CHANGE MANAGEMENT AND PERFORMANCE OF COMPANIES LISTED IN NAIROBI SECURITIES EXCHANGE IN KENYA

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DECLARATION

This thesis is my original work and has not been presented for a degree in any University.

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DEDICATION

This thesis is dedicated to my loving wife Pamela and my son Isaac for their patience, encouragement and understanding during my studies. I would also like to dedicate it to my late father Isaac Odhiambo Ng'ong'a, my mother Julia Odhiambo Ng'ong'a, whose value for education has been a source for inspiration to me.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABBREVIATIONS AND ACRONYMS

AIMS	Alternative Investments Market Securities
ANOVA	Analysis of Variance
BPS	Board of Post Graduate Studies
BSC	Balance Scored Card
CEOs	Chief Executive Officers
CMA	Capital Markets Authority
CVF	Competing Values Framework
DLOQ	Dimensions of Learning Organizations
FISMS	Fixed Income Securities Market Segment
FV	Feedback Valence
GEMS	Growth Enterprise Market Segment
GoK	Government of Kenya
ICT	Information Communication Technology
IT	Information Technology
IOE	Industrial Organization Economics
IPO	Initial Public Offer
MIMS	Main Investments Market Securities
NSE	Nairobi Securities Exchange

NACOSTI	National Commission of Science, Technology and Innovation
POS	Perceived Organizational Support
RBV	Resource-Based View
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investments
RRA	Rwanda Revenue Authority
SEM	Structural Equation Modeling
SCOT	Social Construction of Technology
SME	Small & Medium Enterprises
SPSS	Statistical Package for Social Sciences
TQM	Total Quality Management
U.S.A	United States of America

OPERATIONAL DEFINITION OF TERMS

Change Management: Formal process for organizational change, including a systematic approach and application of knowledge defining and adopting corporate strategies, structures, procedures and technologies to deal with change stemming from internal and external conditions (Amanda, 2007).

Organizational Culture: Is a set of management practices that has organizational values and reinforces the dominant values and beliefs which are key cultural traits such as involvement, consistency, adaptability and mission (Denison, 2000).

Organizational Management: Distinct process consisting of planning, organizing, motivating and controlling that is performed to determine and accomplish stated objective by the use of human beings and other resources (Terry, 1977).

Organizational Strategy: Strategies in organizations that are classified as corporate level strategy, business level strategy and functional or operational level strategy (Chaimankong & Prasertsakul, 2012).

Organizational Structure: Formal system of jobs and reporting which controls, coordinates and motivates employees so that they cooperate to achieve an organization's goals and dimensions of organizational structure that include formalization, specialization, standardization, centralization, professionalism, complexity, hierarchy of authority and personnel ratios (Daft, 1998).

Performance:	Corporate performance is an approach of market mechanism by which the company actively interacts with the financial factor and customer product markets (Simons, 2000).
Technology:	A design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome. It includes a hardware aspect and a software aspect and some of the technology characteristics are innovation, adoption and diffusion (Rogers, 2003).

ABSTRACT

Globally, companies are faced with rapidly changing business environment which has a significant effect on organizational performance. Notably, majority of organizations are unable to effectively manage operations/processes in the face of the changing technological arena, which has an impact on their competitiveness. In Kenya, there are a number of companies that have either collapsed or stagnated as a result of their inability to manage change effectively. It is therefore, important for organizations to adopt appropriate technology to be able to manage change in this turbulent and disruptive age to gain a competitive edge. The purpose of this study was to establish the effect of change management on performance of companies listed in NSE in Kenya when moderated with technology as it has brought changes on how companies conduct their operations/processes in order to survive in the dynamic business environment. The theories that underpinned the study were; three-step change theory, model of organizational culture, chaos and complexity theory, contingency theory, open systems theory, technology organization environment model and industrial organization economics theory. The study objectives sought to establish the effect of organizational culture on performance of companies listed in NSE, determine the effect of organizational strategy on performance of companies listed in NSE, determine the effect of organizational structure on performance of companies listed in NSE, assess the effect of organizational management on performance of companies listed in NSE and finally, to establish the moderating effect of technology in the relationship between change management and performance of companies listed in NSE. A cross sectional survey design was used on 64 companies listed in the NSE in Kenya. The sample size was 38 companies from (2013-2017) as at 30th June, 2017. Purposive sampling technique for 4 senior managers namely, Chief Executive Officers, divisional heads in Human Resource, Finance and Marketing in the listed companies in NSE were targeted with a sample size of 152 managers. Pilot study was conducted on 15 respondents and reliability coefficient(r) was above the recommended threshold of 0.7.The study used five point Likert Scale to measure change management and performance. Secondary data was obtained from published sources and primary data from the semi-structured questionnaire. The analysis comprised descriptive statistics, Pearson's correlation, hypotheses testing and regression analysis using ANOVA. Overall, findings indicated that there was significant positive effect on change management and performance of companies listed in NSE. The findings established that there were significant positive effect of organizational culture, strategy, structure, management on performance of companies listed in NSE. The study further reported that there was a significant moderate effect of technology in the relationship between change management and performance of companies in NSE. The study concluded that there was an effect of change management on performance of companies listed in NSE. The study recommended that the management should adopt the usage of technology as it is critical in change management. Further studies may re-look at other moderating or mediating variables that may affect change management on performance of companies listed in NSE in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Change management presents organizations with a competitive edge over other players in the industry in a dynamic competitive environment. The increasing global competition, technological change and expansion of customer expectations are creating turbulent competitive environment for organizations to be competitive (Khatoon & Farooq, 2016). Burnes (2004) observed that Lewin's experiments on planned change started during the World War II in an effort to change consumer behavior. In the late nineteenth century the complexity to change management started in United States of America (Swarnalatha & Prasanna, 2013). In Australia, change management both at federal and state level showed a sense of urgency for the government to revitalize public service that was able to sustain continuity and change (D'Ortenzio, 2012). Strategic change is a way of changing the objectives and vision of the company in order to obtain greater success (Naghibi & Baban, 2011). Organizational change is a complex activity that any tiny mistake in change management could lead to failure of organizational change (Song, 2009). Saif, Razzaq, Rehman, Javed and Ahmad (2013) noted that organizations that are most likely to be successful in making change work view change as a constant opportunity to evolve the business**.**

According to Kamugisha (2013) change can originate from external forces through technological advances, social-political or economic pressures or it can come from inside the organization. Boohene and Williams (2012) opined that employees often resist change efforts if they are not involved. Rezvani, Dehkordi and Shamsollahi (2012) noted that organizational change is the procedure by which the organization moves from its current position and state towards some future position that has a competitive edge. Hutter (2006) argued that change is understood as a sequence of events. Suresh (2011) defines change management as a method of empowering organizations and individuals for taking over their responsibility. Aljohani (2016) defines change management as a "set of aptitudes and skills an individual is required

for successful initiation and implementation of change in creation of value for the organization." D'Ortenzio (2012) noted that organizations must realize that it is important to have an integrated approach to any change program that involves combining structural, technological and behavioral approaches. Victor and Franckeiss (2002) argued that organizational change needs to focus on developing strategy through to operational implementation and evaluation. Concrete purposes of change management for different organizations are probably not the same though it makes organizations more effective, efficient and responsive to the turbulent competitive environmental changes (Song, 2009).

According to Terry (1977) opined that organizational management function process consists of planning, organizing, motivating and controlling that is performed to determine and accomplish stated objective by the use of human beings and other resources. Olusanya, Awotunggase and Ohadebere (2012) indicated that planning involves selecting from among alternative future course of action for the organization as a whole in every department or section. Whereas, Kabiru, Theuri and Misiko (2018) stated that in business, strategic planning offers complete direction for specific units such as human resources, financial focuses and marketing. Kabiru, Theuri and Misiko (2018) further indicated that without a vision, good plan or strategy the performance of a project would fail. Abiro (2013) opined that motivation helps propel employees in an organization towards a good directed pattern to achieve the organizational objectives. Motivation should be directed towards improving company operations. Whereas, Gitahi and K'obonyo (2018) indicated that the company controls the internal factors and ensures that the resources are used responsibly so long as the management plans, organizes, leads and controls resources effectively.

According to Gaye (2017) stated that the performance of Kenyan economy grew steadily at an average rate of 5% per year with the exception of 2017 where it grew by 4.7%. The GDP growth of 5.7% in 2015, 5.9% in 2016 and 4.9% in 2017. The GDP in agriculture was (24.2%), industry (14.8%), services (62.5%) in 2015 (Gaye, 2017).The performance indicated that there was a decline of 1% between 2016 and 2017 GDP growth rate (Gaye, 2017).The GDP by services was relatively higher than

agriculture and industry by 38.3% and 47.7% respectively. Gaye (2017) recommended that credit access can be supported by reducing public borrowing and the transactions cost for accessing credit through reporting, creation of a central electronic collateral registry and a framework to promote property as collateral with the automation of land registries and implementation of National Payments Systems Act (Gaye, 2017).

Lewis's three step model analyses brings about planned change at group, organizational and societal levels (Burnes, 2004). Denison's model of organizational culture shows that cultural traits include; involvement, consistency, adaptability and mission and have a significant predictors of effectiveness criteria like quality, employee satisfaction and overall performance (Denison, 2000). Open systems theory states that when organizations conduct their business, impact and change with their external environment, while at the same time are affected by external changes in local and global environments (Basted, 2004). Technological environment organization model explains the internal and external factors affecting the adoption of an innovation (Tornatzk & Fleischer, 1990). The contingency theory of organizational structure shows that it is static and fails in dealing with organizational change and adaptation (Galunic & Eisenhardt, 1994). Chaos and complexity theory accounts for dynamic evolution of industries and complex interactions among industry actors (Levy, 1994). And lastly, the industrial organization economics theory was used to analyze business strategy that is anchored on organizational performance (Suresh, 2011).

Capital Markets Authority and Nairobi Securities Exchange being regulatory bodies have an obligation to ensure that listed companies comply and operate according to the set down standards when trading in the securities exchange (CMA, 2002; NSE, 2013). The financial reports on performance of public listed companies are shared with these regulatory bodies, investors and the public to ensure that there is an element of transparency (NSE, 2014). They reflect the company's profitability at the end of a financial year. In this study the variables that were discussed include; organizational culture, strategy, structure, management and technology to address change management and performance of companies listed in NSE in Kenya.

1.2 Statement of the Problem

Globally, companies are faced with rapidly changing business environment which significantly affect organizational performance. In Kenya, there are a number of companies that have either collapsed or stagnated as a result of their inability to manage change effectively. Organizations should adopt appropriate technology and manage change to be competitive and survive in the changing business environment. Nohria and Beer (2000) observed that about 70% of all change initiatives fail. Abbas *et al.* (2014) conducted a study on the effect of information technology on performance of Allied bank employees in Pakistan failed to look at technology innovation, adoption and diffusion. Consumers have become more demanding and technology is transforming operations /processes. The challenge is how to make large corporations implement change management to realize better and superior financial performance.

Capital Markets Authority (CMA) approves public offers and listings of securities traded at NSE in Kenya (CMA, 2002). Statistics available indicate poor financial performance trend of companies listed in NSE that include; Kenya Airways which reported a loss of 10 billion (CMA, 2013) and their rationalization of operations resulted in a decline in direct operating cost by ksh.2.5 billion to 65.2 billion by the end of March 2016 financial year (NSE, 2016). Mumias Sugar Company Limited reported a loss of Sh.4.7 billion by the end of June 30,2016 financial year, compared to Sh.4.6 billion the previous fiscal year 2015 and compared to ksh.4.6 billion the previous fiscal year (NSE, 2016). Uchumi Supermarkets posted a loss of Sh.2.8 billion by over half a billion shillings less than its previous fiscal year 2015 (NSE, 2016). Eveready East Africa limited lost 248 million and is already existing Kenya Markets (CMA, 2013). NSE suspended CMC Holdings limited and later delisted it for malpractices among others. These companies were suspended from trading in NSE due to poor financial performance. Their financial reporting did not reflect the true financial status due to corruption, frauds, scandals, improper control systems and ineffective regulations.

Beshtawi and Jaaron (2014) study on change management in telecommunication sector in Palestine of forty two semi-structured interviews among 23 managers and supervisors; and 19 line employees did not use combine non-financial and financial indicators on performance. By (2005) study was a critical review of theories and approaches to organizational change management but not empirical test. Irungu (2007) conducted a study on the effect of top management teams on performance of publicly quoted companies in Kenya was longitudinal survey of 47 companies in NSE in Kenya from 2001-2005. Machuki (2011) conducted a study on external environment-strategy co-alignment, firm level institutions and performance of public quoted companies in Kenya was longitudinal survey of 53 companies from 2005-2009. The methodology used in this current study was sampling technique for 38 companies from 2013-2017. There is no study which has been undertaken on change management, technology and performance of companies listed in NSE in Kenya which this study addressed.

1.3 Research Objectives

1.3.1 Broad Objective

The broad objective of the study was to investigate change management on performance of companies listed in NSE in Kenya.

1.3.2 Specific Objectives

The study specific objectives were:

1. To establish the effect of organizational culture on performance of companies listed in NSE.
2. To determine the effect of organizational strategy on performance of companies listed in NSE.
3. To determine the effect of organizational structure on performance of companies listed in NSE.
4. To assess the effect of organizational management on performance of companies listed in NSE.

5. To establish the moderating effect of technology on the relationship between change management and performance of companies listed in NSE.

1.4 Research Hypotheses

The study null hypotheses were:

H_{01}: Organizational culture does not significantly affect performance of companies listed in NSE.

H_{02}: Organizational strategy does not significantly affect performance of companies listed in NSE.

H_{03}: Organizational structure does not significantly affect performance of companies listed in NSE.

H_{04}: Organizational management does not significantly affect performance of companies listed in NSE.

H_{05}: Moderating effect of technology does not significantly affect the relationship between change management and performance of companies listed in NSE.

1.5 Significance of the Study

Capital Markets Authority and Nairobi Securities Exchange policy makers in Kenya will benefit from the findings of this study in formulation and implementation of policies related to change management and how they can regulate trading in NSE in Kenya. The Government will also find the study useful in making policies, rules and regulations that governs trading in NSE to protect investors and support companies financially through bail out when suspended from trading in NSE in order to grow the economy. Firms and individuals (investors), the findings will enable them understand the challenges in implementing change management and the need to involve all stakeholders to participate as this will bring a sense of ownership and

responsibility. In addition, scholars and researchers will find the study findings useful for current and further research in change management and performance of companies listed in NSE in Kenya.

1.6 Scope of the Study

The study was based on public companies trading in NSE and comprises different sectors in the Kenyan economy. However, there were those which were limited companies and were not public hence, they were not eligible for this study. This study focused on 38 sampled companies that were operating in NSE between 2013 and 2017. The study investigated change management on performance of companies listed in NSE in Kenya. The selected employees for the study were mainly; chief executive officers, heads of divisions in human resources, finance and marketing.

1.7 Limitations of the Study

The respondents in the study were senior managers in the category of chief executive officers, heads of human resources, finance and marketing. They were assured that the data being sought would be solely used for academic purposes and confidentiality would be guaranteed. The study may have been constrained by small target population sample of 38 companies and 4 respondent per company between 2013 and 2017. Future researchers could involve more respondents across management hierarchy in each unit of analysis and also use longitudinal design. The external validity data of the study belonged to only Kenyan public companies listed in NSE were few as compared to multinational companies in the world.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter reviews literature of the study based on themes and sub-themes drawn from the specific objectives namely: theoretical framework, conceptual framework, and empirical review, critique of reviewed literature and research gaps.

2.2 Theoretical Framework

This study was guided by change management theories namely, the three step change theory was propounded by Lewin (1951) to provide a high-level approach to change by giving a manager or other change agent a framework to implement a change effort, which is always very sensitive and must be made as seamless as possible. Model of organizational culture was propounded by Denison (2000) for management of change in organization specifying factors of organization culture which need to be changed and reviewed prior to other factors. The open system theory was propounded by Bertalanffy (1968) and indicates all large organizations has multiple subsystems which receives inputs and turns them into outputs for use by other subsystems.

Technology organization environment framework was propounded by Tornatzky and Fleisher (1990) which describe factors that influence technology adoption and its likelihood, process by which a firm adopts and implements technological innovations is influenced by technological context, organizational context and environmental context. Fiedler contingency model was created by Fiedler (1971) indicating that there was no one best style of leadership. Chaos and complexity theory was pioneered by Lorenz (1963) in studying dynamics of turbulent flow in fluids. Industrial organization economics was propounded by Bain (1968) for an analytical framework to make relations amongst market structure, market conduct and market performance that will determine its conduct and performance.

2.2.1 The Three Step Change Theory

The theory of change was propounded by Lewin (1951) and it looked at change in a three step model of unfreezing, moving and refreezing. Lewin conceived the three-step model in analyzing, understanding and bringing about planned change in groups, organizational and societal level. The first step was unfreezing, which means that human behavior was based on a quasi-stationery equilibrium supported by a complex field force. Before old behavior could be discarded (unlearnt) and new behavior successfully adopted, the equilibrium needed to be destabilized (unfrozen) (Burnes, 2004). The second step was moving, that meant taking into consideration all the operating forces, identifying and evaluating iteratively the available options.

Whereas, the third step was refreezing, that meant to stabilize the group at a new semi- stationary balance that would ensure that new practices were relatively safe from regression. The new behavior must be, to some degree, congruent with the rest of the behavior, personality and environment of the learner or it would simply lead to a new round of disconfirmation (Schein, 1996). Refreezing were those change processes in organizational culture, norms, policies and practices which the organization is undertaking during change process (Burnes, 2004). Lewin's model does not explicitly state the notion that simply introduces change that results in adoption or sustenance for long. Lewin's planned change approach is still very relevant globally (Burnes, 2004).

McAleese, Creed and Zutshi (2013) assert that new procedures and practices was uncomfortable for manager's implementation due to internal and external resistance. Organizations are now moving from planned change approach to emergent strategy development and this requires an organizational culture that will open and flexible (McAleese, Creed & Zutshi, 2013). Other theories include, Prochaska and DiClemente's (1983) propounded change theory that focused on concentrated on precontemption, contemplation, preparation, action and support. Social Cognitive Theory was propounded by Bandura (1986) focused on behavior change that is affected by environmental influences, personal factors and attributes of behavior itself. Theory of Reasoned Action and Planned Behavior was propounded by

Fishbein *et al.* (1992) that focused on individual's attitude towards the desired behavior that is positive for change to occur by influencing a person's social environment or subjective norm (Kritsonis, 2005). The three step change theory informed the variable of change management in the study.

2.2.2 Model of Organizational Culture

This model was propounded by Denison (2000) which focused on a set of management practices that involves dominant organizational values and beliefs. The model indicates four key cultural traits such as involvement, consistency, adaptability and mission. Involvement cultural trait attributes were capability development, team orientation and empowerment. Whereas, consistency trait attributes were shown as core values, agreement, coordination and integration. Adaptability trait attributes were creating change, customer focus and organizational learning. Lastly, Mission cultural trait attributes were indicated as vision, strategic direction, intent, goals and objectives. Involvement and adaptability cultural traits attributes show flexibility, openness and responsiveness that are strong predictors of growth. Whereas, consistency and mission cultural traits attributes show integration, direction and vision and are better predictors of profitability (Denison, 2000).

Denison (2000) stated that all the four cultural traits attributes had predictors of effectiveness like quality, employee satisfaction and overall performance. He further reported that the cultural trait attributes of mission and consistency were linked to financial performance, while cultural trait attributes of involvement and adaptability could be linked to customer satisfaction and innovation.

Other theories include, Harrison's culture model was propounded by Harrison (1972) focused on the orientation namely; bureaucratic, rational and orderly with formalized procedures. Quinn and Rohrbaugh model was propounded by Quinn and Rohrbaugh (1983) focused on competing values framework (CVF) that was based on research to identify indicators of organizational effectiveness. Schneider's culture model was propounded by Schneider (1987) focused on the proposition that organizations select people who have common values within the organization.

Deal and Kennedy's culture model was propounded by Deal and Kennedy (2000) focused on people who take risk regularly and receive quick feedback regarding their actions. Cameron and Quinn culture model was propounded by Cameron and Quinn (2011) focused on Organizational Culture Assessment Instrument (OCAI) to assess the organizational culture profile that identifies the current and the preferred cultural profiles for organizational culture change. This model informed the variable of organizational culture in the study.

2.2.3 Chaos and Complexity Theory

This was propounded by Lorenz (1963) and focused on the study of complex, nonlinear, dynamic systems when studying the dynamics of turbulent flow in fluids. Levy (1994) viewed chaos theory as accounting for the dynamic evolution of industries and the complex interactions among industry actors. Long-term forecasting is almost impossible for chaotic systems and dramatic change can occur unexpectedly and as a result, flexibility and adaptiveness are essential for organizations to survive. Chaotic systems exhibit a degree of order, enabling short term forecasting to be undertaken and underlying patterns can be discerned. Chaos theory also points to the importance of developing guidelines and decision rules to cope with complexity and searching for non-obvious and indirect means to achieving goals (Levy, 994).

Levy (1994) asserts that the simulation model demonstrates that chaos theory has practical application to issues of business strategy. The simulation illustrates how management can underestimate the impact of disruptions to an international supply chain, generating substantial unanticipated costs. It also demonstrates how management might intervene to reduce the volatility of the supply chain and improve its performance, by reducing the extent of disruptions and changing the structure of the supply chain system. Change in the system is taken as being constant (Levy, 1994).

McBride (2005) argued that any apparent stable state is treated as temporary that organization and their information systems cannot be decomposed into simple elements because the complex interactions between processes give rise to new

emergent behavior. System elements are interdependent and interactions between them are non-linear such that linear causal links cannot be made. Most significantly, for an interpretive use of chaos theory, effects within non-linear systems are non-proportional. Small inputs can have large effects and large inputs result in no significant change (McBride, 2005).

Cvetek (2008) suggested that teacher educators should help students to accept the complexity and unpredictability of teaching as natural conditions and become "agents of chaos" in the classroom. In order to accomplish this task, teacher educators should accept the complexity and unpredictability of their own teaching environments, thus creating new possibilities for their students' learning and development as teachers. Other theories include, Theory of Competitive Advantage was propounded by Porter (1990) focused on factor conditions, demand conditions, related and supporting industries, and firm strategy, structure and rivalry. Open Business Model was propounded by Chesbrough (2006) focused on creating value by leveraging more ideas and utilizing a firm's key asset, resource or position. However, Chaos and Complexity Theory informed the variable/concept of organizational strategy in this study.

2.2.4 Contingency Theory

This was propounded by Fiedler (1971) and focused on the importance of both leader's personality and the situation in which that leader operates. Galunic and Eisenhardt (1994) argued that structural contingency theory was static and failed to deal with organizational change and adaptation. Parsons (1961) indicated that organizations adapt to changing environments. Whereas, Hamilton and Shergill (1992) observed that an organization in fit has better performance and generates surplus resources which lead to expansion like growth in size, geographic extension, innovation and diversification. Donaldson (2000) opined that structural contingency theory makes organizations move into fit with their contingencies that changes the structure.

Donaldson (2000) theory indicates that the effect of one variable depends upon the third variable and that contingency variables usually represent environmental

situations. Response variables mean organizational actions to respond to environmental contingencies. Performance variable are dependent variables that represent specific effectiveness and evaluate the fit between contingency variables and response variables. In the present study, contingency variable include technology. Response variable is the organizational structure. Other theories include, a Framework for Comparative Analysis of Organizations was propounded by Perrow (1967) focused on structuring the arrangements among people for getting work done and technology compares organizations. Structuring of Organizations was propounded by Mintzberg (1992) and focused on the organization, prime coordinating mechanism and type of decentralization. However, Contingency Theory informed the variable of organizational structure in the study.

2.2.5 Open Systems Theory

This was propounded by Bertalanffy (1968) and argued that traditional closed system models based on classical science and the second law of thermodynamics was inadequate for explaining large classes of phenomena. Bertalanffy (1968) maintained that the conventional formulations of physics are in principle, inapplicable to the living organism being open systems having steady state. The open systems theory states that large organizations has multiple subsystems that receives inputs from subsystems and turns them into outputs for use.

According to Basted (2004) organizations are open systems that conduct business and realign according to the changing external environment that occur in both local and global front. The parts that make up the organization are interrelated and are contingent on subsystem functioning. Open systems import and export material from and to the environment (Bruce, 2010). Hanna (1988) indicated that open systems theory was a comprehensive model that described parts of an organization and how they relate to one another. Pasmore and Sherwood (1978) argued that systems thinking provide guidance and direction for exploration of an organization and its goals for change. And that it describes the complex relationships between people, tasks, technologies and helps us to see how these can promote organizational performance (Pasmore & Sherwood, 1978).

Other theories include, Administrative Theory was propounded by Fayol (1949) focused on the utilization of a formalized administrative structure, division of labor and delegation of power and authority to administrators. Scientific Management Theory was propounded by Taylor (1911) focused on most efficient way of managing and making the workers more productive. However, the theory informed the variables/concept of organizational management in the study.

2.2.6 Technology Organization Environment Model

Technology Organization Environment Model was propounded by Tornatzky and Fleischer (1990) focuses on internal and external factors affecting the adoption of an innovation and concluded that diffusion of an innovation is influenced by technology, organization and environmental factors. Their framework identified the factors which influenced the process of adoption, implementation and uses of technological innovations. In their conclusion, they reported that technological factors included the existing technologies in use and new technologies relevant to the firm. Organizational factors namely descriptive measure includes scope, size and amount of slack resources available internally. The environmental factors include where the firm conducts its business namely, industry, competitors and dealings with the government (Tornatzky & Fleischer, 1990).

According to Rogers (2003) innovation is an idea, practice or object that is perceived as new by an individual or another unit of adoption. Diffusion is a way of communicating a new creation/innovation to the members of a social system (Rogers, 2003). Agarwal (2000) argued that the theory of innovation diffusion comprises potential users who make decisions to adopt or reject an innovation based on their beliefs regarding innovation. It has five characteristics namely; relative advantage, compatibility, complexity, trialability and observability. Firstly, relative advantage refers to an innovation as better than the idea it replaced.

Secondly, compatibility refers to consistency of innovation and has potential end-users existing values, prior experiences and needs. Thirdly, complexity refers to end-

users perceived level of difficulty in understanding innovations and their ease of use. Fourthly, trialability refers to how innovations are tested on a limited basis. Lastly, observability refers to the visibility of innovation results by other people. Lee, Hsieh and Hsu (2011) indicates that these characteristics explain the end-user having a new creation and making decision for it.

Other theories include, Systems Theory was propounded by Hughes (1980) and focused on historical development of technology and media with an emphasis on inertia and heterogeneity, stressing the connections between the artifact being built and social, economic, political and cultural factors surrounding it. Social construction of technology was propounded by Pinch and Bijker (1984) and focused on processes of technological innovation, recognizes social groups, disregards that technological change involves dynamics.

Structuration Theory was propounded by Poole and DeSanctis (1990) focused on structures as rules and resources organized as properties of social system where technology is not rendered as an artifact but instead examines how people interact with technology. Actor-Network Theory was propounded by Latour (1997) and focused on impartiality in the description of human and non-human actors and reintegration of the natural and social worlds. However, the technology organization environment model informed the variable/concept of technology in this study.

2.2.7 Industrial Organization Economics Theory

This was propounded by Bain (1968) and focused on the experience of industrialized nations (Basu, 1993). The field of industrial organization had been transformed during the past twenty years and that game theory had emerged as a predominant methodology for analyzing business strategy (Shapiro, 1989). This means that the new industrial organization involves specifying a game among competing firms and solving that game in extensive form using the non-cooperative solution concept of Nash equilibrium or one of its refinements. Using extensive form games to model strategic interactions has the virtue of forcing the analyst to think carefully and to be quite precise about specific nature of competition. At this time game theory provides the only coherent way of logically analyzing strategic behavior (Shapiro, 1989).

Fisher (1989) argued that game theoretic approach to industrial organization had been unsuccessful. The sensitivity of equilibrium behavior had evidence that the game theoretic approach had failed since the specification may be hard to discern from available industry information. Whereas, Shapiro (1989) further reported that game theory indicates about the conditions that different outcomes take place and the factors which are most critical in shaping behavior and performance in concentrated industries.

According to Porter (1981) the traditional brain/mason paradigm of industrial organization offered strategic management a systematic model for assessing competition within an industry, yet the model was seldom used in the business policy field. Industrial organization and business policy differed in their frame of reference (public vs. private), units of analysis (industry vs. firm), views of the decision maker and stability of structure and in other significant respects. Porter (1981) concluded that the development of industrial organization theory during the 1970's had indicated that the industrial organization should be resourceful to policy scholars.

Other theories include, Stakeholders Theory propounded by Freeman (1984) focused on defined objectives for what each stakeholder group expects from the corporation and how each group contributes to the success of the corporation. Balance Scorecard Theory was propounded by Norton and Kalpan (1992) and focused on non-financial and financial measures of monitoring performance. However, Industrial organizational Economics Theory informed the variable/concept of performance of companies in this study.

2.3 Conceptual Framework

This study was guided by the following conceptual framework. This is presented in Figure 2.1.

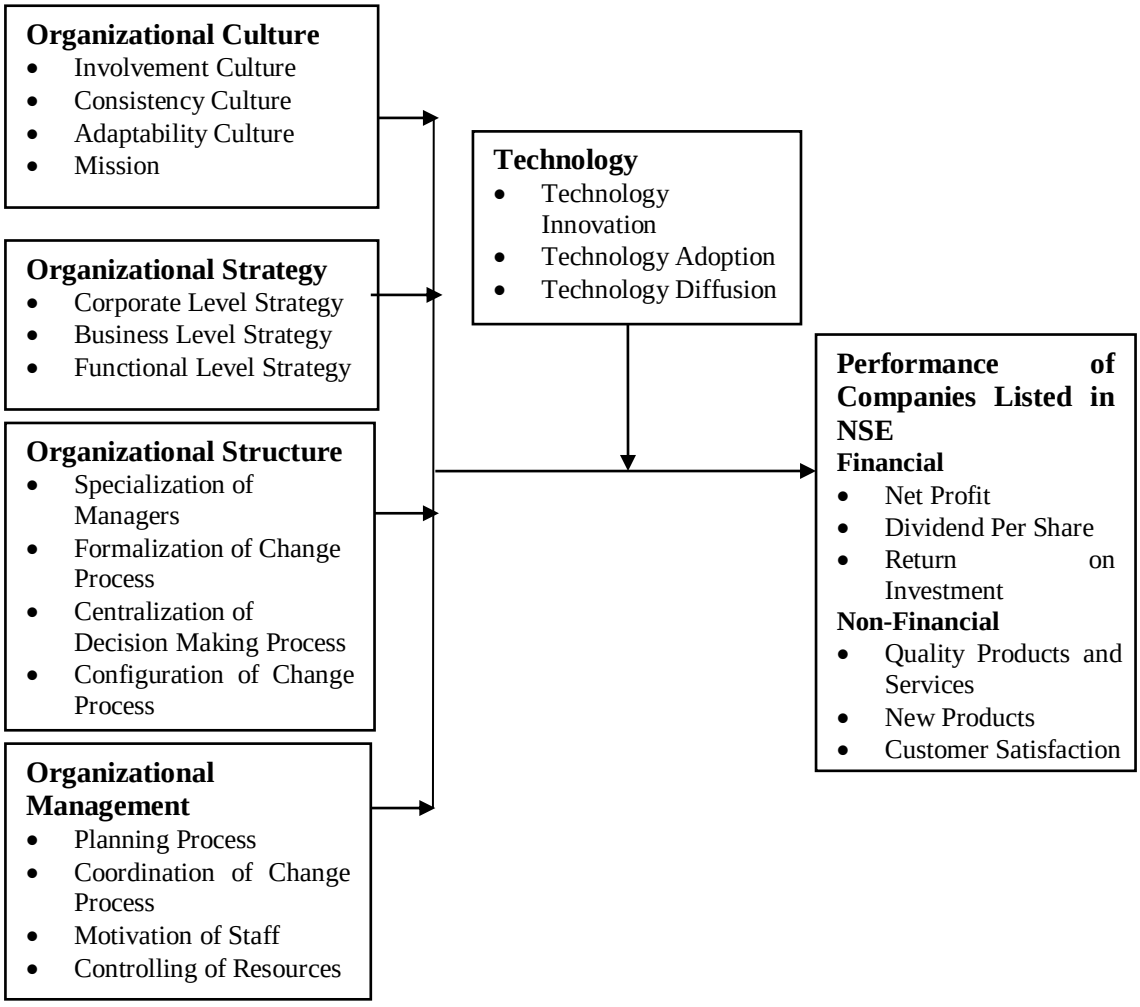


Figure 2.1: Conceptual Framework

2.3.1 Organizational Culture

People learn most of the behaviors and beliefs from the people they grow up with even though each individual has a unique talent and personal preference. Behaviors and beliefs of the people in the same organizations show common properties. This helps the organizations to create their own cultural properties (Aydin & Ceylan,

2009). Berson, Oreg and Dvir (2005) opined that organizational culture constitutes fundamental organizational characteristics with what the decision leaders make on the organization's structure, policies and procedures from their personal sense of what is desirable and undesirable which forms organization's culture.

Involvement culture refers to how individuals at all levels of the organization are brought on board in pursuing the mission and work in a collaborative manner to fulfil organizational objectives. This trait consists of building human capability, ownership and responsibility. Consistency culture refers to core values and the internal systems that support problem solving, efficiency and effectiveness at every level and across organizational boundaries. Adaptability culture refers to the capacity of the company in scanning external environment and realign to changing needs of customers and stakeholders. Mission refers to where the organization and its members are going, how they will get there and how each individual will contribute to the organization's success (Denison, 2000).

2.3.2 Organizational Strategy

Hubbard (2000) defined strategy as "those decisions which have long-term impact on the operations/processes of the organization through implementation by creating value to key stakeholders and outperforming competitors." Hubbard (2000) further opined that strategies in organizations could be classified into three levels namely, corporate, business and functional or operational level strategy. Whereas, Minzberg (2009) opined that strategy could be viewed as plan, ploy, pattern, position and perspective representing different aspects of strategy.

Salimian *et al.* (2012) observed that nowadays, strategy is defined at corporate, business and functional levels and further indicated that success of organizations depends not only on developing strategies at these levels but also alignment between them. Corporate level strategy refers to all businesses in an organization that encompasses three general orientations namely; growth, stability and retrenchment. And the business level strategy aims to achieve competitive advantage in a specific market. And finally, functional or operational strategy is concerned with how the

organization delivers value to the business and corporate level (Chaimankong & Prasertsakul, 2012).

2.3.3 Organizational Structure

Wolf (2002) refers to organizational structure as the architecture of business competence, leadership, talent, functional relationships and arrangement. Underdown (2012) stated that organizational structure controls, coordinates and motivates employees so that they cooperate to achieve an organization's goals. Tran and Tian (2013) indicated that companies arrange their functions such as marketing, accounting, finance and engineering in order to use the expertise of employees to accomplish tasks and projects. Herath (2007) opined that organization structure directs the competence of work, enthusiasm of employees and coordination among the top management and subordinates for flow of plans and goals in the organization to sketch the future plans. Tran and Tian (2013) observed that the static nature of organizational structure sometimes cannot meet requirements of efficiency and adoptability.

Specialization of managers refers to how the company is often closely related to the number and distribution of specialist roles when companies split into departments. Firms which have more specializations will have more divisions and possibly sub-divisions too (Matsui, 2000). Formalization or standardization of change processes refers to proportion of codified jobs and variation that is tolerated within the parameters that define jobs and number of written rules, policies, procedure and so on (Lunenburg, 2012). Centralization of decision making process refers to the manner in which an organization allocates resources and determines policies and objectives. A centralized organization will typically have a high degree of hierarchical authority and low levels of participation in decisions about policies and resources. Decentralized organization has hierarchical authority that is low, high participative and quick way in making of decisions (Andrews, Boyne, Law & Walker, 2009). Configuration of change process refers to the number of hierarchical layers and span of control such as how many subordinates each manager has.

2.3.4 Organizational Management

Terry (1977) refers to management as a distinct process consisting of planning, organizing, motivating and controlling what is performed to determine and accomplish stated objective by the use of human beings and other resources. Ufartiene (2014) describes planning process as one of organization's management functions and core function of organization management. During planning process, managers should be able to evaluate all potential tasks and pick the most important ones. Vanagas and Stankevic (2014) refers to coordination of change process as an establishment of communication channels between people who are executing different work that is intended to correct the executor's actions, that does not comply with selected course of the plan. Abbah (2014) refers to motivation of staff as providing leadership for subordinates and requires the ability to inspire them to put in their efforts in achieving the organizations objectives, by creating good moral or working spirit among employees. And that what motivates one person might not motivate another and therefore, for the best results any manager should understand and as far as feasible, get to know something about each of his/her subordinates (Abbah, 2014).

Nurwati (2013) refers to control function (controlling) as a role to detect potential weaknesses that occur as a feedback to the management of an activity, starting from the planning stage to the implementation stage. Controlling of resources function includes the creation of standards or criteria, comparing results with standard monitoring, the implementation of an improvement over the deviation or aberration, modification and adjustment of the changing conditions, as well as communicating the revisions and adjustments of process management so that irregularities or flaws are not repeated again (Nurwati, 2013).

2.3.5 Technology

Grimsley (2013) defined technology as "the making, modification, usage and knowledge of tools, machines, techniques, systems and methods of organization in problem solving, or achieve a goal." Burns and Mohapatra (2008) argued that

automation leads to reduced human resource related costs since fewer people are required to operate the systems as opposed to them carrying out the actual process.

Technology innovation refers to the process of creating a new product, method or service that provides value-addition to its users by providing a function that is better and/or cheaper than previous options. The concept of innovation is also used for the outcome of a process (Elg, 2014). Technology adoption refers to the choice of acquiring and using a new invention or innovation. Technology diffusion refers to the process by which something new spreads throughout a population (Hall & Khan, 2002).

2.3.6 Performance of Company

Simons (2000) opined that corporate performance is an approach of market mechanism by which the company actively interacts with the financial factor and customer product markets. That in the financial market, corporate performance strives to satisfy shareholders with financial indicators. In the factor market, such as suppliers and other production owners, the corporate ability to pay in time and in agreed amount are important in evaluating corporate performance (Simons, 2000). Kaplan and Norton (1992) argued that the extended measurement of corporate performance is by balanced scorecard, where the core idea is to balance the domination of financial and non-financial aspects in corporate performance. Ghosh and Mukherjee (2006) observed that in the present era of emerging intense global competition, organizations are facing increasingly knowledgeable, demanding customers and activists who have changed from competition based on the ability to invest by managing physical assets, knowledge and exploiting intangible and soft assets.

Net profit refers to the profit made by the business for the year which is from the operating profit, interest and any other exceptional costs. Net profit may be calculated before or after the subtraction of taxation (Tulsian, 2014). Corporate dividend policy refers to the amount due for payment to shareholders and retained in the company for reinvesting in profitable projects or retention in case of future needs (Ross, Westerfield & Jaffe, 2005). Return on investment refers to the measure of

profitability that indicates whether or not a company is using its resources in an efficient manner and it is expressed in percentage (Best, 2009; Drury, 2007; Moutinho & Southern, 2010).

2.4 Empirical Review

2.4.1 Organizational Culture and Performance of Companies listed in NSE

Organizational culture and performance has engaged the attention of researchers for example; Olanipekun, Aje and Falemu (2013) study on effects of organizational culture on performance of quantity surveying firms in Nigeria reported that organizational culture was positive on reward, stability and competitiveness on performance orientation. And that they could be more efficient to achieve sustainable performance if they focused on organizational elements that enhance performance. Olanipekun, Aje and Falemu (2013) study adopted survey research design with 126 structured questionnaires targeting principal partners, senior and junior quantity surveyors in 42 quantity surveying firms in Lagos. 90 questionnaires from 40 quantity surveying firms were analyzed using mean score. Stepwise regression analysis was carried out to predict the performance of quantity surveying firms. Their study was based on reward, stability and competitiveness. The firms were not operating in the securities exchange in Lagos, Nigeria. This study did not consider organizational culture indicators like involvement, adaptability, consistency culture, mission and performance of companies listed in NSE, a gap which the study intended to fill.

A study by Awadh and Saad (2013) on the impact of organizational culture and employee performance in Malaysia reported that value and norms of an organization were based upon employee relationship to increase the level of performance by designing strategies. Awadh and Saad (2013) performance management system was measured using the balance scorecard. Their methodology was reviewing literature and concentrated on process, employees and systems. In more than 60 research studies, 7,600 small business units and companies' performance from 1999 to 2007 were evaluated. Awadh and Saad (2013) recommended that managers should relate organization performance and culture to each other as they help in providing

competitive advantage to firms. Their study was a desk research from published articles and not empirical research. Performance was measured using balance scorecard and did not consider financial measures to report performance. The indicators of organizational culture such as involvement, adaptability, consistency culture and mission on performance of companies listed in NSE were not considered. The study concentrated on small business units and not large business units that would trade in the stock exchange. The period for the literature review was from 1999 to 2007 and not 2009 to 2013 the period which this study intends to cover and a lot could have changed since then.

Zakari, Poku and Ansah (2013) conducted a study on the effect of organizational culture and performance of banking industry in Ghana and reported that there was a significant difference among the banks with organizational culture traits and no significant difference among them regarding performance. They further reported that there was a positive significant effect of organizational culture and performance of banking industry. Mission was the culture trait with the strongest potential of impacting positively on performance using the Denison's organizational model. The variable items were measured using five-point Likert scale of the nine banks in Ghana. The analysis was based on 296 respondents from various departments with varied positions. Their study did not consider other variables of Denison's organizational model namely, involvement, adaptability and consistency culture in the Kenyan context.

According to Ahmed and Shafiq (2014) study on the impact of organizational culture and organizational performance in Bahawalpur based franchises of telecom companies in Pakistan reported that all the dimensions of culture influence the different perspective of organizational performance. Their study adopted a quantitative approach with 22 questionnaires distributed to the respondents out of which 15 questionnaires were returned. Ahmed and Shafiq (2014) study considered the dimensions of Hofstede. They recommended that future research should consider other variables that affect the organizational performance. They indicated that more respondents from franchises of other cities should be included by increasing the population size in order to have a more diverse participants that will bring better

results. The study did not consider indicators such as involvement, adaptability, consistency culture and mission which the study addressed.

A study conducted by Ali, Said, Abdallah and Daud (2017) on the effect of organizational culture and financial performance found that organizational culture was a major factor for organizational success. Ali, *et.al* (2017) reviewed empirical studies and summarized. They concluded that the organizational culture and financial performance was inconclusive. Ali *et al.* (2017) recommended that further investigations were necessary, a gap that this study intends to address by looking at indicators such as involvement, adaptability, consistency culture and mission on performance of companies listed in NSE in Kenya.

A study by Chukwu, Aguwamba and Kanu (2017) investigated the impact of organizational culture and performance in the banking sector in Nigeria. They reported significant positive relationship between cultural fit, reinforcement of pillar of existence, enhancement of organizational effectiveness and performance. Chukwu, Aguwamba and Kanu (2017) further reported significant negative relationship between the consistent pattern of behavior and performance. Their study used survey and data collected using questionnaires. Analysis was done using percentages and multiple regression. Chukwu, Aguwamba and .Kanu (2017) recommended building of strong and consistent culture that will help to pattern growth and reinforce pillars of organizations existence. They concluded that cultural pedestal was critical where organizations stand and should not be substituted with selfish interests. Chukwu, Aguwamba and .Kanu (2017) study was in the banking sector in Nigerian, a gap that the study intends to fill by looking at different sectors with indicators such as involvement, adaptability, consistency culture and mission in the Kenyan context.

2.4.2 Organizational Strategy and Performance of Companies listed in NSE

Njagi and Kombo (2014) conducted a study on the effect of strategy implementation on performance of commercial banks in Kenya. They reported a moderate and strong effect of strategy implementation on organizational performance of commercial banks. Correlational research design was used with a target population of 43 commercial banks from 2010-2011. Njagi and Kombo (2014) study was a census

survey and used primary data collected from the questionnaire administered to designated managers conversant with the institution's strategy implementation and performance of commercial banks. Analysis of the data collected was by descriptive statistics and percentages. Statistical package for social sciences (SPSS) version 21 was used to summarize the data. Pearson's correlation coefficient and multiple regression models were used in the study. Njagi and Kombo (2014) recommended that for institutions to thrive and compete they must implement strategies effectively. Their study had only 44.8% variation in performance that was explained by strategy implementation suggesting other factors influenced performance which could provide base for further research. The sample should also include other financial players and institutions to perform detailed studies into their strategic management styles so that relevant improvements could be made in areas of weakness. Njagi and Kombo (2014) study did not consider organizational strategy indicators like corporate, business and functional level strategy.

In another study by Chaimankong and Prasertsakul (2012) on the impact of strategy implementation and performance of generic strategy: evidence from firms in Thailand chemical industry. They reported that the success in strategy implementation did not change the relationship between strategic type and a firm's performance as it may be universal, regardless of the geographical location where the study is conducted. Data was collected from 111 key informants using probability sampling techniques. Structured questionnaires were collected from senior executives. Both one and two-way analysis of variance (ANOVA) were used. Chaimankong and Prasertsakul (2012) recommended that further studies in other contexts was required before drawing conclusion, whether the relationship of strategic type and performance is contingent on strategy implementation or not. And that more studies are required in other industries and countries to reveal a clearer picture of the relationship and to consider using more specific barriers to implementations. Their study focused on one particular industry and failed to consider other industries that are operating in Thailand. The study did not consider organizational strategy indicators like corporate, business and functional strategy.

Monroe (2006) study focused on how corporate strategy contribute to firm performance: a cross-sectional study of resource governance decision making in the US firms. Monroe (2006) reported that a small significant influence of corporate strategy and variance of both business unit performance and firm performance. Fifteen Fortune 1000 US firms were categorized into three subpopulations. Eighteen indicators representing both excellence in corporate strategy and the incidence of corporate strategy were collected through the content analysis of Wall Street Journal articles from 1980 to 2004. Inferential statistical techniques was used in the study. Monroe (2006) study did not consider organizational strategy indicators such as corporate, business and functional level strategy which the study intends to address.

2.4.3 Organizational Structure and Performance of Companies listed in NSE

Meijaard, Brand and Mosselman (2005) conducted a study on the effect of organizational structure and performance in Dutch small firms and reported that organizational structure mattered and deserved to be taken into account in models and future analysis of small firm performance. And that nine structure stereotypes could be delineated. The study used a stratified sample of 1411 Dutch small firms. They concentrated on small Dutch firms and did not consider large firms in their study. This study did not address the indicators of organizational structure such as specialization, centralization, formalization and configuration. In another study by Tajipour, Sarboland and Khodabakhshi (2014) on the impact of organizational structure levels on productivity in Imam Reza Mehr Fund in Khuzestan province reported a statistically significance difference on impact of organization structure indicators such as formalization, complexity and centralization on productivity. The target population was 72 employees. The study used census and simple random sampling method with seventy two questionnaires. Data was analyzed using deductive and descriptive statistical methods. Two-way variance analysis to test the hypothesis of the research was used. Questionnaires reliability was estimated by calculating Cronbach's Alpha. SPSS tool was used in the study. Tajipour, Sarboland and Khodabakhshi (2014) study did not consider other organizational structure indicators such as specialization of managers and configuration of change process.

Basol and Dogerlioglu (2014) study on structural determinants of organizational effectiveness increasing organizational effectiveness on software industry firms reported that formalization and specialization increases organizational effectiveness. They further reported that an increase of organizational size decreases the organizational effectiveness showing that, software companies need to remain at small scale while increasing their organizational performance when undertaking specialization and formalization. The structural variables considered in this research were formalization, specialization, centralization, organizational age and size. The survey comprised 120 software firms. Data was analyzed using statistical test techniques. The regression model proved that organizational size, formalization and specialization were the factors influencing organizational effectiveness. Basol and Dogerlioglu (2014) further indicated that improved communication may refer to more policies, procedures and rules which in turn will increase formalization. The study left out indicators such as configuration of change process and centralization of decision making which are also critical in organizational structure. The study only targeted software firms, a gap that this study intended to address in the Kenyan context.

2.4.4 Organizational Management and Performance of Companies listed in NSE

Muogbo (2013) conducted a study on strategic management, organizational growth and development of selected manufacturing firms in Anambra State, Nigeria. Muogbo reported that strategic management adoption had an effect on employee's performance by increasing organizational productivity and enhancing structural development of manufacturing firms. The target population was 63 respondents selected from 21 manufacturing firms with a sample of 3 firms each. Descriptive statistics and chi-square was used. The study concluded that strategic management was not yet a common business practice among manufacturing firms but an important tool for improving the competitiveness, performance levels and structural development of manufacturing firms in Nigeria. Muogbo (2013) recommended that entrepreneurial center and business schools in Nigeria should incorporate strategic management principles into their curricula and further studies should be carried out to investigate the causes on non-adoption of strategic management. This study did

not consider organizational management variable and indicators such as planning process, coordination of change process, motivation of staff and controlling of resources. Muogbo (2013 study concentrated on manufacturing firms in Anambra State and failed to address different sectors, a gap this study intends to address in the Kenyan context.

In another study by Kehinde (2012) on the effect of talent management and organizational performance in Nigeria reported a positive impact of organizations overall performance in the multinational and national firms. They further reported that small and medium scale firms had not gained from the new technique within the Nigerian business environment. Sixteen copies of the questionnaire were administered randomly to the senior managers (CEO's or director) for collecting primary data. Bi-variate correlation and statistical package for social sciences (SPSS version 17) was employed in computing the Pearson's correlation coefficients, t-statistic was employed to test the hypotheses formulated in the study and the descriptive analyses were used to analyze data. Kehinde (2012 recommended that talent management scheme should be used for all categories of staff within the firm that had special talent and that firms should separate between their talent management scheme and the total human resources management style of the firm. The study did not consider organizational management variable and indicators such as coordination of change process, motivation of staff and controlling of resources, even though planning process was considered as being a tool in talent management for human resource management. Kehinde (2012 study had 16 respondents which was a small sample size for generalization of results of the study, a gap which this study intends to fill.

A study by Aremu and Oyinloye (2014) on the relationship between strategic management and firm's performance on selected banks, Ilorin Metropolis in Kwara State, Nigeria reported that strategic management affected organizational performance. They further reported that no matter how well-structured and organized a plan may be, if not implemented, business failure was inevitable. A research survey and a random selection of five banks was used in the study. Primary data was collected from 100 questionnaires. Statistical techniques and hypothesis was tested

using t-test. Multiple regression analysis with the aid of statistical package for social science (SPSS) was used. Aremu and Oyinloye (2014) recommended that the process of strategic management must be carefully implemented for an organization to be outstanding in its performance and have competitive advantage and stay afloat in the dynamic environment. The study did not consider organizational management variable and indicators such as coordination of change process, motivation of staff and controlling of resources. Aremu and Oyinloye (2014) study concentrated on five banks in Kwara State in Nigeria and failed to address different sectors of the economy, a gap which the study intends to address in the Kenyan context.

2.4.5 Technology and Performance of Companies listed in NSE

Nwosu, Awurum and Okoli (2015) studied evaluation of technological innovations on corporate performance of selected manufacturing firms in Nigeria Stock Exchange and reported a significant positive effect of process innovation, product innovation, organizational structure, employee development and performance. The target population was 8725 from ten manufacturing firms. The sample size used a structured questionnaire. The study used descriptive survey design while t-statistics was adopted for hypotheses testing. The study concluded that the firms attested to the presence of technological innovation as a critical success factor and recommended that employee development facilitates technological innovation and firms should adopt appropriate structure as it provides a solid foundation for the operation of companies and technology. The study concentrated on manufacturing firms in Nigeria Stock Exchange and left out different sectors. The study did not consider indicators such as technology innovation, technology adoption and technology diffusion which this study intends to address.

In another study by Reichert and Zawislak (2014) on technological capability and firm performance on Brazilian firms of low and medium-low technology industries. They reported that firms of lower technological intensity industries performed above average in the economic performance indicators since they invested below average in technological capability. Their study was based on economic development theory with a target population of 133 Brazilian firms. The study reported failure to confirm

the existence of a positive relation between technological capability and firm performance because there were other elements that allowed firms to achieve such results. They used secondary data from companies' annual reports and profit and loss statements and websites. The period covered was from the years 2008 to 2010. Data collection procedure was a documentary research. The sample size was smaller thirty eight with a low rate. The data was not representative enough to warrant generalization of the results. The study did not collect primary data neither considered technology indicators such as technology innovation, technology adoption and technology diffusion, a gap this study intends to address.

A study by Richards, Yeoh, Chong and Popovič (2014) on an empirical study of business intelligence impact on corporate performance management reported the effectiveness of the related planning and analytic practices. Richards *et al.* (2014) further reported that size and industry sector do not influence the relationships between business intelligence effectiveness and the corporate performance management. The study conducted a survey to collect data from 337 senior managers. Partial least square method was employed to analyze the data. The study did not link the variable of technology indicators such as technology innovation, technology adoption and technology diffusion which this study intends to address in the Kenyan context.

Mazidi, Amini and Latifi (2014) conducted a study on the impact of information technology capability and firm performance; a case of employee-customer profit chain at technical and vocational organization in Mashhad city, Iran. Their study reported that there was a strong support for the structural equation modeling. Mazidi, Amini and Latifi (2014) study used a questionnaire and quantitative data collected from a sample of 212 employees. They recommended that future research may investigate a direct linkage between information technology capability and employee customer profit chain elements in other organizational contexts such as business organizations and manufacturing or replace a more effective construct to formulate this effect. The study failed to make causal conclusions and the relationships could be inflated or deflated because of the cross-sectional survey in the study. The generalization of results could not apply to service organizations and educational

institutions. Mazidi, Amini and Latifi (2014) study did not link the variable of technology indicators such as technology innovation, technology adoption and technology diffusion that are critical which this study intends to address in the Kenyan context.

2.4.6 Performance of Companies listed in NSE

Santos and Brito (2012) conducted a study toward a subjective measurement model for firm performance and reported that dimensions cannot be used interchangeably because they represent different aspects of firm performance and that stakeholders also have different needs. Their study used confirmatory factor analyses data from 116 Brazilian senior managers to test its fit and psychometric properties. Santos and Brito (2012) study lacked convenience and geographic characteristics of the sample to allow generalization of the results and failed to test the market value. The final model had six first order dimensions: profitability, growth, customer satisfaction, employee satisfaction, social performance, and environmental performance. A second-order financial performance construct, influencing growth and profitability, correlated with the first-order inter correlated, non-financial dimensions. They recommended that researchers and practitioners may use the model to fully treat performance in empirical studies and to understand the impact of strategies on multiple performance facets.

Another study by Fauzi, Svensson and Rahman (2010) reviewed corporate, financial and social performance. They reported that the concept of triple bottom line as sustainable corporate performance should consist of three measurement elements namely; (i) financial, (ii) social and (iii) environmental. The content of each of these measurement elements may vary across contexts and over time and they should be interpreted to be a relative concept that is dynamic and iterative. They recommended that continuous monitoring need to be performed, adapting the content of the measurement elements to changes that evolve across contexts and over time in the marketplace and society. Kabajeh, Nu'aimat and Dahmash (2012) study examined ROA, ROE and ROI ratios together and separately with Jordanian insurance public companies share prices during the period (2002-2007). They reported that there was

a positive relationship between ROA, ROE, ROI ratios and Jordanian insurance public companies share prices. Their findings further showed a positive but low relationship between each of ROA ratio and ROI ratio separately and Jordanian insurance public companies share prices. Their study was based on the empirical evidence. Kabajeh, Nu'aimat and Dahmash (2012) concluded that there was no relationship between the ROE ratio and Jordanian insurance public companies market share prices.

2.5 Critique of the Existing Literature

Olajide (2014) conducted a study on change management and organizational performance of Nigerian telecoms industries of Airtel Nigeria and reported a significant effect of change in technology, customer taste, leadership and performance. The study concentrated on organizational structure, change in technology and individuals on performance and did not consider change management dimension such as organizational culture, strategy, structure, management and show how the moderating effect of technology relates to the organizational performance. The study did not consider other public companies and different sectors in the Kenyan context. Wanza and Nkuraru (2016) studied the influence of change management and employee performance in the University of Eldoret, Kenya. Their study found that change management factors such as leadership, culture, structure and technology influenced employees' performance at all levels positively in the university. The 4 variables were all independent variables and failed to bring out moderating effect of technology in the relationship between change management and performance of companies listed in NSE. The study was conducted in an educational institution of higher learning, a gap that the study intends to address.

Ndahiro, Shukla and Oduor (2015) conducted a study on the effect of change management and performance of government institutions: a case of Rwanda Revenue Authority, Rwanda and focused on planned change and implementation. Their study failed to bring out the moderating effect of technology on organizational culture, strategy, structure and management and performance of companies listed in NSE. The study was done in Rwanda revenue authority and not in a Securities Exchange in

the Kenyan context. Jaradat *et al.* (2013) conducted a study on the impact of change management and performance of employees in the university libraries in Jordan. They reported a positive effect of change in organizational structure, technology, individuals and performance of employees. The study failed to address moderating effect of technology on change management and performance of companies listed in NSE. Jaradat *et al.* (2013) study was conducted in an educational institution of higher learning in Jordan and not in a public company in the Kenyan context.

Nyaungwa, Linganiso and Karodia (2015) study assessed the impact of change management and performance of Zimra region in Zimbabwe. They found out that team work, communication, staff involvement and commitment lacked during change process which resulted to resistance to change. Nyaungwa, Linganiso & Karodia (2015) recommended that Zimra should establish a plan to communicate and involve staff in the organization to reduce resistance to change by conducting training. And that same research should be conducted in different regions in Zimra to see how change was managed and tax administration with similar changes should be conducted in other countries. Nyaungwa, Linganiso and Karodia (2015) study did not consider dimensions of change management such as, organizational culture, strategy, structure, management and performance of companies. Their target population consisted of 410 employees and no distinction was made in their designation whether they were all managers or not. The study concentrated on regions within Zimbabwe and did not consider companies in different sectors in the Securities Exchange in the Kenyan context.

The reviewed study methodological approaches failed to include public companies listed in NSE in Kenya for the last 5 years between the years 2013 to 2017 and totaling 64 companies comprising 256 senior managers. This study used a pilot study of 15 senior managers. A cross sectional survey design and a sample of 38 companies was used. Purposive sample of chief executive officers, heads of human resources, finance and marketing was considered for the study which earlier researchers did not consider in their studies.

2.6 Research Gaps

The empirical research on change management and organizational performance has elicited a lot of interest among researchers but what is not clear is the understanding of change management concept as it does not have a clear definition. Some scholars and researchers have looked at change management as an approach whereas, others have used different variables to explain what change management and organizational performance constitute. Olajide (2014) conducted a study on the effect of change management and organizational performance of Nigerian telecoms industries, Airtel Nigeria and reported a significant effect of change in technology, customer taste, leadership and performance. Olajide (2014) recommended proactiveness to changes in a competitive environment and management of human side to avoid resistance to change. The study further recommended future studies to be undertaken to employ the service of internal change manager to work together with change expert to facilitate growth in performance and smooth change implementation. This study addressed approaches to change, a gap that this study intends to address the moderating effect of technology on change management (organizational culture, strategy, structure and management) and performance of companies listed in NSE in Kenya.

Nyaungwa, Linganiso and Karodia (2015) study involved assessing the impact of change management on the performance of Zimra region in Zimbabwe. They recommended that future research should establish a plan to communicate change process in the entire organization by involving employees to reduce resistance to change when conducting staff training. This study further encouraged future studies on other regions in Zimra to see how change was managed in those regions and tax administration with similar changes could be conducted in other countries. Awadh and Saad (2013) conducted a study in Malaysia and recommended that managers should relate organization performance and culture to each other to provide competitive advantage to the firms. Njagi and Kombo (2014) study was on the effect of strategy implementation and performance of commercial banks in Kenya. They recommended that for institutions to thrive and compete they must implement strategies effectively. Meijaard, Brand and Mosselman (2005) conducted a study on

organizational structure and performance in Dutch small firms. Their study was only on commercial banks in Kenya and failed to consider different sectors in Kenyan economy.

Muogbo (2013) study focused on the impact of strategic management, growth and development of selected manufacturing firms in Anambra State in Nigeria. Muogbo (2013) study recommended that entrepreneurial center and business schools in Nigeria should incorporate strategic management principles into their curricula and further studies should be carried out on causes of non-adoption of strategic management. Kehinde (2012) conducted a study on the effect of talent management on organizational performance of the multinational and national firm in Nigeria. Kehinde (2012) recommended that talent management scheme should be used for all categories of staff within the firm. Aremu and Oyinloye (2014) study was on the relationship between strategic management and firm's performance on selected banks in Ilorin Metropolis, Kwara State in Nigeria. They recommended that the process of strategic management must be carefully implemented so that organizations can have an outstanding performance and competitive advantage can stay afloat in the dynamic competitive environment.

Nwosu, Awurum and Okoli (2015) study involved indicators such as process innovation, product innovation, organizational structure and employee development on manufacturing firms in Nigeria Stock Exchange. They recommended for future research that more attention was needed in technological innovation, employee development and appropriate structure for company's operation and technology. Change management on organizational performance has been studied widely on case studies bases in developed and developing countries but the inclusion of technology as the driving force in the business environment within the industry has been missing for its role. The variables for this study were organizational culture, strategy, structure and management which show that there has not been a consensus on getting an absolute and agreeable road map to unpack this concept of change management and performance of companies when moderated with technology. It is on this breath that this study intends to address the gaps that have been identified from the few studies in the Kenyan context.

2.7 Chapter Summary

The chapter reviewed the relevant theoretical and empirical literature, critique of the existing literature and research gaps of change management, organizational culture, strategy, structure, management, technology and performance of companies listed in NSE. The theoretical perspective of change management in general such as three step change theory, model of organizational culture, chaos and complexity, contingency, open systems, technology organization environment model and industrial organization economics theories were critically reviewed.

The chapter introduced the concept of change management, examined its conceptual dimensions and provided the theoretical platform of the research carried out and documented in this thesis. The main body of the literature review focuses on organizational culture, strategy, structure, management, technology and performance of companies. A conceptual framework between the factors that moderates technology and the hypothesize relationships were developed and presented in Figure 2:1 showing the hypothesized relationships between the factors that moderate technology. Relevant selected empirical studies on change management, technology and performance of companies were reviewed, synthesized and presented. Critique of the existing literature was conducted to identify the appropriate knowledge gaps that the study sought to address. The chapter closes with the research gaps that the literature reviewed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discussed the research methodology that was used in this study. This includes: research philosophy, design, target population, sample size and sampling procedures, data collection instruments, research instruments, pilot study, reliability and validity of instruments and finally, data analysis and presentation.

3.2 Research Philosophy

Creswell (2003) refers to research paradigm as a philosophical and theoretical framework of a scientific school or discipline where theories; laws, generalizations and experiments that are performed in support of them are formulated. A pragmatic inference has a likelihood of being truthful. However, we cannot be sure that the conclusion gives a logical result of the premises, but may be able to assign the likelihood to each conclusion in the study. A quantitative approach is one in which the investigator primarily uses post positivist claims for developing knowledge like cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement, observation, test of theories, employees strategies of inquiry such as experiments, surveys and collects data on pre-determined instruments that yield statistical data. The philosophy that informs positivism and phenomenology or interpretivism explains the hypothesis testing. In the positivism approach hypotheses are tested by either rejecting or accepting the null hypotheses. This approach will allow for the operationalization of the various hypothetical concepts for generalization of the results (Creswell, 2003).

Qualitative approach is one in which the inquirer often makes knowledge claims based primarily on constructivist perspectives such as multiple meanings of individual experiences, socially and historically constructed with an intent of developing a theory or pattern or advocacy/participatory perspectives like political, issue-oriented, collaborative or change oriented or both. It also uses strategies of

inquiry such as narratives, phenomenologies, ethnographies grounded theory studies or case studies (Creswell, 2003). The researcher collects open-ended emerging data with the primary intent of developing themes from the data. Lin (1998) argued that qualitative work was positivist because it attempts to document practices that lead consistently to one set of outcomes rather than another. It also identifies characteristics that commonly are related to some policy problem.

Finally, a mixed method approach is one in which the researcher tends to base knowledge claims on pragmatic grounds such as consequence-oriented, problem-centered and pluralistic. It employs strategies of inquiry that involve collecting data either simultaneously or sequentially to best understand research problems.

Therefore, this study was anchored on pragmatism philosophy because it involved objective testing of empirical hypotheses that were formulated as predictions of the observed phenomena. It used quantitative research that included descriptive statistics. It also sought to verify the propositions by operationalizing variables in the conceptual model through empirical tests by measurement and samples that were selected for purposes of generalization of results.

3.3 Research Design

The study used a cross sectional survey which was considered to be appropriate for its purpose, scope, researcher involvement and period of time the data was collected such as nature of the data and type of analysis. It was a cross sectional survey because it gathered information from the subjects that represented what was happening at a specific time. A correlation research design was also considered because this study involved quantitative and testing of the hypotheses. Scholars such as (Machuki & K'Obonyo, 2011; Irungu, 2007) used this design to test hypotheses and their conclusions were widely accepted.

In contrast, a longitudinal research design was not suitable for this study because it involves conducting a study for several observations of the same subjects over a period of time, sometimes lasting many years. Cross sectional survey design was adopted in this study because the researcher collected descriptive data that was

handled statistically which allowed for hypotheses testing in order to come up with objective conclusions. It was further able to compare different population groups at a single point in time and the researcher was able to record information about their subjects without manipulating the study and being bias (Machuki & K'Obonyo, 2011).

3.4 Target Population

The study target population was drawn from sixty four (64) public companies trading in NSE in Kenya (NSE Handbook, 2016). The target population was 256 senior managers and the period was for five years from 2013 to 2017 (Appendix 4a) as at 30th June, 2017 (NSE Handbook, 2016). Stratified random sampling procedure was used since the population was subdivided into groups or strata. The 64 companies in NSE in Kenya were categorized as follows: six were in agricultural sector, two were in automobiles and accessories, ten were in banking sector, thirteen were in commercial and services, five were both in construction and allied sector together with energy and petroleum, six were in insurance, five were in investment, one was in investment services, nine were in manufacturing and allied, one was in telecommunications and technology and lastly, one was in real estate investment trust (NSE Handbook, 2015). A sample of 38 companies listed in NSE formed the unit of analysis and a purposive sample that included; chief executive officers, heads of human resources, finance and marketing who participated in the study totaling to 152 senior managers.

3.5 Sample Size and Sampling Procedures

This section shows the sample size and sampling procedures that were used in conducting the study.

3.5.1 Sample Size

Mugenda and Mugenda (2003) posit that sampling involves selection of a number of study units from a defined population. Mugenda and Mugenda (2003) noted that a sample size of 10% to 30% was a good representation of the target population and

hence, adequate for analysis for this study because it fulfilled the requirements of efficiency, representation, reliability and flexibility. The sample size was determined based on precision rate and confidence level. A desired minimum precision rate of +5% and a confidence level of 95% was used (Kothari, 2009).

Cochran's formula of 'return sample size method' for categorical data as propounded by Mugenda and Mugenda (2003).The formula was effective in determining the sample size by Kinyua (2016).

Formula:
$$n = \frac{z^2 p\,(1-p)}{d^2}$$

Where: n – is the desired sample size.

z- is the corresponding standard score with probability of error at 0.05 and a confidence level of 95% that is 1.96.

p – is the occurrence level of phenomenon under the study and is equal to 0.5 where the occurrence level is unknown.

d – is the selected probability of error in the study corresponding with 95% confidence level that is 0.1.

Substituting the values:
$$n = \frac{1.96^2 \times 0.5(1-0.5)}{0.1^2}$$

$$n = \frac{1.96^2 \times 0.5 \times 0.5}{0.1^2}$$

$$n = \frac{3.8416 \times 0.25}{0.01}$$

$$n = \frac{0.9604}{0.01}$$

$$n = 96.04$$

$$n = 96$$

The total number of companies was 64*4 Senior Managers= 256 Senior Managers which was less than 10,000 and the sample of 96 shown was also less than10,000 of the population which used an adjusted formulae that was more appropriate for this study as recommended by Mugenda and Mugenda (2003).

$$f n = \frac{n}{1+n/N}$$

Where: fn - implied sample size if population was less than 10,000

n - implied sample size if the population was above 10,000

N – was the population of the target population

Substituting for the values:

$$n = \frac{96}{1+96/64}$$

$$n = 38.4$$

n=38 Companies

The unit of analysis was 38 companies (as shown in Appendix 4b). The number of companies sampled was 38 * 4 number of Senior Managers = 152 Senior Managers being the final sample size estimate was adjusted as recommended by Mugenda & Mugenda (2003). Purposive sample of 4 senior managers was used for each company.

3.5.2 Sampling Procedures

Stratified sampling procedures were used to identify public companies listed in NSE in Kenya for the study. The companies were stratified according to the sample size from the different sectors which was totaling 13 sectors as shown in table 3.1 for sampling procedures.

Table 3.1: Sampling Procedures

Sectors in NSE	Number of Companies (Unit Analysis	Senior Managers	Stratum Sample Size of companies	Purposive sampling on senior managers	Percentage of the Stratum
Agricultural	6	24	3	12	7.9
Automobiles and Accessories	2	8	1	4	2.63
Banking	10	40	6	24	15.79
Commercial and Services	13	52	8	32	21.05
Construction and Allied Sector	5	20	3	12	7.9
Energy and Petroleum	5	20	3	12	7.9
Insurance	6	24	3	12	7.9
Investment	5	20	3	12	7.9
Investment Services	1	4	1	4	2.63
Manufacturing and Allied	9	36	5	20	13.16
Telecommunication and communication	1	4	1	4	2.63
Real Estate Investment	1	4	1	4	2.63
TOTAL	**64**	**256**	**38**	**152**	**100**

The sampling procedure was based on Mugenda and Mugenda (2003) theory of sampling and estimate adjusted formula.

3.6 Data Collection Instruments

This was the main research instrument for the collection of primary data which involved a semi-structured questionnaire. Machuki (2011) used this instrument to probe the informant and found it to be appropriate and had deeper information in his study. The researcher included follow up questions in order to probe the informant to give most appropriate and deeper information on the issue under investigation. In order to be able to capture the intended data, semi-structured questionnaires was administered to the 152 respondents from 38 sampled companies in NSE. The questionnaires that were used to collect factual data was Likert scale from 1-5. The questionnaire was divided into nine (9) parts. The parts include Part I: Company Profile; Part II: Demographic Information of Respondents; Part III: Organizational Culture; Part IV: Organization Strategy; Part V: Organizational Structure; Part VI: Organizational Management, Part VII: Technology; Part VIII: Performance of Company Financial Data and Part IX: Performance of company non-Financial Data. The Likert scale had the following measures for the respondents: 1-Strongly disagree; 2-Disagree; 3-Neutral; 4-Agree and 5-Strongly agree, depending on how the respondents filled the statement (see Appendix I). The Likert scale allowed the respondents to have a wider range of choices thus enabling the collection of more information and contemplation when answering the questions.

The open ended questionnaires were given to the selected respondents namely; chief executive officers, head of divisions in human resources, finance and marketing totaling to 152 senior managers. Both secondary (financial) and primary data (non-financial) were from financial reports and questionnaires respectively. This study explored experiences of these senior management employees.

3.7 Data Collection Procedure

The researcher applied for a permit from NACOSTI to carry out a study on the 38 sampled companies listed in the NSE from the year 2013 to 2017. The researcher requested the heads of human resources of these companies to give the researcher permission to carry out the study on the 152 sampled respondents targeted chief executive officers, heads of divisions in human resources, finance and marketing to

provide the information. The researcher also sought the consent of the respondents to fill the self-administered questionnaires by both drop and pick, emails and scanning.

3.8 Pilot Study

Walker (1997) opined that pilot studies help to clarify research question boundaries and make the research more focused. The questionnaire was piloted with; 3-Chief Executive Officers, 4-heads of human resources, 4-heads of finance and 4-heads of marketing were targeted. This was totaling to 10% of 152 respondents which equals to 15 senior managers according to Mugenda and Mugenda (2003) who suggested a range of 10%-30% to be representative. This pilot study was conducted to determine whether the respondents were able to answer the questions without difficulty by confirming clarity, reliability and relevance of the questions. The collected feedback (data) was used in adjusting and modifying the questionnaire. Cronbach's Alpha was used to measure the common internal consistency and stability of the multiple Likert questions in the survey/questionnaire that formed a scale to determine the reliability. It was estimated to add validity and accuracy in the interpretation of the data before commencement of data collection on large scale.

3.8.1 Reliability of Research Instruments

The researcher piloted 15 senior managers namely; 3-Chief Executive Officers, 4-heads of human resources, 4-heads of finance and 4-heads of marketing. A sample of 152 respondents (10% of 152 equals to 15 senior managers) was selected at random from different sectors in NSE as indicated in the sample list of sectors in NSE and respondents (sampling procedures in table 3.1). The data was obtained and subjected to analysis and presentation as shown in section 3.9 in this study. Carmines and Zeller (1979) opined that reliability was a tendency toward consistency in repeated measurements. And that unreliability was present to a certain extent, with a good consistency of the results for a quality instrument gathered at different times.

Carmines and Zeller (1987) asserted that reliabilities should be above 0.7 for widely used scales. The recommended value was above 0.7 which this study used as cut-off reliabilities because the instrument was piloted and tested to establish more about the variables/indicators described in the conceptual framework in figure 2.1. This procedure was chosen over the other methods for its simplicity and accuracy.

Formula: $\alpha = \frac{N - r}{1 + (N-1).r}$

Where;

N= was the number of components or items being tested

α= was the extent to which a set of test items can be treated as measuring a single variable

r = was the average of all correlation coefficients

In organizational culture alpha coefficient recorded was 0.741, organizational strategy alpha coefficient was 0.811, organizational structure overall alpha coefficient was 0.704, organizational management alpha coefficient was 0.791, technology alpha coefficient was 0.821 and lastly performance of companies alpha coefficient was 0.832. In this study alpha test for all the items were reliable for measurement since the reliability coefficient was above the recommended threshold of 0.7.

3.8.2 Validity of Research Instruments

This measures what is supposed to and established by correlating the scores with a similar instrument. Some of the validity instruments included criterion (concurrent or predictive).Validity approach that detects the presence/absence of criteria represents traits or constructs of interest. This included a range of items developed for the test with invalid questions culled after control group has taken the test. Content validity

was concerned with how well the instrument samples the things which conclusions were to be drawn. Construct validity involves the extent of which certain explanatory concepts or qualities account for performance. And finally, face validity was often used in indicating the accuracy of instrument measurement and showing that the person making use of the instrument accepts it as a valid measure. The study used criterion (concurrent or predictive) validity which was the most suitable because a pilot study of the questionnaire was conducted with 15 senior managers.

3.9 Data Analysis and Presentation

Burns and Grove (2003) defined data analysis as a mechanism for reducing and organizing data to produce findings that require interpretation by the researcher. According to Hyndman (2008) data processing involves translating answers in the questionnaires for manipulation to produce statistics like coding, editing, data entry and monitoring the entire data processing procedure.

3.9.1 Correlation Analysis

This measures the strength of the effect on the variables; that is, how well changes in one variable can be predicted by changes in another variable. In a correlation analysis framework, a moderator effect is a third variable of the zero-order correlation and the other two variables. Pearson's coefficient of correlation denoted by (r), was used to analyze the data by showing the degree and direction of correlation denoted by ($-1 \leq r \geq +1$). Where, the degree of change was indicated by the negative (-ve) and positive (+ve). Values close to ±1 indicates a high degree of positive and negative correlations respectively.

3.9.2 Regression Analysis

Multiple linear regression models was used in investigating the relationship between two or more predictors and one response variable. Where the value of independent variable X is associated with dependent variable Y. The study analyzed change management and performance of companies listed in NSE in Kenya for the period 2013 to 2017 as shown below:-

$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \varepsilon_t$..... (i)

$NP_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \varepsilon_t$..... (ii)

$DPS_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \varepsilon_t$..... (iii)

$ROI_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \varepsilon_t$..... (iv)

Where:

t=2013-2017 Period

Y_t=Dependent Variable (Performance of Company)

NP_t=Net Profit for period $_t$

DPS_t=Dividend per Share for period $_t$

ROIt=Return on Investments for period $_t$

β_0, is the Y_t intercept

β_1, β_2, β_3 and β_4 are coefficients of independent variables

X_{1t}, is organizational culture for period $_t$

X_{2t}, is organizational strategy for period $_t$

X_{3t}, is organizational structure for period $_t$

X_{4t} is organizational management for period $_t$

β_0 is constant

ε_t is the error term for period $_t$

Baron and Kenny (1986) opined that a moderator was a qualitative or quantitative variable that affect the strength of the relationship between independent and

dependent variables. Hence, the measurement of independent variable X on dependent variable Y and variable T shows the effect of moderation. When the moderator variable T enters the model, the moderation of T is modeled in the regression equation as follows:

$$Y_t = \beta_0 + \beta_4 X_{4t} + \beta_5 T_t + \beta_5 T_t * X_{4t}$$

The regression coefficient β_5 measures the interaction effect between independent variable X and moderating variable T. Note that the regression coefficient β_4 measures the simple effects of X when the value of T = 0 (no interaction effects involved). Then, the test of moderation was operationalized by the product term $\beta_5 Tt * X_{5t}$ (the multiplication between independent variable X and moderator variable T).

Multivariate regression is a technique that estimates a single regression model with more than one outcome variable and was used to analyze the moderating effect of technology in the relationship between change management and performance of companies listed in NSE in Kenya as shown below:-

$$Y_t = -\beta_0 + \beta_1 X_{1t} T_t + \beta_2 X_{2t} T_t + \beta_3 X_{3t} T_t + \beta_4 X_{4t} T_t + \beta_5 T_t * X_{5t} + \varepsilon_t$$

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_6 T_t + \beta_6 T_t * X_{1t} + \varepsilon_t; \quad \text{.....(ii)}$$

$$Y_t = \beta_0 + \beta_2 X_{2t} + \beta_6 T_t + \beta_6 Tt * X_{2t} + \varepsilon_t ; \quad \text{.....(iii)}$$

$$Y_t = \beta_0 + \beta_3 X_{3t} + \beta_6 T_t + \beta_6 T_t * X_{3t} + \varepsilon_t \quad \text{..... (iv)}$$

$$Y_t = \beta_0 + \beta_4 X_{4t} + \beta_6 T_t + \beta_6 Tt * X_{4t} + \varepsilon_t \quad \text{..... (v)}$$

$$Y_t = \beta_0 + \beta_5 X_{5t} + \beta_6 T_t + \beta_6 T_t * X_{5t} + \varepsilon_t \quad \text{..... (iv)}$$

Where;

Y_t=Dependent Variable (Performance of Company) for period t

β_0, is regression constant (Y intercept)

β_1, β_2, β_3, β_4, β_5 and β_6 are coefficients of independent variables

X_{1t} is organizational culture for period t

X_{2t} is organizational strategy for period t

X_{3t} is organizational structure for period t

X_{4t} is organizational management for period t

X_{5t} is change management for period t

T_t is technology (moderating variable)

$\beta_5 T_t * X_{1t}$ is interaction of technology and organizational culture for period t

$\beta_5 T_t * X_{2t}$ is interaction of technology and organizational strategy for period t

$\beta_5 T_t * X_{3t}$ is interaction of technology and organizational structure for period t

$\beta_5 T_t * X_{4t}$ is interaction of technology and organizational management for period t

$\beta_6 T_t * X_{5t}$ is interaction of technology and change management for period t

T_t is technology (moderating variable) for period t

ε_t is the error term for period t

Analysis of variance (ANOVA) and T-test were used to study the amount of variations within the sample before conducting regression analysis. The Statistical Package for Social Sciences (SPSS) version 17.0 and Microsoft excel were used in data analysis. In addition, data from SPSS output were presented using tables, charts, bar graphs, and graphs for results of statistical analysis. This method of presenting data was simple to understand the distributions underlying the data. The quantitative data was entered in SPSS and Microsoft excel using codes that came from the questionnaires and the SPSS formulae such as cross tabulation (pivot charts). Frequency table was used to summarize categorical, nominal and ordinal data. Descriptive statisticts was used to calculate mean, standard deviation and percentages in line with the objectives under the study from the primary data. Factor analysis

was used for analysis of internal-correlations among data to come up with internally consistent surrogates of the variables according to Mugenda (2010). In this study, factor analysis was used to reduce the number of indicators.

A sample adequacy was measured using the Kaiser-Meyer-Olkin (KMO) test. A factor analysis is inappropriate when the sample size is below 50 (Fiedel, 2005). Kaiser (1974) recommends 0.5 as minimum (barely accepted), values between 0.7-0.8 acceptable and values above 0.9 are superb. Collinearity diagnostic tests was used to detect predictors that have high variance proportions on the same small eigenvalues. High variance proportions indicates that the variances of their regression coefficients are dependent. Skewness and Kurtosis was used in the study. Skewness measures the deviation of distribution from symmetry and Kurtosis measures 'peakness' of the distribution (Ming'ala, 2002). Kolmogorov- Smirnov & Shapiro Wilk test was also used to test normality of all the variables to compare the scores in the samples and check whether they have the same mean or standard deviation. Multicollinearity in the study was tested using Variance Inflation Factor (VIF). A VIF of more than 10 (VIF $\geq$ 10) indicate a problem of multicollinearity. Breusch-Pagan tests were used to test null hypothesis and if heteroscedasticity was not present this would imply that Homoscedasticity was present.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the study findings which were in line with the themes drawn from the study objectives thematic areas. The study used different statistical approaches to investigate change management and performance of companies listed in Nairobi Securities Exchange in Kenya. All constructs were used including descriptive statistics. Reliability of multiple measures on the variables in the study were measured using Cronbach's alpha coefficients.

4.2 Questionnaire Return Rate

The study sought to determine the questionnaires return rate, because in social science questionnaires return rate was important in understanding whether it meets the threshold for the study to proceed. The results are presented in table 4.1.

Table 4.1: Questionnaire Return Rate

Response Rate	**Frequency**	**Percentage**
Returned	120	87.6%
Unreturned	17	12.4%
Total	**137**	**100%**

In this study 137 questionnaires were issued to the respondents out of which 120 were duly filled and returned for analysis. This constituted 88% return rate. According to Nichumas and Nachmas (2006) theory of return rate, 75% is adequate for social sciences to proceed. Therefore, the study proceeds on the basis of this theory.

4.3 Pilot Study Results

A pilot study was conducted to establish whether the research instrument was valid and reliable for data collection. The testing was done using a sample of 15 questionnaires where reliability, validity and factor analysis was performed and findings are discussed.

4.3.1 Reliability and Validity of Research Instruments

Reliability of a measure indicates the extent of which it is without bias (error free) thus ensuring consistent measurement across time and the various items. Reliability of the instrument was carried out using Cronbach's alpha constant that measures internal consistency and average correlation. It ranges from 0 to 1 (Kipkebut, 2010). As a rule of thumb, acceptable alpha should be at least 0.70 (Mugenda & Mugenda, 2003). Higher alpha coefficient values mean there is consistency among items in measuring the concept of interest. Cronbach constant test was done for every variable in the study. The results are presented in table 4.2.

Table 4.2: Reliability of Instruments

Variables	Cronbach's Alpha before removing some items	Cronbach's Alpha after removing Some items	No of Items before removing some factors	No of Items after removing some factors
Organizational Culture	0.741	0.741	14	14
Organizational Strategy	0.811	0.811	12	12
Organizational Structure	0.704	0.704	12	12
Organizational Management	0.791	0.791	12	12
Technology	0.821	0.821	12	12
Performance of Companies	0.832	0.832	12	12
AVERAGE	**0.778**	**0.778**		

Table 4.2 shows that in organizational culture there were fourteen items from the finding, no item was deleted and alpha coefficient recorded was 0.741 which is above 0.7. For organizational strategy, the alpha coefficient was again above the threshold. In this case, twelve items were tested and no item was expunged. The overall alpha coefficient was 0.811. Reliability test using Cronbach alpha for organizational structure was conducted and out of twelve items, none of the items was deleted and the overall alpha coefficient was 0.704 which is also above 0.7. Similarly, the Cronbach's alpha coefficient for organizational management was conducted and out of twelve items, none of the items was deleted. The overall alpha coefficient was 0.791 which was also above 0.7. Lastly, the alpha coefficient for

technology and Performance of Companies was found to be 0.821 and 0.832 respectively. In conclusion, alpha test for all the items were reliable for measurement because the reliability coefficient was above the recommended threshold of 0.7.

4.3.2 Factor Analysis

This focuses on the internal-correlations among data to come up with internally consistent surrogates of the variable (Mugenda, 2010). Cooper and Schindler (2008) suggested that factor loadings of 0.7 and above are acceptable. Other researchers indicate that 0.4 is the minimum level for item loading. Hair *et al.* (2010) illustrates that factor analysis is necessary in research to test for construct validity and highlight variability among observed variables and checking for any correlated variables hence, reducing redundancy of the data. Factor analysis was used in the study to reduce the number of indicators that did not explain change management and performance of companies listed in NSE in Kenya. Hair *et al*. (1998), Tabachnick and Fidell (2007) described the factor loadings as follows: 0.32 (poor), 0.45 (fair), 0.55 (good), 0.63 (very good) or 0.71 (excellent). The results of factor loadings for organizational culture are presented in table 4.3.

Table 4.3: Factor Loadings for Organizational Culture

Organizational Culture	Factor Loadings
i. All employees have favorable conditions for decision making and for giving various ideas, suggestions and notes.	.713
ii. We promote collaboration and allow participation of every employee.	.560
iii. There is no empowerment of employees in the company.	.421
iv. There is no teamwork as everyone decides on what he/she feels right to do.	.702
Involvement Culture	**.599**
i. We have core values in our organization that help to define how the organization would behave.	.775
ii. We have a collective bargaining agreement that creates peace and harmony in the work place.	.873
iii. Employees often do not approve of changes and resist or behave indifferently during change process.	.660
Consistency Culture	**.770**
i. The changes are aligned according to customer focus.	.522
ii. Internal integration and external adaptation can often be at odds.	.458
iii. We do not change the system so that to improve the organization's collective abilities to provide value for our customers	.448
Adaptability Culture	**.476**
i. Our organization has a mission statement and defines what business we are in and vision of where we want to be.	.603
ii. Our organization has goals and objectives that guide our operations.	.166
iii. Strategic direction and intent in our organization enables us stay focus and in line with the business environment.	.832
iv. The mission does not contribute anything to the health of the organization.	.532
Mission	**.667**

Table 4.3 shows that Organizational Culture had 14 items and none of the items recorded factor loadings less than 0.40. The factor loadings of 14 items for Organizational Culture were ranging between 0.421 and 0.873. Besides that, an average factor loading of 0.599, 0.770, 0.476 and 0.667 were recorded for Involvement, Consistency, Adaptability Culture and Mission and therefore the factor loading for organizational culture was found to be in line and appropriate for the study to continue with the analysis of the data collected. The results of factor loadings for organizational strategy are presented in table 4.4.

Table 4.4: Factor loadings for Organizational Strategy

Organizational Strategy	**Factor Loadings**
i. It is not stated in the mission statement.	.567
ii. Corporate strategy is concerned with the overall purpose and scope of our business to meet stakeholder expectations.	.423
iii. It is not a crucial level in our business.	.735
iv. This level acts to guide strategic decision-making throughout our business.	.722
Corporate Level Strategy	**.612**
i. Our business competes successfully in the market.	.624
ii. Strategic decisions about choice of products are not done in our organization.	.501
iii. Customer needs are met in our organization	.785
iv. Our business level strategy does not gain advantage over competitors.	.631
Business Level Strategy	**.635**
i. Each part of our business is organized as per function.	.801
ii. It does not focus on issues of resources, processes, people etc.	.401
iii. It supports the business- level strategy	.452
iv. It is not used by a business area for achieving the objectives and strategies of a company and business through maximizing resources efficiency.	.561
Functional Level Strategy	**.554**

Table 4.4 shows that the study intended to measure the effect of Organizational Strategy by using 12 items. All the 12 had factor loadings above 0.40 that is between 0.409 and 0.791. Therefore, all the items were valid for the constructs they represented and could therefore, be used in the study. In addition to that, an average factor loading of 0.612, 0.635 and 0.554 for Corporate, Business and Functional Level Strategy were recorded. The results for factor loadings for organizational structure are presented in table 4.5.

Table 4.5: Factor loadings for Organizational Structure

Organizational Structure	**Factor Loadings**
i. Companies form departments/divisions and sub-division which are driven by specialization.	.586
ii. Skilled labor is not important in the operations of the organization than managers.	.448
iii. Specialists can destroy the organization by disrupting the routines or operations of the organization.	.797
Specialization of Managers	**.610**
i. It ensures consistency and can help the organization stay legal and safe.	.639
ii. Rules, policies and procedures are written to guide the organization during change process.	.700
iii. Change process does not follow any formal rule during implementation.	.656
Formalization of Change Processes	**.665**
i. The control is held centrally with managers and staff making decisions.	.610
ii. There is no participation in decision making by employees.	.638
iii. Decentralization is not practiced in change process.	.467
Centralization of Decision Making	**.572**
i. Our organization is divided into different departments/division.	.641
ii. Some departments have been merged and others phased out during change process.	.522
iii. There is no confusion and conflict during the transfers/placement of employees from one department to the other.	.634
Configuration of Change Process	**.599**

Table 4.5 shows that the validity of Organizational Structure was also tested using an instrument comprising twelve items and the result recorded. Subsequently, no item

was removed. Factor loadings recorded was between 0.441 and 0.797. To be more specific, Specialization of managers had factor 0.610 which is way beyond 0.40. Also, Formalization of change processes had factor loadings of 0.665. This was also more than 0.40. Again Centralization of decision making had factor loadings of 0.572 and lastly, Configuration of change process had an average factor loading 0.599. Since no item recorded factor loading below 0.40, the items were considered valid to measure the effect of organizational Structure on Performance of Companies listed in NSE. The results of factor loadings for organizational management are presented in table 4.6.

Table 4.6: Factor loadings for Organizational Management

Organizational Management	**Factor Loadings**
i. Managers should be able to evaluate all potential tasks at the same time picking the most important ones.	.642
ii. Managers do not explain the tasks to be undertaken appropriately to employees when planning.	.511
iii. Planning is useful for developing organization's strategic plan.	.692
Planning Process	**.615**
i. Communication channels are well established among staff in our organization.	.606
ii. Coordination does not correct executor's actions which do not comply with the plan of the organization.	.586
iii. Coordination combines the organizations goals and specialization in respect of division of labor and formation of chain of commands.	.613
Coordination of Change Process	**.602**
i. Money motivates employees towards higher performance.	.604
ii. Incentives such as security, good working condition, opportunity for growth and development creates redundancy of employees.	.528
iii. Our organization uses rewards to contribute to firm's effectiveness by influencing individuals or group behavior.	.431
Motivation of Staff	**.521**
i. We set performance targets in our organization to be achieved by employees.	.523
ii. Resources such as financial, human, material and others are not utilized prudently in our organization.	.812
iii. Every divisional head is in charge of the budget in our organization.	.671
Controlling of Resources	**.689**

Table 4.6 shows that Organizational Management had 12 items and from the original list of twelve items put forward to measure organizational management, the principle component analysis (PCA) method discarded no item. Factor loadings recorded was between 0.431 and 0.812. Specifically, planning process registered an average factor loading of 0.615 which was beyond 0.40. Coordination of change process had three indicators and average factor loadings recorded was 0.602. This was also more than 0.40. Three items of Motivation of staff had an average factor loading of 0.521 and lastly Controlling of resources had an average factor loading 0.689.The result shows that all the items under consideration were valid. The results of factor loadings for technology are presented in table 4.7.

Table 4.7: Factor loadings for Technology

Technology	**Factor Loadings**
i. It is the process of combining and reorganizing knowledge to generate new ideas.	.442
ii. Innovation makes employees more effective and firm more efficient.	.622
iii. Organizations which do not innovate still succeed.	.531
iv. Innovation is not done on need basis in our organization.	.766
Technology Innovation	**.590**
i. It is the decision of employees to make use of innovation as the best course of action available in the organization.	.608
ii. It is a risky process that any slight mistake in transferring cash is not reversible through electronic funds transfer.	.688
iii. The processes have been made user friendly in the organization.	.511
iv. It does not lessen the volume of work within the organization.	.699
Technology Adoption	**.627**
i. Our organization does not accept new ideas and products easily from the market.	.643
ii. It offers awareness building and technology demonstration.	.531
iii. On the job training, management seminars and team building are conducted to enlighten staff on technology.	.621
iv. A network of trained staff offers technological advice to the organization.	.546
Technology Diffusion	**.585**

Table 4.7 shows that it measured the effect of Technology on Performance of Companies listed in NSE and 12 items were presented. Technology Innovation had 4 items and the average factor loading was 0.590, while technology adoption consisted of 4 items and the average factor loading of 0.627 was realized. Lastly, technology adoption had a list of four items and the average factor loading of 0.585 was realized. In total, the entire 12 items were found to have acceptable factor loadings of between 0.431 and 0.658 and subsequently, considered valid for inclusion in the data collection instrument and further analysis. The results of factor loadings for performance of companies are presented in table 4.8.

Table 4.8: Factor Loadings for Performance of Companies

Performance of Companies	Factor Loadings
i. Net Profit	.593
ii. Dividend Per Share	.487
iii. Return on Investment	.786
Financial	**.622**
i. Quality products and Services	.643
ii. Customer Satisfaction	.689
iii. New products	.642
Non-Financial	**.658**

Table 4.8 shows that in order to test the validity of Performance of Companies, an instrument comprising six items were considered as originally compiled from the literature. Subsequently, no item, with low factor loading was discarded. The factor loadings were ranging between 0.487 and 0.786. Besides that, items under Financial and non-Financial had factor loadings 0.622 and 0.658 respectively. These were considered valid to measure Performance of Companies. The results for summary of factor analysis are presented in table 4.9.

Table 4.9: Summary of Factor Analysis

Variables Independent /Dependent	Number of Items	Overall Factor loading	Reliability Cronbach's alpha
Organizational Culture	14	62.78%	0.741
Organizational Strategy	12	60.02%	0.811
Organizational Structure	12	61.15%	0.704
Organizational Management	12	60.15%	0.791
Technology	12	60.58%	0.821
Performance of Companies	12	64.00%	0.832

Table 4.9 shows the overall summary of the factor analysis for all the variables, the four factors measuring the independent and dependent variables. Organizational Culture shows that all the factor loadings for the 14 items were 62.78%. All the items were retained based on the general rule of thumb for acceptable factor loading of 40% and above. The results of the factor analysis for Organizational Strategy which had twelve items yielded a factor loading of 60.02% after one factor was removed. Organizational Structure factor analysis, with twelve items showed factor loadings of 61.15%. Since all the loadings recorded were 60.15%, no factor was dropped because they followed the acceptable threshold.

For Organizational Management, there were twelve items and no item was dropped and factor loadings recorded was 60.58%. For Technology, out of twelve items, no item was dropped for inconsistency or irrelevance and factor loading was above 64.00%. Lastly, the result of the factors measuring the dependent variable shows that Performance of Companies had six items and the factor loadings was above 64.00 % with no item expunged from the list. All the factor loadings were above 52% which implies that all items fall within the acceptable threshold as indicated by the general rule of thumb.

4.4 Demographic Information

The study was also interested in looking at demographic information about the respondents in terms of Age, Length of service and Level of Education as they were considered to be key factors in the management of corporates in areas such as decision making and innovation to enhance performance. These are further discussed in the subsequent sub-themes.

4.4.1 Distribution of Respondents by Age

The study captured age brackets of the respondents who participated. Age was a factor in decision making process because of the experience one has accumulated or knowledge acquired and innovations. The results are presented in table 4.10.

Table 4.10: Distribution of Respondents by Age

Age Bracket	Frequency	Valid Percent
9- 20 Years	0	0%
21-29 Years	4	3.3%
30-39 Years	28	23.3%
40-49 Years	50	41.7%
50 and above	38	31.7%
Total	**120**	**100**

Table 4.10 shows that the responses indicated that most of the employees were drawn from senior management level and in the age bracket of 30-39 years at 23.3%, 40- 49 years at 42.7% and 31.7% for the age bracket above 50 years. These age brackets mainly comprise the senior managers who are formulators of policies within organizations. This show that 120 respondents participated in the study and 4(3.3%) were in the age bracket of 21-29 years, 28(23.3%) were in age group 30-39 years, 50(41.7%) fell in 40-49 years and finally 38(31.7%) were in the age bracket of 50 years and above. The findings implied that the majority of the respondents 82(73.7%) were in the age bracket of 21-49 and were young managers, energetic and

were capable of spearheading the organization to good performance for growth and use of new technology to facilitate change process and enhance performance.

4.4.2 Distribution of Respondents by Length of Service

The study sought to determine the length of service among the respondents simply because it was believed that one gets experience based on how long they had served in the organization. The more years you accumulate, the more experienced you become. Therefore, the respondents were asked to state their length of service in the organizations. The result is presented in figure 4.1.

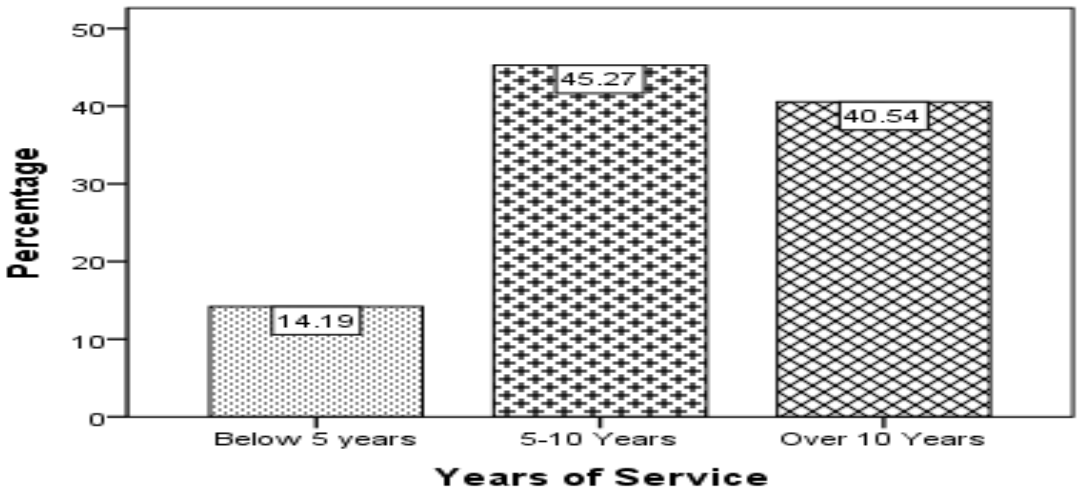


Figure 4.1: Year of Service and Percentage

Figure 4.1 study findings show that majority of 45.27 % respondents had worked for 5-10 years while, 40.54 % of the respondents had worked for more than 11 years, and 14.19 % of the respondents had worked for less than 5 years. This implies that the respondents who had worked in these organizations for a longer period of time were conversant with issues which the questioner had addressed.

4.4.3 Distribution of Respondents by Level of Education

The respondents were asked about their level of education which are presented in table 4.11.

Table 4.11: Distribution of Respondents by Level of Education

Level	Frequency	Valid Percentage
Secondary	0	0
Ordinary Diploma	0	0
Bachelor's Degree	80	66.7
Master's Degree	36	30
Doctorate Degree	4	3.3
Total	**120**	**100**

Table 4.11 show that out of 120 respondents who participated in the study, 80(66.7%) had bachelor degree qualifications, 36(30%) had master's degree qualifications and 4(3.3%) had doctorate degree qualifications. This shows that majority of the managers were well educated and equipped with adequate knowledge and experience to implement change management. Hence, if there was poor performance, then it was influenced by something else but not their level of education.

4.4.4 Distribution of Respondents by Gender

The study sought to know the respondents by gender as it was a necessary issue according to the Constitution of Kenya 2010. For proper decision making process; gender balance has to be observed in senior management positions in the organizations. The results are presented in table 4.12.

Table 4.12: Distribution of Respondents by Gender

Gender	Frequency	Percent
Male	63	51.2%
Female	57	46.4%
No response	3	2.4%
Total	**123**	**100%**

Table 4.12 show that out of 120 respondents who participated in the study 63(51.2%) were male, 57(46.4%) were female while, 3(2.4%) did not show their gender. This shows that public companies listed in NSE tend to adhere to 1/3 gender rule as per the Constitution of Kenya 2010. Organizations reach much better decisions where there is gender balance.

4.5 Requisite Tests

4.5.1 Sample Adequacy Test (Kaiser-Meyer- Olkin (KMO))

The sample adequacy test was measured using the Kaiser-Meyer-Olkin (KMO) which should be greater than 0.5 for a satisfactory factor analysis to proceed. A common rule is that a researcher should have 10 – 15 participants per variable. A factor analysis is inappropriate when the sample size is below 50 (Fiedel, 2005). Kaiser (1974) recommends 0.5 as minimum (barely accepted), values between 0.7-0.8 acceptable and values above 0.9 are superb. The results are presented in table 4.13.

Table 4.13: KMO and Bartlett's Test

Variables	Measure		
Organizational culture	Kaiser-Meyer-Olkin	Measure of Sampling Adequacy.	.707
	Bartlett's Test of Sphericity	Approx. Chi-Square	300.162
		Df	45
		Sig.	.000
Organizational Strategy	Kaiser-Meyer-Olkin Adequacy.	Measure of Sampling	.764
	Bartlett's Test of Sphericity	Approx. Chi-Square	426.463
		Df	55
		Sig.	.000
Organizational structure	Kaiser-Meyer-Olkin Adequacy.	Measure of Sampling	.644
	Bartlett's Test of Sphericity	Approx. Chi-Square	304.174
		Df	28
		Sig.	.000
Organizational Management	Kaiser-Meyer-Olkin Adequacy.	Measure of Sampling	.810
	Bartlett's Test of Sphericity	Approx. Chi-Square	321.121
		Df	28
		Sig.	.000
Technology	Kaiser-Meyer-Olkin Adequacy	Measure of Sampling	.821
	Bartlett's Test of Sphericity	Approx. Chi-Square	350.593
		Df	28
		Sig.	.000
Performance of Companies	Kaiser-Meyer-Olkin Adequacy.	Measure of Sampling	.736
	Bartlett's Test of Sphericity	Approx. Chi-Square	442.465
		Df	66
		Sig.	.000

Table 4.13 shows that the sample was acceptable since the KMO values were mainly between 0.707 and 0.810. The least value was 0.644 which was also good enough since it was above the minimum of 0.5. Bartlett's test on the other hand, indicates the strength of the relationship among variables. It tests the null hypothesis that the correlation matrices in Table 4.14 were identity matrices. An identity matrix is one in which all of the diagonal elements were shown as 1 and 0 (Kothari, 2009).The correlation matrix for all the variables indicators suggest that they were an identity matrices hence, no multicollinearity amongst the indicators for all the variables. The diagonal elements were characterized by ones and off diagonal have the significance of 0.

4.6 Normality Test

4.6.1 Skewness and Kurtosis Test for Normality

The study sought to establish how well the distribution could be approximated using the normal distribution. Consequently, Skewness and Kurtosis was employed. Skewness measures the deviation of distribution from symmetry. Kurtosis measures 'peakness' of the distribution (Ming'ala, 2002). The value of Skewness and Kurtosis should be zero in normal distribution (Field, 2009).The results are presented in table 4.14.

Table 4.14: Skewness and Kurtosis

Variables	Descriptive	Statistic	Std. Error	Z Score
Organizational culture	Std. Deviation	4.43031		
	Skewness	-.087	.231	-0.396
	Kurtosis	-.324	.459	-0.736
Organizational strategy	Std. Deviation	6.21785		
	Skewness	.176	.231	0.800
	Kurtosis	.385	.459	0.875
Organizational structure	Std. Deviation	6.17376		
	Skewness	-.546	.231	-1.241
	Kurtosis	1.156	.459	1.627
Effect of Technology	Std. Deviation	4.53901		
	Skewness	-.875	.231	-1.978
	Kurtosis	1.163	.459	1.644
Performance of companies	Std. Deviation	8.27604		
	Skewness	-.192	.231	-0.873
	Kurtosis	.486	.459	1.105

From Table 4.14, it is assumed in multiple linear regressions that the residuals are distributed normally which is a good idea before drawing final conclusions, to review the distributions of major variables of interest (Ming'ala, 2002). Histograms are a good way of getting an instant picture on the distribution of data (Field, 2009). Therefore, a histogram was also employed to test normality of the dependent variable. The results are presented in Figure 4.2.

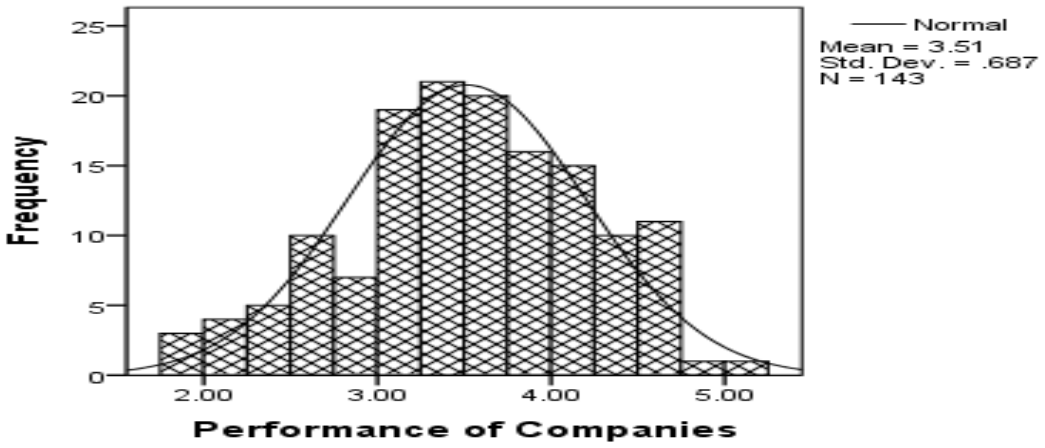


Figure 4.2: Histograms for Normality Test

Figure 4.2 results show that, t- test, regression and ANOVA are based on the assumption that the data were sampled from a Gaussian distribution (Indiana, 2011).

4.6.2 Normality for Kolmogorov- Smirnov and Shapiro Wilk Test

Kolmogorov- Smirnov and Shapiro Wilk test was used to test the normality of all the variables. They compare the scores in the samples and check whether they have the same mean or standard deviation. The results are presented in Table 4.15.

Table 4.15: Kolmogorov-Smirnov and Shapiro-Wilk Test

Variables	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Organizational Culture	.064	143	.200*	.981	143	.147
Organizational Strategy	.085	143	.014	.981	143	.246
Organizational Structure	.050	143	.200*	.990	143	.439
Organizational Management	.074	143	.051	.982	143	.062
Technology	.081	143	.024	.982	143	.059
Performance of Companies	.046	143	.200*	.989	143	.313

*. This is a lower bound of the true significance.

Table 4.15 for Kolmogorov- Smirnov show the p-values were greater than 0.05 indicating that the distributions were normally distributed. It was the same case with Shapiro-Wilk.

4.6.3 Normality using Q-Q Plot for Performance

The normal Q-Q plot for the dependent variable (Performance of Companies) is presented in Figure 4.3.

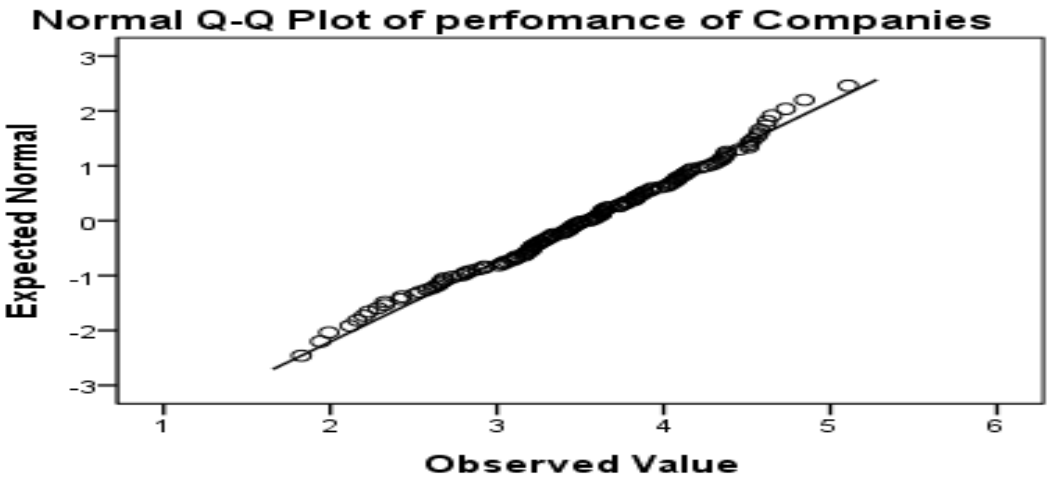


Figure 4.3: Normal Q-Q Plot for Performance of Companies

Figure 4.3 indicates that the observed value was falling along a straight line. This therefore, means the variable was normally distributed which was consistent with the earlier findings based on skewness and Kurtosis test, Kolmogorov- Smirnov and Shapiro Wilk test.

4.6.4 Collinearity Diagnostic Test

When an eigen value is larger than the others, then the un-centered cross products matrix can be highly affected by small changes in the independent variables or outcome. If the eigenvalues are fairly similar, then the model obtained is likely to be unchanged by small changes in measured variables (Myers, 1990). According to the study findings both models had eigen values fairly lager than the rest indicating that the models obtained were likely to be changed by small changes in measured variable. The condition index is another way of expressing eigen values and they represent square root ratio of the largest eigenvalue to the eigen value of interest.

The condition index will always be 1 for the dimension with the largest eigen value, however, the condition index value can be larger than 1. Large values may indicate that collinearity exist but it is also worth noting that there is no specific value or rule about how large the condition index value should be to indicate collinearity problems. The results are presented in table 4.16.

Table 4.16: Collinearity Diagnostics Test

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	x_1	x_2	x_3	x_4
	1	4.971	1.000	.00	.00	.00	.00	.00
	2	.012	20.741	.51	.02	.00	.06	.39
Model 1	3	.008	25.240	.22	.40	.01	.44	.34
	4	.005	31.141	.00	.49	.28	.32	.26
	5	.004	34.243	.27	.09	.71	.19	.01
				(Constant)	x_1*z	x_2*z	x_3*z	x_4*z
	1	4.971	1.000	.00	.00	.00	.00	.00
	2	.012	20.741	.51	.02	.00	.06	.29
Model 2	3	.008	25.240	.22	.40	.01	.14	.34
	4	.005	31.141	.00	.49	.28	.32	.36
	5	.004	34.243	.26	.09	.71	.49	.01

a. Dependent Variable: Performance of Companies

b. Model 1:-Absence of Moderator while Model 2:- Presence of Moderator

Table 4.16 findings show model 1 and model 2 had final condition index values 34.243 and 34.243 respectively. The values for dimensions in each model were the same with each other and therefore, there was no collinearity. Alternatively, collinearity may be detected looking for predictors that have high variance proportions on the same small eigenvalues. High variance proportions will indicate that the variances of their regression coefficients are dependent.

In this study 49% of the variance in regression coefficient of organizational culture was associated with eigenvalue in dimension number 4, 41%, organizational strategy was 5,44%, organizational structure was 3, 39% organizational management was 2.

This clearly indicates that there was no dependency with the three predictor variables for model 1. In the presence of moderator, collinearity exist since variance in the regression coefficient of organizational strategy and organizational management were associated with eigenvalue in dimension 4 that 71% and 49% respectively.

4.6.5 Multicollinearity

Multicollinearity in the study was tested using Variance Inflation Factor (VIF). A VIF of more than 10 (VIF ≥ 10) indicate a problem of multicollinearity. According to Montgomery (2001), the cut off threshold of 10 and above indicate the existence of multicollinearity, while tolerance statistic values below 0.1 indicate a serious problem, while those below 0.2 indicate a potential problem. The results are presented in Table 4.17.

Table 4.17: Multicollinearity for Independent Variables

Variables	**Collinearity Statistics**	
	Tolerance	**VIF**
(Constant)		
Organizational Culture	.528	1.892
Organizational Strategy	.433	2.309
Organizational Structure	.361	2.772
Organizational Management	.463	2.161

Table 4.17 indicates that the VIF value for organizational culture was established to be 1.892, while its tolerance statistic was reported to be 0.528, organizational strategy was established to be 2.309, while its tolerance statistic was reported to be 0.433, the VIF value for organizational structure was established to be 2.772, while its tolerance statistic was reported to be 0.361 and lastly, the VIF value organizational management was established to be 2.161, while its tolerance statistic was reported to be 0.463. Based on these, the assumption of no multicollinearity between predictor variables was thus not rejected as the reported VIF and tolerance statistics were within the accepted range.

4.6.6 Heteroscedasticity and Homoscedasticity

Heteroscedasticity is a study that normally occurs when the variance of the errors are different across observations (Long & Ervin, 2000). Breusch-Pagan was used for testing the null hypothesis that the error variances were all equal versus the alternative that the error variances were a multiplicative function variables. Breusch-Pagan tests shows that heteroscedasticity was either present or not present. If P-value was less than 0.05, reject the null hypothesis. A large chi-square value greater than 9.22 would indicate the presence of heteroscedasticity (Sazali, Hashida, Jegak & Raduan, 2010). The results are presented in table 4.18.

Table 4.18: Breusch-Pagan for Heteroscedasticity

Ho	Variables	Chi2(1)	Prob > Chi2
Constant Variance	Organizational Culture	6.452674	0.016424
Constant Variance	Organizational Strategy	3.485941	0. 021072
Constant Variance	Organizational Structure	2.731245	0.014183
Constant Variance	Organizational Management	3.995876	0.002371

Table 4.18 findings show the chi-square with a value resulting from each regression where every independent variable was considered individually was: 6.45245, 3.485941, 2.731245 and 3.995876 indicating that heteroscedasticity was not a problem. The null hypothesis tested indicated that variance was constant versus the alternative that variation was not constant. The independent variables included organizational culture, strategy, structure and management. The results are presented in 4.19.

Table 4.19: Breusch-Pagan for Homoscedasticity

Ho	Variables	Chi2(1)	Prob > Chi2
Constant Variance	Organizational Culture, Organizational Strategy, Organizational Structure, Organizational Management	6.821447	0.026326

Table 4.19 findings show that constant variance for organizational culture chi-square was 6.821447 and probability of 0.026326. The null hypotheses tested were that variance was constant whereas the alternative was not constant.

4.7 Organizational Culture and Performance of Companies listed in NSE

The first objective of the study sought to establish the effect of organizational culture on performance of companies listed in NSE. The respondents were asked to rate the extent they agree or disagree with the following aspects of organizational culture and performance in their organization for the last five years. In a Likert Scale of 1-5, where: 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree. The results are presented in table 4.20.

Table 4.20: Descriptive Statistics for Organizational Culture

Statements	S.D	D	N	A	SA	$\bar{X}$	SD
Involvement Culture							
All employees have favorable conditions for decision making and for giving various ideas, suggestions and notes.	0.6%(1)	2.3%(3)	12.6%(15)	44%(53)	40.6%(49)	4.22	0.794
We promote collaboration and allow participation of every employee.	4.6%(6)	7.5%(9)	22.3%(27)	32.8%(38)	31.0%(37)	3.76	1.072
There is no empowerment of employees in the company.	1.7%(2)	9.7%(12)	25.1%(30)	38.3%(46)	25.1%(30)	3.75	0.995
This level acts to guide strategic decision-making throughout our business.	2.9%(3)	2.3%(3)	18.3%(22)	47.4%(57)	29.1%(35	3.97	0.887
Consistency Culture							
We have core values in our organization that help to define how the organization would behave.	2.3%(3)	3.4%(4)	16.6%(20)	50.3%(60)	27.1%(33)	2.9	0.909
We have a collective bargaining agreement that creates peace and harmony in the work place.	2.3%(3)	14.4%(17)	26.4%(32)	36.2%(43)	20.7%(25)	3.59	1.043
Employees often do not approve of changes and resist or behave indifferently during change process.	13.1%(16)	31.6%(38)	24.6%(30)	17.0%(20)	13.7%(16)	4.22	0.794
Adaptability Culture							
The changes are aligned according to customer focus.	1.7%(2)	7.5%(9)	12.0%(14)	58.9%(71)	19.9%(24)	3.76	1.072
Internal integration and external adaptation can often be at odds.	1.7%(2)	4.0%(5)	12.0%(14)	43.0%(52)	39.5%(47)	3.75	0.995
We do not change the system so that to improve the organization's collective abilities to provide value for our customers.	1.7%(2)	9.1%(11)	16.0%(19)	36.6%(44)	36.6%(44)	3.97	0.887
Mission							
Our organization has a mission statement and defines what business we are in and vision of where we want to be.	2.3%(3)	10.2%(12)	18%(22)	32.0%(38)	37.5%(45)	3.86	0.912
Our organization has goals and objectives that guide our operations.	5.8%(7)	11.2%(13)	20.1%(24)	29.3%(35)	34.1%(41)	3.72	0.921
Strategic direction and intent in our organization enables us stay focus and in line with the business environment.	7.8%(9)	9.2%(11)	25.1%(30)	39.7%(48)	18.3%(22)	3.96	1.021
The mission does not contribute anything to the health of the organization.	5.8%(7)	11.2%(13)	20.1%(24)	29.3%(35)	34.1%(41)	3.82	1.121
Composite Mean						**3.84**	**0.970**

Table 4.20 findings on whether all employees have favorable conditions for decision making and for giving various ideas, suggestions and notes. 0.6% (1) strongly disagreed, 2.3 %(3) disagreed 12.6 %(15) were neutral, 44 %(53) agreed and 40.6 %(49) strongly agreed. Average mean score of 4.22 with a standard deviation of 0.794 which is higher than composite mean of 3.84 and below the overall standard deviation of 0.970. This implies that staffs are involved in decision making process and shows ownership which positively affect performance of companies listed in NSE.

In regard to know the extent to which they promote collaboration and allow participation of every employee, 4.6%(6) of the employees strongly disagreed, 7.5%(9) disagreed, 22.0%(27) neutral, 33.9%(41) agreed while, 32.0%(38) strongly agreed. Average mean score of 3.76 with a standard deviation of 1.072 which falls below the composite mean of 3.84 and higher than the overall standard deviation of 0.970 meaning that management promotes collaboration and employees' participation on issues affecting the organization as this negatively affect performance of companies in NSE.

There was no empowerment of employees in the company and was also rated as follows: 1.7%(2) of strongly disagreed, 9.7%(12) disagreed, 25.1%(30) neutral, 38.3%(46) agreed 25.1%(30) strongly agreed. Average mean score of 3.75 with a standard deviation of 0.995 which falls below the composite mean of 3.84 with an overall standard deviation of 0.970 meaning that staff empowerment was being practiced in these organizations which negatively affect performance of companies listed in NSE.

On whether this level acts to guide strategic decision-making throughout our business: 2.9%(3) strongly disagreed, 2.3%(3) disagreed, 18.3%(22) neutral, 47.4%(57) agreed, while 29.1%(35) strongly agreed. Average mean score of 3.97 with a standard deviation of 0.995 which falls higher than the composite mean of 3.84 with an overall standard deviation of 0.887 meaning that there is teamwork and staff involvement is very common which make staff to be responsible and have a

sense of ownership in whatever decision they are called to deliberate and this positively affect performance of companies.

Concerning core values in our organization help to define how the organization would behave: 2.3%(3) strongly disagreed, 3.4%(4) disagreed 16.6%(20) were neutral, 50.3%(60) agreed and 27.4%(33) strongly agreed. Average mean score of 2.9 with a standard deviation of 0.909 which falls lower than both composite mean of 3.84 with an overall standard deviation of 0.970 which means that the core values supports the vision, culture and assists in decision making process which positively affects performance of companies.

On whether they have a collective bargaining agreement that creates peace and harmony in the work place, the results were as follow:- 2.3%(3)% strongly disagreed, 14.4%(17) disagreed, 26.4%(32) were neutral, 36.2%(43) agreed and 20.7%(25) strongly agreed. Average mean score of 3.59 with a standard deviation of 1.043 which falls below composite mean of 3.84 and higher than the overall standard deviation of 0.970 meaning that collective bargaining allowed the companies to negotiate a fair employment relationship and prevented costly labor disputes and negatively affect performance of companies in NSE.

On whether employees often do not approve of changes and resist or behave indifferently during change process; 13.1%(16) strongly disagreed, 31.6%(38) disagreed 24.6%(30) were neutral, 17%(20) agreed and 13.7%(16) strongly agreed. Average mean score of 4.22 with a standard deviation of 0.794 which falls higher than the composite mean of 3.84 and lower than the overall standard deviation of 0.970 meaning that lack of trust, fear of the unknown, poor communication and engagement among employees were some of the factors that hindered implementation of change process and positively affect performance of companies.

To check whether the changes are aligned according to customer focus, 1.7%(2) strongly disagreed, 7.5%(9) disagreed 12.0%(14) were neutral, 58.9%(71) agreed and 19.9%(24) strongly agreed. Average mean score of 3.76 with a standard deviation of 1.072 which falls lower than the composite of 3.84 with a higher an overall standard deviation of 0.970 meaning that companies were adjusting to the

pace of reorganization to match anticipated obstacles by constantly realigning themselves as the market changes to customer focus which negatively affect performance of companies in NSE.

On whether internal integration and external adaptation can often be at odds, 1.7%(2) strongly disagreed, 4.0%(5) disagreed 12.0%(14) were neutral, 43.0%(52) agreed and 39.5%(47) strongly agreed. Average mean score of 3.75 with a standard deviation of 0.995 which falls below the composite mean of 3.84 with an overall standard deviation of 0.970 meaning that there was a pattern of shared basic assumptions that the organizations have and could be taught to new members joining the organization negatively affect performance of companies.

On whether they do not change the system so as to improve the organization's collective abilities to provide value for our customers 1.7%(2) strongly disagreed, 9.1%(11) disagreed 16.0%(19) were neutral, 36.6%(44) agreed and 36.6%(44) strongly agreed. Average mean score of 3.97 with a standard deviation of 0.887 which falls above the composite mean of 3.84 with an overall standard deviation of 0.970 meaning that the organizations collective abilities positively affect performance of companies listed in NSE.

On whether the organization has a mission statement and defines what business they are in and vision of where they want to be 2.3%(3) strongly disagreed, 10.2%(12) disagreed, 18%(22)were neutral, 32.0%(38) agreed and 37.5%(45) strongly agreed. Average mean score of 3.86 with a standard deviation of 0.912 which falls slightly higher than the composite meaning of 3.84 with an overall standard deviation of 0.970 meaning that mission statement and vision are the most crucial parts on which the business is built and positively affect performance of companies listed in NSE.

On whether the organization has goals and objectives that guide their operations 5.8%(7) strongly disagreed, 11.2%(13) disagreed, 20.1%(24) neutral, 29.3%(35) agreed and 34.1%(41) strongly agreed. Average mean score of 3.72 with a standard deviation of 0.921 which falls below the composite mean of 3.84 with an overall standard deviation of 0.912 meaning that companies are guided and directed by mission which negatively affect the performance of companies listed in NSE.

Whether they have a strategic direction and intent in the organization that enables them stay focus and in line with the business environment, 7.8%(9) strongly disagreed, 9.2%(11) disagreed, 25.1%(30) neutral, 39.7%(48) agreed and 18.3%(22) strongly agreed. Average mean score of 3.96 with a standard deviation of 1.021 which is higher than a composite mean of 3.84 with an overall standard deviation of 0.912 meaning that organizations tend to change terms of engagement and competes through collaboration in an innovative manner which positively affect performance of companies listed in NSE.

Lastly, that the mission does not contribute anything to the health of the organization 5.8%(7) strongly disagreed, 11.2%(13) disagreed, 20.1%(24) neutral, 29.3%(35) agreed and 34.1%(41) strongly agreed. Average mean score of 3.82 with a standard deviation of 1.121 which falls below the composite mean of 3.84 with an overall standard deviation of 0.912 meaning that not all employees understand what mission means as it is so confusing to them and negatively affect performance of companies listed in NSE. The summary of descriptive statistics for organizational culture is presented in table 4.21.

Table 4.21: Summary of Descriptive Statistics for Organizational Culture

Organizational Culture	Mean	Std. Deviation	Analysis N
Involvement Culture	3.910	0.954	120
Consistency Culture	3.806	2.191	120
Adaptability Culture	3.780	1.052	120
Mission	3.403	1.002	120

Table 4.21 indicates that the average score of involvement culture, consistency culture, adaptability culture and mission were 3.910, 3.806, 3.780 and 3.403 respectively out of 5 possible rates. On the other hand, standard deviation indicates that the dispersion was very little. These findings of standard deviation suggest that involvement, consistency, adaptability culture and mission had a positive effect on performance of companies.

The results are in line with findings of Olanipekun, Aje and Falemu (2013) that organizational culture enhances performance with positive reward, stability and competitiveness. The results also concur with the findings of Awadh and Saad (2013) that organization performance and culture help in providing competitive advantage to firms and making them more efficient and effective. The results also concur with Zakari, Poku and Ansah (2013) finding that organizational culture traits namely; involvement, consistency, adaptability culture and mission had no significant difference among them on performance and mission was the culture trait that had a strongest potential and impacted positively on performance.

These results confirm that organizational culture were flexible and have the ability to realign according to the changing business environment. It further confirms that focus should be directed to the employees because they are members of these companies as they play a critical role in values, standards of behavior, objectives and traits of the organizational culture in the entire organization which leads to good corporate image and company performance. The findings also were in approval of organizational culture model propounded by Denison (2000) in this study.

4.7.1 Correlation Analysis for Organizational Culture and Performance of Companies

To establish whether there was a linear relationship between organizational culture and performance of companies, Pearson moment's correlation coefficients was used as suggested by Cohen, West and Aiken (2003). The result of the finding is presented on Table 4.22.

Table 4.22: Correlations Coefficients for Organizational Culture and Performance of Companies

Variable		Performance of Companies	Organizational Culture
Performance of Companies	Pearson Correlation	1	.642**
	Sig. (2-tailed)		.000
	N	143	143
Organizational Culture	Pearson Correlation	.642**	1
	Sig. (2-tailed)	.000	
	N	143	143

Other than product moment correlation coefficient, linearity was also tested using scatter plot between performance of companies and organizational culture. It was established that there was a significant moderate positive correlation between organizational culture and performance of companies, $r = 0.642^{**}$ P-value< 0.001, CL=95%. The results are presented in Figure 4.4.

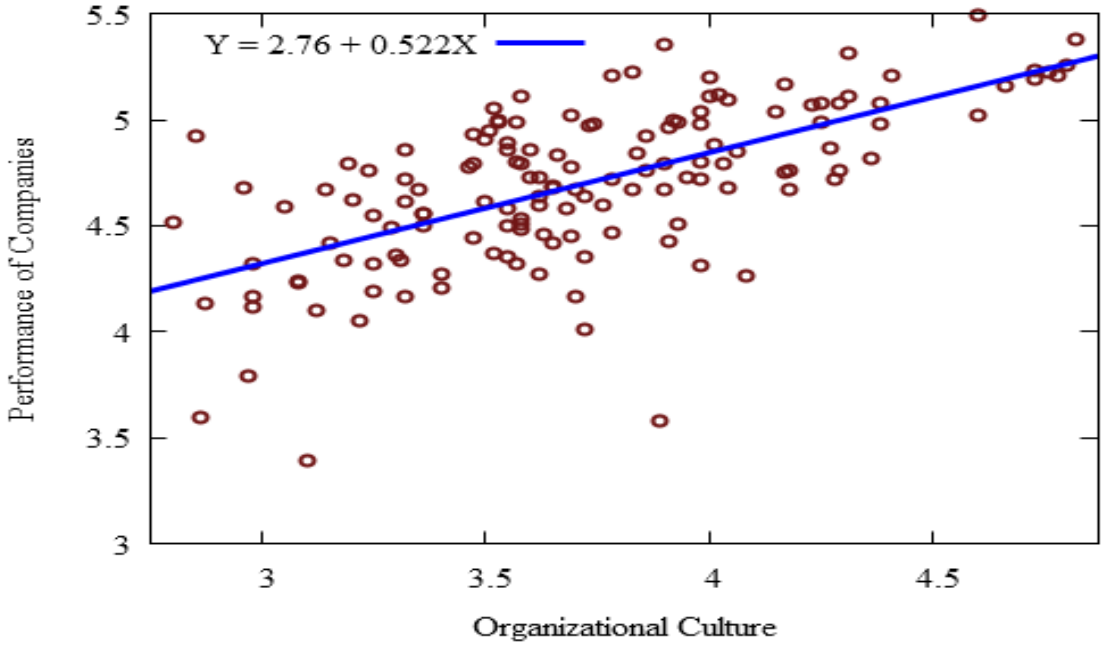


Figure 4.4: Scatter Plot between Performance of Companies and Organizational Culture

T-Test was also used to test the relationship between organizational culture and performance of companies. The results are presented in Table 4.23.

Table 4.23: Coefficients for Organizational Culture (X1) and Performance of Companies

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
Model 1	(Constant)	2.752	.197		13.965	.000
	Organizational Culture	.523	.053	.642	9.947	.000
Model 2	(Constant)	-.198	.354		-.560	.576
	Organizational Culture *Z	.999	.095	.665	10.563	.000

a. Dependent Variable: Performance of Companies

Table 4.23 show that there was significant relationship between the two variables with or without moderator with p-value= 0.000 < 0.05 for model 1 and 2. The regression equations between performance of companies and organizational culture for the two models can be expressed as; $Y=2.752+ 0 .523X_1$ and $Y=18.950+ .009X_1$.The two models indicated that for every unit organizational culture values changes by 0.523 for model 1 and 0.999 for model 2. These results were also supported by the descriptive analysis.

4.7.2 Hypothesis testing for relationship between organizational culture and performance of Companies

The study analyzed the null hypothesis that organizational culture does not significantly affect performance of companies listed in NSE. The analysis was conducted using the linear regression model. The results are presented in table 4.24.

Table 4.24: Regression Analysis for Organizational Culture and Performance of Companies

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.642[a]	.412	.408	.28651
2	.665[a]	.442	.438	. 51483

a. Model 1 and 2 Predictors: (Constant), Organizational culture and organizational culture with moderator effect of Technology X1*Z

a. Dependent Variable: Performance of Companies

The model summary Table 4.24 shows the strength of the relationship between predictor variable and the response variable is shown using correlation (R) or coefficient of determination R-square. The R-square is an indicator of how well the model fits the data. An R-square value which is close to 1.0 indicates that the dependent variable entirely depends on the independent variables while a value close to 0 indicates no correlation between the explanatory variables and the dependent variable (Ming'ala, 2002).

From the Table 4.24, further findings indicate that the value of R-square without the moderating variable was 0.412. This implied 41.2% of performance of companies listed in NSE was explained by organizational culture. However, with the moderating variable, technology, the R-square value increased to 0.442, (44.2%) which significantly affected organizational culture and performance of companies with an increase. The null hypothesis was rejected and the alternative hypothesis was accepted. It was concluded that there was a positive significant relationship between organizational culture and performance of companies.

4.7.3 ANOVA for Organizational Culture

This finding was further illustrated in the Analysis of Variance for organizational culture in Table 4.25.

Table 4.25: ANOVA for Organizational Culture (X1)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.122	1	8.122	98.945	.000[b]
	Residual	11.574	141	.082		
	Total	19.697	142			
2	Regression	29.575	1	29.575	111.583	.000[b]
	Residual	37.372	141	.265		
	Total	66.947	142			

a. Dependent Variable: Performance of Companies (Y)

b. Model 1 and 2 Predictors: (Constant),X_1 and X_1* Z

Table 4.25 show where the p-value < 0.001 which was less than 0.05 in the absence and presence of moderator. This therefore, implied that there was a significant positive relationship between organizational culture and performance of companies. However, in the presence of technology (moderating variable), there was a more significant relationship between organizational culture and performance of companies of companies.

4.8 Organizational Strategy and Performance of Companies listed in NSE

The second objective of the study sought to determine the effect of organizational strategy on performance of companies listed in NSE. The respondents were asked to state their opinion regarding whether organization strategy is stated or not stated in the mission statement using a Likert scale of 1-5 where: 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree. The results are presented in table 4.26.

Table 4.26: Descriptive Statistics for Organizational Strategy

Statements	S.D	D	N	A	SA	$\bar{X}$	SD
Corporate Level Strategy							
It is not stated in the mission statement.	2.9%(3)	10.9%(13)	35.6%(43)	36.8%(44)	13.8%(17)	3.48	0.960
Corporate strategy is concerned with the overall purpose and scope of our business to meet stakeholder expectations.	2.9%(3)	2.3%(3)	18.3%(22)	47.4%(57)	29.1%(35)	3.98	0.960
It is not a crucial level in our business.	0.0%(0)	7.4%(9)	19.4%(23)	49.8%(60)	23.4%(28)	4.11	3.075
This level acts to guide strategic decision-making throughout our business.	0.0%(0)	5.1%(6)	14.9%(18)	52.6%(63)	27.4%(33)	3.90	0.920
Business Level Strategy							
Our business competes successfully in the market.	0.6%(1)	5.1%(6)	17.7%(21)	50.3%(60)	26.3%(32)	4.02	0.795
Strategic decisions about choice of products are not done in our organization.	1.3%(2)	31.4%(38)	24.6%(30)	17.7%(21)	24.1%(29)	3.97	0.837
Customer needs are met in our organization	0.6%(1)	8.0%(10)	15.4%(18)	43.4%(52)	32.6%(39)	3.99	0.925
Our business level strategy does not gain advantage over competitors.	1.1%(1)	6.3%(8)	16.6%(20)	45.1%(54)	30.9%(37)	3.98	0.913
Functional Level Strategy							
Each part of our business is organized as per function.	0.0%(0)	5.1%(6)	21.1%(25)	48.0%(58)	25.7%(31)	3.94	0.822
It does not focus on issues of resources, processes, people etc.	1.7%(2)	4.6%(6)	16.6%(20)	51.2%(61)	25.9%(31)	3.95	0.873
It supports the business- level strategy.	0.6%(1)	8.0%(10)	17.1%(21)	45.7%(55)	28.6%(34)	3.94	0.911
It is not used by a business area for achieving the objectives and strategies of a company and business through maximizing resources efficiency.	1.1%(1)	4.6%(6)	16.6%(20)	50.3%(60)	27.4%(33)	3.98	0.853
Composite Mean						**3.94**	**1.066**

Table 4.26 findings on whether corporate strategy is not stated in the mission statement; 2.9%(3) strongly disagreed, 10.9%(13) disagreed, while 35.6%(43) are neutral, 36.8%(44) agreed and 13.8%(17) were strongly agreed. This line item had a mean score of 3.48 with a standard deviation of 0.960 which is lower than the composite mean score of 3.94 and the overall standard deviation of 1.066. This implies that non-inclusion of mission statement in the corporate level strategy negatively affect performance of companies listed in NSE.

On whether corporate strategy is concerned with the overall purpose and scope of their business to meet stakeholder expectations; 2.9%(3) strongly disagreed, 2.3%(3) disagreed, while 18.3%(22) are neutral, 47.4%(57) agreed and 29.1%(35) were strongly agreed. Since the line item had a mean score of 3.98 with a standard deviation of 0.909, the mean score was higher than the composite mean of 3.94 and lower than the overall standard deviation of 1.066. This implies that corporate strategy that concerns with purpose and scope of business positively affect the performance of companies listed in NSE.

The question on whether organization strategy is not a crucial level in their business; 0.0%(0) of the respondents strongly disagreed, 7.4%(9) disagreed, while 19.4%(23) are neutral, 49.8%(60) agreed and 23.4%(28) were strongly agreed. Since the line items had a mean score of 4.11 with a standard deviation of 3.075, the mean score was higher than the composite mean of 3.94 and an overall standard deviation of 1.066. This implies that organizational strategy plays an important role and positively affect performance of companies listed in NSE.

On whether corporate level acts to guide strategic decision-making throughout our business; 0.0%(0) of the respondents strongly disagreed, 5.1%(6) disagreed, while 14.9%(18) are neutral, 52.6%(63) agreed and 27.4%(33) were strongly agreed. Since the line item had a mean score of 3.90 with a standard deviation of 0.920, the mean score was lower than the composite mean of 3.94 and overall standard deviation of 1.066.This implies that corporate level acts to guide strategic decision making process which negatively affect performance of companies listed in NSE.

On whether our business competes successfully in the market; 0.6%(1) of the respondents strongly disagreed, 5.1%(6) disagreed, while 17.7%(21) were neutral, 50.3%(60) agreed and 26.3%(32) were strongly agreed. Since the line item had a mean score of 4.02 with a standard deviation of 0.795, the mean score was higher than the composite mean of 3.94 and the overall standard deviation of 1.066 was higher. This implies that business operates well in the market positively affect performance of companies listed in NSE.

On whether Strategic decisions about choice of products are not done in our organization; 1.3%(2) of the respondents strongly disagreed, 31.4%(38) disagreed, while 24.6%(30) were neutral, 17.7%(21) agreed and 24.1%(29) were strongly agreed. Since the line item had a mean score of 3.97 with a standard deviation of 0.837, the mean score was slightly higher than the composite mean of 3.94 and overall standard deviation of 1.066 was higher. This implies that strategic decisions about choice of products will bring competition which positively affect performance of companies listed in NSE

On whether customer needs are met in our organization; 0.6%(1) of the respondents strongly disagreed, 8.0%(10) disagreed, while 15.4%(18) were neutral, 43.4%(52) agreed and 32.6%(39) were strongly agreed. Since the line item had a mean score of 3.99 and standard deviation of 0.925, the mean score was slightly higher than the composite mean of 3.94 and overall standard deviation of 1.066 was higher. This implies that customer needs and satisfaction positively affect performance of companies listed in NSE.

On whether our business level strategy does not gain advantage over competitors, 1.1%(1) of the respondents strongly disagreed, 6.3%(8) disagreed, while 16.6%(20) were neutral, 45.1%(54) agreed and 30.9%(37) were strongly agreed. Since the line item had a mean score of 3.98 with a standard deviation of 0.913, the mean score was slightly higher than composite mean of 3.94 and the overall standard deviation of 1.066 was higher. This implies that business level strategy done in relation to the realignment of the processes and business units that positively affect performance of companies listed in NSE.

On whether each part of our business is organized as per function; 0.0%(0) of the respondents strongly disagreed, 5.1%(6) disagreed, while 21.1%(25) were neutral, 48.0%(58) agreed and 25.7%(31) were strongly agreed. Since the line item had a mean score of 3.94 with a standard deviation of 0.822, the mean score was same as the composite mean of 3.94 and the overall standard deviation of 1.066 was higher. This implies that businesses are organized in functions this positively affect performance of companies listed in NSE.

On whether it does not focus on issues of resources, processes, people etc.; 1.7%(2) of the respondents strongly disagreed, 4.6%(6) disagreed, while 16.6%(20) were neutral, 51.2%(61) agreed and 25.9%(31)were strongly agreed. Since the line item had a mean score of 3.95 with a standard deviation of 0.873, the mean score was slightly higher than composite mean of 3.94 and overall standard deviation of 1.066 was higher. This implies that focus on issues of resources, processes and people positively affect performance of companies listed in NSE.

On whether it does not focus on issues of resources, processes, people etc.; 0.6%(1) of the respondents strongly disagreed, 8.0%(10) disagreed, while 17.1%(21) were neutral, 45.7%(55) agreed and 28.6%(34) were strongly agreed. Since the line item had a mean score of 3.94 and standard deviation of 0.911, the mean score was same as the composite mean of 3.94 and the overall standard deviation of 1.066 was higher. This implies that focus on issues of resources, processes and people positively affect performance of companies listed in NSE.

On whether it is not used by a business area for achieving the objectives and strategies of a company and business through maximizing resources efficiency; 1.1%(1) of the respondents strongly disagreed, 4.6%(6) disagreed, while 16.6%(20) were neutral, 50.3%(60) agreed and 27.4%(33) were strongly agreed. Since the line item had a mean score of 3.98 with a standard deviation of 0.854, the general average rate of responses was 3.94 out of possible 5 with an overall standard deviation of 1.006 confirming that organizational strategy positively affect performance of companies listed in NSE. The results are summarized in table 4.27.

Table 4.27: Summary of Descriptive Statistics for Organizational Strategy

Organizational Strategy	Mean	Std. Deviation	Analysis N
Corporate Level Strategy	3.853	1.651	120
Functional Level Strategy	3.963	0.851	120
Business Level Strategy	3.957	0.879	120

Table 4.27 shows the items under organizational strategy were analyzed further and the average score for corporate, functional and business level strategy were 3.853, 3.963 and 3.957 respectively out of 5 possible rates. Again the findings suggest that there was a significant effect of corporate, functional and business level strategy on performance of companies listed in NSE.

The results support the findings by Njagi and Kombo (2014) who observed that there was a moderately strong relationship between strategy implementation and organizational performance. The results also agree with the findings by Chaimankong and Prasertsakul (2012) that the success in strategy implementation does not alter the relationship between strategic type and a firm's performance as it may be universal in any location.

The results further concur with Monroe (2006) that resource governance decisions distinguished the persistent superior firm performance category from both the persistent average and inferior firm performance categories. The findings confirm that companies that are trading in NSE have their organizational strategy in place to enable them operate efficiently and effectively with the available resources at their disposal.

The findings further confirms that organizational strategy will help come up with strategic plans either short term or long term that will propel the company through realignment of their operations/processes in response to the dynamic business environment, changing Government policies and regulations that affect businesses

today. The findings also were in corroboration with chaos and complexity theory propounded by Lorenz (1963) in this study.

4.8.1 Correlation Analysis for Organizational Strategy and Performance of Companies

To establish whether there was a linear relationship, the study adopted the Pearson moment's correlation coefficients and the result was presented in table 4.28.

Table 4.28: Correlations Coefficients for Organizational Strategy and Performance of Companies

Variable		Performance of Companies	Organizational Strategy
Performance of Companies	Pearson Correlation	1	.723**
	Sig. (2-tailed)		.000
	N	143	143
Organizational Strategy	Pearson Correlation	.723**	1
	Sig. (2-tailed)	.000	
	N	143	143

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

Table 4.28 indicates that organizational strategy and performance of companies had a significant strong positive effect as indicated by a correlation coefficient of 0.723^{**}, $p<0.001$, CL=95%. The results are presented in figure 4.5.

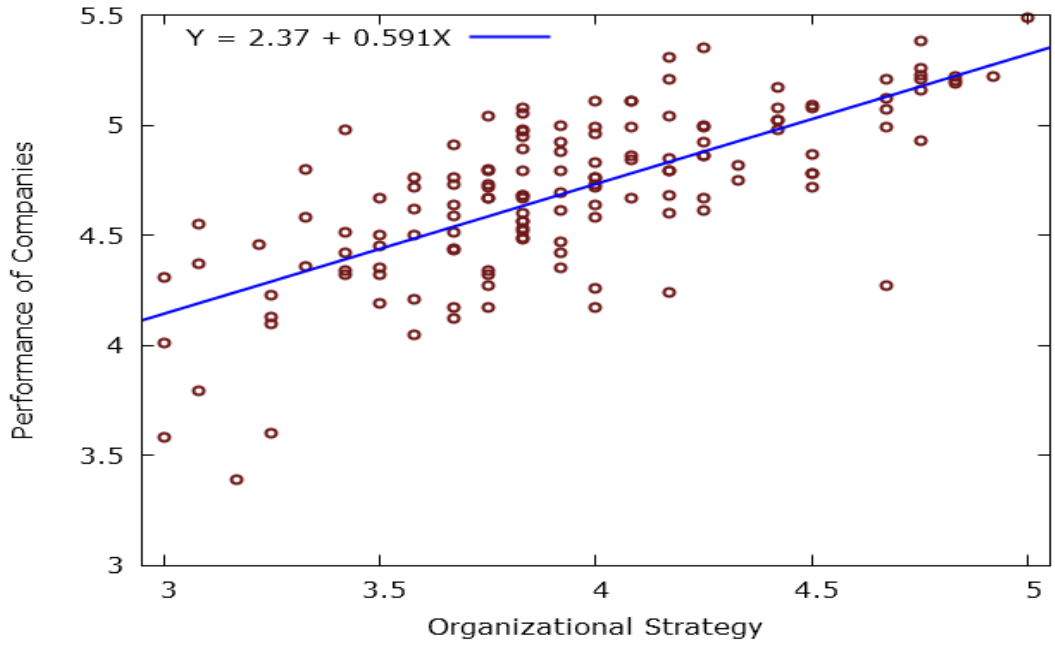


Figure 4.5: Scatter Plot between Performance of Companies and Organization Strategy

Figure 4.5 clearly shows the linear relationship between performance of companies and organizational strategy.

4.8.2 Hypothesis testing between Organizational Strategy and Performance of Companies

The study analyzed the null hypothesis that organizational strategy does not significantly affect performance of companies listed in NSE. The Pearson's product moment correlation statistic was used to test the effect of organizational strategy and performance of companies. The R-square value without the moderating variable showed that 0.523 (52.3%) of performance of companies was explained by organizational strategy, but went slightly up to 0.596 (59.6%) with the moderating variable as shown in Appendix 3: Supporting Analyses, Table A1. This was quite significant at 0.05.The results show that there was a positive significant relationship between organizational strategy and performance of companies. Further, the regression coefficient without moderating variable showed a p- value <0.001 which is less than 0.05 significance level. The value was the same with the effect of

technology (moderating variable). The model generated from the coefficient table 4.23 was as follows $Y=2.365+ 0.592X_2$ without moderator and $Y=-1.076+ 1.165X_2$ with moderator. The results are presented in table 4.29.

Table 4.29: Coefficients for Organizational Strategy (X2)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	Constant	2.365	.189		12.518	.000		
	Organizational strategy	.592	.048	.723	12.427	.000	1.000	1.000
2	Constant	-1.076	.321		-3.355	.001		
	Organizational strategy	1.165	.081	.772	14.409	.000	1.000	1.000

a. Dependent Variable: Performance of Companies (Y)

Table 4.29 show that there was a significant relationship between organizational strategy and performance of companies. The null hypothesis was rejected and the alternative adopted that there was significant statistical relationship between organizational strategy and performance of companies.

4.8.3 ANOVA for Organizational Strategy

The study conducted ANOVA analysis for organizational strategy and the findings are presented in table 4.30.

Table 4.30: ANOVA for Organizational Strategy(X2)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.296	1	10.296	154.424	.000[b]
	Residual	9.401	141	.067		
	Total	19.697	142			
2	Regression	39.871	1	39.871	207.632	.000[b]
	Residual	27.076	141	.192		
	Total	**66.947**	**142**			

a. Dependent Variable: Performance of Companies

b. Model 1 and 2 Predictors: (Constant), X_2

Table 4.30 indicates that the overall model with and without moderator was significant, that is, the independent variable, organizational strategy was a good joint explanatory for performance of companies with F-value of 154.424 and 207.632 model 1 and model 2 respectively. P- Values were <0.05 also indicates that the models are fit.

4.9 Organizational Structure and Performance of Companies listed in NSE

The third objective of the study was to determine the effect of organizational structure on performance of companies listed in NSE. The respondents were asked to state their level of agreement/disagreement with the following items based on organizational structure and how they are associated with performance of companies listed in NSE in a Likert scale of 1-5 where; 1-strongly disagree, 2-disagree,3-neutral,4-agree and 5-strongly agree. The results are presented in table 4.31.

Table 4.31: Descriptive Statistics for Organizational Structure

Statements	S.D	D	N	A	SA	$\bar{X}$	SD
Specialization of Managers							
Companies form Departments/divisions and sub-division which are driven by specialization.	0.6%(1)	7.4(9)%	20.6%(25)	46.9%(56)	24.5%(29)	3.87	0.888
Skilled labor is not important in the operations of the organization than managers.	2.3%(3)	13.7%(16)	29.7%((36)	34.9%(42)	19.4%(23)	3.56	1.026
Specialists can destroy the organization by disrupting the routines or operations of the organization.	0.6%(1)	8.0%(10)	20.6%(25)	48.0%(58)	22.8%(27)	3.85	0.887
Formalization of Change Process							
It ensures consistency and can help the organization stay legal and safe.	0.0%(0)	10.3%(12)	19.4%(23)	45.7%(55)	24.6%(30)	4.01	2.454
Rules, policies and procedures are written to guide the organization during change process.	2.9%(3)	9.2%(11)	26.4%	44.8%(54)	16.7%(20)	3.63	0.963
Change process does not follow any formal rule during implementation.	1.1%(1)	8.6%(10)	14.9%(18)	45.7%(55)	29.7%(36)	3.94	1.864
Centralization of Decision Making							
The control is held centrally with managers and staff making decisions.	0.6%(1)	5.7%(7)	12.6%(15)	46.3%(56)	34.8%(42)	4.09	0.866
There is no participation in decision making by employees.	2.9%(3)	9.7%(12)	23.4%(28)	39.4%(47)	24.6%(30)	3.73	1.029
Decentralization is not practiced in change process.	0.6%(1)	6.3%(8)	22.1%(27)	45.7%(55)	25.3%(30)	3.89	0.877
Configuration of Change Process							
Our organization is divided into different departments/division.	4.0%(5)	11.4%(14)	35.4%(42)	31.4%(38)	17.7%(21)	3.47	1.038
Some departments have been merged and others phased out during change process.	6.9%(8)	21.7%(26)	22.3%(27)	33.6%(40)	15.5%(19)	3.29	1.170
There is no confusion and conflict during the transfers/placement of employees from one department to the other.	1.1%(1)	2.3%(3)	19.5%(23)	50.4%(60)	27.1%(33)	3.29	0.813
Composite Mean						**3.78**	**1.067**

Table 4.31 findings on whether the companies form departments/divisions and sub-division which is driven by specialization, 0.6%(1) of the respondents strongly disagreed, 7.4%(9) disagreed 20.6%(25) were neutral, 46.9%(56) of the respondent's agreed and 24.5%(29) strongly agreed. On the other hand, on scale of 1 to 5, an average score rate of 3.87 was recorded with standard deviation of 0.888 which is over and above the composite mean of 3.78 and the overall standard deviation of 1.067 was higher. This indicates that majority of companies provide jobs to be performed with guidelines which positively affect performance of companies in NSE.

Concerning whether skilled labor is not important in the operations of the organization than managers, 2.3%(3) strongly disagreed, 13.7%(16) disagreed, while 29.7%(36) were neutral, 34.9%(42) of the respondents agreed, 19.4%(23) strongly agreed. An average score rate of 3.56 was recorded with a standard deviation of 1.026 which falls below the composite mean of 3.78 and overall standard deviation of 1.067 was higher. This suggests that skilled labor was not important in the operations of the organization this had a negative effect on performance of companies listed in NSE.

The respondents were asked whether specialists can destroy the organization by disrupting the routines or operations of the organization. 0.6%(1) strongly disagreed, 8.0%(10) disagreed while 20.6%(25) of respondents agreed, 48.0%(58) were neutral, 22.8%(27) strongly agreed. Average scale of 3.85 out possible 5 with a standard deviation of 0.887 was recorded and was above the composite mean of 3.78 and overall standard deviation of 1.06 was higher. This means that specialists can destroy the organization by disrupting the routines or operations since it had a negative effect performance of companies listed in NSE.

On whether formalization ensures consistency and can help the organization stay legal and safe; 4.0%(5) strongly disagreed,11.4%(14) disagreed, while 35.4%(42) of respondent were neutral, 31.4%(38)respondent agreed,17.7%(21) of respondent strongly agreed. Average score rate was 3.47 out of 5 with standard deviation of 1.038 which was over and above the composite mean of 3.78 and overall standard

deviation of 1.067 was higher. This means that the companies were observing all the legal framework in the course of doing business and complied fully with the requirements of Capital Markets Authority which negatively affect performance of companies listed in NSE.

On whether rules, policies and procedures are written to guide the organization during change process; 6.9%(8) strongly disagreed, 21.7%(26) disagreed, while 22.3%(27) of respondent were neutral, 33.6%(40)respondent agreed, 15.5%(19) of respondent strongly agreed. Average score rate was 3.29 out of 5 with standard deviation of 1.170 which was over and above the composite mean of 3.78 and overall standard deviation of 1.067 was lower. This means that employees did not adhere to the guidelines and this negatively affect performance of companies listed in NSE.

On whether change process does not follow any formal rule during implementation; 1.1%(1) strongly disagreed, 2.3%(3) disagreed, while 19.5%(23) of respondent were neutral, 50.4%(60) respondent agreed, 27.1%(33) of respondent strongly agreed. Average score rate was 3.29 out of 5 with standard deviation of 0.813 over and above composite mean of 3.78 and overall standard deviation of 1.067 was higher. This means that change process was all inclusive and planned or emergent during implementation which negatively affect performance of companies listed in NSE.

On whether the control is held centrally with managers and staff making decisions; 0.6 %(1) strongly disagreed, 5.7 %(7) disagreed, while 12.6 %(15) of respondent were neutral, 46.3 %(56) respondent agreed, 34.8 %(42) of respondent strongly agreed. Average score rate was 4.09 out of 5 with standard deviation of 0.866 over and above composite mean of 3.78 and overall standard deviation of 1.067 was higher. This indicates that the control was held centrally and decision making positively affect performance of companies listed in NSE.

On whether there is no participation in decision making by employees, 2.9%(3) strongly disagreed, 9.7%(12) disagreed, while 23.4%(28) of respondent were neutral, 39.4%(47) respondent agreed, 24.6%(30) of respondent strongly agreed. Average score rate was 3.73 out of 5 with standard deviation of 1.029 below the composite mean of 3.78 and overall standard deviation of 1.067 was higher. This indicates that

participation in decision making by employees negatively affect performance of companies listed in NSE.

On whether decentralization is not practiced in change process, 0.6%(1) strongly disagreed, 6.3%(8) disagreed, while 22.1%(27) of respondent were neutral, 45.7%(55) respondent agreed, 25.3%(30) of respondent strongly agreed. Average score rate was 3.89 out of 5 with standard deviation of 0.877 which is higher than the composite mean of 3.78 and overall standard deviation of 1.067 was higher. This indicates that decentralization in change process positively affect performance of companies listed in NSE.

To find out whether organizations listed in Nairobi Securities Exchange in Kenya ensures consistency and can help the organization stay legal and safe, 0.0%(0) strongly disagreed, but 10.3%(12) disagreed, while 19.4%(23) were neutral, majority 45.7%(55) of respondents agreed, 24.6%(30) strongly agreed. Average score rate was 4.01 out of 5 and standard deviation of 2.454 was recorded which is over and above composite mean of 3.78 and overall standard deviation of 1.067. This shows that most of the organizations were consistent and legally safe which positively affect performance of companies listed in NSE.

Based on whether rules, policies and procedures are written to guide the organization during change process for the companies listed in Nairobi Securities Exchange in Kenya, the finding suggests that; 2.9%(3) Strongly disagreed, 9.2%(11) disagreed, while 26.4%(32) of respondent were neutral, 44.8%(54) respondent agreed,16.7%(20) of respondent strongly agreed. Average score rate was 3.63 out of 5 with standard deviation of 0.963 which falls lower than the composite mean rating of 3.78 out of 5 and overall standard deviation of 1.067 meaning that the respondents were not in agreement with the rules, policies and procedures which negatively affect performance of companies listed in NSE.

On whether there is no confusion and conflict during the transfers/placement of employees from one department to the other, 1.1%(1) strongly disagreed, 8.6%(10) disagreed, while 14.9%(18) of respondent were neutral, 45.7%(55) respondent agreed, 29.7%(36) of respondent strongly agreed. Average score rate was 3.94 out of

5 with standard deviation of 1.864 which is over and above composite mean of 3.78 and overall standard deviation of 1.067. This indicates that confusion and conflict during the transfers/placement of employees from one department to another positively affect performance of companies. The descriptive statistics summary is presented in table 4.32.

Table 4.32: Summary of Descriptive Statistics for Organizational Structure

Organizational Structure	Mean	Std. Deviation	Analysis N
Specialization of Managers	3.820	1.314	120
Formalization of Change Process	3.683	0.967	120
Centralization of Decision Making	3.697	0.981	120
Configuration of Change Process	3.897	0.916	120

Table 4.32 show the summary of the items under organizational structure revealed that, the average score rate for specialization of managers, formalization of change process, centralization of decision making and configuration of change process were 3.820, 3.683, 3.697 and 3.897 respectively out of 5 possible rates. Again the findings suggest that specialization of managers, formalization of process, centralization of decision making and configuration of change process had an effect on performance of companies listed in NSE.

The results are in harmony with the findings by Meijaard, Brand and Mosselman (2005) that organizational structure mattered and deserved to be taken into account in models and future analysis. The results also agree with findings by Tajipour, Sarboland and Khodabakhshi (2014) that there was a statistically significant difference on impact of organization structure indicators namely; formalization, complexity and centralization on productivity.

The results further concur with findings by Basol and Dogerlioglu (2014) that formalization and specialization increases organizational effectiveness. The results indicate that most companies listed in Nairobi Securities Exchange have organization

structures that are well defined with work specialization of managers, formalization of change processes, and centralization of decision making and configuration of change process.

The findings further confirms that activities such as task allocation, coordination and supervision are directed towards the achievement of organizational goals with evaluation and monitoring of decentralized operations in the companies. This confirms that there is a good organizational structure that determines which individuals get to participate in which decision-making processes and at what organizational level and thus; to what extent their views contributes to organizations actions and performance for firms trading in NSE. The findings also were in approval of the Contingency Theory propounded by Fiedler (1971) in this study.

4.9.1 Correlation Analysis for Organizational Structure and Performance of Companies

Linearity of variables was tested using correlation coefficients as suggested by Obilo and Amadi (2018). To establish whether there was a linear relationship, the study adopted the Pearson moment's correlation coefficients and the results are presented in table 4.33.

Table 4.33: Correlation Coefficients for Organizational Structure and Performance Companies

Variable		Performance of Companies	Organizational Structure
Performance of Companies	Pearson Correlation	1	.723**
	Sig. (2-tailed)		.000
	N	143	143
Organizational Structure	Pearson Correlation	.723**	1
	Sig. (2-tailed)	.000	
	N	143	143

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

Table 4.33 indicates there is a strong significant positive correlation between organizational structure and performance of companies r= 0.723**, p<0.001, CL=95%. This is presented in Figure 4.6.

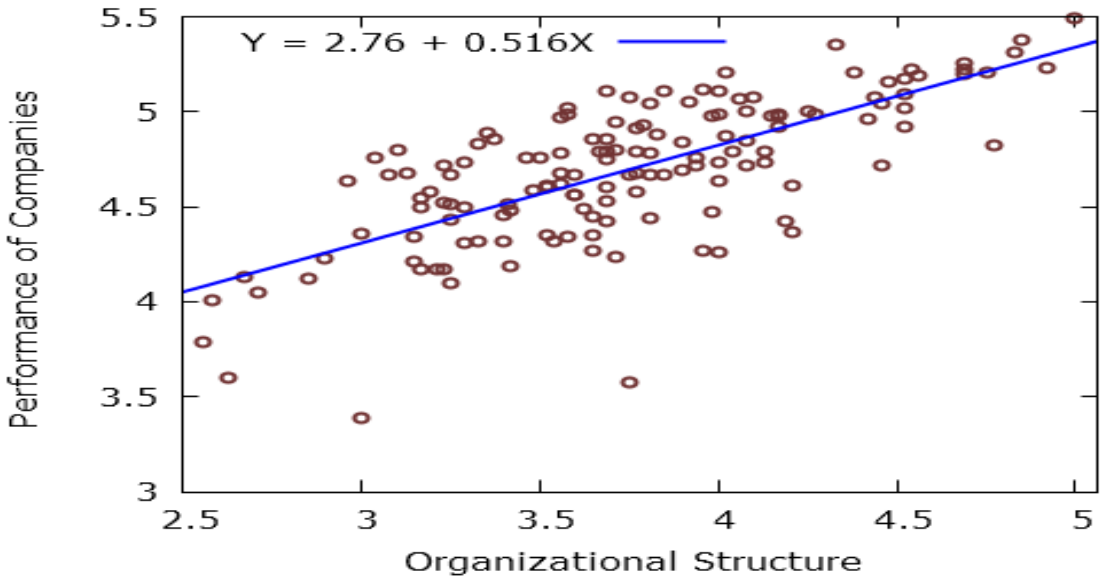


Figure 4.6: Scatter plot between Performance of Companies and Organizational Structure

Figure 4.6 clearly show the linear relationship between performance of companies and organizational Structure.

4.9.2 Hypothesis testing for Organizational Structure and Performance of Companies

The study analyzed the null hypothesis that organizational structure does not significantly affect performance of companies listed in NSE. To test the hypothesis, linear regression model was used. The F-statistic 331.993 is presented in Appendix 3: Table A2 and indicates that the model was significant with p-value being less than 0.05. The coefficient determinant, R-square without the moderating variable was 0.522 and 0.607 with the moderating variable. This therefore, implies that

organizational structure was explained at least 52.2 % of variability of performance of companies without moderating variable and 60.7% when there was a moderating variable which was quite significant.

The coefficient regression equation between organizational structure and performance of companies can be expressed as; $Y = \beta_0 + \beta_1 X_3$ which results to $Y = 2.76 + 0.516X_3$ when there is no moderator and $Y = -3.338 + 1.026X_3$ with moderator from the coefficient of organizational structure of($X_{3)}$. The results are presented in Table 4.34.

Table 4.34: Coefficient for Organization Structure of (X3) and Performance of Companies

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.760	.158		17.514	.000		
	Organizational structure	.516	.042	.723	12.416	.000	1.000	1.000
2	(Constant)	-.338	.263		-1.282	.202		
	Organization structure*Z	1.026	.070	.779	14.761	.000	1.000	1.000

a. Dependent Variable: Performance of Companies (Y)

Table 4.34 show that the p-values with and without the moderating variable (Technology) is 0.000 which were less than 0.05. From the analysis it was therefore, concluded that the third null hypothesis be rejected and the alternative be accepted; there was a positive significant effect between organizational structure and performance of companies.

4.9.3 ANOVA for Organizational Structure and Performance of Companies

Analysis of Variance results for regression coefficients revealed that the F-statistic 154.167 without moderator and 217.882 with moderator showing that the two models

were significant with p-values being 0.000 which is less than 0.05 hence, the null hypothesis was rejected. The results are presented in table 4.35.

Table 4.35: ANOVA for Organizational Structure (X3)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.288	1	10.288	154.167	.000[b]
	Residual	9.409	141	.067		
	Total	19.697	142			
2	Regression	40.644	1	40.644	217.882	.000[b]
	Residual	26.302	141	.187		
	Total	66.947	142			

a. Dependent Variable: Performance of Companies (Y)

b. Model 1 and 2 Predictors: (Constant), X_3

Table 4.35 show that there was a significant positive relationship between organizational structure and performance of companies..

4.10 Organizational Management and Performance of Companies listed in NSE

The fourth objective of the study sought to assess the effect of organizational management on performance of companies listed in NSE in a Likert scale of 1-5 where; 1-Strongly disagree,2-disagree,3-neutral,4-agree and 5-strongly agree. The results are presented in table 4.36.

Table 4.36: Descriptive Statistics for Organizational Management

Statements	S.D	D	N	A	SA	$\bar{X}$	SD
Planning Process							
Managers should be able to evaluate all potential tasks at the same time picking the most important ones.	0.6%(1)	2.3%(3)	12.6%(15)	44.0%(53)	40.6%(48)	4.22	0.794
Managers do not explain the tasks to be undertaken appropriately to employees when planning.	4.6%(6)	7.4%(9)	22.3%(27)	38.3%(46)	26.9%(32)	3.76	1.072
Planning is useful for developing organization's strategic plan.	1.7%(2)	9.7%(12)	25.1%(30)	38.3%(46)	25.1%(30)	3.75	0.995
Coordination of Change Process							
Communication channels are well established among staff in our organization.	2.3%(3)	3.4%(4)	16.6%(20)	50.3%(60)	27.4%(33)	3.97	0.887
Coordination does not correct executor's actions which do not comply with the plan of the organization.	2.3%(3)	14.4%(17)	26.4%(32)	36.2%(43)	20.7%(25)	3.59	1.043
Coordination combines the organizations goals and specialization in respect of division of labor and formation of chain of commands	13.1%(16)	31.4%(38)	24.6%(30)	17.7%(21)	12.7%(15)	4.22	0.794
Motivation of Staff							
Money motivates employees towards higher performance.	1.7%(2)	7.4%(9)	12.0%(14)	58.9%(71)	20.0%(24)	3.76	1.072
Incentives such as security, good working condition, opportunity for growth and development creates redundancy of employees.	1.7%(2)	4.0%(5)	12.0%(14)	42.9%(51)	39.6%(48)	3.75	0.995
Our organization uses rewards to contribute to firm's effectiveness by influencing individuals or group behavior.	1.7%(2)	9.1%(11)	16.0%(19)	36.6(44)	36.6%(44)	3.97	0.887
Controlling of Resources							
We set performance targets in our organization to be achieved by employees.	2.3%(3)	5.7%(7)	15.4%(18)	44.0%(53)	32.6%(39)	3.59	1.043
Resources such as financial, human, material and others are not utilized prudently in our organization.	1.7%(2)	3.4%(4)	18.3%(22)	38.3%(46)	38.3%(46)	2.86	1.238
Every divisional head is in charge of the budget in our organization.	14.3%(17)	20.6%(25)	24.6%(30)	24.0%(29)	16.6%(20)	3.88	0.873
Composite Mean						**3.84**	**0.970**

Table 4.36 findings on whether the managers should be able to evaluate all potential tasks at the same time picking the most important ones. 0.6%(1) strongly disagreed, 2.3%(3) disagreed 12.6%(15) were neutral, 44%(53) agreed, 40.6%(48) strongly agreed. Average score rate was 4.22 out of 5 with standard deviation of 0.794 higher than the composite mean of 3.84 and overall standard deviation of 0.970 was higher. This indicates that manager's evaluated all potential tasks at the same time picking the most important ones and this positively affect performance of companies listed in NSE.

In regard to know the extent to which managers do not explain the tasks to be undertaken appropriately to employees when planning,4.6%(6) strongly disagreed,7.4%(9) disagreed ,while 22.3%(27) were neutral, 38.3%(46) agreed, 26.9%(32) strongly agreed. Average score rate was 3.76 out of 5 with standard deviation of 1.072 below the composite mean of 3.84 and overall standard deviation of 0.970 was lower. This indicates that managers do not explain the tasks to be undertaken appropriately to employees when planning which negatively affect performance of companies listed in NSE.

On whether planning was useful for developing organization's strategic plan was also rated as follows: 1.7%(2) strongly disagreed, 9.7%(12) disagreed, 25.1%(30) were neutral, 38.3%(46) agreed, 25.1%(30) strongly agreed. Average score rate was 3.75 out of 5 with standard deviation of 0.995 which was below the composite mean of 3.84 and overall standard deviation of 0.970 was lower. This indicates that planning process was useful for developing organization's strategic plan which negatively affect performance of companies listed in NSE.

On whether communication channels are well established among staff in our organization; 2.3%(3) strongly disagreed, 3.4%(4) disagreed, while 16.6%(20) were neutral, 50.3%(60) agreed, 27.4%(33) strongly agreed. Average score rate was 3.97 out of 5 with standard deviation of 0.887 which was above the composite mean of 3.84 and overall standard deviation of 0.970 was higher. This indicates that communication channels positively affect performance of companies listed in NSE.

Concerning whether coordination does not correct executor's actions which do not comply with the plan of the organization the finding were as follows: 2.3%(3) strongly agreed, 14.4%(17) disagreed, 26.4%(32) were neutral, 36.2%(43) disagreed and 20.7%(25) strongly disagreed. Average score rate was 3.59 out of 5 with standard deviation of 1.043 which was below the composite mean of 3.84 and standard deviation of 0.970 was lower. This indicates that coordination of executor's actions negatively affect performance of companies listed in NSE.

On whether coordination combines the organizations goals and specialization in respect of division of labor and formation of chain of commands, the results were as follow: 13.1 %(16) strongly disagreed, 31.4 %(38) disagreed. 24.6 %(30) were neutral 17.7 %(21) agreed, 12.7 %(15) strongly agreed. Average score rate was 4.22 out of 5 with standard deviation of 0.794 which was over and above the composite mean of 3.84 and overall standard deviation of 0.970 was higher. This indicates that organization goals and specialization of managers positively affect performance of companies listed in NSE.

On whether money motivates employees towards higher performance, 1.7 %(2) strongly disagreed, 7.4 %(9) disagreed, while 12.0 %(14) were neutral, 58.9 %(71) agreed, 20 %(24) strongly agreed. Average score rate was 3.76 out of 5 with standard deviation of 1.072 which was below the composite mean of 3.84 and overall standard deviation of 0.970 was lower. This indicates that money motivates employees and negatively affect performance of companies listed in NSE.

On whether incentives such as security, good working condition, opportunity for growth and development creates redundancy of employees;1.7%(2) strongly disagreed, 4.0%(5) disagreed, while 12.0%(14) were neutral, 42.9%(51) agreed, 39.4%(48) strongly agreed. Average score rate was 3.75 out of 5 with standard deviation of 0.995 which was below the composite mean of 3.84 and overall standard deviation of 0.970 was lower. This indicates that incentives such as security, good working condition, opportunity for growth and development negatively affect performance of companies listed in NSE.

On whether our organization uses rewards to contribute to firm's effectiveness by influencing individuals or group behavior,1.7%(2) strongly disagreed, 9.1 %(11) disagreed, while 16.0%(19) were neutral, 36.6%(44) agreed, 36.6%(44) strongly agreed. Average score rate was 3.97 out of 5 with standard deviation of 0.887 which was higher than the composite mean of 3.84 and overall standard deviation of 0.970 was higher. This indicates that rewards to individuals or group positively affect performance of companies listed in NSE.

On whether we set performance targets in our organization to be achieved by employees, 2.3%(3) strongly disagreed, 5.7%(7) disagreed, while 15.4%(18) were neutral, 44.0%(53) agreed, 32.6%(39) strongly agreed. Average score rate was 3.59 out of 5 with standard deviation of 1.043 which was below the composite mean of 3.84 and overall standard deviation of 0.970 was lower. This indicates that performance targets review determines how the employees were working and negatively affect performance of companies listed in NSE.

On whether Resources such as financial, human, material and others are not utilized prudently in our in our organization; 1.7%(2) strongly disagreed, 3.4%(4) disagreed, while 18.3%(22) were neutral, 38.3%(46) agreed, 38.3%(46) strongly agreed. Average score rate was 2.86 out of 5 with standard deviation of 1.238 which was below the composite mean of 3.84 and overall standard deviation of 0.970 was lower. This indicates that availability of resources negatively affect performance of companies listed in NSE.

On whether every divisional head is in charge of the budget in our organization, 14.3%(17) strongly disagreed, 20.6%(25) disagreed, while 24.6%(30) were neutral, 24.0%(29) agreed, 16.6%(20) strongly agreed. Average score rate was 3.88 out of 5 with standard deviation of 0.873 which was below the composite mean of 3.84 and overall standard deviation of 0.970 was higher. This indicates that all divisional heads were budget holders who ensured that operations/processes of the companies were running smoothly which positively affect performance of companies listed in NSE. The summary is presented in Table 4.37.

Table 4.37: Summary of Descriptive Statistics for Organizational Management

Organizational Management	Mean	Std. Deviation	Analysis N
Planning Process	3.910	0.954	120
Coordination of Change Process	3.806	2.191	120
Motivation of Staff	3.780	1.052	120
Controlling of Resources	3.403	1.050	120

Table 4.37 indicate that, the average score for planning process, coordination of change process, motivation of staff and controlling of resources were 3.910, 3.06, 3.780 and 3,403 respectively out of 5 possible rates. On the other hand, standard deviation indicates that the dispersion was very little. These findings, show that Standard deviation suggest that planning process, coordination of change process, motivation of staff and controlling had an effect on Performance of Companies listed in Nairobi Securities Exchange.

These results are in harmony with the findings by Muogbo (2013) that strategic management adoption had an effect on employee's performance by increasing organizational productivity and enhancing structural development. The results also agree with the findings by Kehinde (2012) which indicate that there was a positive impact between talent management and organizational performance of both multinational and national firms. The results further concur with the findings by Aremu and Oyinloye (2014) that strategic management affects organizational performance and that no matter how well-structured and organized a plan may be, if not implemented then businesses would fail.

This result confirms that organizational management is critical in planning process and helpful in developing the organization's strategic plan, setting objectives, managing resources and developing the human and financial assets that are utilized prudently by controlling them and eliminating wastage. The results further show that coordination of change process will combine the organizations and specialization in divisions of labor and formation of chain of command. The findings also confirms

that motivation of staff like incentives such as security, good working condition, opportunity for growth and development contributes to good performance of companies. The findings also were in approval of the Open Systems Theory propounded by Bertalanffy (1972) in this study.

4.10.1 Correlation Analysis for Organizational Management and Performance of Companies

Linearity of variables was tested using correlation coefficients as suggested by Cohen, West and Aiken (2003). To establish whether there was a linear relationship, the study adopted the Pearson moment's correlation coefficients. The results are presented in table 4.38.

Table 4.38: Correlation Coefficients for Organizational Management and Performance of Companies

Variable		Performance of Companies	Organizational Management
Performance of Companies	Pearson Correlation	1	.634**
	Sig. (2-tailed)		.000
	N	143	143
Organizational Management	Pearson Correlation	.634**	1
	Sig. (2-tailed)	.000	
	N	143	143

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

Table 4.38 indicates that there was a significant moderate positive correlation between organizational management and performance of companies r= 0.634, p<0.001, CL=95%. This implies that there was a linear positive relationship. Thus an increase in organizational management would result in a linear increase in performance of companies. This is presented in Figure 4.7.

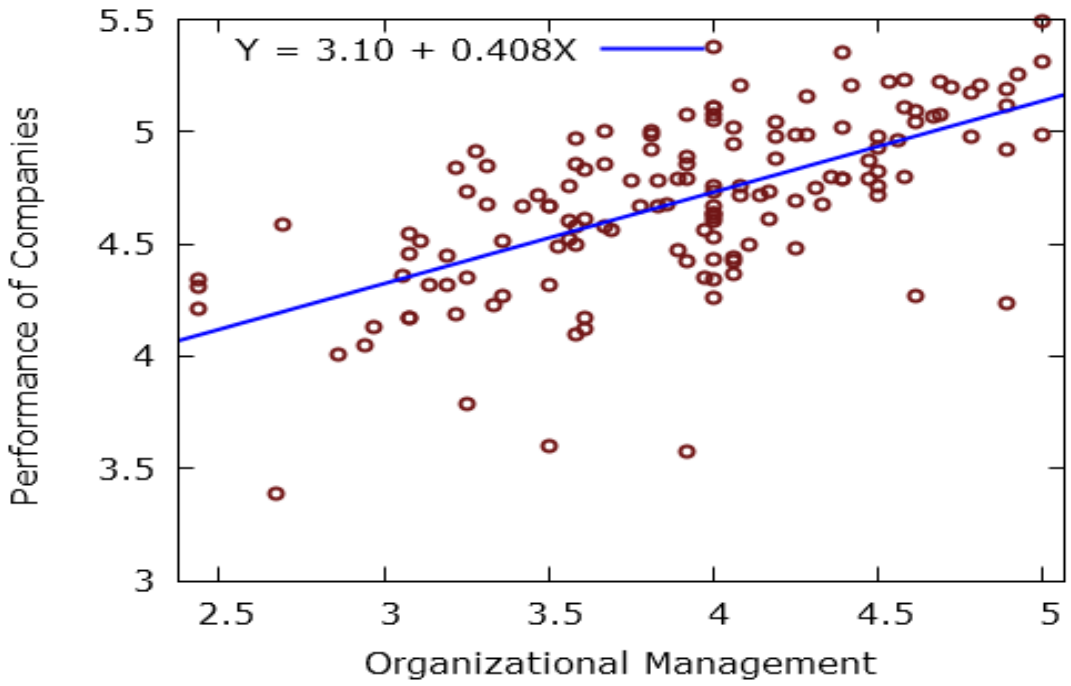


Figure 4.7: Scatter plot between Performance of Companies and Organizational Management

4.10.2 Hypothesis testing for Organizational Management and Performance of Companies

The study analyzed the null hypothesis that organizational management does not significantly affect performance of companies listed in NSE. The coefficient of regression equation between organizational management and performance of companies can be expressed as; $Y = \beta_0 + \beta_1 X_3$ which results to $Y = 3.1 + 0.408X_4$ when there is no moderator and $Y = -0.297 + 0.973X_4 * Z$ with moderator from the coefficient. The results are presented in Table 4.39.

Table 4.39: Regression Coefficients for Organizational Management

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.100	.166		18.679	.000		
	Organizational Management	.408	.042	.634	9.735	.000	1.000	1.000
2	(Constant)	-.297	.226		-1.314	.191		
	Organization Management*Z	.973	.057	.820	17.026	.000	1.000	1.000

a. Dependent Variable: Performance of Companies (Y)

Table 4.39 show that p -values with and without the moderating variable (Technology) are 0.000 which were less than 0.05. This implies that there was a positive significant relationship between organizational management and performance of companies. The analysis of the variance (ANOVA) with moderator and without moderator (Appendix 3: Supporting Analyses, Table A3 shows overall model fitness). The R- square value of 0.402 was recorded indicating that 40.2% of performance of companies was explained by the organizational management without moderator.

On the other hand R-square value of 0.973 was recorded indicating that 97.3% of performance of companies was explained by the organizational management with moderator. From the analysis it was therefore concluded that, the null hypothesis be rejected and the alternative be accepted; that there was a positive significant relationship between organizational management and Performance of Companies.

4.10.3 ANOVA for Organizational Management

The results of ANOVA for organizational management are presented in Table 4.40.

Table 4.40: ANOVA for Organizational Management

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7.917	1	7.917	94.770	.000[b]
	Residual	11.779	141	.084		
	Total	19.697	142			
2	Regression	45.039	1	45.039	289.881	.000[b]
	Residual	21.907	141	.155		
	Total	66.947	142			

a. Dependent Variable: Performance of Companies (Y)

b. Model 1 and 2 Predictors: (Constant), X_4

Table 4.40 indicate that the overall model with and without moderator was significant, that is, the independent variable (organizational management) was a good joint explanatory for performance of companies with F-value of 94.770 and 289.881 model 1 and model 2 respectively. P- Values were 0.001<0.05 also indicates that the models are fit.

4.11 Change management, Technology and Performance of Companies listed in NSE

The fifth objective of the study sought to establish moderating effect of technology in the relationship between change management and performance of companies listed in NSE. The respondents were asked to state their level of agreement/disagreement with the following items based on technology and how they are associated with Performance of Companies listed in Nairobi Securities Exchange in a Likert Scale of 1-5, where: 1-strongly disagree, 2-strongly agree, 3-neutral, 4-agree and 5-strongly agree. The results are presented in table 4.41.

Table 4.41: Descriptive Statistics for Technology

Statements	S.D	D	N	A	SA	$\bar{X}$	S
Technology Innovation							
It is the process of combining and reorganizing knowledge to generate new ideas.	2.3%(3)	3.4%(4)	20.0%(24)	49.7%(60)	24.6%(29)	3.91	0.8
Innovation makes employees more effective and firm more efficient.	2.3%(3)	8.6%(10)	30.3%(36)	37.1%(45)	21.7%(26)	3.67	0.9
Organizations which do not innovate still succeed.	14.2%(17)	25.1%(30)	37.5%(45)	21.7%(26)	1.5%(2)	3.53	1.1
Innovation is not done on need basis in our organization.	1.7%(2)	6.3%(8)	26.9%(32)	41.1%(49)	24.0%(29)	3.79	0.9
Technology Adoption							
It is the decision of employees to make use of innovation as the best course of action available in the organization.	2.3%(3)	6.3%(8)	16.0%(19)	49.2%(59)	26.2%(31)	3.91	0.9
It is a risky process that any slight mistake in transferring cash is not reversible through electronic funds transfer.	0.6%(1)	4.0%(5)	26.3%(31)	48.6%(58)	20.6%(25)	4.07	3.1
The processes have been made user friendly in the organization.	0.6%(1)	7.4%(9)	16.0%(19)	50.9%(61)	25.1%(30)	3.93	0.8
It does not lessen the volume of work within the organization.	1.7%(2)	12.1%(15)	28.7%(34)	37.4%(45)	20.1%(24)	3.62	0.9
Technology Diffusion							
Our organization does not accept new ideas and products easily from the market.	1.7%(2)	9.1%(11)	22.3%(27)	37.7%(45)	29.1%(35)	3.83	1.0
It offers awareness building and technology demonstration.	4.0%(5)	15.4%(18)	25.1%(30)	41.1%(50)	14.3%(17)	3.46	1.0
On the job training, management seminars and team building are conducted to enlighten staff on technology.	0.0%(0)	2.9%(3)	22.9%(28)	52.6%(63)	21.7%(26)	3.93	0.7
A network of trained staff offers technological advice to the organization.	1.7%(2)	5.7%(7)	26.3%(32)	46.9%(56)	19.4%(23)	3.77	0.8
Composite Mean						**3.83**	**1.0**

Table 4.41 findings on whether technology is the process of combining and reorganizing knowledge to generate new ideas, 2.3%(3) of the respondents strongly disagreed, 3.4%(4) disagreed, 20.0%(24) were neutral, 49.7%(60) of the respondents agreed and 24.6%(29) strongly agreed. An average score rate of 3.91 was recorded with standard deviation of 0.832 was above the composite mean of 3.83 and overall

standard deviation of 1.035 was higher. This indicates that majority of organizations consider technology as a process of combining and reorganizing knowledge to generate new ideas which positively affect performance of companies listed in NSE.

On whether innovation makes employees more effective and firm more efficient, 2.3%(3) strongly disagreed, 8.6%(10) disagreed, while 30.3%(36) were neutral, 37.1%(45) of the respondents agreed, 21.7%(26) strongly agreed. An average score rate of 3.67 was recorded with standard deviation of 0.984 was below the composite mean of 3.83 and overall standard deviation of 1.035 was higher. This suggests that innovation negatively affect performance of companies listed in NSE.

On whether organizations which do not innovate still succeeds,13.1%(17) strongly disagreed, 25.1%(30) disagreed, while 36.6%(45) were neutral, 20.0%(26) of respondents agreed, 1.7%(2) strongly agreed. Average scale of 3.53 out possible 5 with a standard deviation of 1.108 was recorded and was below the composite mean of 3.83 and overall standard deviation of 1.035 was lower. This means that organizations which do not innovate negatively affect performance of companies listed in NSE.

To find out whether innovation is not done on need basis for many organization listed in Nairobi Securities Exchange in Kenya, 1.7%(2) strongly disagreed, 6.3%(8) disagreed, while 26.9%(32) were neutral, majority at 41.1%(49) of respondents agreed, 24.0%(29) strongly agreed. Average score rate was 3.79 out of 5 with a standard deviation of 0.936 was below the composite mean of 3.83 and overall standard deviation of 1.035 was higher. This indicates that innovation that was not done on need basis negatively affect performance of companies listed in NSE.

Based on whether decision of employees to make use of innovation is the best course of action available in the organization; the finding suggests that; 2.3 %(3) strongly disagreed. , 6.3 %(8) disagreed, while 16.0 %(19) of respondent were neutral, 49.1 %(59) of respondent agreed, 26.3 %(31) of respondent strongly agreed. Average score rate was 3.91 out of 5 with standard deviation of 0.936 was higher than the composite mean of 3.83 and overall standard deviation of 1.035. This indicates that employees' feedbacks was very important and were in agreement hence, behaves

wisely and honestly for implementation of technology adoption as they were the users and this positively affect performance of companies listed in NSE.

On whether it is a risky process that any slight mistake in transferring cash is not reversible through electronic funds transfer; 0.6%(1) strongly disagreed, 4.0 %(5) disagreed, while 26.3 %(31) of respondent were neutral, 48.6 %(58) of respondent agreed, 20.6 %(25) of respondent strongly agreed. Average score rate was 4.07 out of 5 with standard deviation of 3.141 was higher than the composite mean of 3.83 and overall standard deviation of 1.035 was lower. This indicates that electronic funds transfer could be challenging especially, when a wrong button was pressed creating a loss of cash which negatively affect performance of companies listed in NSE.

On whether the processes have been made user friendly in the organization; 0.6%(1) strongly disagreed, 7.4%(9) disagreed, while 16.0%(19) of respondent were neutral, 50.9%(61) of respondent agreed, 25.1%(30) of respondent strongly agreed. Average score rate was 3.93 out of 5 with standard deviation of 0.871 was higher than the composite mean of 3.83 and overall standard deviation of 1.035 was higher. This indicates that the processes and usage of technology by employees positively affect performance of companies listed in NSE.

On whether it does not lessen the volume of work within the organization, 1.7 %(2) strongly disagreed, 12.1 %(15) disagreed, while 28.7 %(34) of respondent were neutral, 37.4 %(45) of respondent agreed, 20.1 %(24) of respondent strongly agreed. Average score rate was 3.62 out of 5 with standard deviation of 0.994 was below the composite mean of 3.83 and overall standard deviation of 1.035 was higher. This indicates that the volume of work done digitally by employees negatively affect performance of companies listed in NSE.

On whether our organization does not accept new ideas and products easily from the market; 1.7 %(2) strongly disagreed. , 9.1 %(11) disagreed, while 22.3 %(27) of respondent were neutral, 37.7 %(45) of respondent agreed, 29.1 %(35) of respondent strongly agreed. Average score rate was 3.83 out of 5 with standard deviation of 1.006 was at par with the composite mean of 3.83 and overall standard

deviation of 1.035 was higher. This indicates that new ideas and products were accepted which positively affect performance of companies in NSE.

On whether it offers awareness building and technology demonstration, 4.0%(5) strongly disagreed, 15.4%(18) disagreed, while 25.1%(30) of respondent were neutral, 41.1%(50) of respondent agreed, 14.3%(17) of respondent strongly agreed. Average score rate was 3.46 out of 5 with standard deviation of 1.044 was below the composite mean of 3.83 and overall standard deviation of 1.035 was lower. This indicates that awareness and technology demonstration negatively affect performance of companies listed in NSE.

On whether on the job training, management seminars and team building are conducted to enlighten staff on technology, 0.0%(0) strongly disagreed, 2.9%(3) disagreed, while 22.9%(28) of respondent were neutral, 52.6%(63) of respondent agreed, 21.7%(26) of respondent strongly agreed. Average score rate was 3.93 out of 5 with standard deviation of 0.704 was higher than the composite mean of 3.83 and overall standard deviation of 1.035 was higher. This indicates that staff trainings, seminars and team building that organizations conduct brings awareness to employees and positively affect performance of companies listed in NSE.

On whether a network of trained staff offers technological advice to the organization, 1.7%(2) strongly disagreed, 5.7%(7) disagreed, while 26.3%(32) of respondent were neutral, 46.9%(56) of respondent agreed, 19.4%(23) of respondent strongly agreed. Average score rate was 3.77 out of 5 with standard deviation of 0.77 was below the composite mean of 3.83 and overall standard deviation of 1.035 was higher. This indicates that information technology support staff were available to offer advice on need basis which negatively affect performance of companies listed in NSE. The summary is presented in table 4.42.

Table 4.42: Summary of Descriptive Statistics for Technology

Technology	Mean	Std. Deviation	Analysis N
Technology Innovation	3.703	0.993	120
Technology Adoption	3.855	1.316	120
Technology Diffusion	3.782	0.879	120

Table 4.42 show that for technology was noted at an average score rate of 3.703, 3.855 and 3.782 out of 5 for technology innovation, adoption and diffusion and SP4 was recorded with standard deviation of 0.993, 1.316 and 0.879 respectively. The findings suggest that technology innovation, adoption and diffusion had an effect on performance of companies listed in NSE.

The results are in harmony with findings by Nwosu, Awurum and Okoli (2015) that process innovation, product innovation, organizational structure and employee development had a significant positive effect on the performance. The results also agree with the findings of Richards, Yeoh, Chong and Popovič (2014) that the more effective the business intelligence implementation, the more effective the corporate performance management related planning and analytic practices.

The results also concur with the findings of Mazidi, Amini and Latifi (2014) that there was a strong support for the structural equation modeling between information technology capability and service process innovation. The results show that most companies listed in NSE are practicing technological innovation that has made their employees more effective and efficient.

The results further confirms that the technological innovation, adoption and diffusion cuts across companies with a network of trained staff who offer technological advice. The results also show that companies navigate the evolving technological landscape by identifying their short and long term technological needs to better performance. The findings also were in approval of technology organization environment model propounded by Tornatzky and Fleischer (1990) in this study.

4.11.1 Correlation Analysis for Technology, Change Management and Performance of Companies

Correlation analysis gives the relationship between variables. In this study, Pearson product moment correlation coefficient (*r'*s) was used to establish the relationship between the independent variables without moderator technology. The correlation coefficients are summarized in Table 4.43 and 4.44.

Table 4.43: Correlation Analysis of Independent Variables without Moderator Technology

Variables		Organizational Culture	Organizational Strategy	Organizational Structure	Organizational Management
Organizational Culture	Pearson Correlation	1	.578**	.667**	.526**
	Sig. (2-tailed)		.000	.000	.000
	N	120	120	120	120
Organizational Strategy	Pearson Correlation	.578**	1	.696**	.666**
	Sig. (2-tailed)	.000		.000	.000
	N	120	120	120	120
Organizational Structure	Pearson Correlation	.667**	.696**	1	.682**
	Sig. (2-tailed)	.000	.000		.000
	N	120	120	120	120
Organizational Management	Pearson Correlation	.526**	.666**	.682**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	120	120	120	120

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

Table 4.43 findings, reveal that there was a significant relationship between the independent variables since all the p-values were less than 0.01(p- values 0.000 <0.01). Even though, there was a significant relationship between the independent variables, there was no problem of multicollinearity among the variables, since all

the r values were less than 0.8 as suggested by Tabachnick and Fidel (2001). The correlation coefficients are summarized in Table 4.44.

Table 4.44: Correlation Analysis of Independent Variables with Moderator Technology

Variables		Organizational Culture	Organizational Strategy	Organizational Structure	Organizational Management
Organizational Culture	Pearson Correlation	1	.499**	.695**	.414**
	Sig. (2-tailed)		.000	.000	.000
	N	120	120	120	120
Organizational Strategy	Pearson Correlation	.499**	1	.440**	.878**
	Sig. (2-tailed)	.000		.000	.000
	N	120	120	120	120
Organizational Structure	Pearson Correlation	.695**	.440**	1	.436**
	Sig. (2-tailed)	.000	.000		.000
	N	120	120	120	120
Organizational Management	Pearson Correlation	.414**	.878**	.436**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	120	120	120	120

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

Table 4.44, the presence of moderator (Technology), correlation coefficient r values were above 0.8 and the relationship among the independent variable was significant. Since the r values were above 0.8. Tabachnick and Fidel (2001) rule of thumb was contradicted hence, probably there was a problem of multicollinearity and this therefore, suggest that the model was good enough in the absence of moderator.

4.11.2 Hypothesis testing for the relationship between change management and performance moderated by technology

The study analyzed the null hypothesis that the moderating effect of technology does not significantly affect change management and performance of companies listed in NSE. The findings indicate that the overall model was satisfactory as it was supported by coefficient of determination also known as the R-square of 0.646. This

means that all the independent variables explain 64.6% of the variations in the dependent variable. In addition to that, the model improved in the presence of moderator as the overall R- square increased from 0.646 to 0.811 that is from 64.6% to 81.1%, this is as shown in Appendix 3: Supporting Analyses, Table A3. The results of ANOVA for change management, technology and performance of companies is presented in Table 4.45.

Table 4.45: Analysis of Variance (ANOVA) with moderator and without moderator

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.723	4	3.181	62.938	.000[b]
	Residual	6.974	138	.051		
	Total	19.697	142			
2	Regression	54.321	4	13.580	148.439	.000[b]
	Residual	12.625	138	.091		
	Total	66.947	142			

a. Dependent Variable: Performance of Companies
b. Predictors: (Constant), Organizational Culture, Organizational Strategy, Organizational Structure, Organizational Management:

Table 4.45 indicates that the overall model was statistically significant. This was supported by an F-statistic of 62.938 and the reported p-value<0.001 which was less than the conventional probability of 0.05 significance level. Also for model 2 where the moderator was present, the model was still significant as the F statistic value was 148.439 with p-value 0.000<0.05. These results suggest that the independent variables were good predictors of performance of companies in both absence and presence of moderator. The study therefore, rejects the null hypothesis that the moderating effect of technology does not significantly affect the relationship between change management and performance of companies. The study accepts the alternative hypothesis that the moderating effect of technology significantly affect the relationship between change management and performance of companies.

4.11.3 Multivariate Regression Analysis for Technology, Change Management and Performance of Companies

The section presents the results for objective five which was to establish the moderating effect of technology in the relationship between change management and performance of companies listed in NSE. Change management (organizational culture, strategy, structure, management) and performance of companies when moderated with technology (Appendix 3: Supporting Analyses, Table A6 shows Performance of Companies Descriptive Statistics and Analysis). Therefore, the overall model used for the study was;

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + e_{t,}$$

Where:

t= Period 2013 to 2017

Yt = Performance of Companies

X_{1t} = Organizational Culture

X_{2t} = Organizational Strategy

X_{3t} = Organizational Structure

X_{4t} = Organizational Management

The analyses of the fitness of the model used in the study are presented in Table 4.46.

Table 4.46: Coefficients for Overall Regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Model 1	1.965	.180		10.919	.000		
(Constant)							
X_1	.166	.057	.204	2.930	.004	.528	1.892
X_2	.277	.063	.339	4.400	.000	.433	2.309
X_3	.194	.060	.272	3.226	.002	.361	2.772
X4	.074	.048	.116	1.554	.022	.463	2.161
Model 2	-1.871	.242		-7.724	.000		
(Constant)							
X_1T	.232	.076	.154	3.035	.003	.528	1.892
X_2T	.380	.085	.252	4.482	.000	.433	2.309
X_3T	.274	.081	.208	3.385	.001	.361	2.772
X_4T	.509	.064	.429	7.902	.000	.463	2.161

Table 4.46 shows that there was a positive significant relationship between change management (organizational culture, strategy, structure, management) and performance of companies. The findings show that the overall model 1 obtained was expressed as:

$$Y_t=1.965+0.166X_{1t}+ 0.277X_{2t}+0.194X_{3t}+ 0.\ 074\ X_{4t}$$

The regression model was written as: performance of the company=1.965+0.166 organizational culture +0.277 organizational strategy +0.194 organizational structure +0.074 organizational management. They were supported by beta coefficients of 0.166, 0.277, 0.194 and 0. 074 respectively. The findings were statistically

significant with $p< 0.05$ for all the variables tested. The result indicate that a unit change in any of the variables will positively change in performance of companies.

Yt=Performance of the company

t= Period 2013 to 2017

X_{1t} =0.166; indicates that a unit change in organizational culture resulted into 0.166 change in performance of the company.

X_{2t}=0.277; implies that a unit change in organizational strategy resulted into 0.277 change in performance of the company.

X_{3t}=0.194; implies that a unit change in organizational structure resulted into 0.194 change in performance of the company.

X_{4t}=0.074; implies that a unit change in organizational management resulted into 0.074 change in performance of the company.

Besides that, in the presence of moderator T (Technology) in model 2 becomes:

$$Y_t=-1.871+0.232X_1tT_t+ 0.380X_{2t}T_t+0.274X_{3t}T_t+ 0.509\ X_{4t}T_t$$

The regression model was written as: performance of the company =1.871+0.232 organizational culture+0.380 organizational strategy+0.274 organizational structure +0.509 organizational management.

Yt=Performance of the company

t= Period 2013 to 2017

X_{1t} =0.232; refers to a unit change in organizational culture resulted to 0.232 change in performance of the company.

X_{2t}=0.380; refers to a unit change in organizational strategy resulted to 0.380 change in performance of the company.

X_{3t}=0.274; refers to a unit change in organizational structure resulted to 0.274 change in performance of the company.

X_{4t}=0.509; refers to a unit change in organizational management resulted to 0.509 change in performance of the company.

Tt=Technology

These were supported by beta coefficients of 0.232, 0.380, 0.274 and 0. 509 respectively. The findings were statistically significant with p-values which was 0.05 for all the variables tested. It was therefore, concluded from the analysis, that the null hypothesis be rejected and the alternative accepted; that there was a positive significant moderating effect of technology in the relationship between change management and performance of companies listed in NSE.

4.11.4 Optimal Model

Based on the tests conducted in the study, it was concluded that there was an effect of independent variables (organizational culture, strategy, structure and management) on the dependent variable (performance of companies) listed in NSE. Technology was established to have a moderating effect in the relationship between independent variables and dependent variable since it raises the effect of organizational culture, strategy, structure and management on performance of companies listed in NSE in Kenya.

Moreover, by comparing the overall regression model 1 (without moderator) with overall regression model 2 (with moderator) in appendix 3: supporting analyses, Table A7a and A7b, it was clear that R- squared value for model 1 was less than R-squared value for model 2 that is $R_1^2 < R_2^2 = 0.629 < 0.741$ meaning that organization structure had a moderating effect on the overall model. Consequently, based on the research findings, the proposed study model was retained as the optimal model.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of findings, conclusion, recommendations, contribution of the study to the body of knowledge, theory and practice and finally, areas for further research.

5.2 Summary of Findings

The broad objective of the study was to investigate change management and performance of companies listed in NSE in Kenya. The independent variables for the study were: organizational culture, strategy, structure, management and change management. Moderating variable was technology and performance of companies was the dependent variable. A review of relevant theoretical and empirical literature was done. The methodology that was used involved sample size and sampling procedures. Pilot study was also undertaken and their respondents were not included in the final study.

The independent variables were subjected to validity and reliability test. Factor analysis was employed to identify factor loadings for the related indicators. Normality test on the dependent variable was done to determine the analysis method that was to be adopted. The independent variables were analyzed separately and jointly with moderating variable and their indicators. Multivariate regression model and correlation were used to illustrate the predictors of the overall model and its significance for each composite independent variable score. The study findings show that there was a positive significant moderating effect of technology in the relationship between change management and performance of companies listed in NSE.

5.2.1 Organizational Culture on Performance of Companies Listed in NSE

Descriptive statistics analysis established that there was a positive effect of organizational culture on performance of companies listed in NSE to a large extent. There was a significant strong positive linear correlation between organizational culture and performance of companies. The null hypothesis was rejected and the alternative hypothesis was accepted. The regression analysis show that there was a significant relationship between the two variables with every unit of organizational culture value changing.

5.2.2 Organizational Strategy and Performance of Companies Listed in NSE

Descriptive statistics analysis determined that there was a positive effect of organizational strategy on performance of companies listed in NSE to a large extent. There was a significant strong positive correlation between organizational strategy and performance of companies. The null hypothesis was rejected and the alternative hypothesis was adopted. The regression showed that there was a significant positive relationship between organizational strategy and performance of companies of companies.

5.2.3 Organizational Structure and Performance of Companies Listed in NSE

Descriptive statistics analysis determined that there was a positive effect of organizational structure on performance of companies listed in NSE to a large extent. There was a strong significant positive correlation between organizational structure and performance of companies. The null hypothesis was rejected and the alternative hypothesis was accepted. The regression showed that there was a significant positive relationship between organizational structure and performance of companies.

5.2.4 Organizational Management and Performance Listed in NSE

Descriptive statistics analysis assessed that there was a positive effect of organizational management on performance of companies listed in NSE to a large extent. There was a significant moderate positive correlation between organizational management and performance of companies. The null hypothesis was rejected and

the alternative hypothesis was adopted. The regression showed that there was a significant positive relationship between organizational management and performance of companies.

5.2.5 Change Management, Technology and Performance of Companies Listed in NSE

Descriptive statistics analysis established that there was a positive moderating effect of technology in the relationship between change management and performance of companies listed in NSE to a large extent. In the presence of moderator (technology), correlation coefficient r values were above 0.8 showing that there was a significant correlation between change management and performance of companies. The null hypothesis was rejected and alternative hypothesis was adopted. Multivariate regression showed that there was a significant positive moderating effect of technology in the relationship between change management and performance of companies.

5.3 Conclusion

The broad objective of the study was to investigate the effect of change management and performance of companies listed in NSE in Kenya. The hypotheses were analyzed with correlation and regression. The findings of the study in objective one sought to establish the effect of organizational culture on performance of companies. It was concluded that there was a statistical effect of organizational culture on performance of companies. The null hypothesis was also rejected and alternative hypothesis was adopted. Ali, Said, Abdallah and Daud (2017) findings corroborate the study that organizational culture was a major factor for organizational success.

Objective two of the study sought to determine the effect of organizational strategy on performance of companies listed in NSE. It was concluded that there was a statistical effect of organizational strategy on performance of companies. The null hypothesis was also rejected and alternative hypothesis adopted. Njagi and Kombo (2014) findings corroborate with the study that strategy implementation and organizational performance had moderately strong relationship between them.

Objective three of the study sought to determine the effect of organizational structure on performance of companies listed in NSE. The results showed a statistical effect of organizational structure on performance of companies. The null hypothesis tested was also rejected and alternative hypothesis was accepted. Meijaard, Brand and Mosselman (2005) findings corroborate with the study that organizational structure mattered and deserved to be taken into account in firm performance.

Objective four sought to assess the effect of organizational management on performance of companies listed in NSE. It was concluded that there was a statistical effect of organizational management on performance of companies. The null hypothesis was rejected and alternative hypothesis was accepted. Aremu and Oyinloye (2014) findings showed that a well-structured and organized plan, if not implemented well in the business may collapse.

Finally, objective five sought to establish the moderating effect of technology in the relationship between change management and performance of companies listed in NSE. The results confirmed that they were statistically significant. It was concluded that the there was a statistical moderating effect of technology in the relationship of change management and performance of companies. The null hypothesis was rejected and alternative hypothesis was adopted. Olajide (2014) findings corroborate with the study that there was an effect of change in technology, customer taste and leadership on performance of organizations.

5.4 Recommendations

Management should evaluate their current organizational culture and performance so that, the value/behavior, strengths and weaknesses that is making the companies not to achieve their full potential is addressed. Implementation of change management should involve all stakeholders to ensure that there is no resistance among staff members because everybody will be responsible for decision making process and own up the process. Management should ensure that policies and procedures are adequate to guide the change management through the human resources department so that an environment of awareness is created. This will go a long way to mitigate staff stress and unrest early enough.

Management should adopt organizational strategy that develop competitive market strategy; build long-term objectives, annual corporate goals that define key performance indicators, creating departments and individual action plans for the companies as it will promote efficiency and effectiveness in companies listed in NSE.

Managers should adopt an organizational structure that is efficient, flexible and innovative in order to be able to achieve a sustainable competitive advantage. The task allocation, coordination and supervision should be directed towards achievement of organizational goals and profitability of companies listed in NSE.

In organizational management, managers should get recent and relevant information that exists as this should enable them make decisions and know how to get cooperation from subordinates, peers, superiors and people whom they have no formal authority on when implementing change management. This will ensure that wastage of resources is also minimized.

The management of companies listed in NSE should adopt the usage of technology in their business processes /operations as one of the key drivers of change management towards efficiency, effectiveness and performance in the dynamic competitive business environment. This will help them realign according to the changing business environment. Management should ensure that they invest more in automation so that they do not become obsolete but current and relevant in operation/processes.

5.5 Contribution of the Study to the Body of Knowledge, Theory and Practice

The methodology the study adopted was questionnaire. Past studies have ignored the moderating effect of technology in the relationship between change management and performance of companies. The research gap has been addressed by administering questionnaires to CEO's, head of divisions in human resources, finance and marketing of companies then conducting quantitative analysis.

The study has established that performance of companies listed in NSE in Kenya was affected by organizational culture, strategy, structure and management. The study has also established that there was a significant positive moderating effect of technology in the relationship between change management and performance of companies listed in NSE in Kenya.

5.5.1 Implications of the Study to Practice

The results and findings of the research show that management needs to take seriously change management during implementation so that it is not stressful and resisted by employees. This can be implemented by focusing on organizational culture, strategy, structure and management which will enable managers supervise operations/processes in a more efficient and effective manner during change process for better performance. This will enable organizations learn that flexibility and team spirit are very essential for successful change management.

The top management which is tasked with formulation of strategies will be able to embrace the findings of the study by addressing issues emanating from organizational culture, strategy, structure and management as this would help to position the company competitively. Company goals and objectives will be achieved by meeting customers' demands for quality goods and services and reducing complaints.

The moderating effect of technology was also very critical to the management as work processes will be quicker and volume of paperwork will be reduced. Managers will be able to generate reports quickly for quick decision making process and this would bring about easy work in the organizations.

5.5.2 Theoretical Implications

The study has made contributions to change management, technology and performance of companies listed in NSE in Kenya. The study was in harmony with the existing literature that change management has a positive effect on performance of organizations. The study is in corroboration with Lewin (1951) three-step model

for change that analysis, understanding and bringing about planned change in groups, organizational and societal level would lead to successful implementation in change management.

Nyaungwa, Linganiso and Karodia (2015) conducted a study on the impact of change management on performance and focused on team work, communication, staff involvement and commitment of Zimra region in Zimbabwe. Their study failed to link the moderating effect of technology in the relationship between change management and performance of companies listed in NSE in Kenya. The study shows that there was a positive moderating effect of technology in the relationship between change management and performance of companies through automation of companies' operation/processes. The results of the study confirm that non-financial indicators were also able to determine the company's performance as they brought out the qualitative aspect in quality products and services, customer satisfaction and new products for companies listed in NSE in Kenya.

5.6 Areas for Further Research

From the study implications, recommendations for further research were made. While the study successfully examined the conceptual framework, it also presented a rich prospect for other areas to be researched on in future. The study was a cross sectional research design and confined to public companies listed in NSE in Kenya. The study could be extended to different African countries to investigate change management and performance of companies listed in securities exchange for comparison and similarities. It was recommended that a longitudinal or case study research design which provide a longer time should be used to compare the findings of the study. The study was concerned with public companies listed in NSE in Kenya and a similar study needs to be replicated to companies which are not listed or trading in the NSE for comparisons and similarities.

The study targeted senior managers of companies trading in NSE in Kenya and it was recommended that a similar study should be replicated with both middle and lower level employees as they were concerned with supervision and implementation of change management in the organization. Further studies may also re-look at

moderating or mediating variables which may affect change management and performance of companies listed in NSE in Kenya.

REFERENCES

Abbah, M.T. (2014). Employee Motivation: The Key to Effective Organizational Management in Nigeria. *IOSR Journal of Business and Management, 16*(4), 01-08.

Abbas, J., Muzaffar, A., Mahmood, H.K., Ramzan, M.A. & Rizvi, S.S.U. (2014). Impact of Technology on Performance of Employees. A Case Study on Allied Bank Ltd, Pakistan. *World Applied Sciences Journal, 29*(2), 271-276.

Abiro, M.A. (2013). Effect of Employee Motivation on Organizational Performance. *Acta de Gerencia Ciencia,1*(3),17-27.

Adelegan, O.J. (2008). Can a Regional Approach Accelerate Stock Market Development? Empirical Evidence from Sub-Saharan Africa. *IMF Working Paper 08/281,* Washington: International Monitory Fund.

Adeleke, Y. (2011). Technological Innovation and Organizational Performance: Employee Relations Strategies. *American Journal of Social and Management Sciences, 2*(3*),* 1-22.

Agarwal, V. (2000). Multi-Period Performance Persistence Analysis of Hedge Funds. *Journal of Financial and Quantitative Analysis, 35*(3), 327-342.

Ahmed, M. & Shafiq, S. (2014). The Impact of Organizational Culture on Organizational Performance: A Case Study of Telecom Sector. *Global Journal of Management and Business Research: An Administration and Management, 14*(3), 21-30.

Aksoy, M., Apak, S., Eren, E. & Korkmaz, M. (2014). Analysis of the Effect of Organizational Learning Based Organizational Culture on Performance, Job Satisfaction and Efficiency: A Fiscal Study in Banking Sector. *International Journal of Academic Research Part B*, *6*(I), 301-313.

Ali, F. & Recep, B. (2012). Yes, Dividends are disappearing: Worldwide Evidence. *Journal of Banking and Finance, 36*(3), 662-667.

Ali, H.H., Said, R.M., Abdallah, A. & Daud, Z.M. (2017). The Impact of Organizational Culture on Corporate Financial Performance. *International Journal of Economics, Commerce and Management, V*(8), 585-597.

Allaire, Y. & Fisirotu, M.E. (1989*).*Coping with Strategic Uncertainty. *Sloan Managemen*t *Review, 30*(3), 7-16.

Allport, F.H. & Allport, G.W. (1921). Personality Traits. Their Classification and Measurement. *Journal of Abnormal and Social Psychology, 16*(1*),* 1-40.

Amanda, B. (2007*). Change Management*. Alexandria: Society for Human Resources Management Research.

Ambrosini, V., Bowman, C. & Collier, N. (2009). Dynamic Capabilities: An exploration of How Firms Renew their Resource Base. *British Journal of Management*, *20*(S1), 9-24.

Andrews, R., Boyne, G.A., Law, J. & Walker, R.M. (2009). Centralization, Organizational Strategy and Public Service Performance. *Journal of Public Administration Research and Theory*, *19*(1), 57-80.

Ansoff, I. (1990). *Implanting Strategic Management (*2nd Ed.), New York: Practice Hall.

Aremu, M.A. & Oyinloye, O.O. (2014). Relationship between Strategic Management and Firm's Performance in Nigerian Banking Industry. *Kuwait Chapter of Arabian Journal of Business and Management Review, 4*(3), 28-41.

Awadh, A.M., & Saad, A.M. (2013). Impact of Organizational Culture on Employee Performance. *International Review of Management and Business Research, 2*(1), 168-175.

Aydin, B. & Ceylan, A. (2009). The Role of Organizational Culture on Effectiveness: E and M, Ekonomie A. *Management 12*(3), 33-39.

Babatunde, B.O. & Adebesi, A.O. (2012). Strategic Environmental Scanning and Organization Performance in a Competitive Business Environment. *Economic Insights-Trends and Challenge, 54*(1), 24-34.

Bain, J.S. (1959**)**. *Industrial Organization: A Treatise*, (2nd Ed.), New York: John Wiley and Sons.

Bain, J.S. (1968). *Barriers to New Competition*, Cambridge, Mass.: Harvard University Press.

Baker, S.L. (1989). Managing Persistence to Change. *Library Trends Journal*, *38*(1), 53-61.

Bandura, A. (1986).*Social Foundations of Thought and Action*: *A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.

Barbara, J. (2009). *8 Tips for Change Management* Retrieved from http://www/transformed.com/workingpapers/8tips-change Management. pdf.

Barney, J.B. (2001). *Is the Resource-Based View a Useful Perspective for Strategic Management Research? Academy of Management Review. 26*(1), 22-40.

Baron, R.M. & Kenny, D.A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic and Statistical Considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173-1182.

Basol, E. & Dogerlioglu, O. (2014). Structural Determinants of Organizational Effectiveness. *Journal of Organizational Management Studies, 36*(4), 1-13.

Basted, M. N. (2004). *Open Systems Theory*. Michigan: University of Michigan.

Basu, K. (1993). *Lectures in Industrial Organization Theory,* Oxford: Basil Blackwell.

Benard, M. & Stoll, N. (2010). Organizational Change Management: A Rapid Literature Review. *Centre for Understanding Behavior Change, Short Policy Report, 10*(10), 1-11.

Berson, Y., Oreg, S., Dvir, T. (2005). CEO Values, Organizational Culture and Firm Outcomes. *Journal of Organizational Behavior, 29(*5), 615-633.

Bertalanffy, L.V. (1968).*General System Theory: Foundations, Development, Applications*. New York: G. Braziller.

Beshtawi, M. & Jaaron, A. (2014).Change Management in Telecommunications Sector: Managerial Framework. *Review of Contemporary Business Research*, *3*(1), 127-141.

Best, R. J. (2009). *Market-Based Management: Strategies for Growing Customer Value and Profitability*. (5th Ed.), Upper Saddle River, NJ: Pearson Prentice Hall.

Boockenooghe, D. (2010). Positioning Change Recipients Attitudes towards Change in the Organizational Change Literature. *Journal of Applied Behavioral Science, 46*(4), 500-531.

Boohene, R. and Williams, A.A. (2012). Resistance to Organizational Change: A Case Study of Oti Yeboah Complex Limited. *International Business and Management*, *4*(1), 135-145.

Booz, A. H. (2011). *An Overall Approach to Change Management* Retrieved from http://www.boazaller.com/media/file/139773.pdf.

Botchkarev, A. & Andru, P. (2011). A Return on Investment as a Metric for Evaluating Information Systems: Taxonomy and Application.

Interdisciplinary Journal of Information, Knowledge and Management, *6*, 246-269.

Bruce, M. (2010). Understanding Organizations: The Dominance of Open Systems Theory. *International Journal of Organizational Behavior*, *4*(1), 256-261.

Burnes, B. (2004). Kurt Lewin and the Planned Approach to Change: Are Appraisal. *Journal of Management Studies, 41*(2), 917-1001.

Burnes, B. (2004). Kurt Lewis and Complexity Theories: back to the future? *Journal of Change Management, 4*(4), 309-325.

Burns, A. & Mohapatra, S. (2008). International Migration and Technological Progress. *Migration and Development Brief, 4*, 1-6, Washington, DC: World Bank.

By, R.T. (2005). Organizational Change Management: A Critical Review. *Journal of Change* Management, *5*(4), 369-380.

Caliskan, E.N. (2010). The Impact of Strategic Human Resource Management on Organizational Performance. *Journal of Naval Sciences and Engineering, 6*(2), 100-116.

Cameron, K. S. & Quinn, R. E. (2011). *Organizational Culture Assessment Instrument (OCAI)*. Retrieved from; http://www.ocai-online.com.

Cameron, K.S. & Ettington, D.R. (1988). *The Conceptual Foundations of Organizational Culture. Higher Education: Handbook of Theory and Research*, New York: Agathon.

Carl, R.A. (2006). *Fayol's 14 Principals of Management then and now*: A Framework for Managing today's Organizations Effectively. *Management Decisions*, *39*(10), 880-889.

Carmines, E. G. & Zeller, R.A. (1987). *Reliability and Validity Assessment.* Newbury Park, CA: Sage Publications.

Carnall, C. (2007). *Theories of Organizational Change, Managing Organizational Change,*. (5th Ed.), New York: Prentice Hall.

Chaimankong, M. & Prasertsakul, D. (2012).Impact of Strategy Implementation on Performance of Generic Strategy: Evidence from Thailand. *The South East Asian Journal of Management*, *6*(1), 1-64.

Chan, S. (2001). Complex Adaptive Systems London. *Research Seminar in Engineer Systems,* 1-9.

Chang C.L. (2015). Entrepreneurial Orientation, Communication Strategies and New Product Success: A Theoretic Model. *Academy of Strategic Management Journal, 14*(1), 1-19.

Chesbrough, H. (2006). *Open Business Models*. Boston, MA: Harvard Business School Press.

Chukwu, B.A., Aguwamba, S.M. & Kanu, E.C. (2017).The Impact of Organizational Culture on Performance of Banking Industry in Nigeria. *International Journal of Economics, Commerce and Management, V*(4), 201-214.

CMA (2002). *The Capital Markets (Licensing Requirements) (General) Regulations*. Nairobi: Capital Markets Authority.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, (3rd Ed.), Mahwah: Lawrence Erlbaum Associates Publishers.

Cooper, D.R. and Schindler, P.S. (2008). *Business Research Methods,* (12th Ed.), U.S.A: McGraw Hill-Irwin Companies.

Creswell, J.W. (2003*). Research Design: Qualitative, Quantitative and Mixed Method Approaches,* New Delhi: Thousand Oak.

Cummings, T.G. & Worley, C.G. (2009). *Organizational Development and Change*. Mason: South Western Lengage Learning.

Cvetek, S. (2008). Applying Chaos Theory to Lesson Planning and Delivery. *European Journal of Teacher Education, 31*(3), 247–256.

D'Ortenzio, C. (2012). *Understanding Change and Change Management Processes: A Case Study.* Unpublished PhD Thesis: University of Canberra.

Daft, R.L. (1998). *Organization Theory and Design*, (6th Ed.), South Western College Ohio: Cincinnati Publishers.

Dauda, A. & Ismaila, M.Y. (2013). Influence of Technological Environmental Factors on the Strategic Choice of Quoted Manufacturing Firms in Nigeria's Food and Beverage Industry. *International Journal of Business, Humanities and Technology*, *3*(8), 159-169.

David-West, O. (2005). Information Technology (IT) Integration in Banks' Consolidation. *Zenith Bank Economics Quarterly, 3*, 1-62.

Deal, T. E. & Kennedy, A. A. (2000). *The New Corporate Cultures: Revitalizing the Workplace after Downsizing, Mergers and Reengineering*, London-UK: TEXERE Publishing Limited.

Denison, D. R. (2000).*Organizational Culture: Can it be a key Lever for Driving Organizational Change.* In S. Cartwright & C. Cooper (Eds.), the Handbook of Organizational Culture. London: John Wiley & Sons.

Devi, V.R. & Charon, S.S. (2013). Effective Change Management-An Empirical Study. *Pacific Business Review International*, *6*(4).66-75.

Donald, B. F. & David, M.H. (2004). Effects of Change and Change Management on Employee Respondent: *An Overview of Results from Multiple Studies,*

Retrieved from http://www.cptis.gatech.edu/files/papers/CPBIS-WP-04 02%20herold_fedar_change%20managemnt%20fall%202004.pdf.

Donald, R. C. & Pamela, S.S. (2001). *Business Research Methods*. (7th Ed.), New York: McGraw-Hill Companies, Inc.

Donaldson, L. (2000). *The Contingency Theory of Organizations*. New Delhi: Thousand Oaks.

Drury, C. (2007). Management and Cost Accounting, (7th Ed.), London: Cengage.

Elg, L. (2014). *Innovations and New Technology. What is the Role of Research? Implications for Public Policy.* VINNOVA: Swedish Governmental Agency for Innovation Systems.

Fauzi, H., Svensson, G. & Rahman, A.A. (2010). Triple Bottom Line as Sustainable Corporate Performance: A Preposition for the Future. *Sustainability, 2*(5), 1345-1360.

Fayol, H. (1949). *General and Industrial Management*. London: Sir Isaac Pitman & Sons.

Fedor, D.B. & Herold, D.M. (2004). *Effects of Change and Change Management on Employee Responses: An Overview of Results from Multiple Studies*, Retrieved from http://www.cpbis.gatech.edu/files/papers/CPBIS-WP-04-2%20Herold_Fedor_Change%20Management%20Fall%202004.pdf

Fiedler, F. (1971). Reviews Studies of the Contingency Model of Leadership Effectiveness. *Journal of Psychological Bulletin, 76*(2), 128-148.

Field, A. (2009). *Discovering Statistics using SPSS.* London: Sage.

Fishbein, M., Bandura, A.,Triandis, H.C., Kanfer, F.H., Becker, M.H. & Middlestadt, S.E. (1992). *Factors Influencing Behavior and Behavior Change*. Bethesda, MD: National Institute of Mental Health.

Fisher, F. (1989). Games Economists Play: A Non Cooperative View. *RAND Journal of Economics, 19,*113-124.

Fleaner, J.W. (2006). Trait Approach to Leadership. *Encyclopedia of Industrial and Organizational Psychology*, 830-832.

Freeman, R.E (1984). *Strategic Management: A stakeholder Approach*. Boston, MA: Pitman.

Gall, M.D. & Borg, W.R. (1997). *Research Methods*. London, GB: McGraw Hill.

Galunic, D.C. & Eisenhardt, K.M. (1994). Renewing the Strategy-Structure-Performance Paradigm in: Research in Organizational Behavior, Cummings and Staw, B.M. Greenwich, CT: JAI Press.

Garba, A. (2014). Impact of Dividend Per Share on Common Stock Returns: A Case Study of Some Selected Manufacturing Firms Listed on the Nigerian Stock Exchange. *European Journal of Business and Management, 6*(30), 36-42.

Gavrea, C., Kies L. & Stegerean, R. (2011). Determinants of the Organizational Performance: The Case of Romania. *Management and Marketing Challenges for the Knowledge Society, 6*(2), 285-350.

Gaye, D. (2017).World Bank's Kenya Economic Update: *Kenya's Economic Outlook to Dip In 2017.*

Ghosh, S. & Mukhertjee, S. (2006). Measurement of Corporate Performance through Balance Scorecard. *Overview Vidyasagar University Journal of Commerce, 11*(1), 64-69.

Gitahi, A.W. & K'Obonyo, P.O. (2018).The Relationship between Organizational Resources and Firm Performance of Companies Listed on the Nairobi Securities Exchange. *International Journal of Economics, Commerce and Management, VI* (5), 540-555.

Goldstein, H., Carpenter, J., Kenward, M.G., & Levin, K.A. (2009). Multilevel Models with Multivariate Mixed Types. *Journal Statistical Modelling Year*, *9*(3), 173-197.

Gomes, D.R., Rosa, L.F. & Sobreira, M.C. (2011). Promoting a Path for Organizational Competitiveness: The Role of Internal Communication. E*exetra- Numero Especial*, 55-77.

Grimsley, S. (2003). Technological Factors in Business: Definition & Concept, Retrieved from http:/study.com/academy/lesson/technological-factors-in-Shawn-Business-Definition-lesson-quiz.html.

Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. (2010). *Multivariate Data Analysis.* (7th ed.), London: Prentice Hall.

Hall, H.B. & Khan, B. (2002). *Adoption of New Technology*. Chicago: National Bureau of Economic Research, Inc.

Hambriel, D.C. & Mason, P.A. (1984). Upper Echelons: The Organizational as a Reflective of its Top Managers. *Academy of Management Review, 9*(2), 193-206.

Hamilton, R.T. & Shergill, G.S. (1992).Extent of Diversification and Company Performance: The New Zealand Evidence. *Managerial and Decision Economics*, *14*(1), 47-52.

Hanna, D. (1988). *Designing Organizations for High Performance*. New York: Addison-Wesley Publishing.

Harrison, R (1972). Understanding your Organization's Character. *Harvard Business Review*, *50*(3), 119-128.

Harrison, R. & Stokes, H. (1992). *Diagnosing Organizational Culture*. Amstardam: Pfeiffer & Company.

Herath, S.K. (2007). A Framework for Management Control Research. *Journal of Management Development*, *26*(9), 895-915.

Herath, S.K. (2007). A Framework for Management Control Research. *Journal of Management Development*, *26*(9), 895-915.

Higher Education Funding Council for England (2003). Quality and Complexity– Lessons from English Higher Education International. *Journal of Quality and Reliability Management, 16*(9), 838-858.

Hubbard, G. (2000). *Strategic Management*: *Thinking, Analysis and Action*. French's Forest, N.S.W: Prentice Hall.

Hughes, T. (1980). *"The Order of the Technological World," in History of Technology*. (Ed.), Rupert A.and Norman S. London: Mansell.

Hunter, J. (2002). Improving Organizational Performance Through the use of Effective Elements of Organizational Structure. *International Journal of Health Care Quality Assurance Incorporating Leadership in Health Services, 15*(3), 12-21.

Hutter, G. (2006). *Managing Strategic Change within Local Government Towards a Complex Process Theory of Change.* Dresden: Leibniz Institute of Ecological and Regional Development.

Irungu, S.M. (2007). *The Effects of Top Management Teams on the Performance of Publicly Quoted Companies in Kenya*. Unpublished PhD Thesis. Nairobi: University of Nairobi.

Jarad, I.Y.A., Yusof, N.A., & Nikbin, D. (2010). A Review Paper on Organizational Culture and Organizational Performance. *International Journal of Business and Social Science, 1*(3), 26-46.

Jaradat, O., Nagresh, M., Shegran, A., & Jadellah, N. (2013). Impact of Change Management on the Performance of Employees in University Libraries in Jordan. *European Journal of Business and Management, 5*(2), 169-178.

Johnson, G. (1992). Managing Strategic Change Strategy, Culture and Action. *Long Range Planning, 25*(1), 28-36.

Kabajeh, M.A.M. & Dahmash, F.N. (2012). The Relationship between the ROA, ROE and ROI Ratios with Jordanian Insurance Public Companies Market Share Prices. *International Journal of Humanities and Social Science, 2*(11), 115-120.

Kabiru, F.C., Theuri, M. & Misiko, A. (2018).The Influence of Planning on The Organizational Performance of Agricultural State Owned Corporations in Kenya. *International Academic Journal of Human Resource and Business Administration, 3(1),* 68-80.

Kaiser, H. F. (1974). An Index of Factorial Simplicity. *Psychometrika, 39*(1*)*, 31–36.

Kamugisha, S. (2013). The Effects of Change Management in an Organization: A Case Study of the National University of Rwanda (NUR). *Wyno Journal of Management and Business Studies, 11*(1), 1-18.

Kaplan, A.M. & Haenlein, M. (2006). Toward a Parsimonious Definition of Traditional and Electronic Mass Customization. *Journal of Product Innovation Management, 23*(2), 168-182.

Kaplan, R.S. & Norton, D.P. (1992). The Balance Scorecard: Measures that Drive Performance. *Harvard Business Review, 70*(1), 71-80.

Katua, N.T., Mukulu, E. & Gachunga, H.G. (2014). Effect of Reward and Compensation Strategies on the Performance of Commercial Banks in Kenya. *International Journal of Education and Research, 2*(1), 1-20.

Kehinde, J.S. (2012).Talent Management: Effect on Organizational Performance. *Journal of Management Research, 4*(2), 178-186.

Kerlinger, F.N. (1986). *Foundation of Behavioral Research.* New York: Rhinehart and Winston Incorporated.

Khan, M. A. (2011). High Level of Education Builds up Strong Relationship between Organizational Culture and Organizational Performance in Pakistan. *The International Journal of Human Resource Management, 22*(4), 1387-1400.

Kinyua, J.K. (2016). *Effect of Internal Control Systems on Financial Performance of Companies Quoted in the Nairobi Securities Exchange.* Unpublished PhD Thesis. Nairobi: Jomo Kenyatta University of Agriculture and Technology.

Kipkebut, D. J. (2010). Organizational Commitment in Public and Private Universities in Kenya: a Human Resource Management Perspective. IMS Manthan: *Journal of Innovations*, 5(2), 77 – 91.

Koech, P.M. & Namusonge, G.S. (2012). The Effect of Leadership Styles on Organizational Performance at State Corporations in Kenya. *International Journal of Business and Commerce, 2*(1), 1-12.

Kothari, C.R. (2009). *Research Methodology*: *Methods and Techniques.* New Delhi: New Age International.

Kotler, P. (2003). *Marketing Management*: *Analysis, Planning and Control.* New Jersey: Prentice-Hall.

Kotter, J.P. (1996). *Leading Change*. Boston, MA: Harvard Business School, Press.

Kotter, J.P. (2000). *Marketing Management*.(10th Ed.), New Jersey: Prentice-Hall.

Kritsonis, A. (2004). Comparison of Change Theories. *International Journal of Scholarly Academic Intellectual Diversity, 8*(1), 1-7.

Kulvisaechana, S. (2001). *Change Management Process: A case study of Consignia Brand and Business Status*. Unpublished Thesis. United Kingdom: University of Cambridge.

Latour, B. (1996). On Actor-Network Theory: A Few Clarifications. *Soziale Welt, 47*(4), 369-381.

Lawler, E.E. & Worley, C.G. (2006). *Built to Change*: How to Achieve Sustained Organizational Change. Palo Alto, CA: Stanford University Press.

Lee, Y.H., Hsieh, Y.C. & Hsu, C.N. (2011). Adding Innovation Diffusion Theory to the Technology Acceptance Model: Supporting Employees' Intentions to use E-Learning Systems. *Educational Technology & Society*, *14*(4), 124–137.

Levy, D. (1994). Chaos Theory and Strategy: Theory, Application and Managerial Implications. *Strategic Management Journal, 15,*167-178.

Lewin, K. (1947). *Frontiers in Group Dynamics in: D. Cartwright (Ed.) (1952). Field Theory in the Social Science.* London: Science Paperbacks.

Lin, A.C. (1998). Bridging Positivist and Interpretivist Approaches to Qualitative Methods. *Policy Studies Journal, 26*(1), 162-180.

Long, J.S. & Ervin, L.H. (2000). Using Heteroscedasticity Consistent Standard Errors in the Linear Regression Model. Forthcoming. *The American Statistician, 54,*217-224.

Lorelei, L., Albert, M. & Levinson, W. (2008). Grounded Theory, Mixed Methods and Action Research. *Qualitative Research Practice, 337*(23), 459-461.

Lorenz, E. N. (1993). Deterministic Non Periodic Flow. *Journal of the Atmospheric Sciences, 20*(2), 130-141.

Lucas, C. & Kline, T. (2008). Understanding the Influence of Organizational Culture and Group Dynamics on Organizational Change and Learning. *The Learning Organization, 15*(3), 277-287.

Lunenburg, F.C. (2010). Managing Change: The Role of the Change Agent. *International Journal of Management, Business and Administrator, 13*(1), 1-6.

Lunenburg, F.C. (2012). Understanding Organizational Culture: A Key Leadership Asset. *National Forum of Educational Administration and Supervision Journal, 29*(4), 1-12.

Machuki, V.M. & K'Obonyo, P.O. (2011). Organizational Strategic Behavior and Performance of Publicly Quoted Companies in Kenya. *Business Administration and Management, 1*(7), 219-232.

Machuki, V.M. (2011). *External Environment-Strategy Co-Alignment, Firm-Level Institutions and Performance of Publicly Quoted Companies in Kenya*. Unpublished PhD Thesis. Nairobi: University of Nairobi.

Mahieu, L.A. & Ford, T.D.N. (1998). *Operationalizing the Resource-Based View of the Firm.* Quebec: Research & Development International System Dynamics Conference.

March, J.G. & Sutton, R.I. (1997). Crossroads Organizational Performance as a Dependent Variable. *Organizational Science, 8*(6), 698-706.

Martin, N. & Coetzee, M. (2009). Applying the Burke – Litwin Model as a Diagnostic Framework for Assessing Organizational Effectiveness. *S.A. Journal of Human Resource Management, 7*(1), 1-10.

Matsui, A. (2000). Specialization of Labor and the Distribution of Income. *Games and Economic Behavior, 33*(1), *72*-89.

Mazidi, R.K., Amini, A. & Latifi, M. (2014).The Impact of Information Technology Capability on Firm Performance: a Focus on Employee-Customer Profit Chain. *Iranian Journal of Management Studies, 7*(1), 95-120.

McAleese, I., Creed, A. & Zutshi, A. (2013). A Response to Critique of the Refreeze Step in Lewin's Model of Organizational Change from the Viewpoint of Organizational Behavior. *International Journal of the Academy of Organizational Behavior Management, 3(*4), 104-124.

McBride, N. (2005). Chaos Theory as a Model for Interpreting Information Systems in Organizations. *Information Systems Journal, 15*(3), 233-254.

Meijaard, J., Brand, M.J. & Zoetermeer, M.M. (2005). Organizational Structure and Performance in Dutch Small Firms. *Scientific Analysis of Entrepreneurship and SMEs,* 1-32.

Miller, B.M., Greenwood, D. & Maguire, P. (2003). Why Action Research? *Action Research, I*(1), 9-28.

Ming'ala, J.O. (2002). *Data Analysis using SPSS*. Nairobi: Longhorn.

Mintzberg, H. (1992). *Structure in fives: Designing effective organizations*. Upper Saddle River, NJ: Prentice Hall.

Mintzberg, H. (2009) *Managing.* Montreal: Berrett-Koehler Publishers.

Monroe, S.A. (2006). *How Corporate Strategy Contributes to Firm Performance: A Cross- Sectional Study of Resource Governance Decision Making in US Firms*. Unpublished PhD Thesis. Palmerston North: Massey University.

Moutinho, L. & Southern, G. (2010). *Strategic Marketing Management*. Andover: Cengage.

Mugenda, O.M. & Mugenda, A.G. (2003). *Research Methods, Quantitative and Qualitative Approaches. African Centre for Technology Studies*. Nairobi: Actress Press.

Muogbo, U.S. (2013).The Impact of Strategic Management on Organizational Growth and Development (A Study of Selected Manufacturing Firms in Anambra State). *Journal of Business and Management, 7*(1), 24-32.

Myers, R.H. (1990). *Classical and Modern Regression with Applications*. (2nd ed.), Duxbury: Thompson Learning Publishers.

Naghibi, M.A. & Baban, H. (2011). *Strategic Change Management*: *The Challenges Faced by Organizations.* Singapore: ACSIT Press.

Ndahiro, S., Shukla, J. & Oduor, J. (2015). Effects of Change Management on the Performance of Government Institutions in Rwanda, a Case of Rwanda Revenue Authority. *International Journal of Business and Management Review, 3*(5), 94-107.

Njagi, L. & Kombo, H. (2014). Effect of Strategy Implementation on Performance of Commercial Banks in Kenya. *European Journal of Business and Management, 6*(13), 62-67.

Njoroge, G.J., Muathe, S. & Bula, H. (2016). Effect of Technology on Performance of Mobile Telephone Industry in Kenya. *International Journal of Education and Research, 4*(2), 487-500.

Njuguna, E.N. & Muathe, S. M. (2016). Critical Review of Literature on Change Management on Employees Performance. *International Journal of Research in Social Sciences, 6*(3), 9-22.

Nohria, N. & Beer, M. (2000).Cracking the Code of Change. *Harvard Business Review*, 1-10.

NSE Handbook (2009). *Corporate Information and Financial Review of Listed Equity Companies,* Nairobi: NSE.

NSE Handbook (2013). Corporate Information and Financial Review of Listed Equity Companies, Nairobi: NSE.

NSE Handbook (2014). Prospectus for Admission for Listing and Offer Subscription. July 9, 2014. Nairobi: NSE.

NSE Handbook (2015). Corporate Information and Financial Review of Listed Equity Companies, Nairobi: NSE.

NSE Handbook (2016). Corporate Information and Financial Review of Listed Equity Companies, Nairobi: NSE.

Nunnally, J.C. (1978). *Psychometric Theory*. New York: McGraw Hill.

Nurwati (2013). Effect of Management Control to Organizational Culture, Compensation, Work Behavior and Employees Performance. (Studies in the Village Unit Cooperatives (KUD) in South East Sulawest). *Journal of Business and Management, 8*(4), 40-52.

Nwosu, H.E., Awurum, J. I., & Okoli, I.E. (2015). An Evaluation of the Effect of Technological Innovations on Corporate Performance: A Study of Selected Manufacturing Firms in Nigeria. *The International Journal of Business and Management, 3*(1), 248-262.

Nyaungwa, C., Linganiso, X. & Karodia, A.M. (2015). Assessing the Impact of Change Management on the Performance of Zimra Region in Zimbabwe. *Kuwait Chapter of Arabian Journal of Business and Management Review, 4*(6), 76-104.

O'Cass, A. & Ngo L.V. (2007). Balancing External Adaptation and Internal Effectiveness: Achieving Better Brand Performance. *Journal of Business Research, 6*(1), 11-20.

Obilor, E.I. & Amadi, E.C. (2018). Test for Significance of Pearson's Correlation Coefficient. *International Journal of Innovative Mathematics, Statistics & Energy Policies, 6*(1), 11-23.

Olajide, O.T. (2014). Change Management and its Effects on Organizational Performance of Nigerian Telecoms Industries: Empirical Insight from Airtel Nigeria. *International Journal of Humanities Social Sciences and Education*, *1*(11), 170-179.

Olanipekun, A.O., Aje, I.O. & Falemu, J.O.A. (2013). Effects of Organizational Culture on the Performance of Quantity Surveying Firms in Nigeria. *International Journal of Humanities and Social Science, 3*(5), 206-215.

Olusanya, S.O., Awotungase, S.A. & Ohadebere, E.C. (2012). Effective Planning and Organizational Productivity. (A Case Study of Sterling Bank Nigeria. *Journal of Humanities and Social Science*, *5*(5), 31-39.

Oseni, E. (2007). Change Management in Process Change. ISACA. *Information Systems Control Journal, 41*(2), 131-143.

Pagon, M., Banutai, E. & Bizjak, U. (2008). *Leadership Competencies for Successful Change Management*. Slovenian: University of Maribor.

Parker, C. (2002). *The Open Corporation: Effective Self-Regulation and Democracy*. Cambridge: Cambridge University Press.

Parsons, T. (1961). *An Outline of the Social System. Theories of Society*. New York: Simon and Schuster Free Press.

Pasmore, W. & Sherwoord, J.J. (1978). Organizations as Sociotechnical Systems, Sociological Systems. Lajolla, CA: University Associates.

Pearce, J. A. & Robinson, R.B. (1991). *Strategic Management: Strategy Formulation and Implementation.* (5th ed.), Boston, Mass: Irwin.

Perrow C. A. (1967).Framework for the Comparative Analysis of Organizations. American. *Sociological Review, 32*,194-208.

Pfeiffer, J. (1982). *Organizations and Organization Theory*, Marshfield: Pitman.

Pinch, T. & Bijker, W. (1984).Social Construction of Facts and Artefacts: or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other. *Social Studies of Science, 14*(3), 399-441.

Poole, M.S. & DeSanctis, G. (1990).Understanding the Use of Group Decision Support Systems, in Fulk, J. and Steinfield, C. (Eds.), *Organizations and Communication Technology*. Beverly Hills, CA: Sage.

Porter, M.E. (1981). The Contributions of Industrial Organization to Strategic Management. *Academy of Management Review, 6*(4), 609-620.

Porter, M.E. (1990). *The Competitive Advantage of Nations*. London: Macmillan.

Prahalad, C.K. & Hamal, G. (1990). The Core Competence of the Corporation. *Harvard Business Review,* 78-90.

Prochaska, J.O., & DiClemente, C.C. (1983). Stages and Processes of Self-Change of Smoking: Towards an Integrative Model of Change. *Journal of Consulting and Clinical Psychology, 51*(3), 390–395.

Pryor, G.M., Taneja, S., Humphreys, J., Anderson, D. & Singleton, L. (2008). Challenges Facing Change Management Theories and Research. *Delhi Business Review and Practices, 9*(1), 1-20.

Reason, P. & Bradbury, H. (2001). *Handbook of Action Research, Participative Inquiry and Research*. (2nd Ed), London: Sage Publications Ltd.

Reichert, F.M. & Zawislak, P.A. (2014). Technological Capability and Firm Performance. *Journal of Technology Management & Innovation, 9*(4), 20-25.

Rezvani, S., Dekhordi, G.J. & Shamsolahi, A. (2012). Managing Strategic Change for Organizations. *International Journal of Academic Research in Economics and Management Science, 1*(3), 112-122.

Richard, P.J., Devinney, T.M., Yip, G.S. & Johnson, G. (2008). Measuring Organizational Performance as a Dependent Variable: Towards Methodological Best Practice. *Journal of Management, 35*(3), 718-804.

Richards, R., Yeoh, W., Chong, A.Y.L. & Popovič, A. (2014). An Empirical Study of Business Intelligence Impact on Corporate Performance Management. *PACIS Proceedings,* Retrieved from: http://aisel.aisnet. org/ pacis 2014/341.

Rogers, E.M. (2003). Diffusion of innovations. New York: Free Press.

Ross, S.A., Westerfield, R. W. & Jaffe, J. (2005). Corporate Finance, (7th ed.), U.S.A.: McGraw Hill.

Sablynski, C.J. (2012). *Foundation of Organizational Structure*. Retrieved from *http://www.csw.edu/indiv/s/sablyskic/ch.14.html.*

Saif, N., Razzaq, N., Rehman, S.U., Javed, A. & Ahmad, B. (2013). "The Concept of Change Management in Today's Business World". *Information and Knowledge Management, 3*(6), 28-33.

Salimian, H., Khalili, S., Nazemi, J. & Alborzi, M. (2012). Alignment in the Organization's Strategy Window (Concentration on Business Strategy and Strategy). *African Journal of Business Management, 6*(51), 2016-12022.

Sani, A.D. (2012). Strategic human Resource Management and Organizational Performance in the Nigerian Insurance Industry: The Impact of Organizational Climate. *Business Intelligence Journal, 5*(1), 8-20.

Santos, J.B., & Brito, L.A. (2012).Toward a Subjective Measurement Model for Firm Performance. *BAR Rio de Janeiro, 9*(6), 95-117.

Sarrafizadeh, A. (2004).Information Technology in Organization: Applied Concepts. (4th ed.), Tehran: Mir Publication.

Sazali, A.W., Haslinda, A., Uli, Jegak, U., & Raduan, C.R. (2010). Age of Joint Venture, Inter-Firm Technology Transfer and Local Firms' Performance. *Asian Social Science, 6*(2), 28-39.

Schaffer, R. H. & Thompson, H.A. (1992). Successful Change Programs Begin with Results. *Harvard Business Review, 70*(1), 80-90.

Schein, E.H. (1995). *Leadership and Organizational Culture,* in F.Hesselbein *et al. The Leader of the Future,* San Francisco: Jossey-Bass.

Schein, E.H. (1996). Culture: The Missing Concept in Organizational Studies. *Administrative Science Quarterly*, *41*(2), 229-240.

Schein, E.H. (1996). Kurt Lewin's Change Theory in the Field and in the Classroom: *Notes toward a Model of Management Learning Systems Practice, 9*(1), 27-47.

Schneider, B. (1987). The people make the Place. *Personnel Psychology, 40*, 437–453.

Schon, D.A. (1983). *The Reflective Practitioner: How Professionals Think in Action*, New York: Bari Books.

Schon, D.A. (1987). *Educating the Reflective Practitioner.* San Francisco: Jossey Bans.

Shapiro, C. (1989). The Theory of Business Strategy. *RAND Journal of Economics, 20*(1), 127-137.

Simons, R. (1995). *Levers of Control: How Managers Use Innovative Control System to Drive Strategic Renewal*. Harvard Business Review, Boston, MA: Press.

Simons, R. (2000). *Performance Measurement and Control System for implementing Strategy, Text and Cases.* New York: Prentice Hall.

Song, X. (2009). Why Do Change Management Strategies Fail? Illustrations with Case Studies. *Journal of Cambridge Studies*, *4*(1), 6-15.

Stacey, R .D. (2003). *Strategic Management and Organizational Dynamics: The Challenge of Complexity*. Harlow: Financial Times, Prentice Hall.

Stankevic, J. & Vanagas, R. (2014).Impact of Coordination for Organization Process. I*ntelektine Ekonomika Journal*, *8*(2), 112-125.

Steven, H., Applebaum. S.H. & Jean-Luc, M. (2012). "Back to the Future: Revisiting Kotter's 1996, Change Model". I*nternational Journal of Social Science and Humanity, 31*(8), 764-782.

Stock, G.N. & Tatikonda, M.V. (2004). External Technology Integration in Product and Process Development. *International Journal of Operation Production Management, 24*(7), 642-665.

Stoetzel, M. (2012**)**. Engaging Mass Customization Customers beyond Product Configuration: Opportunities from the Open Innovation Field. *International Journal of Industrial Engineering and Management*, *3*(4), 241-251.

Stroh, U.M. (2005). *Strategic Management and Change*. Pretoria: University of Pretoria.

Sumanjeet, S. (2009). Emergence of Payment Systems in the Age of Electronic Commerce: The State of Art. *Asia Pacific Journal of Finance and Banking Research, 3*(3), 18-40.

Suresh, H. (2011). Change Management -Must for Todays Organization. *Think Business Network Articles,* 1-11.

Suri, R., Manchanda, V.R. & Kohli, S.C. (2000). Brand Evaluations: A Comparison of Fixed Proceeds and Discounted Price Offers. *Journal of Product and Brand Management, 9*(2), 193-207.

Svinicki, M.D. (2010). *A Guidebook on Conceptual Frameworks for Research in Engineering Education.* Texas: University of Texas.

Swarnalatha, C. & Prasanna, T.S (2013).Leveraging Employee Engagement for Competitive Advantage: HR'S Strategic Role. *Global Journal of Commerce & Management Perspective*, *2*(1), 1-6.

Tabachnick, B. G. & Fidell, L. S. (2007). *Using Multivariate Statistics.* (5th Ed.), New York: Allyn and Bacon.

Tabachnick, B.G. & Fidell, L.S. (2001). *Using Multivariate Statistics*. New York: Harper & Row Publishers.

Tajipour, E., Sarboland, K. & Khodabakhshi, N. (2014).Understanding the Impact of Organizational Structure Levels on Productivity at Imam Mehr Fund in Khuzestan Province. *Arabian Journal of Business and Management Review, 3*(7), 73-79.

Taylor, F.W. (1911). *The Principles of Scientific Management*. New York, NY: Harper & Brothers.

Terry, G. R. (1977). *The Principles of Management*. (7th Ed.), Homewood III: Richard Irwin Inc.

Tippins, M. & Sohi, R. (2003). IT Competency and Firm Performance: Is Organizational Learning a Missing Link? *Strategic Management Journal*, *24*, 745-761.

Tornatzky, L.G. & Fleischer, M. (1990). *The Processes of Technological Innovation*. Lexington: Lexington Books.

Tran, Q. & Tian, Y. (2013). Organizational Structure: Influencing Factors and Impact on a Firm. *American Journal of Industrial and Business Management*, *3*(2), 229-236.

Tulsian, M. (2014). Profitability Analysis: A comparative Study of SAIL & TATA Steel. *Journal of Economics and Finance, 3*(2), 19-22.

Ufartiene, L. J. (2014).Importance of Planning in Management Development Organization. *Journal of Advanced Management Science, 2*(3), 176-180.

Underdown, R. (2012). *Organizational Structures.* Retrieved from http://dept.lamar.edu/industrial/underdown/org_mana/org/org_structure-George.html.

Vanagas, R. & Stankevic, J. (2014). Impact of Coordination for Organization Process. *Intellectual Economics, 8*(2), 112–125.

Varadarajan, P. R. (1999). Strategy Content and Process Perspectives Revisited. *Journal of the Academy of Marketing Science, 27*(1), 88-100.

Venkatraman, N. & Camillus, J. C. (1984). Exploring the Concept of "Fit" in Strategic Management. *Academy of Management Review, 9(3),* 513-525.

Venktrakaman, N. & Ramanugan, V. (1986). Measurement of Business Performance in Strategy Research: A Comparative of Approach. *Academy of Management Review, 11*(4), 801-814.

Victor, P. & Franceiss, A. (2002). 'The Five Dimensions of Change: An Integrated Approach to Strategic Organizational Change Management'. *Strategic Change, 11*(1), 35-42.

Waithaka, S.M. (2013). *Factors that Influence the Social Performance of Microfinance Institutions in Kenya.* Unpublished Thesis. Nairobi: Jomo Kenyatta University of Agriculture and Technology.

Walker, D.H.T. (1997). Choosing an Appropriate Research Methodology. *Construction Management and Economics Journal, 15*(2), 149-159.

Wally, S. (2003). Strategic Decision Speed and Firm Performance. *Strategic Management Journal, 24*(11), 1107-1129.

Wanza, L. S. & Nkuraru, J.K. (2016). Influence of Change Management on Employee Performance: A Case of University of Eldoret. *International Journal of Business and Social Science, 7*(4), 190-199.

Wolf, D. (2002). *Execution and Structure*. Retrieved from http://www.dewarsloan. com/workin%20papers-execution%20and20 % structure.html.

Wu, W. (2010). Confounding, Interaction and Mediation in Multivariable/Multivariate Regression Modelling. *Journal of Cancer Biostatistics*, 1-47.

Yaghoubi, N.M. & Sargazi, A.A. (2014). Investigating the Effect of Office Automation on Organizational Excellence. *International Journal of Academic Research in Business and Social Sciences*, *4*(8), 367-375.

Zakari, M., Poku, K. & Ansah, W.O. (2013). Organizational Culture and Organizational Performance: Empirical Evidence from the Banking Industry in Ghana. *International Journal of Business, Humanities and Technology, 3*(1), 95-107.

APPENDICES

Appendix I: Research Questionnaire for Senior Managers

Dear Respondents,

The following questionnaire aims to capture data that is purely for academic research and the results will not be traceable to you or any individual person. We would therefore urge you to freely answer the questions as only the researcher will have access to the raw data and the development of the final report.

Name of the Organization: (Optional) _____

Address and Location: _____

PART I: COMPANY'S PROFILE

Q1.How many employees do you have in your company?

_____

Q2. When was your company established?

_____

Q3.When was your company listed in Nairobi Securities Exchange?

_____

Q4.What sector of economic activity is your company operating in? (Tick only one)

a) Agriculture _____ b) Financial and Investments _____

c) Alternative Investment Market Segment _____ d) Commercial and Services __

e) Industrial and Allied _____ f) Others (Please Specify) _____

PART II: DEMOGRAPHIC INFORMATION OF RESPONDENTS

Please provide the required information by ticking [√] in the appropriate box.

Q.5.a) Job Title_____

b) Gender: Male ☐ or Female ☐

c) Years of service to the Company: Below 5 years ☐ Above5-10 ☐ Years over 10 ☐ Years

d) State the age bracket you belong:-Please tick appropriately.

Age: 21-29 Years ☐ 30-39 Years ☐ 40-49 Years ☐ 50 Years and above ☐

e). State highest Education Level Attained: Secondary, ☐ Ordinary Diploma ☐

Bachelor's Degree ☐ Master's Degree ☐ Doctorate Degree ☐

Other (Specify) _____

PART III: ORGANIZATIONAL CULTURE

Q6. To what extent do you agree or disagree with the following aspects of organizational culture on performance in your organization for the last five years**?** Please **TICK** appropriately. **Using Likert Type Scale; where**: **1**-Strongly disagree **2**-Disagree **3**-Neutral **4** Agree **5**-Strongly agree

Aspects	1	2	3	4	5
Involvement Culture					
1.All employees have favorable conditions for decision making and for giving various ideas, suggestions, and notes.		.			
2. We promote collaboration and allow participation of every employee.					
3.There is no empowerment of employees in the company.					
4. There is no teamwork as everyone decides on what he/she feels right to do.					
Consistency Culture					
1.We have core values in our organization that help to define how the organization would behave.					
2. We have a collective bargaining agreement that creates peace and harmony in the work place.					
3. Employees often do not approve of changes and resist or behave indifferently during change process.					
Adaptability Culture					
1. The changes are aligned according to customer focus.					
2. Internal integration and external adaptation can often be at odds.					
3.We do not change the system so that to improve the organization's collective abilities to provide value for our customers					
Mission					
1. Our organization has a mission statement and defines what business we are in and vision of where we want to be.					
2. Our organization has goals and objectives that guide our operations.					
3. Strategic direction and intent in our organization enables us stay focus and in line with the business environment.					
4. The mission does not contribute anything to the health of the organization.					

PART IV: ORGANIZATIONAL STRATEGY

Q7. To what extent do you agree or disagree with the following aspects of organizational strategy on performance in your organization for the last five years**?** Please **TICK** appropriately. **Using Likert Type Scale: where**: **1**-Strongly disagree **2**-Disagree **3**-Neutral **4** Agree **5**-Strongly agree

Corporate Level Strategy	**1**	**2**	**3**	**4**	**5**
1. It is not stated in the mission statement.					
2. Corporate strategy is concerned with the overall purpose and scope of our business to meet stakeholder expectations.					
3. It is not a crucial level in our business.					
4. This level acts to guide strategic decision-making throughout our business.					
Business Level Strategy					
1. Our business competes successfully in the market.					
2. Strategic decisions about choice of products are not done in our organization.					
3. Customer needs are met in our organization					
4. Our business level strategy does not gain advantage over competitors.					
Functional Level Strategy					
1. Each part of our business is organized as per function.					
2. It does not focus on issues of resources, processes, people etc.					
3. It supports the business- level strategy					
4. It is not used by a business area for achieving the objectives and strategies of a company and business through maximizing resources efficiency.					

PART V: ORGANIZATIONAL STRUCTURE

Q8. To what extent do you agree or disagree with the following aspects of organizational structure on performance in your organization for the last five years? Please **TICK** appropriately. **Using Likert Type Scale: Where: 1**-Strongly disagree **2**-Disagree **3**-Neutral **4** Agree **5**-Strongly agree

Specialization of Managers	**1**	**2**	**3**	**4**	**5**
1. Companies form departments/divisions and sub-division which are driven by specialization.					
2. Skilled labor is not important in the operations of the organization than managers.					
3. Specialists can destroy the organization by disrupting the routines or operations of the organization.					
Formalization of Change Processes					
1. It ensures consistency and can help the organization stay legal and safe.					
2. Rules, policies and procedures are written to guide the organization during change process.					
3. Change process does not follow any formal rule during implementation.					
Centralization of Decision Making					
1. The control is held centrally with managers and staff making decisions.					
2. There is no participation in decision making by employees.					
3. Decentralization is not practiced in change process.					
Configuration of Change Process					
1. Our organization is divided into different departments/division.					
2. Some departments have been merged and others phased out during change process.					
3. There is no confusion and conflict during the transfers/placement of employees from one department to the other.					

PART VI: ORGANIZATIONAL MANAGEMENT

Q9. To what extent do you agree or disagree with the following aspects of organizational management on performance in your organization for the last five years? Please **TICK** appropriately. **Using Likert Type Scale: Where: 1**-Strongly disagree **2**-Disagree **3**-Neutral **4** Agree **5**-Strongly agree

Planning Process	**1**	**2**	**3**	**4**	**5**
1. Managers should be able to evaluate all potential tasks at the same time picking the most important ones.					
2. Managers do not explain the tasks to be undertaken appropriately to employees when planning.					
3. Planning is useful for developing organization's strategic plan.					
Coordination of Change Process					
1. Communication channels are well established among staff in our organization.					
2. Coordination does not correct executor's actions which do not comply with the plan of the organization.					
3. Coordination combines the organizations goals and specialization in respect of division of labor and formation of chain of commands.					
Motivation of Staff					
1. Money motivates employees towards higher performance.					
2. Incentives such as security, good working condition, opportunity for growth and development creates redundancy of employees.					
3. Our organization uses rewards to contribute to firm's effectiveness by influencing individuals or group behavior.					
Controlling of Resources					
1. We set performance targets in our organization to be achieved by employees.					
2. Resources such as financial, human, material and others are not utilized prudently in our organization.					
3. Every divisional head is in charge of the budget in our organization.					

PART VII: TECHNOLOGY

Q9. How do you perceive the effects of the following indicators of the technology on company performance for the last five years? Please **TICK** appropriately. **Using Likert Type Scale: Where: 1**-Strongly disagree **2**-Disagree **3**-Neutral **4-** Agree **5-** Strongly agree

Technology Innovation	**1**	**2**	**3**	**4**	**5**
1. It is the process of combining and reorganizing knowledge to generate new ideas.					
2. Innovation makes employees more effective and firm more efficient.					
3. Organizations which do not innovate still succeeds.					
4. Innovation is not done on need basis in our organization.					
Technology Adoption					
1. It is the decision of employees to make use of innovation as the best course of action available in the organization.					
2. It is a risky process that any slight mistake in transferring cash is not reversible through electronic funds transfer.					
3. The processes have been made user friendly in the organization.					
4. It does not lessen the volume of work within the organization.					
Technology Diffusion					
1. Our organization does not accept new ideas and products easily from the market.					
2. It offers awareness building and technology demonstration.					
3. On the job training, management seminars and team building are conducted to enlighten staff on technology.					
4. A network of trained staff offers technological advice to the organization.					

PART VII: PERFORMANCE OF COMPANY FINANCIAL DATA

Q10. Report on secondary data on financial position

Financial Year	2013	2014	2015	2016	2017
Net Profit					
Dividends per Share					
Return on Investment					

NB: This information will be obtained from the NSE handbook (2018)

PART IX: PERFORMANCE OF COMPANY NON FINANCIAL DATA

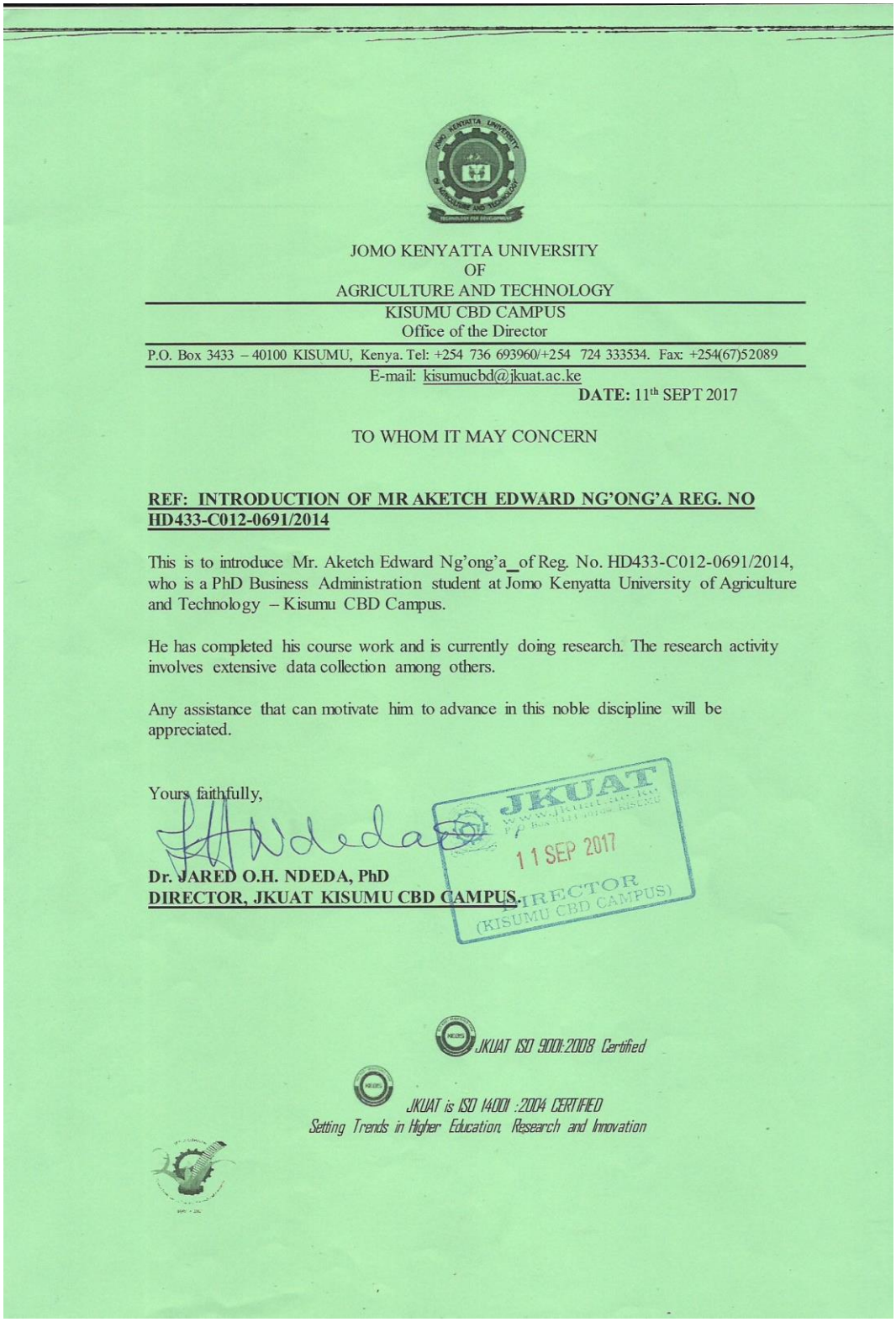
Q11. To what extent do the following statements describe your company's financial and non-financial performance over the last five years, (2013-2017)? Please **TICK** appropriately. **Using Likert Type Scale: Where: 1**-Strongly Disagree **2**-Disagree **3**-Neutral **4-** Agree **5**-Strongly Agree

Statement	**1**	**2**	**3**	**4**	**5**
Non-Financial					
1. Quality products and Services					
2. New products					
3. Customer Satisfaction/Needs					

THE END

THANK YOU VERY MUCH FOR YOUR PARTICIPATION IN THIS STUDY

Appendix IIa: University Introductory Letter



JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY
KISUMU CBD CAMPUS
Office of the Director

P.O. Box 3433 – 40100 KISUMU, Kenya. Tel: +254 736 693960/+254 724 333534. Fax: +254(67)52089
E-mail: kisumucbd@jkuat.ac.ke

DATE: 11th SEPT 2017

TO WHOM IT MAY CONCERN

REF: INTRODUCTION OF MR AKETCH EDWARD NG'ONG'A REG. NO HD433-C012-0691/2014

This is to introduce Mr. Aketch Edward Ng'ong'a of Reg. No. HD433-C012-0691/2014, who is a PhD Business Administration student at Jomo Kenyatta University of Agriculture and Technology – Kisumu CBD Campus.

He has completed his course work and is currently doing research. The research activity involves extensive data collection among others.

Any assistance that can motivate him to advance in this noble discipline will be appreciated.

Yours faithfully,

JKUAT
11 SEP 2017
DIRECTOR
(KISUMU CBD CAMPUS)

Dr. JARED O.H. NDEDA, PhD
DIRECTOR, JKUAT KISUMU CBD CAMPUS

JKUAT ISO 9001:2008 Certified

JKUAT is ISO 14001 :2004 CERTIFIED
Setting Trends in Higher Education, Research and Innovation

Appendix IIb:NACOSTI Research Authorization

NATIONAL COMMISSION FORSCIENCE, TECHNOLOGY ANDINNOVATION

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No **NACOSTI/P/17/24652/20109**

Date: **22nd November, 2017**

Edward Aketch Ngonga
Jomo Kenyatta University
of Agriculture and Technology
P.O. Box 62000-00200
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Effect of change management on performance of companies listed in Nairobi Securities Exchange in Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **20th November, 2018.**

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GP Kalerwa

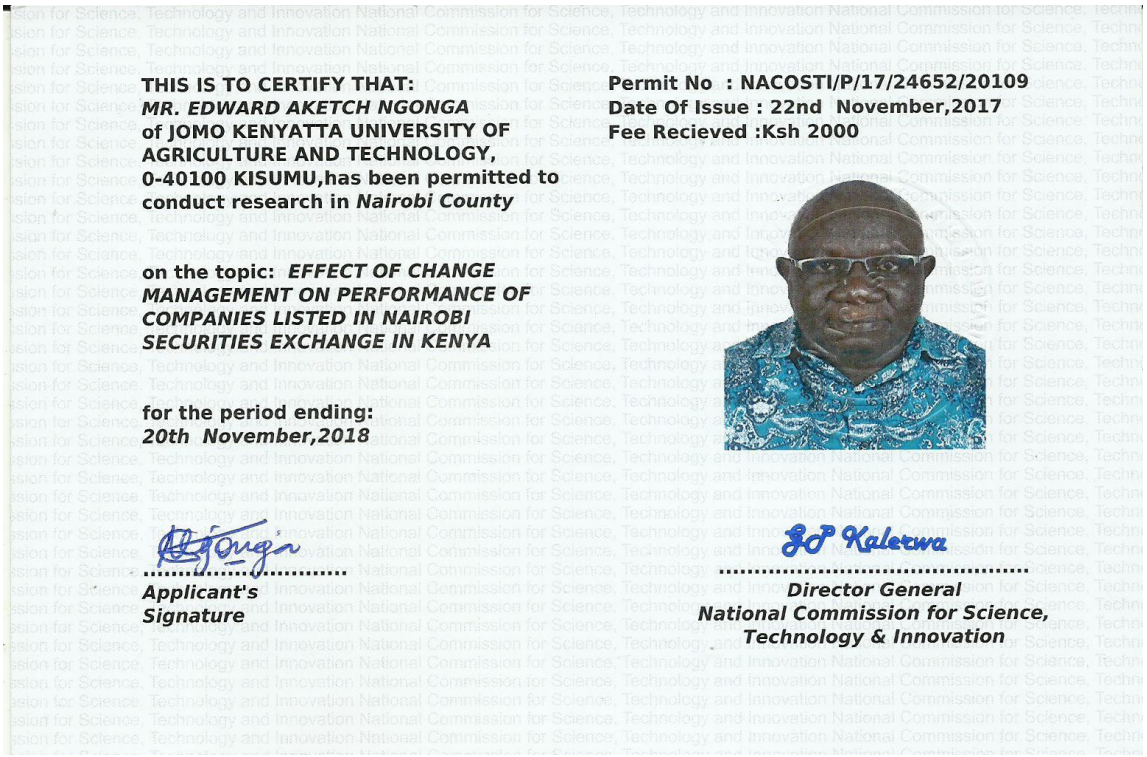
GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

Appendix IIc:Research Clearance Permit



THIS IS TO CERTIFY THAT:
MR. EDWARD AKETCH NGONGA
of JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY, 0-40100 KISUMU,has been permitted to conduct research in *Nairobi County*

on the topic: *EFFECT OF CHANGE MANAGEMENT ON PERFORMANCE OF COMPANIES LISTED IN NAIROBI SECURITIES EXCHANGE IN KENYA*

for the period ending:
20th November,2018

Permit No : NACOSTI/P/17/24652/20109
Date Of Issue : 22nd November,2017
Fee Recieved :Ksh 2000

Appendix IId: Researcher's Introductory Letter

Aketch Edward Ng'ong'a,
JKUAT,
P.O. Box 62000, Code 00200,
Nairobi.
Mobile No.0733 684 553
E-mail: aketchngonga@yahoo.com:

To.
The Management,
...Company Name...,
P.O. Box....Number..., Code.....,
....Town/City, Kenya

RE: Letter of Consent

I humbly wish to request for permission to collect data from your organization as indicated above. Iam a doctor of philosophy degree student at Jomo Kenyatta University of Agriculture and Technology. Iam carrying out research in Change Management and Performance of Companies Listed in Nairobi Securities Exchange in Kenya.

I have identified your company as one of the target respondents for my study research. I therefore, wish to request you to allow me to collect data by self-administered questionnaires. I am targeting at least four respondents from your company who are senior managers namely: Managing Director & CEO, head of divisions in marketing, human resources, finance and marketing.

The information collected will be purely for academic purposes and treated with a lot of confidentiality. I have, however, attached a letter from the university certifying my candidature and copies of the questionnaires for your perusal. I intend to request for appointment booking with the identified respondents to fill the questionnaires after any clarification of issues arising have been resolved.

I remain and thanking you in advance.

Yours Faithfully,

Aketch E. Ng'ong'a,

PhD. Student,

HD433-C012-0691/14,

Mobile no.0733 684 553.

Appendix III: Supporting Analyses

Table A1: Regression Analysis for Organizational Strategy (X2) and Performance of Companies listed in NSE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.723[a]	.523	.519	.25821	2.050
2	.772[a]	.596	.593	.43821	1.893

a. Model 1 and 2 Predictors: (Constant) X_2 and X_2*Z

b. Dependent Variable: Performance of Companies

Table A2: Coefficient for Organizational Structure (X3) and Performance of Companies listed in NSE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.723a	.522	.519	.25832	1.756
2	.779a	.607	.604	.43191	1.577

a.Model 1 and 2 Predictors: (Constant), X3 and X3

b. Dependent variable: Performance of Companies (Y)

Table A3: Overall Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.804[a]	.646	.636	.22480	2.027
2	.901[a]	.811	.806	.30247	1.976

a. Predictors: (Constant), Organizational Management, Organizational strategy, Organizational structure,

Organizational culture.

b. Dependent Variable: Performance of Companies

4.1Test for Autocorrelation (Independent of Errors)

Table A4: Summary for Overall Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.901[a]	.811	.806	.30247	1.976
2	.954[a]	.910	.908	7.08162	1.974

a.Predictors: (Constant), X_4X_3, X_1, X_2 model 1 and model 2

b. Dependent Variable: Performance of Companies (Y)

4.2 Outliers Test

Table A5: Outliers Detected

Variables	Position of observed Outliers	Total number of Outliers
Organizational Culture	- 31 ,85	1
Organizational Strategy		8
Organizational Structure	-	1
Organizational Management	36,	7
Technology	-,	4
Performance of Companies	100	4

4.3 Performance of Companies listed in NSE

In a Likert scale of 1-5 where; 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree. The results are presented in table A6.

Table A6: Descriptive Statistics for Performance of Companies listed in NSE

Statement	S.D	D	N	A	S. A	$\bar{X}$	SD
Net Profit	0.6%(1)	1.7%(2)	6.9%(8)	41.1%(49)	49.7%(60)	4.38	0.739
Dividend Per Share	0.6%(1)	1.1%(1)	6.9%(8)	37.1%(45)	54.3%(65)	4.43	0.723
Return on Investment	1.1%(1)	2.9%(3)	13.7%(17)	40.6%(49)	41.7%(50)	4.19	0.860
Quality products and Services	0.6%(1)	3.4%(4)	8.6%(10)	42.3%(51)	45.1%(54)	4.28	0.807
Customer Satisfaction	0.0%(0)	2.9%(3)	24.0%(29)	35.4%(43)	37.7%(45)	4.08	0.854
New products	0.0%(0)	4.6%(6)	12.6%(15)	45.1%(54)	37.7%(45)	4.16	0.815
Composite Mean						**4.20**	**0.832**

In addition to that, the hypotheses:-

Table A7a: Coefficients for Overall Regression without moderator

Hypotheses	t- value	Sig value	Decision
H₀: $\beta_1 = 0$	2.930	.004	Reject **H₀**
H₁: $\beta_1 \neq 0$			
H₀: $\beta_2 = 0$	4.400	.000	Reject **H₀**
H₁: $\beta_2 \neq 0$			
H₀: $\beta_3 = 0$	3.226	.002	Reject **H₀**
H₁: $\beta_3 \neq 0$			
H₀: $\beta_4 = 0$	1.554	.022	Reject **H₀**
H₁: $\beta_4 \neq 0$			

Table A7b: Coefficients for Overall Regression with moderator

Hypotheses	t- value	Sig value	Decision
H₀: $\beta_1 = 0$	3.035	.003	Reject **H₀**
H₁: $\beta_1 \neq 0$			
H₀: $\beta_2 = 0$	4.482	.000	Reject **H₀**
H₁: $\beta_2 \neq 0$			
H₀: $\beta_3 = 0$	3.385	.001	Reject **H₀**
H₁: $\beta_3 \neq 0$			
H₀: $\beta_4 = 0$	7.902	.000	Reject **H₀**
H₁: $\beta_4 \neq 0$			

Appendix IVa: NSE listed Companies as at 30th June, 2017

Agricultural Sector

1. Eaagads Limited
2. Kapchorua Tea Company Limited
3. Kakuzi Limited
4. Limuru Tea Company Limited
5. Sasini Tea and Coffee Limited
6. Williamson Tea Kenya Limited

Automobile and Accessories

7. Car and General (Kenya) Limited
8. Sameer Africa Limited

Banking

9. Barclays Bank Limited
10. Stanbic Holdings Bank
11. Diamond Trust Bank (Kenya) Limited
12. Housing Finance Company Limited
13. Kenya Commercial Bank Limited
14. National Bank of Kenya Limited
15. NIC Bank Limited
16. Standard Chartered Bank Kenya Limited
17. Equity Bank Limited
18. The Co-operative Bank of Kenya

Commercial and Services

19. Express Kenya Limited
20. Kenya Airways Limited
21. Longhorn Publishers Kenya Limited
22. Nation Media Group Limited

23. Standard Group Limited
24. TPS Eastern Africa Limited (Serena Hotels)
25. WPP Scan group Limited
26. Uchumi Supermarket Limited
27. Nairobi Business Ventures Limited
28. Eveready East Africa Limited
29. Deacons (EA) Plc.
30. Atlas Development Limited
31. Hutchings Biemer

Construction and Allied Sector

32. Bamburi Cement Limited
33. Athi River Mining Cement Limited
34. Crown Berger Limited
35. East African Cables Limited
36. East African Portland Cement Company

Energy and Petroleum

37. Kenya Electricity Generating Company Limited
38. Kenya Power & Lighting Co Ltd
39. Umeme Limited
40. Kenol Kobil Limited
41. Total Kenya Limited

Insurance

42. Jubilee Holdings Limited
43. Kenya Reinsurance Corporation Limited
44. Liberty Kenya Holdings Limited
45. Britam Holdings Limited
46. CIC Insurance Group Limited
47. Sanlam

Investment

48. Olympia Capital Holdings Limited
49. Centum Investment Company (ICDCI)Limited
50. Transcentury Limited
51. Home Africa Limited
52. Kurwitu Ventures Ltd

Investment Services

53. Nairobi Securities Exchange

Manufacturing and Allied

54. BOC Gases Kenya Limited
55. British American Tobacco Kenya Limited
56. Carbacid Investments Limited
57. East African Breweries Limited
58. Mumias Sugar Company Limited
59. Unga Group Limited
60. Flame Tree Group Holdings Limited
61. Kenya Orchards
62. A. Bauman Company Limited

Telecommunication and Technology

63. Safaricom Ltd

Real Estate Investment Trust

64. Stanlib Fahari-REIT

Appendix IVb: Sampled Listed Companies in NSE as at 30th June, 2017

Agricultural Sector

1. Eaagads Limited
2. Kapchorua Tea Company Limited
3. Kakuzi Limited
4. Limuru Tea Company Limited

Automobile and Accessories

5. Car and General (Kenya) Limited

Banking

6. Stanbic Holdings Bank
7. Diamond Trust Bank (Kenya) Limited
8. Housing Finance Company Limited
9. Kenya Commercial Bank Limited
10. National Bank of Kenya Limited
11. NIC Bank Limited

Commercial and Services

12. Express Kenya Limited
13. Longhorn Publishers Kenya Limited
14. Nation Media Group Limited

15. Standard Group Limited

16. TPS Eastern Africa Limited (Serena Hotels)

17. WPP Scan group Limited

18. Nairobi Business Ventures Limited

19. Deacons (EA) Plc.

Construction and Allied Sector

20. Crown Berger Limited

21. East African Cables Limited

22. East African Portland Cement Company

Energy and Petroleum

23. Kenya Electricity Generating Company Limited

24. Kenya Power & Lighting Co Ltd

25. Total Kenya Limited

Insurance

26. Jubilee Holdings Limited

27. Liberty Kenya Holdings Limited

28. Britam Holdings Limited

29.CIC Insurance Group Limited

Investment

30. Centum Investment Company (ICDCI) Limited

31. Trans Century Limited

32. Home Africa Limited

Manufacturing and Allied

33. BOC Gases Kenya Limited

34. Carbacid Investments Limited

35. East African Breweries Limited

36. Mumias Sugar Company Limited

37. Unga Group Limited

38. A. Bauman Company Limited