms that borrowed judiciously.

The firms were also found to cover their interest obligations on a mean of 20.14. In addition, the overall mean of the current ratio is 2.81 and that the firms estimated their capabilities of making cash required to counter current liabilities with a comprehensive liquidity index mean of 2.39. Similarly, organisation demonstrated an ability to pay back their current liabilities in full as they provided a mean quick ratio of 2.62 which is a far beyond the required threshold of critical value of less than 1. The average total asset turnover of ISO certified firms in Kenya 0.71. On average ISO certified firms in Kenya collect from their debtors within 50 days and turn over their inventory within 11 days. The settlements of accounts payable turnover were carried within an average of 106 days.

The study confirms the finding by Odhiambo (2017) in the study of the firms listed at the Nairobi Stock Exchange that managers judiciously finance some of their firm's assets with borrowed funds to benefit from debt holders monitoring to improve their firm's performance. He further confirmed that firms that use debt are better managed than those that avoid it due to the enhanced corporate governance and that debt disciplines managers which forces managers to take action that add value to the firm. He also categorized firm's into-high debt usage having assets financed by 45 percent to 204 percent of debt, medium debt usage with 35 percent to 44 percent and low debt usage with 0 to 34 percent. Medium debt firms were found to outperform the others

because use of debt alleviates agency costs to improve firm performance and managers and investors look at performance in determining amount to borrow or lend. The study also confirmed the works of Du Pont (1989), as cited in Shim, Siegel and Simon (2004) that organisation can raise shareholder return by employing leverage-taking on larger amounts of debt to finance growth.

4.11 Construct Validity-Organisational Resources, Values System, Management Capabilities and Performance

The study carried out factor analysis which helped in reduction of variables that were being measured and/or observed to smaller number of latent variables which tend to have commonality of variances (Knott & Moustaki, 2011). This method deemed fit for this study as it is an interdependence technique which involves the estimation of variables with interdependence relationships. This method involves constructs which have underlying dimensions that can be used to describe the associations among a group of variables (Watkins, 2018). This study used factor analysis to create a small number of factors (organisational resources, values system, management capabilities and performance) from a large number of variables/indicators. These factors were then used for further analysis. The factors were grouped into four constructs: organisational resources, values system, management capabilities and performance. Each construct had at least three indicators for each latent variable in the factor analysis models.

Table 4.19: Confirmatory Factor Analysis Model

Constructs	Estimate	Standardized Estimate	S.E.	Critical Ratio C.R.	P Label

Performance	1	0.853			
Values System	0.968	0.877	0.075	12.865	***
Management Capabilities	0.889	0.833	0.076	11.774	***
Organisational Resources	0.839	0.720	0.089	9.39	***

Source: Author (2018)

From the Table 4.19 above, these four observed constructs load favorably on the common factor given a standardized regression weights above 0.7: organisational resources = 0.720, values system = 0.877, management capabilities = 0.833, performance = 0.853. The critical ratio and significance of path coefficients of above 1.96 and below 0.05 indicated that the estimated path parameters were significant.

4.12 Association between Organisation Resource, Values System, Management Capabilities and Organisation Performance

It was essential to conduct correlation tests to determine the existence, strength and direction of the linearity between the study variables, specifically among the various measures of each variable and performance of ISO certified firms before further inferential analysis was conducted. This was to facilitate selection of measures that would be used to represent the variables.

Correlation coefficients ranging from 0.00 to 0.10 represent no correlation. 0.11 to 0.29 represent weak correlation, 0.30 to 0.69 represent moderate correlation, 0.70 to 0.89 represent strong correlation and 0.90 to 0.98 represent very strong correlation. In order to establish the relationship between organisation resource, values system, management capabilities and ISO certified firms' performance, a correlation analysis using Pearson Product moment correlation technique was conducted to determine the

strength and direction of the relationship between these study variables. The results of the relationship after excluding outliers are summarized in Table 4.20 below.

Table 4.20: Association between Organizational Resource, Values System, Management Capabilities and Organization Performance

Variables		Organizational Resources	Values System	Management Capabilities	Organizational Performance
Organisational resources	Pearson Correlation	1	.319**	-.473**	-.352**
	Sig. (2-tailed)		.000	.000	.000
Values system	Pearson Correlation	.319**	1	-.450**	-.304**
	Sig. (2-tailed)	.000		.000	.000
Management capabilities	Pearson Correlation	-.473**	-.450**	1	.830**
	Sig. (2-tailed)	.000	.000		.000
Performance	Pearson Correlation	-.352**	-.304**	.830**	1
	Sig. (2-tailed)	.000	.000	.000	

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

Source: Author (2018)

The results indicate that the relationship between organisation resources and ISO certified firms performance was negative and statistically significant at 0.01 level (R = -0.352). Further, the relationship between organisation resources and management capabilities was negative and significant at 0.01 level (R = -0.473). Similarly, the relationship between values system and ISO certified firms performance was negative and significant at 0.01 level (R = -0.304).

In addition, the relationship between values system and management capabilities was negative and significant at 0.01 level (R = -0.450). However, the relationship between management capabilities and ISO certified firms performance was strong, positive and statistically significant at 0.01 level (R = 0.830). In addition, the relationship between organisation resources and values system was positive and significant at 0.01 level (R = 0.319). Since the relationships were significant, further analysis using inferential statistics was done.

4.13 Test of Hypothesis

Testing of the hypotheses to establish the relationships was done using simple and multiple linear regressions. The study tested four hypotheses which included: H_{01}: Organisational resources have no significant influence on performance of ISO certified firms in Kenya; H_{02}: Values systems have no significant moderating influence between organisational resources and performance of ISO certified firms in Kenya; H_{03}: Management capabilities have no significant mediating influence between organisational resources and performance of ISO certified firms in Kenya; and H_{04}: Organisational resources, values system and management capabilities have jointly no significant influence on the performance of ISO certified firms in Kenya.

4.13.1 H_{01}: Organizational Resources and Performance

The first objective of the study was to determine the relationship between organization resources and performance of ISO certified firms. To achieve this objective, the following hypothesis was formulated and tested; *H_{01}: organisational resources have no significant influence on performance of ISO certified firms in Kenya*. The composite index of the organisation resources dimensions and ISO

certified firms' performance was computed and a regression analysis performed to establish the influence of organisation resources on ISO certified firms' performance. The relevant results are shown in Table 4.26 below.

Table 4.21: Model Summary, Analysis of Variances and Coefficients for Organizational Resources and Organizational Performance

Model	1. Model Summary					
	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.352[a]	0.124	0.120	0.18946		
	2. Analysis of Variances					
		Sum of Squares	df	Mean Square	F	Sig.
	Regression	1.278	1	1.278	35.595	.000[b]
	Residual	9.046	252	.036		
	Total	10.324	253			
	3. Coefficients					
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	5.713	.253		22.553	.000
	Organizational resources	-.360	.060	-.352	-5.966	.000
a. Dependent Variable: Organizational performance						
b. Predictors: (Constant), Organizational resources						

Source: Author (2018)

From regression analysis, the R-squared was 12.4 percent, thus, organisational resources explains 12.4 percent of the variations in performance ($R^2 = 0.124$). The *p* – value of the *F* – statistics (35.595) is 0.000 therefore we reject the null hypothesis that organisational resources have no significant influence on performance of ISO certified firms in Kenya.

From the Table 4.21 above, the estimated regression coefficient shows that organisation resources have a significant but negative effect since it provided an

acceptable t – value of >+-1.96 and a p – value <0.05. This could mean that a reduction in organisation resources could lead to 36% increase in performance of ISO certified firms. Therefore, organisational resources had a significant influence on performance of ISO certified firms in Kenya.

4.13.2 H_{02}: Values System, Organisational Resources and Organizational Performance

The second objective of the study was to determine the influence of values systems on the relationship between organisational resources and performance of ISO certified firms in Kenya. To achieve this objective, the following hypothesis was formulated and tested; *H_{02}: values system had no significant moderating influence on the relationship between organisational resources and performance of ISO certified firms.* The study investigated the moderating regression by adding an interaction term and this was achieved by first regressing organisational resources and values system measures and single item indicator representing the product of the two measures calculated. The two factors were standardized to have mean zero and standard deviation one as illustrated in Table 4.22 below.

Table 4.22: Model Summary, Analysis of Variances and Coefficients for Values System, Organizational Resources and Organizational Performance

1. Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.388[a]	.150	.143	.18769	.150	20.959	2	237	.000

2	.506[b]	.256	.247	.17600	.106	33.534	1	236	.000
2. Analysis of Variances									
Model		Sum of Squares	Df	Mean Square	F	Sig.			
1	Regression	1.477	2,237	.738	20.959	.000b			
	Residual	8.349		.035					
	Total	9.826	239						
2	Regression	2.516	3236	.839	27.069	.000c			
	Residual	7.310		.031					
	Total	9.826	239						
3. Coefficients									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.			
		B	Std. Error	Beta					
1	(Constant)	8.104	.751		10.791	.000			
	Organizational resources	-.260	.065	-.253	-4.009	.000			
	Values system	-.663	.187	-.224	-3.541	.000			
2	(Constant)	6.816	.738		9.231	.000			
	Organizational resources	-.380	.064	-.370	-5.918	.000			
	Values system	-.245	.190	-.083	-1.290	.198			
	Moderator	.068	.012	.359	5.791	.000			
a. Predictors: (Constant), Values system, Organizational resources									
b. Predictors: (Constant), Values system, Organizational resources, Moderator									
c. Dependent Variable: Organizational performance									

Source: Author (2018)

The model shows that there was change in explanatory power of the model upon addition of the moderating variable by a 0.106 positive change in *R*-Square. This was also represented by *F* change from 20.959 to 33.534 and was significant with a *p*-value of 0.000. With the introduction of the moderator, *F*-value = 20.595, and *p*-value = 0.001; change in *F*-value = 27.069 and *p*-value = 0.001, which meant that the regression model was significant and there was moderation effect. This implied that values system moderated the relationship between organisational resources and performance and the null hypothesis was therefore rejected.

Upon moderation, the findings show that organizational resources were still affecting firm performance negatively. From this equation, a unit decrease in organisation resources would lead to an increase in the performance of ISO certified firms by 38%.

However, values system did not seem to have significant effect on performance of ISO certified firms. Furthermore, the moderation effect of value system on relationship between organizational resources on performance of performance of ISO certified firms can occur to a margin of 6.8% (t – value = 5.791, p = 0.000). The model that moderating variable positively influenced the relationship between organisational resources and performance of ISO certified firms in Kenya.

4.13.3 H_{03}: Management Capabilities, Organisational Resources and Performance

The third objective of the study sought to establish the influence of management capabilities on the relationship between organisational resources and ISO certified firms' performance. To achieve this objective, the following hypothesis was formulated; *H_{03}: management capabilities had no significant mediating influence between organisational resources and performance of ISO certified firms in Kenya.* In-order to determine the influence of management capabilities on the relationship between organisational resources and ISO certified firms performance, organisation resources was first regressed on management capabilities and the results are summarized in Table 4.23 below.

Table 4.23: Model Summary, Analysis of Variances and Coefficients for Organizational Resources and Management Capabilities

1. Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.473[a]	.223	.220	.11715	
2. Analysis of Variances					

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.947	1	.947	68.985	.000b
	Residual	3.294	240	.014		
	Total	4.241	241			
3. Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.681	.172		33.093	.000
	Organizational resources	-.339	.041	-.473	-8.306	.000
a. Predictors: (Constant), Organizational resources						
b. Dependent Variable: Management capabilities						

Source: Author (2018)

From the findings, the value of R-Square was 0.223 an indication that there was variation of 22.3 percent on management capabilities due to changes in organisational resources. This indicated that 22.3 percent changes in management capabilities was accounted for by changes in organisational resources and therefore organisational resources had a moderate relationship with management capabilities.

From ANOVA statistics, the overall model was significant (p-value less than alpha value) and thus the null hypothesis was rejected - management capabilities had significant mediating influence between organisational resources and performance of ISO certified firms in Kenya. The management capabilities were found to have a negative effect on organizational resources where the variable (organisation resources) was statistically significant (p-value <0.05). This could therefore indicate that lesser resources can well be managed efficiently as compared to larger number of resources. The results of *F* – statistics consequently imply that the null hypothesis should be rejected.

In the second step, a regression analysis to assess the mediating effect of management capabilities on the relationship between organisation resources and ISO certified firms' performance was conducted. In this step, organisational resources were treated as the independent variable and ISO certified firms' performance as the dependent variable. The results are shown in Table 4.24 below.

The R-Square value was 0.355 an indication that there was variation of 35.5 percent on performance due to changes in organisational resources. The addition of the mediating factor, management capabilities, changed the value of R-Square from 0.355 to 0.742 an indication that there was addition to the variation of 38.7 percent on performance due to changes in management capabilities, suggesting that management capabilities had an intervening effect. In addition, the results revealed that the variance explained by management capabilities is significant and F-value changed from 132.271 to 343.850, p-value = 0.001 in the third step and the overall model was significant.

Table 4.24 above shows the individual significance and from this table, the following regression model was established both organizational resources and management capabilities have a significant effect on performance of ISO certified firms. Nevertheless, organizational resources still have a negative effect but management capabilities seem to have a positive effect towards performance of ISO certified firms operating in Kenya. The ANOVA results indicate that there was a significant relationship between organisational resources and management capabilities on performance and consequently the null hypothesis was rejected.

Table 4.24: Model Summary, Analysis of Variances and Coefficients for Organisational Resources, Management Capabilities and Organizational Performance

1. Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.596[a]	.355	.353	.15273	.355	132.271	1	240	.000
2	.861[b]	.742	.740	.09680	.387	358.435	1	239	.000

2. Analysis of Variances						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.086	1	3.086	132.271	.000b
	Residual	5.599	240	.023		
	Total	8.684	241			
2	Regression	6.444	2	3.222	343.850	.000c
	Residual	2.240	239	.009		
	Total	8.684	241			

3. Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.787	.224		30.328	.000
	Organizational resources	-.612	.053	-.596	-11.501	.000
2	(Constant)	1.051	.335		3.141	.002
	Organizational resources	-.270	.038	-.263	-7.047	.000
	Management capabilities	1.010	.053	.706	18.932	.000

a. Predictors: (Constant), Organizational resources

b. Predictors: (Constant), Organizational resources, Management capabilities

c. Dependent Variable: Organizational performance

Source: Author (2018)

Sobel test was conducted and the results indicated that management capabilities partially mediated the relationship between organisation resources and performance of ISO certified firms ($z = 7.77$, $SE = 0.052$, $p < 0.001$). This was derived from the formula below:

$Z = (Ba * Bb)/ \sqrt{[(Ba2 * SEb 2) + (Bb2 * SEa 2)]}$

$Z = (-.339*1.187)/ \sqrt{[(-.3392 + .0522) + (.1.1872 + .0412)}$

This lead to rejection of the null hypothesis that management capabilities have no

significance mediating effect on the relationship between organisation resources and performance of ISO certified firms in Kenya. This meant that management capabilities (mediator) significantly explained that the organisation resources (predictor) with the help of the mediator determined performance (dependent variable).

4.13.4 H_{04}: Organizational Resources, Values System, Management Capabilities and Firms Performance

The fourth objective of the study sought to determine the joint effect of organisational resources, values system and management capabilities on ISO certified firms' performance. To assess the joint effect, hypothesis four was formulated as follows; *H_0: organisational resources, values system and management capabilities jointly have no significant influence on the performance of ISO certified firms in Kenya.* To test this hypothesis, multiple linear regression analysis was done. The analysis involved testing the joint effect of organisational resources, values system and management capabilities on performance of ISO certified firms. The analysis also tested individual effects of the variables on performance. The joint influence results were then compared with the individual effects to establish the magnitude of the difference between the two. The results for the joint effect are as summarized in Table 4.25 below.

Table 4.25: Model Summary, Analysis of Variances and Coefficients for Organisational Resources, Management Capabilities, Values System and Organizational Performance

1. Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

1	.580[a]	.336	.333	.15438	.336	114.514	1	226	.000
2	.859[b]	.738	.736	.09723	.402	344.722	1	225	.000
3	.886[c]	.785	.782	.08827	.047	49.035	1	224	.000

2. Analysis of Variances

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.729	1	2.729	114.514	.000b
	Residual	5.387	226	.024		
	Total	8.116	227			
2	Regression	5.989	2	2.994	316.700	.000c
	Residual	2.127	225	.009		
	Total	8.116	227			
3	Regression	6.371	3	2.124	272.553	.000d
	Residual	1.745	224	.008		
	Total	8.116	227			

3. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.705	.232		28.934	.000
	Organizational resources	-.591	.055	-.580	-10.701	.000
2	(Constant)	1.054	.338		3.124	.002
	Organizational resources	-.259	.039	-.255	-6.633	.000
	Management capabilities	1.000	.054	.712	18.567	.000
3	(Constant)	-2.069	.541		-3.824	.000
	Organizational resources	-.341	.037	-.335	-9.127	.000
	Management capabilities	1.110	.051	.791	21.615	.000
	Values system	.709	.101	.256	7.003	.000

a. Predictors: (Constant), Organizational resources

b. Predictors: (Constant), Organizational resources, Management capabilities

c. Predictors: (Constant), Organizational resources, Management capabilities, Values system

d. Dependent Variable: Organizational performance

Source: Author (2018)

The results revealed that the joint effect of organisational resources, values system, management capabilities explained 78.2 percent of the variation in ISO certified firms' performance (Adjusted R-Square = 0.782). The results, further, indicated that the joint influence of the variables strengthened the model. Initially organisational resources had an explanatory power of 33.6 percent. Addition of management capabilities to the model increased the explanatory power of organisational resources by 40.2 percent. Management capabilities played a critical role as they positively influence ISO certified firms' performance. The addition of values system contributed

4.7 percent. This implied that values system was integral in ISO certified firms' performance, as it was not enough for management of ISO certified firms to have organisational resources without values system.

The ANOVA results show that the joint influence of the study variables was statistically significant (see Table 4.25 above). There was an improvement in F-value from 114.514 in the first model that only had one variable to 272.553 in the joint model and p-value was less than alpha value of 0.05, which indicated that the results were significant and therefore the null hypothesis was rejected - organisational resources, values system and management capabilities jointly had a significant influence on the performance of ISO certified firms in Kenya.

The regression equation was developed that could be used to estimate ISO certified firms' performance taking into consideration the joint effect of its organisational resources, values system, and management capabilities. All the variables (organisation resources, management capabilities and values system) were statistically affecting performance of ISO certified firms significantly. The objectives, hypotheses and the finding are summarized as shown in Table 4.26 below.

Table 4.26: Summary of Hypotheses Testing

Objective	Hypothesis	Decision
Determine the relationship between OR and P of ISO certified firms in Kenya.	$H_{01:}$ OR have no significant influence on P of ISO certified firms in Kenya.	Reject

Determine the influence of VS on the relationship between OR and P of ISO certified firms in Kenya.	$H_{02:}$ VS have no significant moderating influence between OR and P of ISO certified firms in Kenya.	Reject
Determine the influence of MC on the relationship between OR and P of ISO certified firms in Kenya.	$H_{03:}$ MC have no significant intervening influence between OR and P of ISO certified firms in Kenya.	Reject
Examine the joint effect of OR, VS and MC on P of ISO certified firms in Kenya.	$H_{04:}$ OR, VS and MC have jointly no significant influence on the P of ISO certified firms in Kenya.	Reject

Source: Author (2018)

CHAPTER FIVE: DISCUSSION OF THE FINDINGS

5.1 Introduction

This chapter discusses the findings of this study and compares the results from the primary data to that of secondary sources of ISO certified firms in Kenya. The discussion was based on the four objectives of this research which were to: determine the relationship between organisational resources and performance of ISO certified firms in Kenya; determine the moderating influence of values system on the relationship between organisational resources and performance of ISO certified firms in Kenya; determine the intervening influence of management capabilities on the relationship between organisational resources and performance of ISO certified firms in Kenya; and, examine the joint effect of organisational resources, values system and management capabilities on performance of ISO certified firms in Kenya.

5.2 Organisational Resources and Performance

The study findings indicated that organisation resources had negative influence on the performance of an organisation. The significance level was less than 0.05. The findings of this study revealed that limited resources when used maximally can lead to better performance within ISO certified firms unlike bulky resources that are not utilized properly. The study findings concur with the work of Sachs and Warner (1995) about the resource curse, that is, the paradox that firms with an abundance of resources tend to have less economic growth/performance, less democracy and worse development outcome than firms with fewer resources. However, Ross (2015) found out that this resource curse is not universal or inevitable, but affects certain types of firms under certain conditions. Venables (2016) research suggests that the manner in which resources are used, the system of governance, institutional quality, types of

resources, innovation and investment in infrastructure and education and incentives available explain success and failures. Therefore, if the resources are managed inefficiently or corruptly this can lead to disastrous results; this means lower productivity gains than before.

On the other hand, where resources are used well, this supports the work of Baten (2016) where the source of a firms' competitive advantage was its resources, its assets, competences, and capabilities. Resource campaign and the infrastructure that supported and facilitated their extraction and delivery, guaranteed continued economic development, more so when supported by vast wealth, vast economic and political discipline. Furthermore, the findings of Kishtainy (2014) revealed that firms grow when more resources are put into production, and when new technologies make the resources more productive. It is not the quantity of the resource that matters, but its increasing productivity, doing more with less by say using the existing resource much more efficiently.

5.3 Organizational Resources, Values System and Performance

The study showed that values system would still decrease the performance of ISO certified firms. However, its moderation effect seemed to increase the performance of ISO certified firms. The study findings are therefore in line with that of Cloke and Goldsmith (2002) that a bottom-line commitment to values system contributes greatly to the development of collaboration, diversity, creativity, participation, responsibility, morale, and unity. When these are valued, performance improves as well. The findings on value systems as well concur with work of Van Blerk (1996) that adherence to the rule of law enables social engineering by legislation. Morally

objectionable things like corruption had unambiguous consequences. The firms which observe the organizational values have potential of thriving well economically.

5.4 Organizational Resources, Management Capabilities and Performance

The study established that management capabilities affect performance of ISO certified firms positively. The management skills found within ISO certified firms have ability of enhancing their performance. The findings of the study concur with that of Corbett and Rastrick (2000) that certain assumed behavioral features such as open culture, employee empowerment and executive commitment can produce advantage.

The study findings are also in line with that of Lau and Idris (2001) that soft rather than hard elements were more critical in achieving tangible total quality management effects. Furthermore, the findings on management capabilities collaborate with that of Hur (2009) who found out that encouragement was a better method than control in the effective implementation of TQM programmes for positive performance.

5.5 Organisational Resources, Values System, Management Capabilities and Performance

As far as test of hypothesis on the joint effects was concerned, it was revealed that organisation resources still had a negative effect towards performance of ISO certified firms. On contrary, values system in ISO certified firms' was found to affect their performance positively. Similarly, management capabilities have a positive influence on performance of ISO certified firms. The findings concurred with Ismail, Rose, Uli and Abdullah (2012) research on the relationship between organisational resources,

capabilities, systems and competitive advantage, who found out that, only organisational capabilities had statistically significant relationship of firms' competitive advantage.

The findings of Tabachnick and Fidell (2007), which was based on standard multiple regression, revealed that there was possibility of organisational resources as an independent variable to appear not to have importance in the beta outcomes whenever its highly correlated with the performance as a dependent variable. A bottom-line is for firms to commit themselves to values systems and other management capabilities that would contribute immensely to the sustainability, creativity, diversity, responsibility, participation, unity, as well as morale.

On other hand, Phusavat and Kanchana (2007) found out that organisational resources and values system as well as organisation capabilities to have a significant impact on the performance of firms in Thailand. The scholars further found that resources such as flexibility as well as product quality; capabilities in terms of innovativeness and know-how; and systems in form of delivery and customer service were the main factors in attaining competitive advantage of firms in Thailand. This was supported by another study by Morgan, Kaleka and Katsikeas (2004), who revealed that availability of resources and capabilities had a positive influence on performance of firms.

The findings also confirmed that ISO certification status alone was not an indicator of effectiveness in line with findings of a study by Okwiri (2013). Further, the results of this study are in agreement with that of Studwell's (2013) in which the quality of governance and policy-making determined a country's prospects. Hence, a right

policy mix combined with superior disciplined policy implementation by competent people led to faster realization of objectives through outcomes. In addition, the findings were in line with findings in a study by Khan (2007) that good governance is primarily about market-enhancing measures but also require implementing explicit growth-enhancing measures. The management of ISO certified firms in Kenya was the central core of material and personal action and the way it manages institutions, resources and activities entrusted reflects what we were and the society we became.

From the above analyses, null hypotheses H_1, H_2, H_3 and H_4 were all rejected. From the findings of this study, there was significant relationship between organisational resources and performance of ISO certified firms in Kenya,; there was significant moderating effect of values system on the relationship between organisational resources and performance of ISO certified firms in Kenya; there was significant mediating effect of management capabilities on the relationship between organisational resources and performance of ISO certified firms in Kenya; and there was significant joint effect of organisational resources, values system and management capabilities on performance of ISO certified firms in Kenya.

Results of Secondary Data

The analysis of secondary data was done using ratios that relates to the variables under investigation namely organisational resources, values system and management capabilities. Some of the key findings were that 71 percent of ISO certified firms had liquidity ratio that management had adequately protected creditors as stakeholders. There was enough potential cash invested in current assets and that cash could be released fairly easily to repay current liabilities in case of any of the firms having

liquidity problems. 70 percent of the ISO certified firms under investigation had a sustainable debt management position and that their inventory systems were effective and efficient. In addition, majority of firms settled their short-term obligations within a month.

The study showed that 96 percent of the ISO certified firms had an overall positive ROCE, which implied that firms were successfully using their assets to achieve their purpose. Overall 89 percent of the ISO certified firms had ROI, which indicated that there was effective use of resources to cover all expenses with a margin of reasonable compensation. 85 percent of the ISO certified firms had ROE that showed firms were using profitable operations to build up owners 'equity. While 89 percent of the ISO certified firms had an overall positive net profit margin, indicating operations that were cost/price effective. 67 percent of the ISO certified firms ensured a low cost-to-hire in order to maintain efficient human resource system that indicated a human resource effectiveness analysis of zero to 25 percent. 74 percent of the ISO certified firms were found to be stable with a positive Fulmer H scores.

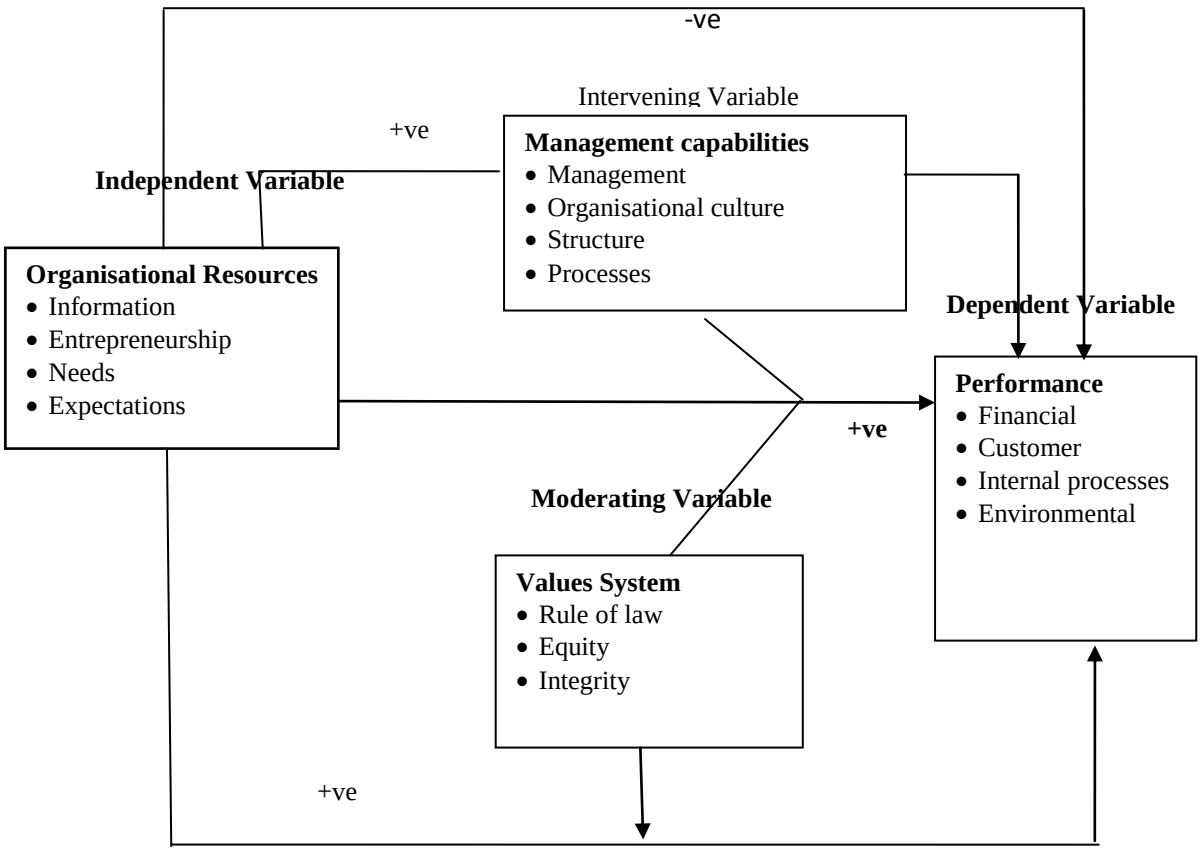
The importance of the analytical review of organisational financial statements was supported by the Roman politician and philosopher Cicero, as cited in Chang (2008) that not knowing history makes one remain a child and that not using history is to remain always in the infancy of knowledge. According to Helfert (2008), the performance of an organization is a result of many individual decisions made continually by its management. All management policies, strategies and decisions cause resource movement of various kinds for expected gain in a dynamic interrelationship. Mbeche (2010) affirmed that it was important to examine the quality

of the processes used to check on quality systems inputs. Nair (2006) also found that investment in TQM built competence and capability in operations that led to improved performance. The study further confirmed Schonberger and Knod (1997) work that customers generally have six basic requirements from firms' high levels of quality; low costs; high level of service; a high degree of flexibility; quick response levels (speed); and little or no variability (reliability) in the products or service. Studwell (2013) found that the quality of governance and policy-making determined a country's prospects. Acemoglu and Robinson (2012) assert that the type of institutions, the rules influencing their behaviour, and the incentives given to motivate their people determine the performance of countries (and firms alike). Besides, the analysis was also conducted on primary data based on individual test of the independent variables.

5.6 Revised Conceptual Framework

The studies established the relationship between organisational resources and performance. The revised conceptual framework in Figure 5.1 below supports this direct but negative relationship between organisational resources and performance. The framework further established that the relationship between organisational resources and performance was positively intervened by management capabilities; and positively moderated by the values system. Furthermore, that the joint effect of organisational resources, values system and management capabilities on performance were positive.

Figure 5.1: Revised Conceptual Framework



Source: Author (2018)

Unlike other scholars (Baten, 2016; Kishtainy, 2014; Ross, 2015; Venables, 2016) who argued that organizational resources are essential in ensuring performance of companies, this study revealed that there exist negative relationship between organisational resources and performance among the ISO firms under study. Therefore, an implication that firms operating in current dynamic business environment do not rely much on quantity of the resources within their respective firms, but the quality of few resources which can help in increasing productivity. Thus, using the existing resource much more efficiently has potential of enhancing business performance.

CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents summary of findings, conclusion and recommendations of results of the four hypotheses of this study. This study set out to establish the relationship among organisational resources, values system, management capabilities and performance of ISO certified firms in Kenya. The research then presents the main limitations of the study and recommendations on policy and practice as well as suggestions for further research.

6.2 Summary

The main purpose of this study was to determine the influence of organisational resources, values system, management capabilities on the performance of ISO certified firms in Kenya. Specifically, to: determine the relationship between organisational resources and performance of ISO certified firms in Kenya; determine the influence of values system on the relationship between organisational resources and performance of ISO certified firms in Kenya; determine the influence of management capabilities on the relationship between organisational resources and performance of ISO certified firms in Kenya; and, examine the joint effect of organisational resources, values system and management capabilities on performance of ISO certified firms in Kenya.

Hypothesis one (H_{01}) explored the relationship between organisational resources and performance of ISO certified firms in Kenya. Unexpectedly, results of multiple linear

regression indicated that there was a statistically negative relationship between organisational resources and performance of ISO certified firms in Kenya. This led to the rejection of the null hypothesis that organisational resources had no significant influence on performance of ISO certified firms in Kenya.

The second hypothesis, (H_{02}) looked into the moderating effect of values system on the relationship between organisational resources and performance of ISO certified firms in Kenya. Results of multiple linear regression analysis revealed that there was linear relationship of performance on the multiplicative term of values system and organisational resources. This implied that changes in the values system moderated the relationship between organisational resources and performance of ISO certified firms in Kenya. This led to the rejection the null hypothesis that values systems had no significant moderating influence between organisational resources and performance of ISO certified firms in Kenya. Values systems had a significant moderating influence between organisational resources and performance of ISO certified firms in Kenya.

Hypothesis three (H_{03}) explored the intervening effect of management capabilities on the relationship between organisational resources and performance of ISO certified firms in Kenya. Results of this study revealed that there was a partial intervening effect of management capabilities on the relationship between organisational resources and performance of ISO certified firms in Kenya. This resulted in the rejection of the null hypothesis that management capabilities had no significant mediating influence between organisational resources and performance of ISO certified firms in Kenya.

The last hypothesis was (H_{04}), looked at the joint effect of organisational resources, management capabilities, and values system on performance of ISO certified firms in Kenya. The findings of this study indicated that the joint effect was statistically significant implying that organisational resources, management capabilities, and values system jointly effect on performance, an indication that the null hypothesis was rejected.

The analysis of secondary data was done using ratios that relates to the variables under investigation namely organisational resources, values system and management capabilities. The study showed majority of the ISO certified firms had an overall positive ROCE, which implied that firms were successfully using their assets to achieve their purpose. ISO certified firms had higher ROI, which indicated that there was effective use of resources to cover all expenses with a margin of reasonable compensation. The firms reported greater ROE which implied that firms were using profitable operations to build up owners' equity. While an overall positive net profit margin indicated that operations of ISO certified firms were cost/price effective. ISO certified firms in Kenya ensured a low cost-to-hire in order to maintain efficient human resource system that indicated effectiveness of human resource. On average the ISO certified firms operating in Kenya were found to be stable with positive Fulmer H scores of greater than zero.

6.3 Conclusion

The study set out to determine the relationship between organisational resources and performance; the intervening effect of management capabilities on the relationship

between organisational resources and performance; the moderating effect of values system on the relationship between organisational resources and performance; and the joint effect of organisational resources, management capabilities and values system on firm performance of ISO certified firms in Kenya. The study was anchored on the TQM theory, religion functionalism theory, interest's theory, stakeholder theory, complexity theory, and behavioral operations theory.

The rejection of the hypothesis H_1 implied that there was a significant relationship between organisational resources and performance of ISO certified firms in Kenya. The study concluded that when the resources of an organization are used appropriately, they can play a critical role in influencing performance of ISO certified firms in Kenya. However, from the fact that the findings of this research revealed a negative relationship between organisational resources and performance, it can be reasoned that better performance of ISO certified firms in Kenya is not determined by the abundance of resources, but how well they are utilized in the process of meeting the firms' goals.

The rejection of hypothesis H_{02} implied that the study established that due to the moderating effect, changes in values system affected the relationship between organisational resources and performance of ISO certified firms in Kenya. The rejection of hypothesis H_{03} indicated that management capabilities was found to have an intervening effect on the relationship between organisational resources and performance of ISO certified firms in Kenya. The study, therefore, concluded that management capabilities mediated the relationship between organisational resources and the performance of ISO certified firms. Management capabilities had a positive

influence on relationship between organisation resources and ISO certified firms' performance. Hypothesis H_{04} was also rejected implying that there was a joint significant relationship of organisational resources, values system and management capabilities on performance of ISO certified firms in Kenya. This indicated that organisational resources, appropriate values system and suitable management capabilities, jointly enhanced performance.

Therefore, it can be concluded that firms operating in current dynamic business environment do not rely much on quantity of the resources within their respective firms, but the quality of few resources which can help in increasing productivity. Meaning that, utilization of the limited existing resource much more efficiently enhances performance of ISO certified firms in Kenya. Firms, however, have not benefited much from resources due to lack of a comprehensive implementation guide for a wholesome values-based management system with context-specific solutions supported by a diagnostic tool. These have not yielded consistent and sustainable outcomes. The pace of change is slow or none at all or give the appearance of change without altering anything fundamental.

6.4 Contributions

The study sought to establish the influence of values system and management capabilities on the relationship between organisation resources and performance of ISO certified firms in Kenya. While previous studies (Teece, et al., 1997; Mankiw, 1998; Peppard & Ward, 2004; Kishtainy, 2014) have established that, there is a relationship between organisational resources and performance, this study went further by incorporating the mediating and moderating effects of management

capabilities and values system, respectively into this relationship. The findings of this study, therefore, have several practical and theoretical implications.

The overall findings indicated a significant effect of organisational resources, values system and management capabilities collectively on performance of ISO certified firms in Kenya, providing support to extension of the multi-disciplinary theories- the TQM theory, religion functionalism theory, interest's theory, stakeholder theory, complexity theory, behavioral operations theory. The stakeholder management enabled this study understand ISO certified organizations in ways of creation and managing various groupings as well as relationships formulated strategically. The stakeholders' notions or management of stakeholders or their approaches to business management are formulated and implemented through process of satisfaction of various groups and individuals with business stake. Furthermore, religion functionalism theory contributed to ISO certified institutions through reinforcing social values and norms among employees.

The results indicated that organisational resources were affecting the performance of ISO certified firms negatively. This, therefore contribute to the Pound's interest theory informed the current study in understanding performance of ISO certified firms since it promotes the aspect of gaining maximally by ensuring that there is less friction as well as less waste of resources. The TQM theoretical review was revealed in this study where majority of ISO certified firms seemed to stress on organisational value. The TQM, itself a behavioral theory, primarily entails a change in an firms' technology, its way of doing work; a change in a firms' culture its norms, values and belief systems about how firms function; and a change in a firms' political system-

decision making processes and power bases. The TQM theory is a basis of incorporating seven elements required for success namely; resources, philosophy, vision, strategy, skills, rewards and organisation.

A behavioral theory was an essential pillar in the management capabilities and value system among ISO certified firms. Through behavioral management, the performance of ISO certified organisations can be informed of impact of the management intervention that are neither predictable nor explainable without reference to the underlying behavioral and cognitive factors at work in the operating system. Complexity theory appeared in form of change in firms' technologies, their way of operation, firms' culture, norms, values and belief systems for decision-making processes. This could imply that new duties and knowledge should be given to management of ISO certified firms in order to guide and facilitate their transformations, since, a firm with 'complex adaptive system' is not only a technique or a metaphor but also an understanding of the general system features, and this can necessitate better understanding as well as working in various business environments.

The theoretical implication of this study was that it supports and extends the multi-disciplinary theories of organisational performance by showing the need for systematic management of organisational resources and management capabilities in achieving performance. At the same time, it illustrated that by examining these variables (organisational resources, values system and management capabilities) in the aggregate, their individual statistical significance might reduce in their relationships with performance (that is, the organisational resources and values system variables were found to be either positive or negative). However, the

consequences of these findings did not mean that the organisational resources and values system were unimportant factors in achieving performance. Rather, they specifically reflected the perceived priorities of ISO certified firms as far as the significance and ranking of these particular variables (management capabilities, organisational resource, and values system in that order) individually. The findings, therefore showed the magnitude of significance attached to organisational resources, management capabilities and values system in their link with performance.

This study adds to existing knowledge in the area of organisational resources, management capabilities, and values system and performance. This study identified the relevant factors that are important in defining organisational resources, values system, management capabilities and organisation performance in ISO certified firms in Kenya and their relative importance. From the practical aspect, this study has contributed to operations management by providing awareness of and input to the variables or factors to consider in achieving performance. This study shows through empirical evidence that it is important for firms to have sound values system to organize organisational resources and management capabilities in achieving performance. In other words, to achieve performance, firms should improve work processes and productive resource strategies.

This study provides valid and reliable measures that managers can use as a valuable tool to assess and benchmark the various management practices of their firms with the best in the industry. The ISO certified firms should, thus, be able to use the measures to assess the impact of the strength and direction of the values system, enhance their management practices and subsequently their performance outcomes.

This study could help policy makers in decision making on attributes to prioritize such as government policy intervention that may influence ways by which organisational resources and values system associate with performance. However, any form of government policy intervention affects firms uniformly. In addition, government needs to develop and implement policies that encourage adoption of values system espoused in this study. This study can also be used to develop the right type of incentives and to efficiently allocate limited organisational resources both at a macro and micro level.

6.5 Recommendations

There is need for firms in Kenya to use strategies that encourage productive utilization of organisation resources as it was found that organisation resources influences the performance of ISO certified firms in Kenya negatively. ISO firms need to enhance their organisational resources (especially physical and human resources), strengthen their networking with stakeholders, adopt key performance indicators and promote healthy teamwork. Others are improving communication, employee motivation, conflict resolution, resources flow and their management.

Management as well as the owners of ISO certified firms in Kenya should improve management capabilities (management, organisation culture, structure, processes, systems and integration) since these have been seen as the conduits to enhance the relationship between organisational resources and performance . There is need for the management of ISO certified firms in Kenya to improve on their management

capabilities as the study found that there was a positive relationship between management capabilities and performance of ISO certified firms in Kenya.

Values system had a moderation effect on the relationship between organisational resources and performance, management of ISO certified firms should elevate observance of the rule of law. This is because law has been seen as a unique resource and a key driver of value things. There is need to strengthen values system among ISO certified firms in Kenya as it was found that values system positively affect the relationship between organisational resources and performance in Kenya. At organisational level, there is a need to improve work processes to strengthen values system, policy and public information to enhance performance.

Regulators should insist on TQM among ISO certified firms to ensure quality and value. The regulatory firms should seriously continue to do the supervisory guidance of the firms since they are charged with both regulation and supervision. Government needs to develop and implement policies that encourage adoption of values system as espoused in this study. Element of TQM tend to link with that in article 10 of CoK, therefore, it is necessary for ISO certified firms to adopt TQM as a method to materialize the universal values and principles found among ISO certified firms.

In the quality management, the managers who deal with quality management of ISO certified institutions in Kenya should ensure maximum customer satisfaction in terms of quality products and services given on market. This can also come about through involvement and empowerment of their employees to enhance and maintain goods and services of better quality. Therefore, to achieve such performance level, the firms'

employees should focus more on identification of customers 'wants/expectations, and should have good understanding of firms' plans that can assist in achievement of their aims.

6.6 Limitations

This study has limitations; first, this cross-sectional study is limited to ISO certified firms in Kenya listed in the 2016 directory for Kenya Bureau of Standards, Societie de Generale Survelliance and Bureau Veritas. Therefore, firms that were not ISO certified were not included in the sampling frame. The generalization of the findings of the study should be made with caution.

Second, this research was a cross-sectional study using quantitative approach that captured the perception of five respondents per organisation at a single point in time. The independent variable was resources, which was measured on a five-point Likert scale (5 PLS) using a 10 item psychological capital questionnaire against indicators comprising people, materials and technologies. This approach was selected because it is the most appropriate method available to address the issues of time and financial constraints.

Third, even though cross-sectional design is effective in getting the insight about the dynamics of performance at a point in time, organisational resources, management capabilities and performance, change over time in a way that longitudinal studies may perhaps result in better and different perceptions.

Fourth, while conducting the study the researcher encountered a challenge getting

appointments with the respondents some of whom were not willing to participate. To counter this problem, the researcher hired qualified assistants who professionally handled all kinds of problems as it pertains to respondents.

Fifth, confidentiality being a primary weakness of descriptive survey; the subjects were at some point not truthful as they felt the need to tell the researcher what they thought the researcher wanted to hear. Finally, some participants refused to provide answers to questions they viewed to be too personal.

6.7 Suggestions

This study focused on the influence of values system and management capabilities on the relationship between organisational resources and performance of ISO certified firms in Kenya. It can therefore be suggested that a similar study be conducted focusing on non-ISO certified firms in Kenya and compare the results. This may help in understanding the causes of productivity in firms and the challenges facing organisation resource conversion.

The current study was a cross-sectional survey which relied only on quantitative approaches. This enabled the study to capture only the insights and opinion views of respondents. This calls for a similar research which should employ qualitative methods or quantitative approach that utilizes secondary data.

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APPENDICES

Appendix I: Introduction Letter

UNIVERSITY OF NAIROBI
COLLEGE OF HUMANITIES & SOCIAL SCIENCES
SCHOOL OF BUSINESS

Telephone: 4184160-5 Ext 215
Telegrams: "Varsity" Nairobi
Telex: 22095 Varsity

P.O. Box 30197
Nairobi, KENYA

24th October, 2016

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

INTRODUCTORY LETTER FOR RESEARCH
PATRICK OMUTIA OTULIA – REGISTRATION NO. D80/8337/1999

The above named is a registered PhD student at the University of Nairobi, School of Business. She is conducting research on ***"Organisational Resources, Values System, Management capabilities and Performance of International Organisation for Standardisation Certified Organisations in Kenya".***

The purpose of this letter is to kindly request you to assist and facilitate the student with necessary data which forms an integral part of the thesis. The information and data required is needed for academic purposes only and will be treated in **Strict-Confidence**.

Your co-operation will be highly appreciated.

Thank you.

Graduate Studies Office
P.O. Box 30197
NAIROBI
University of Nairobi School of Business

Prof. Mary Kinoti
Associate Dean, Graduate Business Studies
School Of Business

MK/jkm

Appendix II: Questionnaire for Firms

Kindly respond to the questions as best as you can, based on your knowledge and experience. Your personal identity will be kept strictly confidential. Thank you in anticipation.

PART A: GENERAL INFORMATION

1. What is your gender?

Male ☐ Female ☐

2. What is your occupation? ……

3. In what level in the management hierarchy do you belong?

Top ☐ Senior ☐ Middle ☐ Supervisor ☐ Operational ☐

4. What is the name of your organisation? .....

5. How long has your organisation been in operation in Kenya? Please circle your answer below.

Less than 5 years

Between 5 years and less than 10 years

Between 10 and 15 years

Over 15 years

6. What is the size of your organisation in terms of number of permanent employees?

Less than 100 employees

Between 100 employees and less than 500 employees

Between 500 and 1000 employees

More than 1000 employees

7. How long has your organisation been International Organisation for Standardization (ISO) certified? Please circle your answer below.

Less than one (1) year

Between 1 year and less than 3 years

Between 3 and 5 years

More than 5 years

8. How is the ownership of your organisation?

Public ☐ Private ☐

9. In which category is your organisation?

Ministry ☐ Regulator ☐ Product Provider ☐

10. In which sector is your organisation?

(1). Agriculture; (2). Manufacturing; (3). Education and research institutions; (4). Regulatory bodies; (5). Telecommunications and technology; (6). Financial institutions; (7). Energy and petroleum; (8). Hospitality and tourism;

(9). Commercial and services.

PART B: SPECIFIC INFORMATION

For each variable, please mark the position that best describe conditions, as they currently exist in your organisation.

KEY: Strongly disagree (SD) - 1; disagree (D) - 2; neutral (N)-3; agree (A)-4; strongly agree (SA) - 5.

1.	ORGANISATIONAL RESOURCES	SD	D	N	A	SA
i.	Human needs form part of the sources of the organisation decisions making.	1	2	3	4	5
ii.	The organisation always considers what people require from it in decision-making.	1	2	3	4	5
iii.	There is adequate information in the organisation for decision-making.	1	2	3	4	5
iv	There is willingness to take considerable initiative and risk in use of the firms' resources.	1	2	3	4	5
v.	There is commitment to run the organisation based on values, ethics and integrity.	1	2	3	4	5
vi.	The organisation embraces the use of technology.	1	2	3	4	5
vii.	There are adequate intangible assets to enable the organisation meet its mandate.	1	2	3	4	5
viii.	Organisation has adequate number and mix of human resources to serve its needs.	1	2	3	4	5
ix.	The organisation has adequate equipment and structures in good condition to meet its mandate.	1	2	3	4	5
x.	Organisation has access to adequate natural resources it needs.	1	2	3	4	5
2.	VALUES SYSTEM	SD	D	N	A	SA
i.	Employees are dedicated to and proud of belonging to the organisation.	1	2	3	4	5
ii.	There is harmony in the organisation.	1	2	3	4	5
iii.	People appreciate each other's differences.	1	2	3	4	5
iv.	The organisation structure allows more authority	1	2	3	4	5

	at lower levels in both planning and execution of work.					
v.	Work standards, laws and regulations are obeyed and maintained.	1	2	3	4	5
vi.	Employees are involved in decisions related to their work and problem solving appropriate to their level.	1	2	3	4	5
vii.	The organisation ensures that everyone has part to play in the management process and that they understand that part.	1	2	3	4	5
viii.	There is mutual trust and respect in the organisation.	1	2	3	4	5
ix.	Fairness and equity is observed in all dealings.	1	2	3	4	5
x.	The work environment provides adequate income and opportunity for work enjoyment, happy living, subsistence, growth and respect for humanity.	1	2	3	4	5
xi.	Diversity and inclusivity is a major consideration in the firms' employment policy.	1	2	3	4	5
xii.	The organisation invests in sustainable community programs compatible with its goals.	1	2	3	4	5
xiii.	Equal opportunities are given to all people.	1	2	3	4	5
xiv.	People generally enjoy their God-given, inherent, inalienable liberties and entitlements in the organisation.	1	2	3	4	5
xv.	Power and authority in the organisation is controlled and answerable.	1	2	3	4	5
xvi.	People entrusted with resources in the organisation manage them properly.	1	2	3	4	5
xvii.	There is honesty in all dealings.	1	2	3	4	5
xviii.	All affairs are conducted with openness.	1	2	3	4	5
xix.	Accountability in the organisation belong to the people who choose the responsibilities they want	1	2	3	4	5

	and are answerable for the results.					
xx.	The organisation is committed to managing its activities in an environmentally responsible manner.	1	2	3	4	5
xxi.	The organisation pursues environmental excellence by implementing best policies, systems and procedures to bring about a continual improvement in environmental management.	1	2	3	4	5
3.	MANAGEMENT CAPABILITIES	SD	D	N	A	SA
i.	Leaders communicate quality values.	1	2	3	4	5
ii.	Leaders set aggressive targets beyond incremental improvements.	1	2	3	4	5
iii.	Leaders practice what they say.	1	2	3	4	5
iv.	Leaders' support and direct changes for progress.	1	2	3	4	5
v.	Leaders help create harmony in the organisation.	1	2	3	4	5
vi.	Controls are less emphasized as people are expected to take personal responsibility for their choices.	1	2	3	4	5
vii.	Immediate action is taken with top priority to identify and resolve the root cause of the problem if quality deteriorates.	1	2	3	4	5
viii.	Customer complaints are responded promptly.	1	2	3	4	5
ix.	Employees use quality control tools and techniques in their workplace.	1	2	3	4	5
x.	Quality policy is practiced at all levels not just aspirations or lofty goals in statements.	1	2	3	4	5
xi.	Organisation change is accomplished by promoting a willingness to experiment with new ideas without the feeling of being punished for failures or losses.	1	2	3	4	5
xii.	Work is accomplished through self-managed teams in identifying and solving problems.	1	2	3	4	5
xiii.	The organisation structure is relatively flat, more	1	2	3	4	5

	flexible, and fast-moving and customer focused.					
xiv.	Feedback from customers is delivered directly and immediately to the individuals and teams who need it to improve performance.	1	2	3	4	5
xv.	Employees get tools and technology, information and authority to act in the service of the organisation.	1	2	3	4	5
xvi.	Processes are continuously redesigned to improve customer service, reduce costs, eliminate waste and respond quickly to business opportunities and threats.	1	2	3	4	5
xvii.	Technology is used to empower rather than control employees.	1	2	3	4	5
xviii.	Technology is used to interact with and manage customer relations.	1	2	3	4	5
xix.	Technological innovation is used to change the base of competition and achieve competitive advantage.	1	2	3	4	5
xx.	Ideas for service and quality improvement from employees are positively valued and rewarded.	1	2	3	4	5
xxi.	Employees have learning opportunities in appropriate work skills and service quality concepts.	1	2	3	4	5
xxii.	Complaints are treated as an opportunity to learn.	1	2	3	4	5
xxiii.	Compensation/ reward is tied to individual, team and organisation performance.	1	2	3	4	5
xxiv.	There an open, two-way communication system.	1	2	3	4	5
xxv.	There are customer satisfaction indicators for Internal customer.	1	2	3	4	5
xxvi.	There are customer satisfaction indicators for External customer.	1	2	3	4	5
xxvii.	Targets set are capable of achievement and further improvement.	1	2	3	4	5

xxviii.	Systems are designed to detect and correct errors at source, rather than at a later stage.	1	2	3	4	5
xxix.	Employees get work that is challenging, interesting and motivating.	1	2	3	4	5
xxx.	There are ways to resolve conflict whenever they arise.	1	2	3	4	5
xxxi.	There are alliances across the organisation boundary for service delivery.	1	2	3	4	5
xxxii.	Operations, employees and service are effectively integrated in the form of a network of capabilities to meet customer expectations.	1	2	3	4	5
xxxiii.	Teams cooperate with each other and are aligned with the vision and mission of your organisation.	1	2	3	4	5
4.	ORGANISATIONAL PERFORMANCE	SD	D	N	A	SA
i.	Customers increasing patronize the organisation due to its high quality products and services.	1	2	3	4	5
ii.	Employees are happy to belong to the organisation.	1	2	3	4	5
iii.	The processes for product delivery are efficient and effective.	1	2	3	4	5
iv.	The organisation innovates for growth.	1	2	3	4	5
v.	The organisation enjoys goodwill from the community.	1	2	3	4	5
vi.	The organisation publishes a sustainability performance report annually.	1	2	3	4	5
vii.	The organisation meets the needs of the present generation without compromising the ability of future generations to meet their needs.	1	2	3	4	5
viii.	The organisation carries out annual environmental audits of all operations.	1	2	3	4	5
ix (a).	The organisation is viable and generates more income than it spends in order to exist. (For profit organisation) or	1	2	3	4	5

ix (b).	The organisation is viable and spends most or all its allocated funds to achieve the goals for which it exists. (For not-for-profit organisation)	1	2	3	4	5
x.	The organisation uses capital in order to gain the greatest return.	1	2	3	4	5
xi.	The organisation is more concern with long term rather than short-term agenda.	1	2	3	4	5

xii. List three important issues of concern to you about the firms' performance.

……

……

……

xiii. List three suggestions for performance improvement.

……

……

……..……

Appendix III: Financial and Operational Measures Data Sheet

	ORGANISATIONAL PERFORMANCE	
SN	Ratio type	Latest financial Year
R1	Fulmer H-factor analysis	
R2	Return on capital employed	
R3	Return on Investment	
R4	Return on Equity	
R5	Net Profit margin	
R6	Expense ratio	
R7	Human resource effectiveness	
R8	Debt ratio	
R9	Interest cover	
R10	Current ratio	
R11	Comprehensive liquidity index	
R12	Quick ratio	
R13	Total Assets turnover	
R14	Accounts receivable turnover	
R15	Inventory turnover	
R16	Accounts payable turnover	

Notes:

1. H-factor = $5.528X_1 + 0.212X_2 + 0.073X_3 + 1.270X_4 – 0.120X_5 + 2.355X_6 + 0.575X_7 + 1.083X_8 + 0.894X_9 – 6.075$

   Where X_1= Retained earnings/ Total assets;

   X_2= Total revenue/ Total assets;

   X3= EBIT/ Total equity;

   X_4= Cash flow/ Total liabilities;

   X_5 = Total liabilities/ Total assets;

   X_6 = Current liabilities/Total assets;

   X_7 = Log intangible total assets;

   X_8 = Working capital/ Total liabilities; and

   X_9 = Log EBIT/ Interest.

   If H score is below zero, then the organisation is "failed".
2. Return on capital employed = Earnings before Interest and Taxes (EBIT) / Net assets.
3. Return on investment = Earnings after Interest and Taxes (EAIT) / Total assets.
4. Return on equity = EAIT / Total equity.
5. Net profit margin = EAIT / Net revenue.
6. Expense ratio = Operating expenses / Net revenue
7. Human resource effectiveness = Employee compensation/ Total revenue
8. Debt ratio = Total liabilities / Total assets.
9. Interest cover = Earnings before Interest and Taxes (EBIT) / Interest expense.
10. Current ratio = Current assets / Current liabilities.
11. Comprehensive liquidity index = Weighted values of current assets / weighted values of current liabilities. The liquidity index for each asset or liability is one minus the inverse of the asset or liability's turnover.

12. Quick ratio = Current assets-Inventory/ Current liabilities
13. Total asset turnover = Net revenue / Total assets.
14. Accounts receivable turnover = Net revenue / Average receivables.
15. Inventory turnover = Cost of revenue / Average inventory.
16. Accounts payable turnover = Credit purchases / Average payables.

    Where the published financial statements do not disclose the cost of sales or credit purchases, the sales data were used as a broad rather than precise measure.

Appendix IV: Results of Financial and Operational Measures for Latest Published Financial Year

O/R	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	Sector
1a	16.11	1%	1%	1%	3%	97%	52%	1%	9.6	9.6	7.5	19.6	0.2	4	29	9	Agriculture
2b	-0.36	26%	15%	46%	30%	67%	0%	68%	0.4	0.0	0.4	0.0	0.5	0	0	0	Manufacturing
3b	-0.79	30%	16%	17%	13%	81%	0%	36%	1.3	0.0	1.3	0.0	1.2	0	0	0	Manufacturing
4b	0.96	43%	14%	72%	15%	72%	8%	80%	1.0	1.0	0.6	4.5	1.0	47	57	74	Manufacturing
5c	2.65	0%	0%	0%	-4%	104%	0%	4%	3.7	3.2	3.6	0.0	0.1	144	8	50	Education and Research Institutions
6c	-0.30	0%	-1%	-4%	-4%	102%	19%	87%	4.3	3.8	4.3	0.0	0.1	156	0	16	Education and Research Institutions
7c	4.62	8%	5%	6%	7%	90%	13%	11%	4.8	4.3	3.0	0.0	0.7	65	106	56	Education and Research Institutions
8d	6.44	58%	30%	41%	48%	32%	11%	26%	3.1	3.4	3.1	0.0	0.6	18	0	64	Regulatory bodies
9d	2.95	35%	23%	35%	13%	87%	43%	34%	1.7	1.8	1.7	0.0	1.8	22	0	35	Regulatory bodies
10d	2.08	-6%	-3%	-6%	-2%	101%	47%	54%	1.4	1.8	1.4	-8.8	1.9	29	0	98	Regulatory bodies
11e	5.46	24%	20%	31%	19%	71%	7%	34%	2.4	2.8	2.3	35.2	1.1	20	12	77	Telecommunication, Technology and utilities
12e	2.06	17%	10%	17%	22%	72%	3%	38%	0.6	0.7	0.6	12.1	0.5	16	0	40	Telecommunication, Technology and utilities
13e	2.38	79%	3%	-6%	1%	98%	55%	142%	0.7	0.6	0.6	3.1	2.1	95	16	92	Telecommunication, Technology and utilities
14f	1.78	26%	4%	18%	34%	45%	15%	78%	1.3	0.0	1.3	0.0	0.1	0	0	0	Financial Institutions

15f	1.96	19%	2%	15%	30%	52%	17%	85%	0.8	0.0	0.8	32.0	0.1	0	0	0	Financial Institutions
16f	4.57	6%	6%	6%	79%	20%	10%	5%	9.1	9.0	9.1	180.8	0.1	71	0	19	Financial Institutions
17f	-0.19	16%	2%	16%	14%	81%	20%	87%	0.6	0.6	0.6		0.1	3	0	4	Financial Institutions
18g	-0.01	7%	3%	12%	6%	85%	8%	70%	1.6	1.6	1.3	3.5	0.4	80	42	83	Energy and Petroleum
19g	-1.33	1%	0%	17%	18%	73%	29%	98%	0.3	-0.1	0.3	0.0	0.0	197	0	1770	Energy and Petroleum
20g	0.33	4%	2%	4%	22%	56%	16%	59%	1.0	0.5	0.9	3.9	0.1	220	11	94	Energy and Petroleum
21g	2.43	14%	5%	9%	1%	98%	1%	49%	1.5	0.0	1.5	67.4	4.1	0	0	0	Energy and Petroleum
22h	-0.59	0%	0%	1%	1%	99%	72%	20%	0.3	0.3	0.3	0.0	0.4	6	0	86	Hospitality and Tourism
23h	0.36	0%	0%	0%	0%	100%	62%	18%	2.5	2.5	2.3	0.0	0.7	47	11	29	Commercial and Services
24h	1.29	5%	2%	3%	8%	83%	46%	23%	2.9	3.2	2.9	50.3	0.3	45	4	52	Commercial and Services
25h	1.19	5%	4%	15%	14%	82%	8%	75%	5.2	0.0	5.2	119.9	0.3	0	0	0	Commercial and Services
26i	0.10	12%	4%	16%	6%	91%	41%	77%	0.4	0.5	0.4	0.0	0.6	64	0	104	Commercial and Services
27i	11.52	1%	1%	2%	6%	94%	6%	6%	13.3	13.4	13.3	0.0	0.3	1	0	13	Commercial and Services
Av.	2.51	0.16	0.06	0.14	0.15	0.79	0.23	0.51	2.81	2.39	2.61	24.5	0.72	50	10.96	161	

Source: Author (2018)

Appendix V: International Organisation for Standardization Certified Firms in Kenya

Organisation Name	Products(s)	Remarks
1. Abb Ltd	ISO 9001:2008	Private
2. Acme Containers Ltd	ISO 9001:2008	Private
3. African Diatomite Industries Limited	ISO 9001:2008	Private
4. African Marine & General Eng,	QMS/006	Private
5. Aga Khan Health Services Kenya-Community Health Department	ISO 9001:2008	Private
6. Aga Khan Health Services Tz	ISO 9001:2008	Private
7. Aga Khan Hospital Kisumu	ISO 9001:2008	Private
8. Aga Khan Hospital Nairobi	ISO 9001:2008	Private
9. Agri And Cooperative Training And Consultancy Services (Atc) Limited	ISO 9001:2008	Public
10. Agricultural Development Corporation	QMS/133	Public
11. Agricultural Finance Corporation	ISO 9001:2008	Public
12. Agro Chemical & Food Company Limited	ISO 9001:2008	Private
13. Airtraffic Limited	ISO 9001:2008	Private
14. AKO Group Ltd, Bulyanhulu Gold Mine Catering Services	FSMS/039	Private
15. AKO Group Ltd, Geita Gold Mine Catering Services	FSMS/040	Private
16. AKO Group Ltd, North Mara Gold Mine Catering Services	FSMS/041	Private
17. Alcordia Limited	QMS/227	Private
18. Allied Wharfage Limited	ISO 9001:2008	Private
19. Alloy Steel Casting Limited	ISO 9001:2008	Private
20. Allpack Industries Limited	ISO 9001:2008	Private
21. Amazon Consultants Ltd	ISO 9001:2008	Private
22. Andy Forwarders Limited	ISO 9001:2008	Private
23. Apex Management Systems -Consultants	ISO 9001:2008	Private
24. Ashut Engineering Limited	ISO 9001:2008	Private
25. ASP Company Ltd	QMS/030	Private
26. Athi River Minig (Silicate Division)	ISO 9001:2008	Private
27. Athi River Mining Limited Mombasa	ISO 14001:2004	Private
28. Athi River Mining Ltd-Kaloleni	ISO 9001:2008	Private
29. Bamburi Special Products Ltd	ISO 9001:2008	Private
30. Basco Products Kenya Limited	ISO 9001:2008	Private
31. Bidco Oil Refineries lianto Division	ENV/010	Private
32. Bidco Oil Refineries Limited (Elianto Div.)	ISO 9001:2008	Private
33. Bidco Oil Refineries Limited-Tka	ISO 9001:2008	Private
34. Bidco Oil Refineries Ltd	ENV/006	Private
35. Bidco Oil Refineries Ltd.	OHSAS/004	Private

36.	Bidco Oil Refineries Ltd. (Elianto Division)	OHSAS/006	Private
37.	Blowplast Limited	ISO 9001:2008	Private
38.	Bob Morgan Services Limited	ISO 9001:2008	Private
39.	Bob Morgan Services Ltd	ISO 9001:2008	Private
40.	Bomu Medical Center	ISO 9001:2008	Private
41.	Booth Extrusions Ltd	ISO 9001:2008	Private
42.	Brand Kenya Board	QMS/165	Private
43.	Brush Manufacturers	ISO 9001:2008	Private
44.	Bukura Agricultural College	QMS/170	Public
45.	Bulto Suppliers & Transporters Ltd	QMS/288	Private
46.	Bumbe Technical Training Institute	QMS/200	Public
47.	Bushiangala Technical Training Institute	QMS/243	Public
48.	Capital Markets Authority	QMS/058	Private
49.	Capwell Industries Ltd	HACCP/023	Private
50.	Carbacid (Co2) Limited	ISO 9001:2008	Private
51.	Cargill Kenya Limited	ISO 9001:2008	Private
52.	Catholic University of Eastern Africa	QMS/146	Private
53.	Cempack Solutions	ISO 9001:2008	Private
54.	Central Glass Industries Ltd	ENV/004	Private
55.	Central Glass Industries Ltd	FSSC/006	Private
56.	Central Glass Industries Ltd,"	QMS/017	Private
57.	Central Glass Industries Ltd.	OHSAS/O02	Private
58.	Centrale Humanitaire Medico Pharmaceutique	ISO 9001:2008	Private
59.	Centre for mathematics, Science and Technology Education in Africa (CEMASTEA)"	QMS 248	Private
60.	Chalbi Business Solutions Limited	QMS/252	Private
61.	Chandaria Industries Limited	ISO 9001:2008	Private
62.	Changoi and Lelsa Tea Estate.	HACCP/009	Private
63.	Changoi and Lelsa Tea Estate.	FSMS/005	Private
64.	Charlestone Travel Ltd	ISO 9001:2008	Private
65.	Chase Bank (K) Limited	ISO 9001:2008	Private
66.	Chase Bank Kenya Limited	ISO 9001:2008	Private
67.	Chemelil Sugar Company Limited	ISO 9001:2008	Private
68.	Citibank N.A Kenya Branch	ISO 9001:2008	Private
69.	City Engineering Works(K) Ltd	ISO 9001:2008	Private
70.	Coast Institute Of Technology	ISO 9001:2008	Private
71.	Coastal Bottlers Limited	ISO 9001:2008	Private
72.	Coastal Bottlers Ltd	ISO 14001:2004 & OHSAS	Private
73.	Coca-Cola Juices (K) Ltd	FSSC/003	Private
74.	Coca-Cola Juices Kenya Ltd	QMS/129	Private
75.	Coca-Cola Juices Limited	ENV/15	Private

76.	Coca-Cola Juices Limited	OHSAS/008	Private
77.	Coffee Development Fund	ISO 9001:2008	Public
78.	Colour Lables Limited	ISO 9001:2008	Private
79.	Commission for University Education	QMS/122	Public
80.	Communications Authority of Kenya	ISMS/02	Public
81.	Complast Industries Ltd	ISO 9001:2008	Private
82.	Compulynx Limited	ISO 9001:2008	Private
83.	Computer Technics Limited	ISO 9001:2008	Private
84.	Consolbase Limited	ISO 9001:2008	Private
85.	Consumer Options Ltd	QMS/286	Private
86.	Cook N Lite Limited	ISO 9001:2008	Private
87.	Cooperative College Of Kenya	ISO 9001:2008	public
88.	Cooperative University College of Kenya	QMS 246	Private
89.	Corrugated Sheets Limited	ISO 9001:2008	Private
90.	Corrugated Sheets Limited	ISO 14001:2004	Private
91.	County Council Of Taita Taveta	ISO 9001:2008	Public
92.	CPF Financial Services Ltd (Formerly Laptrust Administration Services Ltd)	QMS/145	Private
93.	Dalcom Kenya Limited	QMS/276	Private
94.	Defence Forces Memorial Hospital	QMS/216	Private
95.	Del Monte Kenya Limited	FSSC/005	Private
96.	Diversey Eastern & Central Africa Ltd	ISO 9001:2008	Private
97.	Dodhia Packaging Systems Ltd	ISO 9001:2008	Private
98.	E.A. Portland Cement	OHSAS/007	Private
99.	East Africa Foundary Works Kenya Ltd	ISO 9001:2008	Private
100.	East Africa Packaging Industries Ltd	ISO 14001:2004	Private
101.	East African Breweries Limited	ENV/012	Private
102.	East African Breweries Limited	OHSAS/005	Private
103.	East African Breweries Ltd	QMS/004	Private
104.	East African Maltings Limited	OHSAS/003	Private
105.	East African Maltings Ltd	QMS/015	Private
106.	East African Maltings Ltd	ENV/005	Private
107.	East African Maltings Ltd	FSMS/003	Private
108.	East African Packaging Industries Limited	ISO 9001:2008	Private
109.	East African Packaging Industries Limited-Mombasa	ISO 9001:2008	Private
110.	East African Portland Cement Company Limited	QMS/085	Private
111.	East African School of Aviation	QMS/142	Private
112.	East African Tea Trade Association	ISO 9001:2008	Private
113.	Egerton Uni. - Guildford Dairy Institute	FSMS/023	Public
114.	Egerton University	QMS/111	Public
115.	Egoji Teachers College	QMS/191	Public
116.	Eldoret Hospital Limited	ISO 9001:2008	public

117. Eldoret Polytechnic	QMS 159	Public
118. Eldowas	ISO 9001:2008	Private
119. Elris Communications Services Ltd	ISO 9001:2008	Private
120. Embu University College	QMS/261	Public
121. Energy Regulatory Commission	QMS/116	Public
122. Epco Builders Ltd	ISO 9001:2008	Private
123. Equator Bottlers Ltd	ISO 9001:2008 & ISO 14001:2004 & OHSAS	Private
124. Equator Bottlers Ltd	FSSC/002	Public
125. Equatorial Nut Processors Ltd	HACCP/022	Public
126. Everett Aviation	ISO 9001:2008 & ISO 14001:2004 & OHSAS	Private
127. Ewaso Ng'iro North Development Authority	QMS/098	Public
128. Ewaso Ng'iro South Development Authority	QMS/245	Public
129. Export Promotion Council	ISO 9001:2008	Public
130. Farmchem Ltd	ISO 9001:2008	Private
131. Flooring & Interiors Ltd	ISO 9001:2008	Private
132. Freight Forwarders (K)Ltd	ISO 9001:2008	Private
133. Friends College Kaimosi (Kaimosi Institute of Research & Technology	QMS/207	Public
134. FriGoKen Ltd	ISO 14001:2004	Private
135. General Industries Limited	ISO 9001:2008	Private
136. General Motors East Africa Ltd	QMS/013	Private
137. General Printers Limited	ISO 14001:2004	Private
138. General Printers Ltd	OHSAS 18001:2007	Private
139. Genghis Capital Limited	ISO 9001:2008	Private
140. Geomax Consulting Engineers	ISO 9001:2008	Private
141. Geothermal Development Company	QMS/149	Private
142. Giefcon Limited	ISO 9001:2008	Private
143. Gil Oil Company Ltd	ISO 9001:2008	Private
144. Gold Crown Foods Epz	ISO 9001:2008	Private
145. Goldstar Paints-Tz	ISO 9001:2008	Private
146. Green Park Golf & Country Complex Ltd	HACCP/021	Private
147. Greif East Africa Limited	ISO 9001:2008	Private
148. Guru Nanak Hospital	ISO 9001:2008	Private
149. H Young & Co. Ea Limited	ISO 9001:2008	Private
150. H.B. Fuller Kenya Limited	QMS/049	Private
151. Hass Petroleum (K) Ltd	QMS/231	Private
152. Hass Petroleum (K) Ltd	ENV/22	Private
153. Hass Petroleum (K) Ltd	OHSAS/009	Private
154. Hcda	ISO 9001:2008	Public
155. Henkel Kenya Limited	ISO 9001:2008 & 14001:2004	Private
156. Henkel Kenya Ltd	OHSAS 18001:2007	Private

157. Higher Education Loans Board (HELB)	QMS/093	Public
158. Horticultural Crops Development Authority	ISO 9001:2008	Public
159. Hotpoint Appliances	ISO 9001:2008	Private
160. Industrial And Commercial Development Corporation	ISO 9001:2008	Public
161. Insteel Limited	ISO 9001:2008	Private
162. Insurance Regulatory Authority	QMS/186	Public
163. Intercontinental Nairobi	KNWA/01	Private
164. International Supply Chain Solutions Ltd	QMS/100	Private
165. Intertek International Tanzania	QMS/211	Private
166. Intertek Testing Services (PTY) E.A. Ltd	QMS/031	Private
167. Jaramogi Oginga Odinga University of Science and Technology	QMS/179	Public
168. Jeremiah Nyagah Technical Inst	QMS/257	Public
169. Jf Mccloy Limited	ISO 9001:2008	Private
170. Jomo Kenya University of Agriculture and Technology (JKUAT)	ENV/20	Public
171. Jomo Kenyatta Foundation	ISO 9001:2008	Public
172. Jomo Kenyatta University of Agriculture and Technology	QMS/096	Public
173. Jubilee Insurance Company Of Kenya Ltd	ISO 9001:2008	Private
174. Kaiboi Technical Training Institute	QMS/178	Public
175. Kaimosi Tea Estates Ltd.	HACCP/012	Private
176. Kaimosi Tea Estates Ltd.	FSMS/008	Private
177. Kaluworks Alluminium Rolling Mills(Division Of Kaluworks Ltd)	ISO 9001:2008	Private
178. Kaluworks Limited (Pardini Division)	ISO 9001:2008	Private
179. Kaluworks Ltd-Aluminium Div	ISO 9001:2008	Private
180. Kaluworks Mariakani	ISO 14001:2004	Private
181. Kapchorua Tea Company.	HACCP/010	Private
182. Kapchorua Tea Company.	FSMS/006	Private
183. Karatina University	QMS/270	Private
184. Kartasi Industries Ltd	ISO 9001:2008	Private
185. KEMRI Production Department	QMS238	Public
186. Kenafric Industries Limited	ISO 9001:2008	Private
187. Kengen	ISO 9001:2008 & 14001:2004	Public
188. Kenwest Cables Limited	ISO 9001:2008	Private
189. Kenya Accountants & Secretaries National Examinations Board (KASNEB)	QMS/187	Public
190. Kenya Agricultural Research Institute(Kari)	ISO 9001:2008	Public
191. Kenya Association Of Manufacturers	ISO 9001:2008	Public
192. Kenya Bixa Limited	ISO 9001:2008	Private
193. Kenya Civil Aviation Authority	QMS/107	Public
194. Kenya Copyright Board	ISO 9001:2008	Public

195. Kenya Education Management Institute	QMS/108	Public
196. Kenya Electricity Transmission Company Limited	QMS/182	Public
197. Kenya Ferry Services Ltd	QMS/183	Public
198. Kenya Film Classification Board	QMS/283	Public
199. Kenya Film Commission	QMS/127	Public
200. Kenya Forestry Research Institute	ENV/ 016	Public
201. Kenya Industrial Estates Ltd	QMS/112	Public
202. Kenya Industrial Property Institute	QMS/128	Public
203. Kenya Industrial Research & Development Institute - KIRDI	QMS/190	Public
204. Kenya Institute of Special Education	QMS/203	Public
205. Kenya Literature Bureau	QMS/055	Public
206. Kenya Litho Limited	ISO 9001:2008	Private
207. Kenya Maritime Authority	ISO 9001:2008	Public
208. Kenya Medical Supplies Agency	ISO 9001:2008	Public
209. Kenya Medical Training College	QMS/069	Public
210. Kenya National Highways Authority	QMS/ 224	Public
211. Kenya National Library Service	ISO 9001:2008	Public
212. Kenya Ordnance factories Corporation	QMS/036	Private
213. Kenya Orient Insurance Ltd	ISO 9001:2008	Private
214. Kenya Petroleum Refineries Limited	ISO 14001:2004	Public
215. Kenya Ports Authority	QMS/087	Public
216. Kenya Railways Corporation	QMS/115	Public
217. Kenya Roads Board	QMS/089	Public
218. Kenya Rural Roads Authority	QMS/254	Public
219. Kenya Safari Lodges And Hotels Ltd	ISO 9001:2008	Private
220. Kenya School of Government	QMS/066	Public
221. Kenya School of Law	QMS/101	Public
222. Kenya Seed Company	QMS/052	Public
223. Kenya Tea Packers Limited	FSMS/27	Public
224. Kenya Tea Packers Ltd (KETEPA)	QMS 219	Public
225. Kenya Technical Teachers College	QMS/137	Public
226. Kenya Union of Savings and Credit Corporation Ltd	QMS/279	Public
227. Kenya Urban Roads Authority	QMS.236	Public
228. Kenya Utalii College	QMS/120	Public
229. Kenya Water Institute	QMS/092	Public
230. Kenyatta National Hospital	QMS/148	Public
231. KEPHIS	QMS/083	Public
232. Khetshi Dharamshi & Co.Ltd	ISO 9001:2008	Private
233. Kiambu Institute of Science & Technology	QMS/177	Private
234. Kibabii Diploma Teachers' Training College	QMS/256	Public

235. Kiirua Technical Training Institute	QMS/212	Public
236. Kimathi University College Of Technology	ISO 9001:2008	Public
237. Kipchabo Tea Factory Limited	FSMS/036	Private
238. Kipevu Ii Power Plant	ISO 14001:2004	Private
239. Kipevu Ii Power Plant-Wartsila	ISO 9001:2008	Private
240. Kipkebe Tea Factory	FSMS/033	Private
241. Kisii Bottlers Limited	OHSAS 18001:2007	Private
242. Kisii Bottlers Ltd	ISO 9001:2008 & ISO 14001:2004	Private
243. Kisii National Polytechnic	QMS/205	Public
244. Kisiwa Technical Training Institute	QMS/241	Public
245. Kisumu Polytechnic	QMS/222	Public
246. Kisumu Water and Sewerage Company	QMS/157	Public
247. Kitale Technical Training Institute	QMS/153	Public
248. KK Security	ISO 9001:2008	Private
249. KPLC Ltd	ISO 9001:2008	Private
250. KTDA Tea Factory	ISO 9001:2008	Private
251. Lady Lori Kenya Limited	ISO 9001:2008	Private
252. Lady Lori Kenya Limited	ISO 14001:2004	Private
253. Lake Basin Development Authority	QMS/195	Public
254. Lake Basin Development Company	QMS/141	Public
255. Lake Victoria North Water Services Board	QMS/091	Public
256. Lake Victoria North Water Services Board	ENV/019	Public
257. Lake Victoria South Water Services Board	QMS/176	Public
258. Lemoc Ltd	HACCP/016	Private
259. Linksoft Communications Systems Limited	ISO 9001:2008	Private
260. Linksoft Group Ltd	ISO 9001:2008	Private
261. Loita Group	ISO 9001:2008	Private
262. Maasai Mara University	QMS/253	Public
263. Mabati Rolling Mills Limited-Mariakani	ISO 9001:2008 & 14001:2004	Private
264. Mabati Rolling Mills Limited-Nairobi	ISO 9001:2008 & 14001:2004	Private
265. Machakos Teachers' Training College	QMS/225	Public
266. Machakos University College	QMS/154	Public
267. Magnet Ventures Ltd	ISO 9001:2008	Private
268. Majani Insurance Ltd	ISO 9001:2008	Private
269. Maseno University	QMS/113	Public
270. Masinde Muliro University of Science & Technology	QMS/188	Public
271. Mastermind Tobacco Kenya Limited	ISO 9001:2008	Private
272. Mathenge Technical Training Institute	QMS/144	Public

273. Matili Technical Training Institute	QMS/244	Public
274. Mawego Technical Training Institute	QMS/275	Public
275. Mbaraki Port Warehouses (K) Ltd	QMS/043	Private
276. Mehta Electricals	ISO 9001:2008	Private
277. Mellech Engineering And Construction Ltd	ISO 9001:2008	Private
278. Merchants Technical Services	QMS/272	Private
279. Meru National Polytechnic	QMS/175	Public
280. Meru University of Science & Technology	QMS/ 217	Public
281. Metal Crowns Limited	ISO 9001:2008	Private
282. Michuki Technical Training Institute	QMS/150	Public
283. Milly Glass Works Limited	ISO 9001:2008	Private
284. Ministry Of Agriculture	ISO 9001:2008	Public
285. Ministry of East African Affairs, Commerce and Tourism, State Department of East African Affairs	QMS/251	Public
286. Ministry Of Education	ISO 9001:2008	Public
287. Ministry Of Justice,National Cohesion And Constitutional Affairs	ISO 9001:2008	Public
288. Mission for Essential Drugs & Supplies	QMS/209	Private
289. Moi Teaching and Referral Hospital	QMS/075	Public
290. Moi University	QMS/099	Public
291. Mombasa Cement Limited Athi River Unit	ISO 9001:2008	Private
292. Mombasa Container Terminal Limited	ISO 9001:2008	Private
293. Mombasa Technical Training Institute	ISO 9001:2008	Public
294. Mount Kenya University	QMS/210	Private
295. Mt Kenya Bottlers Ltd	ISO 9001:2008, & ISO 14001:2004 & OHSAS	Private
296. Mt. Kenya Bottlers Ltd.	FSSC/004	
297. Muhoroni Sugar Company	QMS/061	Private
298. Muhoroni Sugar Company	ENV/018	Private
299. Multimedia University of Kenya	QMS/280	Private
300. Multiport International Limited	ISO 9001:2008	Private
301. Murang'a University College	QMS/164	Public
302. Mwalimu National SACCO Ltd	QMS/084	Public
303. Nairobi Bottlers Ltd	FSSC/001	Private
304. Nairobi City Water & Sewerage Company Ltd	QMS/063	Public
305. Nairobi Java House Ltd	FSMS/038	Private
306. Nairobi Technical Training Institute	QMS/194	Public
307. Nakumatt Holdings Ltd	QMS/050	Private
308. National AIDS Control Council	QMS/086	Public
309. National Biosafety Authority	QMS/214	Public
310. National Campaign Against Drug Abuse Authority (NACADA)	QMS 192	Public

311. National Cereals and Produce Board	QMS/255	Public
312. National Commission for Science, Technology & Innovation	QMS/206	Public
313. National Commission On Gender And Development	ISO 9001:2008	Public
314. National Environmental Management Authority	ISO 9001:2008	Public
315. National Hospital Insurance Fund	QMS/062	Public
316. National Housing Corporation	QMS/081	Public
317. National Irrigation Board	QMS/136	Public
318. National Museums Of Kenya.	ISO 9001:2008	Public
319. National Social Security Fund - Board of Trustees	QMS/181	Public
320. National Water Conservation & Pipeline Corporation	QMS/059	Public
321. Nestle Kenya Limited	ISO 14001:2004 & OHSAS 18001:2007	Private
322. New KCC - Dandora	FSMS/009	Public
323. New KCC - Kiganjo Factory	FSMS/012	Public
324. New KCC - Miritini	FSMS/025	Public
325. New KCC - Nairobi Cheese Factory	FSMS/010	Public
326. New KCC - Nyahururu Factory	FSMS/011	Public
327. New KCC - Sotik Factory	FSMS/013	Public
328. New KCC Eldoret	FSMS/026	Public
329. New KCC- Kitale	FSMS/028	Public
330. New Kenya Cooperative Creameries Ltd	QMS/240	Public
331. Nkabune Technical Training Institute	QMS/117	Public
332. North Eastern Province Technical Training Institute	QMS/226	Public
333. Numerical Machining Complex	ISO 9001:2008	Private
334. Nutro Manufacturing Epz Ltd	ISO 9001:2008	Private
335. Nyandarua Institute of Science and Technology	QMS/173	Public
336. Nyanza Bottling Company Limited	ISO 9001:2008, ISO 14001:2004 & OHSAS	Private
337. Nyeri Technical Training Institute	QMS/139	Public
338. Nyeri Water & Sewerage Co. Ltd	QMS/291	Public
339. Nzoia Sugar Co.	QMS/072	Public
340. Odex Chemicals Ltd	ISO 9001:2008	Private
341. Ol'lessos Technical Training Institute	QMS/168	Public
342. P.C. Kinyanjui Technical Training Institute	QMS/132	Public
343. Pctl Automation Limited	ISO 9001:2008	Private
344. Pest Control Products Board	QMS/130	Public
345. Philafe Engineering Ltd	ISO 9001:2008	Private
346. Phoenix Aviation	ISO 9001:2008	Private
347. Planet Yogurt	FSMS/037	Private

348. Plastic Products Co.Ltd	ISO 9001:2008	Private
349. Polucon Services Ltd	QMS/044	Private
350. Polyphase Systems Limited	ISO 9001:2008	Private
351. Power Technics	ISO 9001:2008 & ISO 14001:2004	Private
352. Premier Academy	ISO 9001:2008	Private
353. Printpak	ISO 9001:2008	Private
354. Privatization Commission	QMS/114	Private
355. Proctor And Allan (Ea) Ltd	ISO 9001:2008	Private
356. Public Procurement Regulatory Authority (PPRA)	QMS/273	Public
357. Railway Training Institute	QMS/233	Public
358. Retirement Benefits Authority	QMS/047	Public
359. Rift Valley Bottlers	ISO 14001:2004 & OHSAS 18001:2007	Private
360. Rift Valley Bottlers Limited	ISO 9001:2008	Private
361. Rift Valley Institute of Science & Technology	QMS/171	Public
362. Rift Valley Technical Training Institute	QMS/121	Public
363. Rift Valley Water Services Board	QMS/143	Public
364. Robico Chemicals	ISO 9001:2008	Private
365. Rosewood Furniture Manufacturers Limited	ISO 9001:2008	Private
366. Rural Electrification Authority	QMS/135	Public
367. Sadolin Paints (E.A.) Limited	ISO 9001:2008	Private
368. Sadolin Paints E.A Ltd	ISO 14001:2004	Private
369. Safaricom Limited	ISO 9001:2008	Private
370. Sangalo Institute of Science & Technology	QMS/223	Public
371. Sarova Lionhill Game Lodge	KNWA/07	Private
372. Sarova Mara	KNWA/08	Private
373. Sarova Shaba Game Lodge	KNWA/06	Private
374. Sarova White-Sands Beach Resort and Spa	KNWA/05	Private
375. Sasini Limited - Coffee	FSMS/031	Private
376. Sdv Transami Kenya Limited	ISO 9001:2008	Private
377. Sdv Transami Mombasa	ISO 9001:2008	Private
378. Security Group Kenya Ltd	ISO 9001:2008	Private
379. Shamberere Technical Training Institute	QMS/242	Public
380. Sheffield Steel Systems Limited	ISO 9001:2008	Private
381. Sigalagala National Polytechnic	QMS/259	Public
382. Siginon Freight Limited-Mombasa	ISO 9001:2008	Private
383. Siginon Freight Ltd	ISO 9001:2008	Private
384. Signode Packaging Systems Ltd	ISO 9001:2008	Private
385. Silpack Industries	ISO 9001:2008	Private
386. Slumberland Kenya Ltd	ISO 9001:2008	Private

387. Solidaridad Eastern And Central Expertise Central	ISO 9001:2008	Private
388. Sondhi Trading Company	QMS/046	Private
389. Sondhi Trading Ltd	FSMS/022	Private
390. Sous Chef Limited	HACCP/019	Private
391. Sous Chef Limited	FSMS/042	Private
392. South Eastern Kenya University	QMS/260	Public
393. South Nyanza Sugar Company (SONY SUGAR)	QMS/095	Public
394. South Nyanza Sugar Company Ltd	ENV/017	Public
395. Southern Engineering Ltd	QMS/027	Private
396. Spedag Interfreight Kenya Ltd	ISO 9001:2008	Private
397. Spinners & Spinners	ISO 9001:2008	Private
398. St. John's Teachers Training College	QMS/274	Public
399. Standard Rolling Mills Limited	ISO 9001:2008	Private
400. Steel Structures Limited	QMS/284	Private
401. Sumaria Industries Limited	ISO 9001:2008	Private
402. Syldon &Consulting Engineers Ltd	ISO 9001:2008	Private
403. Taita Taveta University College	QMS/285	Public
404. Tana Water Services Board	QMS/073	Public
405. Tanganyika Instant Coffee Company Ltd	FSMS/019	Private
406. Tanzania Steel Pipes Ltd	QMS/078	Private
407. Tarpo Industries Ltd	ISO 9001:2008	Private
408. Tata Africa Holdings (Kenya) Limited	ISO 9001:2008	Private
409. Tea Board Of Kenya	ISO 9001:2008	Public
410. Tea Research Institute - Kenya Agricultural and Livestock Research Organisation (KALRO)	QMS/160	Public
411. Technical Engineering Services Limited	ISO 9001:2008	Private
412. Ten Senses Africa Limited	HACCP/020	Private
413. Tesla Services Ltd	ISO 9001:2008	Private
414. The Karen Hospital	QMS/109	Private
415. The Mater Hospital	QMS/042	Private
416. The Nairobi Hospital	QMS/163	Private
417. The Nairobi Hospital	ENV/008	Private
418. The Nairobi Hospital - Catering Unit	FSMS/014	Private
419. The Sarova Stanley Hotel	KNWA/04	Private
420. Thika Technical Training Institute	QMS/126	Private
421. Thika Water And Sewerage Company	ISO 9001:2008	Public
422. Tinderet Tea Estate (1989) Ltd,	HACCP/011	Private
423. Tinderet Tea Estate (1989) Ltd,	FSMS/007	Private
424. TKM Maestro Ltd	ISO 9001:2008	Private
425. TNT Express Worldwide (K) Limited	ISO 9001:2008 & ISO 14001:2004	Private
426. Total Kenya Limited	ISO 9001:2008	Private

427. Total Kenya Limited (Lubricating Blending Plant)	ISO 9001:2008	Private
428. Total Kenya Ltd-Lpg Plant	ISO 14001:2004	Private
429. Total Security Surveillance Ltd	ISO 9001:2008	Private
430. Total Service Stations	ISO 9001:2008	Private
431. Transeast Limited	ISO 9001:2008	Private
432. Transeast Limited Mombasa	OHSAS 18001:2007	Private
433. Transeast Limited Mombasa	ISO 14001:2004	Private
434. Treadsetters Tyres Limited	ISO 9001:2008	Private
435. Trident Plumbers Ltd	QMS 237	Private
436. Tropikal Brands (Africa) Ltd	QMS/235	Private
437. Twiga Chemicals Industries Ltd	ISO 9001:2008	Private
438. Twiga Stationers & Printers Ltd	ISO 9001;2008	Private
439. UAP Insurance Company Limited	ISO 9001:2008	Private
440. Ultimate Security Limited	ISO 9001:2008	Private
441. Unga Farm Care (E.A) Limited	FSMS/032	Private
442. Unga Farm Care (E.A) Nakuru Feeds Plant	FSMS/034	Private
443. Unga Farm Care (E.A) Nakuru Mineral Plant	FSMS/035	Private
444. Union Logistics Limited	ISO 9001:2008	Private
445. United Millers Limited	ISO 9001:2008	Private
446. United Nations Office at Nairobi Publishing Services Division	ENV/011	Public
447. Universal Corporation Ltd	ISO 14001:2004 & OHSAS 18001:2007	Private
448. University of Eldoret	QMS/282	Public
449. University of Kabianga	QMS/189	Public
450. University of Nairobi	QMS/064	Public
451. University of Nairobi Enterprises and Services Ltd	QMS/097	Public
452. Varsani Brakelinings Limited	ISO 9001:2008	Private
453. Vermont Flowers (EPZ) Ltd	QMS/51	Private
454. Vermont Flowers (EPZ) Ltd	ENV/009	Private
455. Waridi Creations	ISO 9001:2008 & ISO 14001:2004	Private
456. Warren Enterprises Limited	ISO 9001:2008	Private
457. Wartsila E.A. Limited	ISO 14001:2004	Private
458. Wartsila Eastern Africa Limited	ISO 9001:2008	Private
459. Water Resources Management Authority	QMS/180	Public
460. Water Services Regulatory Board	QMS/076	Public
461. Water Services Trust Fund	QMS/123	Public
462. Welding Alloys Ltd	ISO 9001:2008	Private
463. West Kenya Sugar Co	ISO 9001:2008	Private
464. Wines Of The World Limited	ISO 9001:2008	Private
465. Winton Investment Services Limited	ISO 9001:2008	Private

466. Wote Technical Training Institute	QMS 247	Public
467. Youth Enterprise Development Fund Board	QMS/266	Public
468. Zaisco Construction And Engineering Limited	ISO 9001:2008	Private

Source: Kenya Bureau of Standards (2016)

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