ORGANIZATIONAL RESOURCES, DYNAMIC CAPABILITIES, EVIRONMENTAL DYNAMISM AND ORGANIZATIONAL PERFORMANCE OF LARGE MANUFACTURING COMPANIES IN KENYA

BY

PAUL MWASARU MWAZUMBO

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

2016

DECLARATION

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

Signed…….Date……

Paul Mwasaru Mwazumbo

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

Signed……Date……

Prof. Zachary Bolo Awino,
Department of Business Administration,
School of Business,
University of Nairobi.

Signature……. Date…….

Dr. Vincent N. Machuki,
Senior Lecturer,
Department of Business Administration,
School of Business, University of Nairobi.

Signature……. Date…….

Dr. John Yabs,
Senior Lecturer,
Department of Business Administration,
School of Business, University of Nairobi.

SPECIAL DEDICATION

"To Lucy Afia Nthambi Mwasaru, my dear wife, friend and mother to my children. We had purposed to have a graduation party for my PhD but your sad demise could not allow you to be part of the ceremony".

1967 - 2015

DEDICATION

This thesis firstly dedicated is to God Almighty for giving me an opportunity to be among the upper echelons of higher learning. Secondly, to my late father Danson Mwazumbo Mwasaru and my mother, Jesmily Wakesho Mwazumbo for believing in me and providing me with encouragement as I pursued my PhD. Dad, we had agreed that you will be able to attend my PhD graduation but your demise while I was pursuing the course work could not allow you to. Mum for your powerful prayers, which no one can ever match, I am forever grateful. To my late wife Lucy Afia Nthambi Mwasaru and my children Natasha Wakesho Mwasaru and Emmanuel Muchiri Mwasaru for your tireless encouragement even when I spent time away from you as a result of this journey.

ACKNOWLEDGEMENT

I acknowledge the contribution of every person who was involved in the compilation of this study. I would like to first acknowledge my supervisors, Prof. Zachary Bolo Awino, Dr. Vincent N. Machuki and Dr. John Yabs for their guidance, support, encouragement and critique throughout the study and thesis writing. I would like to thank all the Doctoral study team of the School of Business, University of Nairobi, together with Professor Evans Aosa, Professor P.K'obonyo, Professor N.D. Nzomo, Professor G.P. Pokhariyal, Professor Gituro Wainaina, Professor Tabitha Kiriti, Dr. X.N. Iraki, Professor Martin Ogutu and the late Professor Stephen Nzuve for imparting knowledge to me during the entire PhD process.

I am specifically grateful to my family especially my late wife Lucy Afia Nthambi Mwasaru for their intact support during the study. To my friends and colleagues, Dr Lilian Ogendo, Dr. Paul Murgor, Dr Beatrice Ombaka, Dr. Walter Ongeti, Dr. Rose Mkalama, Dr. Eng. David Kinuu, Dr. Engineer Joseph Njoroge, Dr. Fredrick Kasomi, Dr. Kelly Oluoch, Dr. Shadrack Wasike, Grace Kamau, Bruce Ogaga, Beatrice Otandi and Ms. Jane Muturi and for their support and encouragement during the study period.

I would also want to thank Catherine Chege (Senior Librarian – UON), Milka Gikunju (Senior Librarian – UON), and David Mulonzia (Librarian – UON) for their tireless effort in ensuring that I was able to timely access the library resources.

My sincere gratitude goes to the persons or organizations involved in the research including all the large manufacturing companies listed in the Kenya Association of Manufacturers Directory of 2014 that participated and my research assistants David Okun, Dickson Alubala, Robert Gichanga, and Kombo Chondo.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

BSC: Balanced Scorecard

CEO: Chief Executive Officer

CSR: Corporate Social Responsibility

CT: Contingency Theory

DC: Dynamic Capabilities

EET: Evolutionary Economics Theory

EO: Entrepreneurship Orientation

ERP: Enterprise Resource Planning

EU: European Union

GDP: Gross Domestic Product

GHG: Greenhouse Emission Gases

IT: Information Technology

KAM: Kenya Association of Manufacturers

LMC: Large Manufacturing Companies

NSE: Nairobi Security Exchange

OLS: Ordinary Least Square

OPR: Ordered Probit Regression

OST Open Systems Theory

PLS: Partial Least Square

R&D: Research and Development

RBV: Resource Based View

ROA: Return on Assets

ROE: Return on Equity

ROS: Return on Sales

SAS: Statistical Analysis System

SBSC: Sustainable Balanced scorecard

SEM Structural Equation Modelling

SME: Small Medium Enterprise

SPSS: Statistical Package for Social Science

US: United States

USD: United States Dollar

VRIN: Valuable, Rare, Inimitable, Non-substitutable

VRIO Valuable, Rare, Inimitable, Organization

ABSTRACT

Strategic management is concerned with how firms develop and sustain competitive advantage. Performance being the ultimate goal depends on the sustenance of the competitive advantage in the end. Several theories have been brought forth to try to explain this phenomenon, but currently there still exist inconsistencies and studies done have been inconclusive. Since large manufacturing companies in Kenya have the same motivation of optimizing performance, they may use their varied dynamic capabilities to alter existing resource base to counter the ever-changing effects of environmental dynamism in order to achieve sustainable competitive advantage. This study conceptualized the relationship between organizational resources, environmental dynamism, dynamic capabilities and organizational performance of large manufacturing companies in Kenya. The study used a structured questionnaire to obtain data from managers of 56 large manufacturing companies listed in the Kenya Association of Manufacturers database of 2014, which were analyzed using descriptive and inferential statistics. It was observed that several factors influence performance, key among them being organizational resources. The study revealed that organizational resources have significant influence on organizational performance; organizational resources has significant influence on dynamic capabilities; the external dynamism has no significant moderating influence on the relationship between organization resources and dynamic capabilities. Dynamic capabilities have no significant intervening influence on the relationships between organizational resources and financial performance but have a significant intervening effect on the relationship between organizational resources and non-financial performance; the joint effect of organizational resources, dynamic capabilities and environmental dynamism on organizational performance is significantly different from the independent effect of each study variables. Theoretical implications of the study illustrate full support of the resource-based theory from dynamic capabilities, evolutionary theory from dynamic capabilities, stakeholders' theory from organizational performance, open system theory and contingency theory from environmental dynamism. Methodological implication show operationalization of the organizational resources as an independent variable, environmental dynamism as a moderating variable, dynamic capabilities as the mediating variable and organizational performance as the dependent variable. All the indicators were measured using Likert type scale. Managerial implication illustrate that organizations embrace the sustainable balanced scorecard performance measurement, employ organizational resources through altering the same using dynamic capabilities regardless of the degree of environmental dynamism. This study was able to confirm that the resource based theory; evolutionary economic theory and stakeholders' theory are relevant. It was also able to provide a link between the resources based view theory and the stakeholders' theory. However, the open system theory was not supported by the study. This study confirmed the relevance of using a cross sectional survey and regression analysis. Regression analysis was used to provide inferential statistics, while Pearson's correlation was found relevant in correlation of the variables. In terms of policy the study confirmed that resources could enhance the efficiency and effectiveness of the organizations to enhance performance by using dynamic capabilities it possess and ones it can acquire or shed-off. Organization can thus focus on resource integration and reconfiguration to achieve sustainable competitive advantage. Limitation of the study included first, unwillingness of respondents in participating in this study. Secondly, due to the varied locations of LMCs, several researchers were used. The study recommends future research on specific concepts on organizational resources and dynamic capabilities on how they alter the resource base using case studies and longitudinal studies with a focus on organizations that have fully embraced the sustainable balanced scorecard as a tool for measuring organization and performance.

CHAPTER ONE

INTRODUCTION

1.1 Background

Wernefelt (1984) suggested employment of organizational resources effectively could lead to organizational performance. Variability in organizational performance is a recurrent theme of great interest to both scholars and practitioners (Venkatraman and Ramanujam, 1986). The primary focus of strategic management as a body of knowledge is how organizations generate and sustain competitive advantage (SCA) (Ambrosini and Bowman, 2009). Debates about influence of resources on organizational performance is inconclusive given that some empirical and conceptual studies have yielded inconsistent results which were negative for tangible resources in changing and unpredictable environments (Poppo and Zenger 1995; Priem and Butler, 2001).

While some were positive (Ogendo, 2014; Ombaka, 2014; Ongeti, 2014) suggesting that other factors mediate or moderate to accelerate or decelerate the relationship. Therefore how organizational resources impact on performance could be subject to other factors such as environmental dynamism as well as the dynamic capabilities (Pearce, Robinson and Mital 2012; Machuki, 2011). There is however limited empirical evidence on the influence of environmental dynamism and dynamic capabilities on the interaction between organizational resources and organizational performance.

The theories of resource-based view (Wernefelt, 1984; Barney, 1991) anchor the concepts of organizational resources. Evolutionary economics theory (Nelson and Winter, 1982) anchors the concepts of dynamic capabilities, contingency theory (Woodward, 1965; Lawrence and Lorsch, 1967) and open systems theory (Burnes, 2004) anchors the concepts of environmental dynamism. Stakeholders' theory (Hubbard, 2009) anchors the concepts of organizational performance.

The Resource Based View (RBV) is an antecedent of the dynamic capabilities concept and seeks to explain organizational performance from effective employment of resources (Teece, Pisano and Shuen, 1997; Eisenhardt and Martin, 2000). Evolutionary economics theory, which underpins dynamic capabilities postulate that sustainable competitive edge which has a bearing on performance, is a function of the routines developed by organizations. Similarly open systems theory (Burnes, 2004) seeks to explain how exogenous factors influence organizational performance. In conclusion, contingency theory holds that performance is contingent to organizations' ability to create strategic fit with its environment (Woodard, 1965).

Resource based inquiries in the field of strategic management have focused on identifying resources that have the attributes that the resource based theory predicts will be important for firm performance and then examining whether the predicted performance exists (Barney and Clark, 2009). The RBV intends to explain the circumstances under which firms may achieve CA based on their possessed resources and capabilities (Baretto, 2010). However, the RBV is viewed essentially static in its nature and inadequate to explain firms' competitive advantage in changing environments (Priem and Butler, 2001). The dynamic capabilities framework has been suggested as mechanism for stimulating resources (Teece et al., 1997). This proposition is the motivation for carrying out this study in large manufacturing companies in Kenya to build up on empirical grounding.

This study seeks to throw more light on the relationship between resources and organizational performance. In doing so, it sets out to examine the interactions among resources, DCs, environmental dynamism and organizational performance. It proposes and tests a model, which assumes that resources have an influence on organizational performance with environmental dynamism and dynamic capabilities as the moderating and mediating variables respectively.

Helfat et al. (2007) posited that since dynamic capabilities concern a change involving altering the resource base of an organization, work on dynamic capabilities ties directly to the entire body of literature on the resource based view and the closely associated knowledge based view. Barney and Clark (2009) argued that RBV has the potential to generate more theoretical and empirical insights.

The large manufacturing companies (LMCs) in Kenya are involved in building, mining and construction; chemical and allied sector; energy, electrical and electronics; fresh produce; food, beverages and tobacco; leather and foot wear, metal and allied sector; motor vehicle and accessories; paper and board; pharmaceutical and medical equipment; plastics and rubber; textile and apparels; and timber, wood and furniture. The manufacturing sector contributes to the national development as it accounts for 10% of the Gross Domestic Product (GDP) in terms of creating employment and poverty eradication (Kenya Association of Manufacturers, 2012). The sector faces serious challenges related to environmental dynamism, which have a direct impact on performance. These challenges include high tax regimes, influx of cheap imports and fast changing lifestyles caused by technological advancements. Since organizations have specific dynamic capabilities which are different across the sector, the way they choose their strategic responses may be determined by the unique capabilities they possess that might account for variations in organizational performance. Therefore, dynamic capabilities can to integrate, build and reconfigure internal and external resources.

1.1.1 Organizational Performance

Organizational performance, which is a recurrent theme in management research, continues to be a contentious subject in terms of definition and measurement among researchers (Barney, 1991). Javier (2002) suggested that performance is equivalent to economy, efficiency, and effectiveness of a certain activity.

Daft (2000) defined organizational performance as "the organization's ability to attain its goals using its resources in an efficient and effective manner". These definitions and suggestions evaluate organizational performance as organizations' ability to maximize their strength, overcome their weaknesses and to neutralize their threats in order to take advantages of opportunities. Organization performance has also been constituted in terms of three different perspectives namely the goals approach (Etzioni, 1964), resource approach (Yuchtman and Seashore, 1967) and system approach (Steers, 1977).

Organizational performance is an important construct in strategic management (Combs, Crook and Shook, 2005). The main thrust of strategic management research is to increase the understanding about the determinants of organizational performance and how managers can create superior performance (Meyer, 1991; Combs et al., 2005), since variations exists on what constitute organizational performance (Ford and Schellenberg, 1982).

One perspective used the goal approach (Etzioni, 1964), which assumes that organizations pursue ultimate and identifiable goals and thus defines performance in terms of goal attainment. A different perspective of the system resource approach (Yuchtman and Seashore, 1967) stresses the relationship between the organization and its environment and thus defines performance in terms of the organization's ability to secure scarce and valued resources. Conversely, the process approach (Steers, 1977) defines performance in terms of the behaviour of the organization participants. Measuring performance remains contentious and has continues to elude academics and practitioners alike. Most strategic management studies have measured performance using conventional measures of economic prosperity based on the shareholders approach. The two popular measures related to economic prosperity of performance are return on assets and growth in sales.

Obtaining an accurate measure of performance is often a problem without taking cognizance of non-financial and less tangible measures such environmental integrity and social equity (Kaplan & Norton, 1992; Hubbard, 2009). According to Hubbard (2009), measurement of performance has evolved over time from outdated financial measures (March and Sutton, 1997) which focused exclusively on the shareholder to stakeholder based approaches including the sustainable balanced score card (Kaplan and Norton, 1992) and triple bottom line approach (Elkington, 1997).

The growing importance of satisfying all the stakeholders has led to the development of Sustainable Balanced Score Card (SBSC) and triple bottom line as all-inclusive measures of organizational performance (Hubbard, 2009; Elkington, 1997). The SBSC encompasses six measurements of organizational performance. They include financial, customer, internal business processes, organizational learning, environmental integrity and social equity (Hubbard, 2009) which is broadly categorized as measures on economic prosperity, environmental integrity and social equity (Hubbard, 2009)

1.1.2 Organizational Resources

Organizational resources refers to assets or inputs (tangible or intangible) acquired, controlled or accessed to on a short-term basis (Helfat and Peteraf, 2003; Grant and Jordan, 2012). These are the primary source of organizational superior performance. They include tangible, intangible and human resources (Teece et al, 1997; Helfat and Peteraf, 2003). Other scholars such as Pearce et al, (2012) consider organizational capabilities to be part of organizational resources. The tangible resources include finances and capital equipment. The intangible resources include patents, brands, capabilities, organizational processes, firm attributes, information, and knowledge including patents and intellectual property among others.

Human resources comprises of the expertise, skills and effort offered by employees (Thompson et al, 2013). The RBV perspective makes two assumptions, namely that the resources are heterogeneous among firms and that they are imperfectly immobile (Wernefelt, 1984; Barney, 1991). Barney (1991) argued that firms that possessed resources that were valuable and rare, would attain a competitive advantage and enjoy improved performance in the short term. However, he further contends that in order for a firm to sustain these advantages over time its resources must also be inimitable and non-substitutable. Organizational resources can enhance firm performance if well utilized, managed and controlled (Pearce, Robinson and Mital, 2012). Organizational capabilities are different from dynamic capabilities because the former are part of resources while the latter are as second order (Zollo and Winter, 1983).

1.1.3 Environmental Dynamism

Dess and Beard (1984) defined environmental dynamism as the "speed of change and the degree of instability in the environment". All companies operate in a macro-environment shaped by dictates emanating from general conditions which are demographics, societal values and lifestyles, legislation and regulations, technology and industry and competitive environment in which the company operates (Thompson, Strickland and Gamble, 2010). Pearce and Robson (2008), identifies the immediate external environment as competitors, suppliers, increasing scarce resources, governments, and customers whose preferences often shift inexplicably. Hitt, Ireland and Hoskisson (2005) recognized two primary drivers and argued that they are the emergence of the global economy and technology, specifically rapid technological change. The global economy significantly expands and complicates a firm's competitive environment (McKendrick, 2001).

Hitt et al. (2005) recognizes three categories through which technology is significantly altering the nature of competition. These are increasing rate of technological change and diffusion, the development of disruptive technologies that destroy the value of existing technology to create new markets and information age ((Gilbert, 2003). Hitt et al (2005) acknowledged increased knowledge intensity as the third factor and that knowledge is the basis of technology and its application.

1.1.4 Dynamic Capabilities

Teece et al. (1997) defined dynamic capabilities as "the firm's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments". Teece et al. (1997) drew elements of this approach from Penrose (1959), Nelson and Winter (1982), and in Prahalad and Hamel (1990). There is a general agreement on how dynamic capabilities manifest themselves. Some scholars argue that dynamic capabilities integrate and reconfigure internal and external competences (Teece et al, 1997), while others have proposed that they integrate, reconfigure, gain and release resources (Eisenhardt and Martin, 2000).

Zollo and Winter (2002) propose that dynamic capabilities evolve through a learning process and that they modify operational routines, while Adner and Helfat (2003) posit that some capabilities are used by managers to build, integrate, and reconfigure organizational resources and competences. Scholars have varied opinions about the nature of dynamic capabilities for example some of them have suggested that they are firm's ability (Teece et al., 1997) or processes embedded in firms (Eisenhardt and Martin, 2000) and they are a set of complicated routines (Zollo and Winter, 2002). Wang and Ahmed (2007) brought forth the argument that dynamic capabilities embed in processes. According to Protogerou et al. (2011), dynamic capabilities are the tools that allow firms to continually build and renovate operational capabilities faster and cheaper than competitors.

1.1.5 Linkages of the Key Variables of the Study

Barney and Clarke (2009) posit that a resource that is currently valuable, rare and costly to imitate does not mean that it will always stay so. The RBV perspective only holds as long as there are no Schumpeterian shocks in an industry (Barney, 1991; Schumpeter, 1934). Various scholars (Teece et al., 1997; Eisenhardt and Martin, 2000) have equated these Schumpeterian shocks to environmental dynamism.

Teece et al (1997) proposed the dynamic capabilities as means of altering the resource base in order to create sustainable competitive advantage and subsequently a means of achieving organization performance in regimes of dynamic market environments. Eisenhardt and Martin (2000) argue that while some resource configurations do lead to long-term CA, this can be rare to achieve in dynamic markets. They further argue that dynamic capabilities are "mechanisms that manipulate resource configurations to achieve long-term competitive advantage more frequently in dynamic markets".

DCs can build new resource orientations and move into fresh competitive positions using a path breaking strategic logic of change. Eisenhardt and Martin (2000) posit however that in high velocity markets, managers must cope with the external challenges of competition. Wang and Ahmed (2007) asserted this thinking by bringing forth the argument those resources could be a source of competitive advantage when demonstrating the (Valuable, Rare, Inimitable and Nonsubstitutable (VRIN) traits. However, in dynamic market environments, VRIN resources do not persist and hence cannot be a source of SCA. Use of dynamic capabilities is therefore likely to result in improved performance when organizations demonstrate the ability to deploy resources to attain desired goals.

Although resources are expected to have an effect on organizational performance, dynamic capabilities and external dynamisms are expected to influence the relationship between organizational resources and organizational performance. External dynamism is expected to have an effect on the relationship between resources and dynamic capabilities. Dynamic capabilities is expected to be present between the time resources are operational to the time they affect organizational performance.

1.1.6 Manufacturing Sector in Kenya

Manufacturing sector in Kenya is important to the economy as it accounts for about 10% of the Gross Domestic Product (GDP) (KAM, 2013). The sector currently employs over 300,000 people representing 13 percent of the total population in employment. The sector is earmarked to play a key role in the economic growth towards the attainment of Vision 2030 (KAM, 2012). The sector's contribution to the GDP stagnated at 10% since 2007 and dropped to 9.4% in 2011. Vision 2030 policy framework intends to develop a vibrant manufacturing sector capable of promoting durable, decent and productive employment opportunities, stimulating economic growth and strengthening linkages between small, medium and large-scale firms (KAM, 2012). However, despite the fact that different players in the sector face similar environmental challenges, variations in performance may exists which could be due to how their dynamic capabilities influence their existing resources.

1.1.7 Large Manufacturing Companies in Kenya

Manufacturing firms can be classified into small, medium and large depending on number of employees (Murgor, 2014), capital employed (Sawyer, 1985), and turnover (KAM, 2014). Chindia (2013) posited that in the United States (US), a large manufacturing company has over 1000 employees while the European Union (EU) considers the same number of employees together with a turnover of €50 million for a

large manufacturing company. In Japan and Canada, he further argues that a company is large if it employs between 300 and 500 people respectively. India defines the sizes of its industry by level of investment in equipment amounting to USD 2 M.

Ghana and South Africa define their large manufacturing companies as having at least 100 and 200 employees respectively. According to the KAM directory of 2013, large-scale manufacturing firms have more than 100 employees, medium firms have from 51 to 100 employees and small firms have from 11 to 50 employees.

According to KAM members' electronic database of 2014, companies have been categorized in terms of turnover. Small-scale manufacturing companies have a turnover of Kshs. 50 to 150 million per annum, while medium scale manufacturing companies have a turnover of Kshs. 151 to 250 million per annum and LMCs have a turnover of above Kshs. 251 million. The sector has not performed as expected due to factors beyond its control. Such include high costs of doing business, limited access to finance, limited research and development, poor institutional framework and inadequate managerial and entrepreneurial skills (KAM, 2012). The inability to access adequate financial resources denies the industries an opportunity to attract and retain qualified work force, which has a bearing on creating unique dynamic capabilities. The sector faces serious challenges related to environmental dynamism, which have a direct impact on their performance.

These challenges include high tax regimes, influx of cheap imports, and fast changing lifestyles due to technological advancement (KAM, 2012). This is compounded by low capital injection, use of obsolete technologies, environmental degradation that is the main source of raw materials, political volatility and changing legal systems. Other factors are exchange rates, high cost of imported raw materials, policy uncertainty as well as unclear and unpredictable polices.

1.2 Research Problem

The debate on the relationship between of organizational resources on organizational performance is inconclusive given that some empirical and conceptual studies have yielded inconsistent results of which some are have established negative tangible resources in changing and unpredictable environments (Poppo and Zenger 1995; Priem and Butler, 2001; Ombaka, 2014). Dynamic capabilities integrate and reconfigure internal and external competences (Teece et al, 1997).

Environmental dynamism is the rate of change and the degree of instability in the environment (Dess and Beard 1984). Sustainable advantage requires more than ownership of resources (Teece, 2009) especially in fast moving environments that are unique and difficult to replicate. This applies especially when the dynamic capabilities affect the long-term performance of organizations and are determined by the external environment. Organizational performance, which is a recurrent theme in management research, continues to be a contentious subject in terms of definition and measurement among researchers (Barney, 1991). While some studies have established the relationship between resources (Collis, 1991; Ogendo, 2014; Ombaka, 2014), there is however, some studies that generate results that are inconsistent with resource based expectations (Poppo and Zenger 1995) and that other factors like environmental conditions and dynamic capabilities influence the relationship between resources and organizations performance (Teece et al., 1997).

Teece et al. (1997), Wang and Ahmed (2007), Ambrosini, and Bowman (2009) conducted analyses on RBV, dynamic capabilities and strategic management. Eisenhardt and Martin (2000) sought to extend their understanding of DCs and in so doing enhance RBV. The conceptual, methodological and contextual gaps envelop the influence of dynamic capabilities and environmental dynamism on the relationship between organizational resources and performance.

Organizational resources are among the ways through which organizations achieve their goals. Usually, an organization resource in organizations can affect performance. However, this effect would be subject to an organization's dynamic capabilities and environmental dynamism.

There are studies that have focused on concepts of organizational capabilities, competitive advantage and performance (Tuan and Yoshi, 2010), dynamic capabilities, environmental dynamism and performance (Schilke, 2014), core competences, core capabilities, strategy implementation and corporate performance (Awino, 2007) and external environment, strategy co-alignment, firm level institution and corporate performance (Machuki, 2011).

Other studies considered organizational resources, corporate governance structures and performance (Ongeti, 2014) external environment, firm capabilities, strategic responses and performance (Murgor, 2014). Yet more studies considered strategic alliance and performance (Jubar et al., 2011), managerial capabilities, organizational culture and performance (Lo, 2012), core competencies and performance (Jabbouri and Zahari, 2014), organizational resources, external environment, innovation and performance (Ombaka, 2014).

The conceptual gap that this study will fill from the previously mentioned studies is the relationship between resources, environmental dynamism, dynamic capabilities and organizational performance. Empirical studies in Kenya that have considered large manufacturing companies (Awino, 2007; Magutu, 2013; Murgor, 2014) have the basis of selection on the number of employees instead of turnover. Other studies have concentrated mainly on the companies listed in the Nairobi Securities Exchange (Ogendo, 2014).

Those companies are members of different industry sector with varied focus, which can inhibit generalization. International empirical studies focused on Chinese lodging industry (Lo, 2012), Malaysian manufacturers (Jubar et al., 2011), chemicals, machinery, and motor vehicle industries in the US (Schilke, 2014) and large and medium sized Greek firms (Protogerou et al., 2011).

This study fills the contextual gap of Kenyan and international empirical studies that have not conducted research on the influence of dynamic capabilities and environmental dynamism on the relationship between organizational resources and organizational performance for LMCs in Kenya. Most of these studies did not have a component of the social and environmental perspectives in measuring organizational performance and only considered the balanced scorecard (Ongeti, 2014; Ogendo, 2014; Jabbouri and Zahari, 2014), strategic and financial performance (Protogerou, 2011; Lo, 2012) and only financial performance (Tuan and Yoshi, 2010). Contextually this study will assist large manufacturing companies to able to create sustainable competitive advantage in order to enhance wealth creation, employment generation and poverty alleviation.

Methodologically some studies have either been conceptual (Helfat and Peteraf, 2014) or used selected measures for the variables (Protogerou et al., 2011; Lo, 2012; Jubar et al., 2011). While these studies (Awino, 2007; Tuan and Yoshi, 2010; Machuki, 2011; Ongeti, 2014; Murgor, 2014) had performance as the dependent variable their independent, moderating and intervening variables were different.

This study will fill the methodological gap by focusing on organizational resources as the independent variable, DCs as intervening variable, environmental dynamism as moderating variable and organizational performance as dependent variable.

From the empirical studies on resources, the relationship between resources, environmental dynamism, dynamic capabilities and performance have been inconclusive. This prompted the need to conduct this research on the relationship between organizational resources, environmental dynamism, dynamic capabilities and organizational performance. What is the influence of dynamic capabilities and environmental dynamism on the relationship between organizational resources and organizational performance of large manufacturing companies in Kenya?

1.3 Research Objectives

The general objective of this study was to determine the effect of dynamic capabilities and environmental dynamism on the relationship between organizational resources and performance of the large manufacturing companies in Kenya.

The specific objectives were:

i. To determine the effect of organizational resources on performance of large manufacturing companies in Kenya.
ii. To determine the effect of organizational resources on dynamic capabilities of large manufacturing companies in Kenya.
iii. To establish the effect of environmental dynamism on the relationship between organizational resources and dynamic capabilities of large manufacturing companies in Kenya.
iv. To assess the effect of dynamic capabilities on the relationship between organizational resources and performance of large manufacturing companies in Kenya.
v. To determine the difference between the joint effect of organizational resources, environment dynamism and dynamic capabilities from their

individual influence on the performance of large manufacturing companies in Kenya.

1.4 Value of the Study

This study adds value in the areas of theory, practice and policy development. From the theoretical perspective, the study has enhanced the resource-based theory, evolutionary economics theory, contingency theory, open system theory and specifically the dynamic capabilities perspective thus making it more acceptable. The study has enhanced the thinking of most proponents of the DC perspective that in rapidly changing environments resources cannot remain static and still valuable.

The study relates the theory of resource based perspective and performance, resources and dynamic capabilities, environmental dynamism and dynamic capabilities, dynamic capabilities and organizational performance and provides the relevant contribution to these theories.

Policy development may involve enhancing resources and capabilities in relation to the environmental turbulences that organizations face. For example, large manufacturing firms can recruit talent based on opportunities and threats that exist and reconfigure available resources in line with these environmental changes. Lastly, the organization can also shed resources that inhibit the strategic stretches that might be required in these rapidly changing environments.

This study may contribute immensely to management practice in line with the main motivation in the field of strategic management, which is to enhance the understanding on how firms and managers can generate and sustain competitive advantage using dynamic capabilities in influencing organizational resources.

1.5 Structure of the Thesis

The first chapter provides the background of the thesis, the research problem, the research objectives and the value of the study. The background elaborates the conceptual, theoretical and contextual argument of study. The research problem brought forth the gaps that were used to provide the objectives and the value of the study. Chapter two deals with the literature review.

The literature review has provided for the underpinning theories of this study and the relationship of the objectives in the study through conceptual and theoretical reviews, conceptual framework and model and a listing of the conceptual hypotheses that guide the research. Chapter 3 has explained the research methodology used in the study, which includes the research philosophy, research design, population, and data collection methods.

Also provided in the same chapter are operationalization of the variables, reliability and validity tests and data analysis. Chapter 4 has provided for response rate, organizational demographics, designation of respondents, work experience, preliminary findings, and tests of hypotheses and interpretation of results. Chapter 5 has presented the discussion on the findings. It entails the discussion of the relations of the specific objectives by explaining the results and comparing the same with literature review. Chapter 6 presents the summary, conclusions and recommendations followed by references and finally the appendices.

1.6 Chapter Summary

The chapter includes the background of the study, the research problem and the research objectives. Subsequently it was therefore possible to clarify on the value of the study and affirm the thesis. The background provided an explanation on the conceptual, theoretical and contextual argument of the study. The research problem has explained the motivation of the study and identified the gaps that informed the objectives of the study. The research objectives include the main and the specific objectives. The value of the study section includes the theoretical, policy and practices aspects.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the literature review that is relevant to the study. It focuses on the theoretical, conceptual and empirical literature along the study objectives. It will evaluate the theoretical underpinnings of the study. The first part focuses on the theories of organizational resources, environmental dynamism, capabilities, and Performance. The second part is a review of the research work done in these areas, and identification of gaps. At the end of the chapter, a conceptual framework to guide the study, hypothesis and knowledge gaps are included.

2.2 Theoretical Foundation

The theoretical foundation is based on the resource based view (Barney, 1991), evolutionary economics theory (Nelson and Winter, 1982), open systems theory (Burnes, 2004), contingency theory (Woodward, 1965) and stakeholders' theory (Kaplan and Norton, 1992; Hubbard, 2009). The resource-based view anchors the concept of organizational resources while the evolutionary economics theory anchors the concept of dynamic capabilities. The open systems theory and contingency theory anchor the concept of environmental dynamism while the stakeholders' theory is anchors on the concept of organizational performance. The resource-based view theory explains organizational performance as a function of organizational resources (Wernerfelt, 1984).

Its imputed logic is that, if an organization has to achieve a state of Sustainable Competitive Advantage (SCA), it must acquire and control VRIN resources. In the same element, successful organizations find their future competitiveness on the development of distinctive and unique capabilities (Teece, 1997).

Similarly, evolutionary economics theory upon which organizational performance anchors on, explains organizational performance as routines, which develop overtime. In the face of competition, some of these routines are more efficient and effective (Nelson and Winter, 1982). The least efficient and effective routines are either released or moulded while the most efficient and effective routines generate CA for firms.

The environment-organization interface relates to the open systems theory. The open systems theory opines that as firms conduct their businesses, they are subject to occurrences and changes in their external environment (Ansoff and McDonell, 1990). This is consistent with Ansoff and Sullivan (1993) assertion that organizations are environment serving and dependent and must therefore adapt or create a strategic fit with their environment if they are to remain viable (Duncan, 1972a).

Proponents of contingency theory postulated that organizations are subject to environmental dynamism and uncertainty. The appropriateness of any strategy depends on the competitive setting of businesses (Woodard, 1965). The theory further advanced the idea aligning organizational resources with environmental opportunities and threats. Dynamic capabilities can therefore be used to integrate reconfigure, gain and release organizational resources in regimes of rapidly changing environments and thus become a source of sustained competitive advantage, which has a bearing on organizational performance (Teece et al., 1997; Eisenhardt and Martin, 2000).

2.2.1 The Resource Based View

Resource based theory supports the concept of resources (Wernefelt, 1984). Barney (1991) first formalized the term RBV perspective into a theoretical framework while clarifying the understanding of the impact of a firm's environment on firm performance (Newbert, 2007).

Barney 1991 defined resources as "assets, capabilities, processes, firm attributes, information and knowledge controlled by a firm that enable the firm to conceive and implement strategies that improve its efficiency and effectiveness". Amit and Schoemaker (1993) placed firm resources into three different categories namely physical capital resources, human capital resources and organizational capital resources. The RBV theory makes two assumptions, which conjointly allow for differences in firm resources endowments to both exist and persist over time (Newbert, 2007). First that resources are heterogeneous distributed among firms across firms and secondly that these resources are imperfectly mobile (Barney, 1991).

Barney (1991) argued that firms that possessed resources that were valuable and rare would attain competitive advantage and enjoyed improved performance in the short term. While drawing from Dierickx and Cool (1989) he posited that in order for a firm to sustain these advantages over time its resources must be inimitable and non-substitutable. Critiques have faulted the RBV theory to be static in nature and lacking in empirical scrutiny (Priem and Butler, 2001). To address this discrepancy several scholars have suggested links between resource possession and exploitation (Mahoney and Pandian, 1992). They argued that a firm might achieve rents not because it has better resources, but rather that the firm's distinctive competence involves making better use of its resources.

Two theoretical approaches have been brought forth to compliment RBV. The first was Valuable, Rare, Inimitable and Organization (VRIO) framework, which postulates that in addition to simply possessing valuable, rare and inimitable and non-substitutable resources, a firm also needed to be organized in such a manner that it could fully exploit the full potential of those resources to attain a competitive advantage (Barney, 1997).

Secondly Teece et al. (1997) proposed the dynamic capabilities perspective to explain how combinations of competences can be developed, deployed and protected (Newbert, 2007).

2.2.2 The Evolutionary Economic Theory

The concept of dynamic capabilities is supported by the evolutionary economics theory (Nelson and Winter (1982). Nelson and Winter (1982) can be perhaps be credited for developing the evolutionary economic theory and their motivation was on the need to explain a wide range of phenomena associated with economic change stemming either from shifts in product demand or factor supply conditions, or from innovation in parts of the firm. The different aspects on economic change included the response of firms and the industry to changed market conditions, economic growth and competition through innovation.

Nelson and Winter (1982) proposed organizational routine for all regular and predictable behavioral patterns of firms and defined routine as "a repetitive pattern of activity in an entire organization, to an individual skill, or to smooth uneventful effectiveness of such an organizational or individual performance". They propose organizational routines to include characteristics of firms that range from technical routines for production, through hiring and firing procedures, ordering inventory, or stepping up production of items in demand, to policies regarding investment, research and development (R&D), or advertising, and business strategies about product diversification and overseas investment.

Becker (2004) identified four activities that routines can allow organizations to do. Primarily routines enable coordination. Secondly, routines provide some degree of stability of behaviour. Thirdly, tasks become routine in the realm of sub-consciousness,

thereby economizing on limited cognitive resources. Fourthly, routine bind knowledge, including tacit knowledge and thus the application of knowledge enable routines to become building blocks of organizational capabilities (Winter, 2003).

2.2.3 Contingency Theory

Contingency theory supports the concept of environmental dynamism (Lawrence and Lorsch, 1967). The basic assertion of the contingency theory is that the environment in which the organization operates determines the best way for it to organize. Dess and Beard (1984) argued that environmental dynamism deals with absence of pattern and unpredictability, which distinguish between rate of change and the unpredictability of environmental change. Porters (1980) five forces model of industrial economics provided the dimensions for threats of new entrants, competition among rivals, exit barriers, relative power of buyers and suppliers of the firm.

Eisenhardt and Martin (2000) defined environmental dynamism in terms of either moderately dynamic markets or high velocity markets. They argued that moderately dynamic markets are ones in which change occurs frequently but follow predictable and linear paths. In contrast, they argued, when markets are very dynamic changes become nonlinear and less predictable.

2.2.4 Open System Theory

Environmental dynamism and dynamic capabilities are further supported by the open system theory. The open system theory sees organizations as composed of a number of interconnected sub-systems (Burnes, 2004). It follows that any change to one part of the system will have an impact on other parts of the system, and in turn, on its overall performance (Scott, 1987). The open system theory does not just see organizations as systems in isolation, however; they are ‘open’ systems. Organizations are seen as open

systems in that they are open to, interact with, their external environment and that they are open internally: the various sub-systems interact with each other. Therefore, changes internally in one are affect other areas, and in turn have an impact on the external environment and vice-versa (Buckley, 1968).

The purpose of the Open Systems approach is to structure functions of a business in such a manner that, through clearly defined lines of coordination and interdependence, such that organizations pursue the overall business objectives collectively. The emphasis is on achieving holistic synergy, rather than on optimizing the performance of any one individual part (Mullins, 1989).

2.2.5 Stakeholders Theory

Stakeholders' theory supports the concept of organizational performance (Hubbard, 2009). According to Hubbard (2009), stakeholder theory assesses organizational performance against the expectations of a variety of stakeholders groups that have particular interests in the effects of the organization's activities. Stakeholders'' theory is the basis of the Balanced Scorecard (BSC) performance measurement system by Kaplan and Norton (1992) and its successor Sustainable Balanced Scorecard (Hubbard, 2009). Kaplan and Norton (1992) argued that most strategic plans were unbalanced because one stakeholder group namely the stockholders were overemphasized. The BSC incorporates financial, customer/market, short-term and long-term learning and development factors.

Financial measures include traditional indicators such as cash flow, sales, and return on investments. Business processes include support activities such as order processing (Borror, 2009). Customer measures may include trends in customer satisfaction or average wait times on telephone hot lines. The learning and growth perspective

recognizes the human element in an organization and looks at softer measures such as participation in suggestion programs and training. The BSC provides a framework to translate the strategic plan into specific tasks that frontline employees manage (Borror, 2009. On the other hand, sustainable balanced scorecard has additional measures on social and environmental issues that consider organizational sustainability (Hubbard, 2009). The emergence of concepts such as sustainable development and sustainability has caused a paradigm shift in how organizations measure performance.

The concept of sustainability has implication for business strategy, which in turn affects firm performance, and organizations need to consider this concept as an opportunity for competitive advantage as opposed to it simply being a compliance issue or a cost minimization exercise.

2.3 Organizational Resources and Organizational Performance

Amit and Schoemaker (1993) defined strategic assets as "the set of difficult to trade and imitate scarce, appropriable and specialized resources and capabilities that bestow a firm's competitive advantage". Thus, firms' are expected conduct an analysis on their resources, capabilities to ascertain which of these are competitively valuable, and to what extent they can support their quest for sustainable competitive advantage over market rivals (Barney, 1991). If this advantage proves durable despite the best effort of competitor to overcome it, the organization will have competitive advantage.

RBV assumes that a firm is bundles of resources. The previously mentioned resources are distributed heterogeneously firms and that the resource differences persist over time (Amit and Schoemaker, 1993; Wernefelt, 1984; Penrose 1959). When these resources are VRIN, firms are able to achieve and sustain competitive advantage, which will lead to organizational performance. Thus, we can a make a proposition that organization resources have a significant influence on organizational performance.

2.4 Organizational Resources and Dynamic Capabilities

While building on earlier literature, Helfat et al (2007) defined dynamic capability "as the capacity of an organization to purposefully create and extend, or modify the resource base". In the term 'resource base', they considered tangible, intangible, and human assets (or resources) as well as capabilities, which the organization owns, controls, or have access to on a preferential basis. Helfat et al (2007) argued that while this might appear to be a contradiction, there are many instances that one dynamic capability may alter another.

For example, learning frequency may help to extend or modify dynamic as well as operational capabilities of all types while managerial capabilities can create, modify, and extend many types of capabilities such as those for innovation, acquisition, and alliance. Makadok (2001) identified two distinct mechanisms – resource picking and capacity building for understanding how managers create economic rents for their firms. The former mechanism they argued asserts that firms create economic rent by being more effective among rivals at selecting resources.

The latter mechanisms assert that firms create economic rent by being more effective than their rivals at deploying resources are. In his study, Makadok (2001) using a model, was able to predict that the two rent creation mechanisms are complementary in some circumstances but substitutes in others. The scholar was able to relate the resource-picking mechanisms to resources and capacity building to dynamic capabilities. This leads to the proposition that organizational resources have an effect on dynamic capabilities.

2.5 Organizational Resources, Dynamic Capabilities and Environmental Dynamism

Eisenhardt and Martin (2000) posit that the effective capabilities depend upon market dynamism and that dynamic capabilities vary on their reliance on existing knowledge. Moderately dynamic markets are the ones in which change occurs frequently, but along predictable and linear paths, have relatively stable industry structures.

Organizations can develop processes that are predictable and relatively stable with linear steps, beginning with analysis and ending with implementation (Helfat, 1997). In contrast, Eisenhardt and Martin (2000) further argued when markets are very dynamic change becomes nonlinear and less predictable (Eisenhardt, 1989). In these markets, dynamic capabilities necessarily are much less on existing knowledge and much more on rapidly creating situation-specific new knowledge. Existing knowledge can even be a disadvantage if managers over generalize from past situations (Argote, 1999).

Zahra, Sapienza and Davidsson (2006) argued that dynamic capabilities might be most valuable when the external environment is changing rapidly and unpredictably. However, a volatile or changing environment is not necessary component of dynamic capability thus a firm's capability may still be dynamic even if the environment is not very volatile. Thus the proposition that environmental dynamism has a moderating influence on the relationship between organizational resources and dynamic capabilities,

2.6 Organizational Resources, Dynamic Capabilities and Organizational Performance

Resources and capabilities require more than difficult to imitate assets in regimes of rapidly changing environments. Teece (2007) argued that in fast moving business environments sustainable advantage requires unique and difficult to replicate dynamic

capabilities. Harmlessly these capabilities can continuously create, extend, upgrade, protect, and keep relevant the enterprise's unique asset base. To identify and shape opportunities, they argued that enterprises must constantly, scan, search and explore across technologies and markets, both local and distant (Nelson and Winter, 1982). Teece (2007) argued that the shaping opportunities could lead to enterprise growth and profitability, which will lead to augmentation of enterprise level resources and assets. Success will cause the enterprise to evolve in a path dependent way.

Teece (2007) therefore argued that a key to sustained profitable growth is the ability to recombine and to reconfigure assets and organizational structures. Wang and Ahmed (2007) posit that resources are the foundation of a firm and the basis for capabilities and they can be a source of competitive advantage when demonstrating VRIN traits. However, in dynamic market environments, VRIN resources do not persist over time and hence cannot be a source of SCA. This results in the proposition that dynamic capabilities have mediating effect on the relationship between organizational resources and organizational performance.

2.7 Organizational Resources, Environmental Dynamism, Dynamic Capabilities and Organizational Performance

Eisenhardt and Martin (2000) argued that the value of DCs for competitive advantage lies in the resource configurations that they create. They posit that DCs are necessary, but not sufficient conditions for competitive advantage. They also argued that dynamic capabilities could be used to enhance existing resource configurations in the pursuit of long-term competitive advantage and to build new resource configurations in the pursuit of temporary advantages.

They further suggest that RBV breaks down in highly dynamic markets, where the strategic challenge is maintaining competitive advantage when the duration of that advantage is inherently unpredictable, where time is an essential aspect of strategy, and the dynamic capabilities that drive competitive advantage are themselves unstable processes that are challenging to sustain. Hence, dynamic capabilities emphasize a firm's constant pursuit of the renewal, reconfiguration and re-creation of resources, capabilities and core capabilities to address the environmental change.

Thus, they contended that dynamic capabilities are the 'ultimate' organizational resources that are conducive to long-term performance, rather than simply a 'subset' of the capabilities. This leads to the proposition that organizational resources, dynamic capabilities and environmental dynamism have a joint effect on organizational performance.

2.8 Knowledge and Research Gaps

Table 2.1 provides a summary of the conceptual and empirical studies that were reviewed. Information provided include the methodologies used in the studies, findings and the gaps, which can inform future studies.

Table 2.1: Summary Knowledge Gaps

Researcher(s)	Focus of the Study	Methodology	Findings	Knowledge Gaps and Focus of the Current Study
Aminu and Mahmood (2015)	Mediating Role of Dynamic Capabilities on the Relationship between Intellectual Capital and Performance: A Hierarchical Component Model Perspective in PLS-SEM Path Modeling	This involved a cross sectional survey on 124 manufacturing enterprises in Nigeria and analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM).	There is a positive relationship between all the dimensions of intellectual capital and DCs and DCs mediate the relationship between intellectual capital and performance.	This study was specific to intellectual capital as the independent variable instead of resources. This has been addressed by objective (i).
Schilke (2014)	On the contingent value of Dynamic capabilities for competitive advantage: The nonlinear moderating effect of environmental dynamism	The study used cross sectional survey on firms in the chemicals, machinery and motor vehicle industries in Germany and applied OLS regression.	Dynamic capabilities relate to competitive advantage in moderately dynamic than in stable or highly dynamic environments.	The study considered dynamic capabilities as the independent variable and not resources. This has been addressed by objective (i).
Li and Liu (2014)	Dynamic capabilities, environmental dynamism and competitive advantage: Evidence from China	This study used cross sectional survey on 217 enterprises in China using regression analysis	Dynamic capabilities significantly affect competitive advantage, and environmental dynamism is a driver rather than a moderator	The study considered dynamic capabilities as the independent variable and not resources. This has been addressed by objective (i).

Source: Various Secondary Literature (2015)

Table 2.1:Cont'd

Camisor and Villar-Lopez (2014)	Organizational innovation as enabler of technological innovation capabilities and firm performance	This study used cross sectional survey on 144 Spanish industrial firms using regression analysis	Organizational innovation supports the development of technological innovation capabilities and that both organizational innovation and technological capabilities for products and processes can lead to superior firm performance.	The study considered technological innovation capabilities as the independent variable and not resources. This has been addressed by objective (i).
Ongeti (2014)	Organizational resources, corporate governance and performance of Kenya state corporations.	This study used descriptive cross sectional survey design using hierarchical regression for data analysis.	Corporate governance structures have no moderating effect on the relationship between organizational resources and performance.	The conceptual gap is the consideration of dynamic capabilities and environment dynamism as the mediating and moderating variables respectively. This has been be addressed by objectives (ii) and (iii).
Murgor (2014)	External environment, firm capabilities, strategic responses and performance of large manufacturing firms in Kenya.	This study used descriptive cross sectional survey hierarchical multiple regression for data analysis.	External environment, firm capabilities and strategic responses independently contribute to firm performance than their joint effects.	This study considered external environment as the independent variable and not resources. It also considered firm capabilities as the moderating variable instead of a mediating variable. This has been addressed by objectives (i) and (ii).
Ombaka (2014)	Resources, external environment, innovation and performance of insurance companies in Kenya	Descriptive cross sectional survey, multiple regression analyses	External environment does moderate the relationship between resources and performance. Resources have a significant influence on performance	The conceptual gap is the consideration of dynamic capabilities. It also considered the whole environment.

Source: Various Secondary Literature (2015)

Table 2.1:Cont'd

				This has been be addressed by objectives (ii) and (iii).
Jabbouri and Zahari (2014)	Role of core competencies on organizational performance: An empirical study in the Iraqi private banking sector	This study used a descriptive statistical research. T-test, mean, simple regression coefficient, Friedman, coefficient of variation and simple linear correlation coefficient were used for data analysis	The results showed that there is a significant correlation among core competences and organizational performance.	The methodological gap is environment dynamism and dynamic capabilities as moderating and mediating effects respectively. This has been be addressed by objectives (ii) and (iii).
Nedzinskas et al. (2013)	The impact of dynamic capabilities on SME performance in a volatile environment as moderated by organizational inertia	This study involved a survey in a population of 4,531 Lithuanian SME companies and data was analysed using regression analysis.	This study reveals that DCs have effects on non-financial relative organizational performance, but no impact on financial relative organizational performance. Also organizational inertia moderates the relationship between dynamic capabilities and relative organizational performance.	The study considered dynamic capabilities as the independent variable and not resources. This has been addressed by objective (i).
Lee and Chu (2013)	How entrepreneurial orientation, environmental dynamism, and resource rareness influence firm performance.	Data was collected via a secondary database and a questionnaire survey from 237 public firms in Taiwan,	This study finds that EO positively influences firm performance, the EO–performance relationship is further moderated by the rareness of resource–capability combinations and environmental dynamism and firm performance is collectively determined by the three-way interactions of EO, rareness, and environmental dynamism.	This study uses entrepreneurial orientation as the independent variable instead of resources. This has been addressed by objective (i).
Lo (2012)	Managerial capabilities, organizational culture	The study applied census sampling in two North-East cities in China and utilized	The study established that managerial capabilities and organizational culture have no	The conceptual gap is the examination of dynamic capabilities and

Source: Literature Review (2015)

Table 2.1:Cont'd

	and organizational performance: The resource-based perspective in Chinese lodging industries	Structural Equation Modelling (SEM) for data analysis	impact on its financial performance but managerial capabilities have significant impacts on customer satisfaction.	environment dynamism as the mediating and moderating variables respectively. This has been be addressed by objectives (ii) and (iii).
Jabar et al. (2011)	Enhancing organizational performance through strategic technology alliances: A study on Malaysian Manufacturers	This study utilized a large scale survey and used Structural Equation Modelling (SEM) for data analysis	The study established that Malaysian manufacturers need to increase their efforts in increasing internal resources that are source of competitive advantage in order to achieve superior performance.	The conceptual gap is the examination of dynamic capabilities and environment dynamism as the mediating and moderating variables respectively. This has been be addressed by objectives (ii) and (iii).
Machuki (2011)	External environment – strategy co-alignment, firm level institutions and performance of publicly quoted companies in Kenya	Descriptive cross sectional survey design using multiple regression for data analysis	The results for the effect of external environment on corporate performance were statistically not significant.	The methodological gap is the consideration of external environment as the independent variable and not as a moderating variable. This has been be addressed by objective (ii).
Tuan and Yoshi (2010)	Organizational capabilities, competitive advantage and performance in supporting industries in Vietnam	This study involved a cross sectional survey of supporting industries in Vietnam using a using Ordered Probit Regression for data analysis	Organizational Capabilities have a relationship with competitive advantage, that competitive advantage is related to performance, and that competitive advantage mediates the relationship between organizational capabilities and performance.	The conceptual gap is consideration of the effect of dynamic capabilities on the relationship between organizational resources and performance. This has been addressed by objective (iii).

Source: Literature Review (2015)

Table 2.1:Cont'd

Awino (2007)	Core competences, core capabilities, strategy implementation and corporate performance of large private manufacturing companies in Kenya	This study involved a survey of 52 large private manufacturing entities using multiple regression for data analysis	The independent effect of core competences, core capabilities, strategy implementation on corporate performance is weaker compared to the joint effect of the same variable	The conceptual gap is the examination of dynamic capabilities and environment dynamism as the mediating and moderating variables respectively. This has been be addressed by objectives (ii) and (iii).

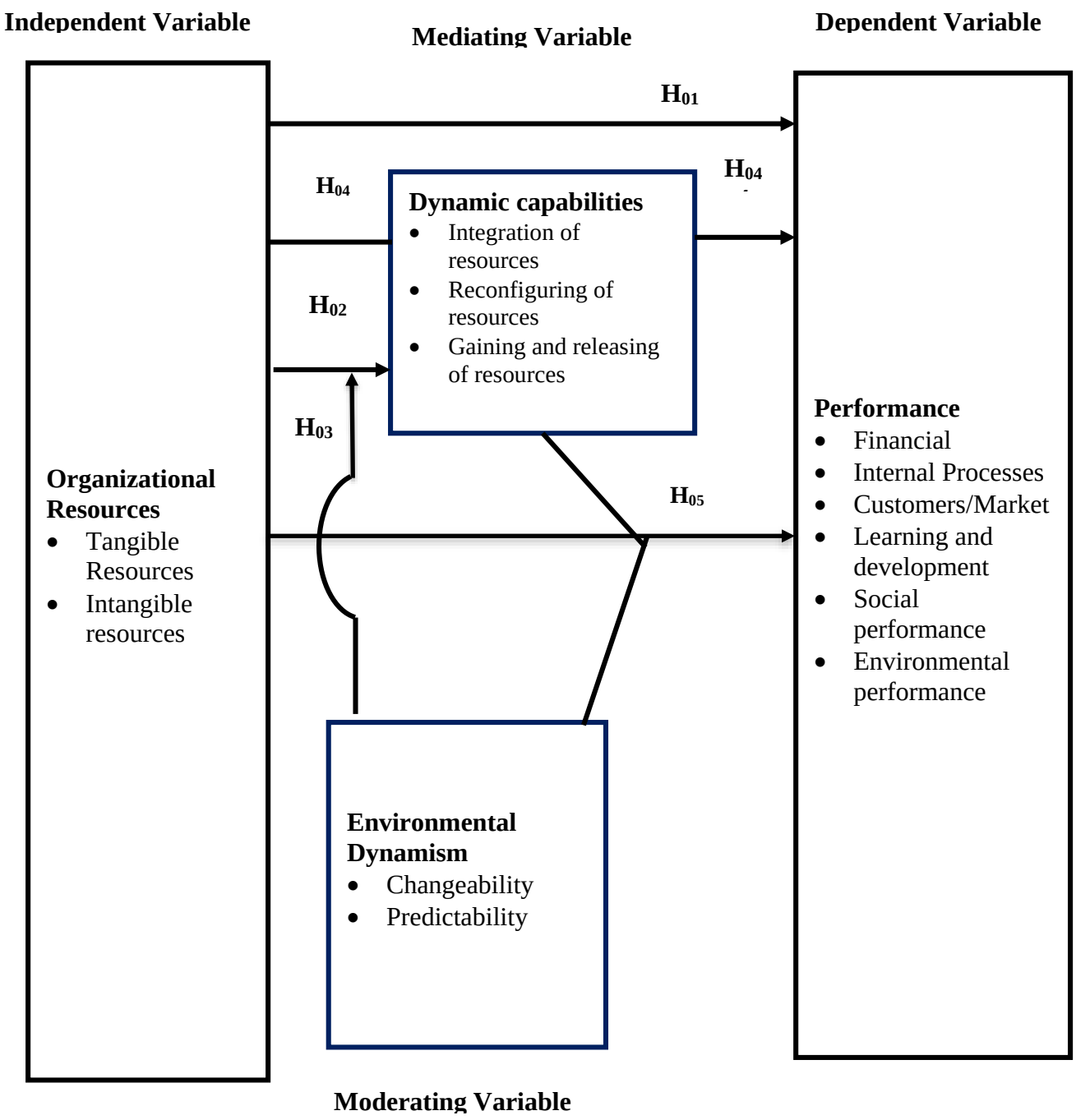
Source: Literature Review (2015)

2.9 Conceptual Framework

While there is sufficient theoretical and empirical evidence of the influence of resources on organizational performance, this cannot adequately explain the variation in organizational performance. This therefore implies that other variables intervene or moderate the relationship between resources and organizational performance. It is anticipated that dynamic capabilities and environmental dynamism will influence the relationship between resources and organizational performance. Environmental dynamism is expected to have a strong effect on the relationship between resources and dynamic capabilities. Dynamic capabilities are expected to surface between the time organizational resources start operating to influence organizational performance and the time the impact is felt on the performance.

Figure 2.1 is the conceptual framework of the study. The basis is on a moderated and mediated model as developed by Muller, Judd, and Yzerbyt (2005). Organizational resources are not able to create value-adding strategy in a rapidly changing environment (Teece et al., 1997; Eisenhardt and Martin, 2000). There is need to integrate or reconfigure resources for firms to react to this changing landscape and thus the intervention of dynamic capabilities. Organizations are expected to gain or release resources to provide the required fit to sustain competitive advantage and improve organizational performance. This model suggests measures of organizational performance by Kaplan and Norton (1992) and as improved by Hubbard (2009).

Figure 2.1: Conceptual Model



Source: Researcher, 2015

2.10 Research Hypotheses

From the relationship in the conceptual model in Figure 2.1, the following Research Hypotheses were tested;

H_{01}: Organizational resources have no significant influence on organizational performance of LMCs in Kenya.

H_{02}: Organizational resources have no significant influence on dynamic capabilities of LMCs in Kenya.

H_{03}: Environmental dynamism has no significant moderating effect on the relationship between organizational resources and dynamic capabilities of LMCs in Kenya.

H_{04}: Dynamic capabilities have no significant intervening effect on the relationship between organizational resources and organizational performance of LMCs in Kenya.

H_{05}: The joint effect of Organizational resources, Environmental Dynamism, Dynamic capabilities on Organizational Performance of LMCs in Kenya is not significantly different from the independent effect of the variables.

2.11 Chapter Summary

This chapter mainly highlights the state of knowledge for the variables of this study. The underpinning theories are discussed individually and the linkages have been provided. This is followed by the concepts relationships based on the study objectives. A summary of the knowledge gaps from a selection of empirical studies has been included and how these gaps are bridged by this study. The conceptual model above provides the Linkages for the study concepts have then been provided through an elaborate conceptual model above. Subsequently the conceptual hypotheses have enlisted to guide the researcher in testing the same.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research methodology that was used in this study. Specifically, the chapter discusses the research philosophy, the research design, population of the study, data collection methods used. The validity and reliability of the data collection instrument and data analysis methods is also explained.

3.2 Research Philosophy

Research philosophy relates to the development of knowledge and the nature of that knowledge. Research philosophies normally contain important assumptions on how researchers should view the world (Saunders, 2009). Of specific concern is ontology, which is philosophical assumptions about the nature of reality and epistemology, which are the general set of assumptions about the best ways of inquiring into the nature of the world (Easterby-Smith, Thorpe and Jackson, 2009). Easterby-Smith et al. (2009) recognized two contrasting epistemological positions, which are positivism and social constructionism.

The study was based on the positivism approach. Positivism is anchored on the premise that the social world exists externally, and its properties should be measured through objective methods, rather than being inferred subjectively through sensation, reflection or intuition. Social constructionism stems from the view that reality is not objective and external, but is socially constructed and given meaning by people (Easterby-Smith et al., 2009; Bryman and Bell, 2007). The task of the social scientist should be to appreciate the different constructions and meanings that people place upon their experience.

The focus should be on what people individually or collectively think and feel and the attention paid on the ways, they communicate with each other either verbally and nonverbally. The study sorts the gaps through hypotheses and deductive observations. The researcher was objective and separate from the study, only seeking to verify propositions through empirical testing of operationalized variables.

3.3 Research Design

This study used cross sectional survey. Cross sectional surveys involve selecting different organizations, units, in different contexts and examining how other factors, measured at the same time varies across these units (Easterby et al., 2009). Information about the subjects that was gathered represented a snap shot of what is going on at that point in time. Data was evaluated and examined to establish patterns of interrelationship between the variables. The study focused on the analysis of the relationship between organizational resources and organizational performance while considering the moderating and mediating effects of environmental dynamism and dynamic capabilities respectively.

Cross-sectional survey design is most appropriate in any given scope of study, nature of data to be collected and the method of analysis to be performed (Cooper and Schindler, 2006) since it is carried out once and represents a snapshot of one point in time. This study was dependent on data for some selected large manufacturing companies in Kenya listed in the Kenya Association of Manufacturers directory of 2014. Other researchers (Awino, 2007; Machuki 2011; Chindia, 2013; Murgor, 2014; Ogendo, 2014; Ongeti, 2014; Ombaka, 2014 among others) used similar research design which enabled them to describe similar incidences of phenomenon to explain how factors are related in different organizations.

3.4 Population of the Study

The target population of the study was the 90 organizations categorized as LMCs based on the annual turnover (KAM, 2014) in Kenya. According to KAM members' electronic database of 2014, companies have been categorized in terms of turnover. Small-scale manufacturing companies have a turnover of Kshs. 50 to 150 million per annum, while medium scale manufacturing companies have a turnover of Kshs. 151 to 250 million per annum and LMCs have a turnover of Kshs. 251 million to 5 billion and above per annum. LMCs can be classified in terms of number of employees (Murgor, 2014), capital employed (Swayer, 1985), and turnover (KAM, 2014). Turnover is a good indicator as a proxy for profits, resource utilization and organization's performance.

The unit of analysis was therefore the large manufacturing company. A census of the LMCs was carried out in this study. A census sample was chosen because it was possible to access all the LMCs. The basis of selection of LMCs based on turnover was that the variables of the study's conceptualization namely organizational resources, environmental dynamism, dynamic capabilities and organizational performance are likely to manifest in such firms and thus provided appropriate data.

3.5 Data Collection

The study collected primary data from the LMCs listed on KAM (2014) database. Primary data was obtained on resources, organizational performance, environmental dynamism and dynamic capabilities. A semi-structure questionnaire was used which consisted of six parts namely Section 1, 2, 3, 4, 5 and 6. Section 1 was on demographics, Section 2 was on organization's information, Section 3 focused on organizational resources (Tangible and intangible).

Section 4 was on environmental dynamism (changeability and predictability), Section 5 was on dynamic capabilities (integrating of resources, reconfiguring of resources, gaining and releasing of resources) and Section 6 was on organizational performance (internal processes, customer/ market, learning and development, social performance and environmental performance). The respondents were the top leadership team, which comprises of the CEO and heads of departments or their managers. The questionnaire was administered through the methods of drop and pick, personal interviews and the use of emails.

3.6 Operationalization of Study Variables

The operationalization of the study is presented in Table 3.2. The table shows that organizational resources were operationalized using tangible and intangible resources (Thompson et al, 2013). Dynamic capabilities were operationalized using three dimensions namely ability to integrate, reconfigure, gain and release of resources. Organizational performance was operationalized using the SBSC. The SBSC attributes to financial perspective, internal processes perspective, customer/market perspective, learning and development, social performance and environmental performance (Hubbard, 2009). Environmental dynamism was operationalized using characteristics that capture its changeability and Predictability (Dess and Beard, 1984).

Table 3.1: Operationalization of Study Variables

Variable	Dimensions	Indicators	Source	Measurement	Questionnaire items
Organizational Resources	Tangible resources	Physical resources, Financial resources, Technological resources,	Thompson et al. (2013) Wernerfelt (1984) Ombaka (2014)	5 Point Likert type Scale rating Interval	Section 3
	Intangible resources	Human assets and Intellectual capital, skills			
Dynamic capabilities	Resources integration	Skills and functional background combination, Functional expertise pooling Business Expertise pooling, Personal expertise pooling,	Nelson and Winter (1982) Eisenhardt and Martin (2000) Teece et al (1997)	5 Point Likert type Scale rating Interval	Section 4
	Resource reconfiguration	Knowledge based transfer, Resource allocation routines, Coevolving routines, Patching routines,			
	Gaining and releasing of resources	Knowledge creation routine and Alliance and acquisition routines, Exit routines			
Environmental Dynamism	Changeability of External Environment Predictability of External Environment	New entrant, rivalry competition, exit barriers, customers, suppliers, substitute products, Political, economic, socio-cultural, technological, ecological, legal, labor markets, financial institutions, trading organizations, trade unions, parent company.	Dess and Beard (1984) Protogerou et al. (2011) Ogendo (2014)	5 Point Likert type Scale rating Interval	Section 5

Source: Researcher (2015)

Table 3.1: Operationalization of Study Variables (Cont'd)					
Variable	**Dimensions**	**Indicators**	**Source**	**Measurement**	**Questionnaire items**
Organizational Performance (Based on Sustainable Balanced Scorecard)	Financial Perspective	Sales Growth, ROS, ROA, ROE, Gearing	Hubbard (2009) Elkington (1997)	5 Point Likert type Scale rating Interval Ratio (Turnover)	Section 6
	Internal Processes Perspective	Productivity, Labour turnover Av Unit Production, Working capital/sales, Capacity utilization			
	Customer/market performance	Market share, No. of new customers, Product returns rate, Defects, Order cycle time			
	Learning and development	New products, New markets entered, R&D spend/sale, Training spend/Sales, Investment/total sales, employee satisfaction			
	Social Performance	Community open day, Social performance of suppliers, Community relationship, Philanthropic investments/Revenue			
	Environmental performance	Key material use/unit, Energy use/unit, Water use/unit, Emissions, effluent and waste/unit, greenhouse emissions			

Source: Researcher (2015)

3.7 Reliability and Validity Tests of the Research Instrument

The questionnaire submitted to different large manufacturing companies listed in the Kenya Association of Manufacturers database of 2014 had the same questions to provide the researchers with consistent results. The questionnaires were sent through electronic mail, drop, and pick method.

3.7.1. Reliability Test

Sekeran and Bouge (2009) defined reliability of a measure as "the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument". It is an indication of the stability and consistency with which the instruments measures the concept and helps to assess the "goodness" of measure. Consistent reliability of the instrument was assessed using Cronbach's alpha. It has the most utility for multiplication item scales at the interval of measurement (Blumberg, Cooper and Schindler, 2011). Therefore in almost every case Cronbach's alpha is an adequate measure of internal consistent reliability (Sekeran and Bouge, 2009).

Cronbach's alpha essentially evaluates the average of all probable split-half reliability coefficients (Bryan and Bell, 2009). A computed alpha coefficient will vary from one (denoting perfect internal reliability) to 0 (denoting no internal reliability). Most studies have adopted the recommended a level of 0.70 and above and therefore the specified indicators were considered sufficient in their representation of the constructs (Nachmias and Nachmias, 2000). Table 3.2 illustrates the values of Cronbach's Alpha of the previously mentioned variables. This proves that the internal consistency of the questionnaire was strong since it had exceeded the value of 0.7 and is within the acceptable range of between 0 and 1.

Table 3.2: Reliability Test – Cronbach's Alpha

Scale	Cronbach's Alpha	Number of Items
Organizational Resources	0.933	20
Dynamic Capabilities	0.885	14
Environmental Dynamism	0.847	34
Organizational Performance	0.908	30

Source: Research Data

3.7.2 Validity Test

According to Cooper and Schindler (2011), a good measurement tool should be an accurate counter or indicator of what we are interested in measuring also known as validity. Measure validation involves establishing content, convergent, and discriminant validity (Combs et al., 2005). Content validity is present when experts agree that measures fall within the construct's domain.

Convergent validity is present when there is a high degree of agreement among two or more different measures of the same construct, and discriminant validity is present when measures of different constructs do not converge. Content validity for dynamic capabilities was based on theoretical contributions of Teece et al. (1997) and Eisenhardt and Martin (2000) among others since there are no established measures for the same. Environment dynamisms, organizational resources and organizational performance were based on existing and validated scales as used by for example by Dess and Beard (1984) on Environment Dynamism), Organizational Resources (Thompson et al., 2013), and organizational performance (Hubbard, 2009). Further, the content validity of the questionnaire was judged by provision of elaborate questions related to organizational resources, environmental dynamism, dynamic capabilities and organizational performance.

The indicators related to the concepts' dimensions were subjected to the Likert type Scale. The questionnaire was divided into five parts sections 1, 2, 3, 4, 5 and 6. Section1 and 2 focused on company information and demographics respectively. This included the years of operation in Kenya, Ownership structure, Number of employees and turnover for the last 5 years, Position of the respondent, and number of years the respondents has worked with the organization. The questions had varied multiple choices. Section 3 was on organizational resources. The questions required that the respondents indicate the company's possession of valuable, rare inimitable and non-substitutable resources. A 5-point Likert type scale was used to collect data ranging from "Not at all" to "To a very large extent". Section 4 focused on Dynamic Capabilities.

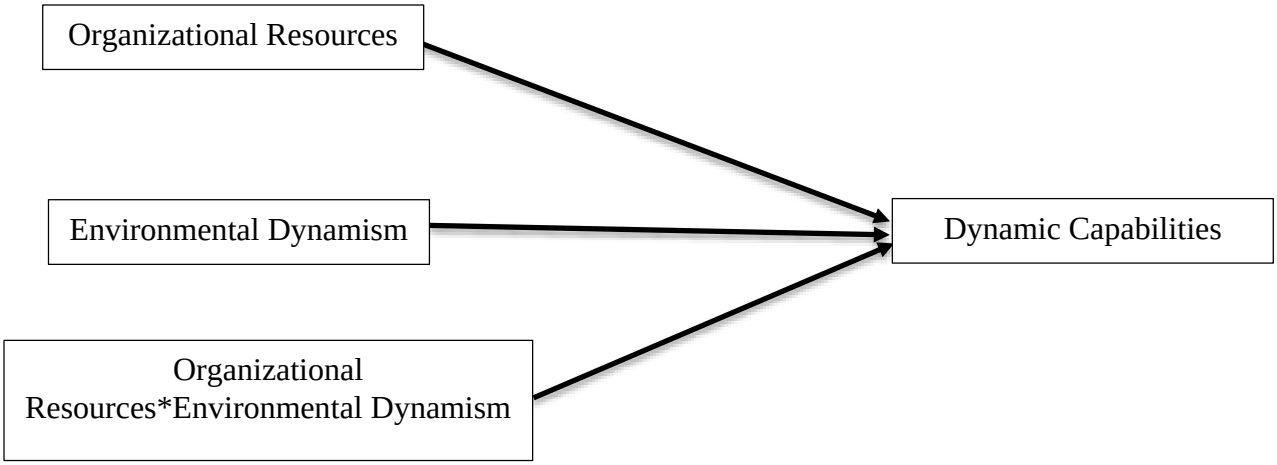
The questionnaire had fourteen questions, which required that respondents indicate to what extent dynamic capabilities related to Resource integration, Resource reconfiguration, and Gaining and releasing of resources apply to their organizations. A 5-point Likert type scale was used to collect data ranging from "Not at all" to "To a very large extent". Section 5 focused on Environmental Dynamism. The questionnaire had 2 sets of questions on changeability and predictability of the external environment. A 5-point Likert type scale ranging from "Not at all" to "To a very large extent" was used for data collection. Section 6 focused on Organizational Performance. The question had six sets of questions related to Financial, Internal Business, Customer/market, Learning and development, Social and Environmental performance. A 5-point Likert type scale was used which required the respondents to indicate the performance of their organizations for the last 5 years. The scale varied from "Bad" to "Good".

3.8 Data Analysis

After data collection, editing was done to detect errors and omission, correct them when possible and certify that maximum data quality standard was achieved (Cooper and Schindler, 2006). The data was then coded and entered into SPSS for data analysis and data transformation. Regression analysis was used to test the hypotheses. Simple regression analysis was used for hypothesis $\mathbf{H_{01}}$ and $\mathbf{H_{02}}$ since the statistic models for both hypotheses have one independent variable each. Multiple regression analysis was used for hypotheses $\mathbf{H_{03}}$ and $\mathbf{H_{05}}$. Figure 3.2 shows how moderation (for Hypothesis $\mathbf{H_{03}}$) is conceptualized statistically where the outcome (Dynamic capabilities) from the independent variable (Organizational resources), the proposed moderator (Environmental dynamism) and the interaction of the two (Organizational resources*Environmental dynamism) are proposed (Fairchild and MacKinnon, 2009; Field, 2013).

Figure 3.1 shows that organizational resources and environmental dynamism predicted the dynamic capabilities. Path a represents dynamic capabilities regressed on organizational resources; while Path b, represented dynamic capabilities regressed on environmental dynamism. Environmental dynamism moderates the effect of organizational resources on dynamic capabilities through Path c, since the relationship between organizational resources and dynamic capabilities is significant.

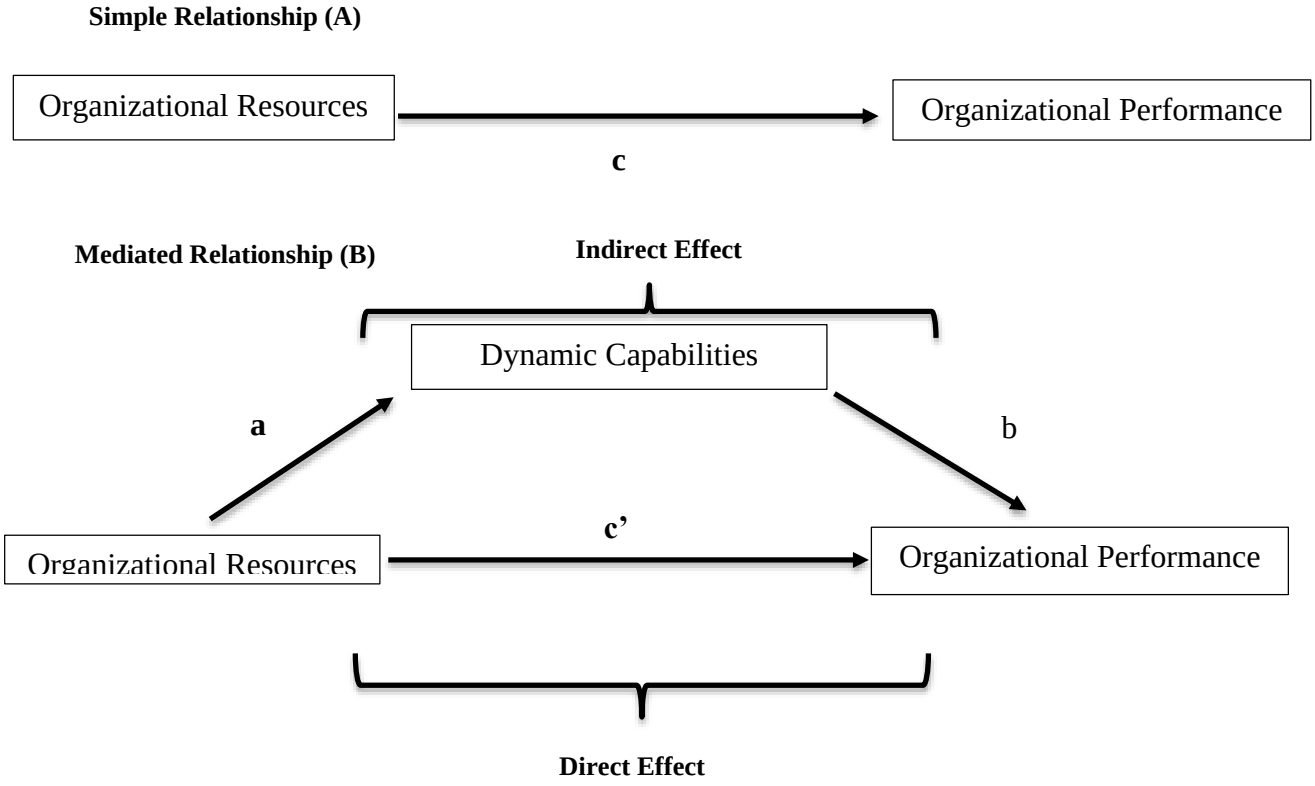
Figure 3.1: Testing for Moderating Effect – Hierarchical Method



Source: Adapted from "A General Model for Testing Mediation and Moderation Effects". By Fairchild J.A. and MacKinnon D.P. (2009). *Prevention Science, 10*, 87-99.

The causal steps approach proposed by Baron and Kenny (1996) was used for mediation test. Figure 3.1 characterizes the statistical model for the mediation model used in the study. This model was tested through a series of regression analyses, which reflect four conditions necessary to demonstrate mediation (Baron & Kenny, 1986; Field, 2013). Hypothesis $\mathbf{H_{04}}$ was tested through three regression models as exhibited in Table 3.3. The first regression model predicting the dependent variable (Organizational performance) from the independent variable (Dynamic capabilities) gives the value of c in Figure 3.2 A. The second regression model predicts the mediating (Dynamic capabilities) from independent variable (Organizational resources), and produces a regression coefficient for the independent variable, of value 'a' in Figure 3.2 B. The third regression model which predicts the dependent variable (Organizational performance) from both the independent variable (Organizational resources) and the mediator (Dynamic capabilities) produces regression coefficients for the independent variable and mediator which give the values c' and value b respectively in Figure 3.2 B.

Figure 3.2: Testing for the Mediating Effect – Simultaneous Method



Source: Adapted from "A General Model for Testing Mediation and Moderation Effects". By Fairchild J.A. and MacKinnon D.P. (2009). *Prevention Science, 10*, 87-99.

Path a in Figure 3.2 B represents organizational resources significantly being associated with dynamic capabilities. Path b represents dynamic capabilities being significantly associated with organizational performance. Path c in Figure 3.2 A represents organizational resources being significantly associated with organizational resources where there is no mediation while path c' in Figure 3.2 B represent organizational resources being significantly associated with organizational performance where mediation exists (Fairchild and Mackinnon, 2009).

Table 3.3: Objectives, Hypotheses and Data Analytical Models

Objective	Hypothesis	Analytical model	Interpretation
To determine the influence of organizational resources on Organizational performance of large manufacturing companies in Kenya	**H_{01}**: Organizational resources have no significant influence on organizational performance.	**Simple Regression Analysis:** $Y_1 = \alpha_o + \alpha_1 X + \varepsilon_o$: Where Y_1 = Performance; X = Organizational Resources; α_1= coefficient estimate of the effect of X on Y; α_o= coefficient estimate of the intercept; ϵ_o= the regression error term.	Mean, t-value, Pearson's correlation, R, R^2, F-ratio, P-values,
To determine the effect of organization resources on dynamic capabilities of large manufacturing companies in Kenya	**H_{02}**: Organizational resources have no significant influence on dynamic capabilities	**Simple Regression Analysis:** $M_1 = \alpha_o + \alpha_1 X + \varepsilon_o$: Where M_1 = Dynamic Capabilities; X = Organizational Resources; α_1= coefficient estimate of the effect of X on Y; α_o= coefficient estimate of the intercept; ϵ_o= error term.	Mean, t-value, Pearson's correlation, R, R^2, F-ratio, P-values.
To determine the influence of Environmental Dynamism on the relationship between Organizational resources and Dynamic capabilities of large manufacturing companies in Kenya	**H_{03}:** Environmental Dynamism has no significant effect on the relationship between Organizational resources and Dynamic capabilities.	**Multiple Regression Analysis:** $M_2 = \alpha_o + \alpha_1 X + \alpha_2 Z + \alpha_3 (X * Z)$: Where M_2 = Dynamic Capabilities; X = Organizational Resources; Z= Environmental Dynamism; α_1, α_2, α_3 = coefficient estimate of the effect of X, Z and X*Z on Y respectively; α_o = coefficient estimate of the intercept.	Mean, t-value, Pearson's correlation, R, R^2, F-ratio, P-values.

Source: Researcher (2015)

Table 3.3 Cont'd

To determine the mediating influence of Dynamic capabilities on the interaction between Organizational resources and Organizational Performance of large manufacturing companies in Kenya.	**H_{04}:** Dynamic capabilities have a significant effect on the relationship between organizational resources and organizational performance.	**Multiple Regression Analysis:** $Y_1 = \alpha_\circ + cX + \epsilon_\circ$ - (1); $M_1 = \alpha_1 + aX + \epsilon_1$ - (2); $Y_2 = \alpha_2 + c'X + bM_1 + \epsilon_2$ - (3). Where Y_1 & Y_2 = Organization Performance, M_1 = Dynamic Capabilities and X = Organizational Resources. Where c = coefficient of estimate of the effect of X on Y_1 and a = coefficient estimate of the effect of X on M_1, b = coefficient estimate of the effect of M_1 on Y_2, and c' = coefficient estimate of the effect of X on Y_2; ε_0, ε_1, ε_2 = the regression error terms.	Mean, t-value, Pearson's correlation, R, R^2, F-ratio, P-values.
To establish the joint effect of organizational resources, Environment dynamism, Dynamic capabilities on organizational performance of large manufacturing companies in Kenya	**H_{05}**: The joint effect of organizational resources, environment dynamism and Dynamic capabilities is not significantly different from their individual effect on performance	**Multiple Regression Analysis:** $Y_3 = \alpha_\circ + \alpha_1 X + \alpha_2 M + \alpha_3 Z + \varepsilon_\circ$; Y_3 = Organization Performance; X = Organizational Resources; M = Dynamic Capabilities; Z = Environmental Dynamism; α_1, α_2, α_3 = coefficient estimate of the effect of X, M and Z on Y respectively; $\alpha_\circ$ = coefficient estimate of the intercept; $\epsilon_\circ$ = the regression error term.	Mean, t-value, Pearson's correlation, R, R^2, F-ratio, P-values

Source: Researcher (2015)

3.9 Diagnostic Tests

Table 3.3 illustrated the data analysis and interpretation. The specific research objectives of the study are listed. These research objectives are related to their hypotheses, analysis models and test statistics respectively. The parameters that were used in the study-included correlation coefficient (R), the coefficient of determination (R^2), and the overall statistical significance of the model (F-ratio) at ($p < 0.05$). R denotes the coefficient of correlation, which is a measure of strength and direction of the linear relationship between two variables (Lind, Marchal and Wathen, 2015).

The coefficient of correlation can vary from +1.0 to -1.0. A value of 0 indicates that there is little linear relationship between the variables. A value of near 1 indicates that a direct or positive relationship between the variable while a value of near -1 indicates an inverse or negative liner relationship between the variables. R^2 denotes the coefficient of determination, which is the proportion of the total variation in the dependent variable Y that is explained, or accounted for, by the variation of independent variable X (Lind et al, 2015). R^2 is the correlation coefficient squared thus the term R-square.

To better interpret the coefficient of determination, the same is converted to a percentage. R^2 is adjusted to reflect the models goodness of fit for the population. This allows for situations where equations with different number of independent variables have been used. F ratio denotes the analysis of variance measures. This is whether the equation represents a set of regression coefficients that, in total are statistically significant from zero (Cooper and Schindler, 2011). The equation is statistically significant at less than the 0.05 level of significance. The Durbin-Watson test was used to check autocorrelation (Anderson, Sweeney and Williams, 2011). Often the data used for regression studies in business and economics are collected over time.

Autocorrelation is said to be present in the data when, for example, the value of y at time t, denoted by y_t, is related to the value of y at previous time periods. When autocorrelation is present, then one of the assumptions of the regression model is violated; the error terms are not independent. When autocorrelation is present, serious errors can be made in performing tests of statistical significance based upon the assumed regression model. The Dublin-Watson test is therefore used to detect autocorrelation so that corrective action can be taken. The Dublin-Watson test statistics ranges in value from zero to four, with a value of two indicating no autocorrelation present.

3.10 Chapter Summary

This has explained the research philosophy, research design, population and data collection used in the study. The operationalization of the research variables has also been evaluated. In this chapter, also reliability and validity of the research instrument has been justified. Subsequently, the data analysis of the study has been assessed. The chapter has been finalized with data analysis and interpretation on how Pearson's correlation has been used to measure the nature and strength of the variables' relationship, while the coefficient of determination (R^2) was used to measure the amount of variation explained by the variable in the estimated regression equations. Other statistics tests included the one sample t-test and Durbin Watson.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter deals with data analysis and findings of the concepts of organizational resources, dynamic capabilities, environmental dynamism and organizational performance of large manufacturing companies in Kenya. It is divided into the background of the study, the presentation of findings, the tests of hypotheses and interpretation of results. The presentation of findings laid focus on descriptive statistics. One sample t-test has been used to analyze the data. The one sample test has been used to determine the statistical significance differences between mean using t-values. Tables were used in the presentation of data.

The tests of hypotheses focus on inferential statistics, which comprises firstly the effects of organizational resources on organizational performance. Secondly, they provide the effects of organizational resources on dynamic capabilities. Thirdly, they provide the moderating effect of environmental dynamism on the relationship between organizational resources and organizational performance. Fourthly, they provide the intervening effect of organizational dynamism on the relationship between organizational resources and organizational performance. Finally, they give the joint effect of organizational resources, dynamic capabilities, environmental dynamism and organizational performance. The interpretation of the results focuses on hypotheses, the objectives of the study and the research question.

4.2 Response Rate

There were 90 large manufacturing companies in Kenya represented by 13 business sectors as at 31st December, 2014. These companies represented varied business sectors of building, mining and construction; chemical and allied; energy, electrical and electronics; fresh produce; food and beverages; leather and footwear; metal and allied; motor vehicle and accessories; paper and board; pharmaceutical; plastics and rubber; textile and apparel; and timber and furniture as shown on Table 4.1

Table 4.1: Number of Companies as a Percentage of the Respondents

Business Sector	Number of Companies (n=56)
Building, mining and construction	5
Chemical and allied	21
Energy, electrical and electronics	5
Fresh produce	0
Food and beverages	41
Leather and foot wear	0
Metal and allied	9
Motor vehicle and accessories	2
Paper and board	9
Pharmaceutical	2
Plastics and rubber	2
Textile and apparel	2
Timber, wood and furniture	2

Source: Research Data, 2015

Of the 90 companies, respondents from 56 companies submitted their response to the researcher. The valid respondents were 56 companies, which represents 62% of the large manufacturing companies in Kenya. The foods and beverage sector has the highest response rate of 41%.

4.3 Organizational Demographics

The organizational demographics used for the study focused on the years of operation in Kenya, ownership structure, number of employees, scope of operation, category of turnover for the last 5 years, position / title, and number of years worked for the organization. The number of employees represented the size of the organization. The organizational age in years represented the tenure in which organizations had operated.

The organization age was determined by the number of years in operation. The age determines the dynamic capabilities used by the organization and the type of environmental dynamism that affect the organizations' performance based on the response. The organization age was measured in the ranges of 10 and under, 11 to 20, 21 to 30, 31 to 40; and 40 and above years. The number of companies within each sector was grouped according to the range of the years in operation.

Table 4.2: Number of Companies as a Percentage of Years of Operation

Years of operation in Kenya	Number of Companies (n = 56)
Up to 10 years	5.4
11 - 20 years	8.9
21 - 30 years	23.2
31 - 40 years	12.5
Above 40 years	50.0

Source: Research Data, 2015

Table 4.2 points up the organizations age in years, their frequency and respective percentages. The age of the company represents the tenure and stability of the companies. The table illustrates that 5.4% of the large manufacturing companies had operated their business between 10 and under years based on the secondary data obtained from the Kenya Association of Manufacturers.

The results show that, the companies that have been in operation for 11 and above years have the highest rate of 94.6% which illustrates that this study is guided by stable companies who have adopted given dynamic capabilities to enable them compete in business despite environmental changes and predictions based on their response. However, 50% of the LMCs had operated above 40 years thus they had more experience in dealing with organizational resources, dynamic capabilities, environmental dynamism and performance.

The ownership structure was determined to be local, local and foreign or foreign only. This helped in determining whether there is a global influence on the company on the strategies adopted locally, globally or regionally.

Table 4.3: Number of Companies as a Percentage of Ownership Structure

Ownership structure	**Number of Companies (n = 56)**
Local	50.0
Local and foreign	32.1
Foreign only	16.1
Not Specified	1.8

Source: Research Data, 2015

Table 4.3 illustrates that 50% of the large manufacturing companies are locally owned while 32.1% had a mixture of both local and foreign. 16.1% of the companies are completely owned by foreigners who also reflect the percentage of direct foreign investment. One organization did not specify the ownership structure. The study reveals that most of the LMCs are locally based and are familiar with the local organizational resources, dynamic capabilities and are accustomed to environmental dynamism and organizational performance from the Kenya context.

The numbers of employees were measured in the ranges of 100 and under, 101 to 200, 201 to 300, 301 to 400; and 400 and above employees. The number of companies within each sector was grouped according to the range of the employees of the given companies.

Table 4.4: Number of Companies as a Percentage of Number of Employees

Number of employees	**Number of Companies (n = 56)**
Up to 100	5.3
101 - 200	21.4
201 - 300	21.4
301 - 400	8.9
Above 400	41.1
Not specified	1.9

Source: Research Data, 2015

Table 4.4 shows the range of the number of employees, their respective companies and percentages. These are represented by the ranges of 100 and under, 101 to 200, 201 to 300, 301 to 400; and 400 and above respectively. Organizations with 400 employees and above have the highest rate of 41.1%. This illustrates that this study is dominated by companies whose number of employees are 400 and above and apply organizational resources practices based on their response.

The number of employees determined the sizes of the organizations. The size of the organization determines the organizational resources and the dynamic capabilities applied within the specified organization. The number of employees and the category of turnover and the scope of operation represented the size of the large manufacturing companies.

The scope of operations informs the market reach of the companies. It also represents the size of the organizations' operation. The scope of operation was measured by considering the national, regional and international areas.

Table 4.5: Number of Companies as a Percentage of Scope of Operation

Scope of Operation	**Number of Companies (n = 56)**
National	27.5
Regional	49.0
International	17.6
Not Specified	2.0

Source: Research Data, 2015

Table 4.5 illustrates that the scope of operation. It shows that 49% of the large manufacturing companies in this study operate regionally, 27.5% have a national reach while 17.6% are also present in the international markets. The study reveals that most of the organizations are familiar with the region in which the study has been done and they apply the concepts of organizational resources, dynamic capabilities, environmental dynamism and organizational performance of LMCs. The category of turnover also confirms the size of the large manufacturing companies. Categorically, the turnover of these companies range from 251 million per annum to over 5 billion per annum. They represent 5 consecutive years of trade.

Table 4.6: Number of Companies as a Percentage of Category of Turnover for the last 5 Year

Category of turnover for the last 5 years	Number of Companies (n = 56)
251 - 500 million per annum	3.6
501 million - 1 billion per annum	5.3
1.1 - 1.5 billion per annum	12.5
1.6 - 2.0 billion per annum	10.8
2.1 - 2.5 billion per annum	14.2
2.6 - 3.0 billion per annum	7.1
3.1 - 3.5 billion per annum	1.8
3.6 - 4.0 billion per annum	3.6
4.1 - 4.5 billion per annum	1.8
4.6 - 5.0 billion per annum	12.5
Above 5.0 billion per annum	10.8
Not specified	16.0

Source: Research Data, 2015

Table 4.6 illustrates the category of turnover for the last five years. The results show that the range of 2.1 – 2.5 billion per annum is the highest with 14.2%. The study reveals that most of the large manufacturing companies in this study have a turnover of 2.1 – 2.5 billion per annum. This study factored turnover as basis of selecting LMCs since the selection of companies based on a specific turnover limit may ensure that a minimum operating and organizational structure provide data on complex and multidimensional phenomena and processes such as dynamic capabilities and resources (Protogerou et al. 2011).

4.4 Designations of the Respondents

The job positions held by the respondents was determined by the designation. The respondents included the Chief Executive Officers, the general managers and other heads of departments. The research chose to deal with the foresaid senior managers in these organizations since they fully participate in the companies' decision-making and dynamic capabilities.

Table 4.7: Number of Respondents as a Percentage of Designation

Position / Title	Number of Respondents (n = 56)
Chief Executive Officer	9.6
General Manager	23.1
Head of Department	63.5
Not specified	1.9

Source: Research Data, 2015

The Chief Executive Officers, the General Managers and the Heads of Departments of organizations were targeted. Table 4.7 shows that the Heads of Departments had the highest response rate of 63.5%. This illustrates that the study is guided by the information obtained from the heads of departments who are involved in their companies' capabilities decision making and implement organizational resources practices through the influence of dynamic capabilities on their respective organizational performance based on their response.

4.5 Work Experience in the Same Organization in Years

The work experience of the respondents was determined by the number of years they worked in their current specified organization. The work experience was measured in the range of less than 1 year, 1 to 5, 6 to 10; 11 to 15 and; 16 and above years. The number of the respondents' work experience within each company was grouped according to the range of the years worked in the companies of this study.

Table 4.8: Number of Respondents as a Percentage of the Number of Years worked for Organization

No. of years worked for organization	Number of Respondents (n = 56)
Less than 1 year	5.3
1 - 5 years	32.2
6 - 10 years	14.3
11 - 15 years	16.1
over 16 years	26.8
Not Specified	5.3

Source: Research Data, 2015

Table 4.8 illustrates the years that the respondents had worked in their respective organizations. The years of experience determine the extent to which the respondent is knowledgeable about the business and the organization and his or her flexibility to respond to issues. The number of employees with 1 to 5 years' experience has the highest rate of 32.2 %, followed by the range of over 16 years of 26.8%. This illustrates that the senior managers who have worked for their organizations between 1 to 5 years and were flexible to respond to issues on organizational resources, dynamic capabilities, environmental dynamism and organizational performance direct this study.

4.6 Preliminary Findings

The preliminary findings cover the data analysis on organizational resources, dynamic capabilities, environmental dynamism and organizational performance. Descriptive statistics were used to analyze the data. The results are explained after each conceptual analysis. One sample t-test was used at 95% confidence level to test the level of significance. The number 3 was used as a test value since it is the midpoint of the 5-point Likert type scale. The one sample t-test generated t- values, mean scores, standard

deviation and p-values. The t-value explains the statistical significant differences with regard to the manifestation of variables across the study. The mean score illustrate the ranking of the dimensions and indicators of variables. The standard deviation gauges deviation from the mean. The p-value explains the level of significance.

4.6.1 Organizational Resources

The dimensions of organizational resources of tangible resources and intangible have been analyzed using t-value. The t-value shows how statistically significant are the differences in the manifestation of organizational resources across the organizations, while the standard deviation tests the deviation of the organizational resources dimensions.

Table 4.9: Possession of Tangible Resources

Tangible Resources	One-Sample Test				
	Test Value = 3				
	N	t	Mean	Std. Deviation	P-value
Physical Resources					
Manufacturing plants, location and equipment	56	2.166	3.39	1.358	.035
Distribution facilities	56	.943	3.16	1.276	.350
Financial Resources					
Cash and cash equivalents, marketable securities	56	6.669	3.93	1.042	.000
Technological Resources					
Patents	56	2.614	3.45	1.278	.012
Copyrights and trade secrets	56	2.157	3.38	1.301	.035
Trade secrets	56	1.827	3.30	1.192	.073
Production technologies and processes	56	6.589	3.91	1.023	.000
Information Technology (IT), communication and planning co-ordination	56	4.365	3.66	1.133	.000
Enterprise Resource Planning (ERP)	56	6.425	3.95	1.102	.000
Organizational design and reporting structure	56	3.506	3.54	1.144	.001

Source: Research Data, 2015

Note: Ranking was on a 5-point Likert type scale: 1-not at all; 2-to a small extent; 3-to a moderate extent; 4- to a large extent; 5-to a very large extent.

Table 4.9 shows the possession of tangible resources. The results show that physical, financial and technological tangible resources are applied by the LMCs to a moderate extent. The ERP technological resources received the highest ranking (mean score = 3.95). The statistically significance differences describe ERP technological resources ($t = 6.425$). Apart from physical resources of distribution facilities and the technological resources of trade secrets ($p > 0.05$), all the other physical, financial and technological tangible resources are significant ($p < 0.05$).

The mean scores illustrate that the tangible resources are practiced. The t-value shows that there is statistically significance difference between the mean. The standard deviation shows minimal deviation from the mean. This also signifies that the tangible resources are dominant in these companies since their p-values are zero. The measurement of tangible resource is based on the physical resources, the financial resources and the technological resources. The t-value, mean, standard deviation and the p-value were used to measure the tangible resources. The p-value measures the level of significance.

Table 4.10: Measurement of Intangible Resources

Intangible Resources	One-Sample Test				
	Test Value = 3				
	N	t	Mean	Std. Deviation	P-value
Human assets and intellectual capital					
Experience	56	12.252	4.27	.774	.000
Learning knowledge	56	6.028	3.77	.953	.000
Tacit knowledge	56	3.405	3.49	1.069	.001
Education	56	5.234	3.69	.979	.000
Know-how of teams and workgroups	56	7.849	4.00	.953	.000
Skills					
Keeping operation costs down	56	6.565	3.82	.936	.000
Improving product and service quality	56	12.294	4.34	.815	.000
Providing customer service	56	9.950	4.07	.806	.000
Managerial talent	56	9.048	4.02	.842	.000
Creativity, innovativeness of employees	56	3.576	3.46	.972	.001

Source: Research Data, 2015

Note: Ranking was on a 5-point Likert type scale: 1-not at all; 2-to a small extent; 3-to a moderate extent; 4- to a large extent; 5-to a very large extent

Table 4.10 shows the possession of intangible resources. The results show that Human assets and intellectual capital of experience, expertise of teams, workgroups, and Skills on improving product and service quality, providing customer service and managerial talent are applied by LMCs largely. Skills of improving product and service quality received the highest ranking (mean score = 4.34). The statistically significance differences describe Skills of improving product and service quality (t = 12.294). All the human assets and intellectual capital and skills of intangible resources are dominant and significant ($p < 0.05$). The human assets and intellectual capital; and skills have significance difference. The mean for most of the skills is higher than that of human assets and intellectual capital. The standard deviation is minimal. The intangible resources are dominant in these companies since their p-values are zero.

4.6.2 Dynamic Capabilities

The dimensions of dynamic capabilities of resource integration, resource reconfiguration and gaining and releasing of resources have been analyzed using t-value. The t-value shows how statistically significant are the differences in the manifestation of dynamic capabilities across the organizations.

Table 4.11: Possession of Dynamic Capabilities

Dynamic Capabilities	One-Sample Test				
	Test Value = 3				
	N	t	Mean	Std. Deviation	P-value
Resources Integration					
Skills to create revenue		5.564	3.79	1.057	.000
Functional backgrounds		4.837	3.70	1.077	.000
Pooling business expertise		7.482	3.88	.875	.000
Pooling functional expertise		7.406	3.84	.848	.000
Pooling personal expertise		5.212	3.64	.923	.000
Resource Reconfiguration					
Routines for replication		4.696	3.54	.840	.000
Routines for brokering		2.882	3.40	1.029	.006
Distribute capital from central points		3.258	3.45	1.025	.002
Distribute manufacturing assets		3.322	3.51	1.136	.002
Organization use co-evolving routines		3.058	3.45	1.102	.003
Manager use patching routines		1.692	3.24	1.036	.096
Gaining & releasing of Resources					
Knowledge creation routines		5.212	3.68	.974	.000
Alliance and acquisition routines		2.886	3.47	1.215	.006
exit routines		3.518	3.43	.912	.001

Source: Research Data, 2015

Note: Ranking was on a 5-point Likert type scale: 1-not at all; 2-to a small extent; 3-to a moderate extent; 4- to a large extent; 5-to a very large extent.

Table 4.11 shows the possession of dynamic capabilities. The results show that resource integration, resource configuration, gaining and releasing resources of dynamic capabilities are applied by the LMCs to a moderate extent. Resource integration to pool business expertise received the highest ranking (mean score = 3.). The statistically significance differences describe resource integration to pool business expertise ($t = 7.482$). Apart from resource reconfiguration whereby managers use patching routines ($p > 0.05$), all the other resource integration, resource configuration, gaining and releasing resources of dynamic capabilities are significant ($p < 0.05$).

The result of the mean reveals that organizations apply resource reconfiguration more than the resources integration; gaining, and releasing of resources. There are significance differences. The standard deviation of resource reconfiguration is wider than those of resource integration and gaining and releasing of resources. The dynamic capabilities are dominant in these companies. The measurement of resource integration is based on skills and functional background combination, business expertise pooling, functional expertise pooling and personal expertise pooling. The t-value, mean, standard deviation and p-value were used to measure resource integration.

4.6.3 Environmental Dynamism

The changeability of external environment and predictability of the external environment of the environmental dynamism were determined. The external environments consisted of the industry, macro and microenvironments. The examined factors of the industry environment were threats of new entrants, competition among rivals, exit barriers and the relative powers of customers and suppliers of the firms. The macro environment factors examined include political, economic, technological, socio-cultural, legal and ecological.

The microenvironments examined were the relations with labor markets, financial institutions, trading organizations, trade unions and parent companies. The t-value, mean, standard deviation and p-value were used to measure changeability of the external environment.

Table 4.12: Measurement for Changeability of External Environment

Changeability of External Environment	One-Sample Test				
	Test Value = 3				
	N	t	Mean	Std. Deviation	P-value
Competitive Environment					
New entrants	56	3.469	3.50	1.07	.001
Rivalry competition	56	8.563	4.00	.87	.000
Exit barriers	56	-1.722	2.77	1.00	.091
Customers	56	5.540	3.68	.91	.000
Suppliers	56	5.540	3.68	.91	.000
Substitute products	56	3.458	3.54	1.15	.001
Macro- Environment					
Political	56	4.111	3.55	1.00	.000
Economical	55	7.924	3.96	.90	.000
Socio-cultural	56	.904	3.14	1.18	.370
Technological	55	7.036	4.00	1.05	.000
Ecological	56	-1.613	2.73	1.24	.113
Legal	56	3.593	3.52	1.07	.001
Micro- Environment					
Labor markets	56	-.559	2.91	1.19	.578
Financial institutions	56	1.026	3.16	1.17	.309
Trading organizations	56	-.747	2.89	1.07	.458
Trade unions	56	-2.468	2.63	1.13	.017
Parent companies	53	-1.777	2.64	1.46	.081

Source: Research Data, 2015

Note: Ranking was on a 5-point Likert type scale: 1-Not at all; 2-minor change; 3- Moderate change; 4-Significant change; 5-Very significant change

Table 4.12 illustrates that, of the competitive environment, the significance difference for rivalry competition t, is equal to 8.563, the mean for suppliers is 3.68 and the standard deviation for customers is 0.91. Among the competitive environment, exit barriers has $p > 0.05$, while among macro-environment, socio-cultural $p > 0.05$. Both are not significant while the rest are significant. Among microenvironment, trade unions ($p < 0.05$) is significant, the rest are not significant.

The competitive environment shows that rivalry competition has the highest significance difference than new entrance, exit barriers, customers, suppliers and substitute products. Customers and suppliers have the same significance difference, mean and standard deviation. Exit barriers have the lowest mean; while rivalry competition has the lowest standard deviation. The macro-environment illustrates that economical, technological and ecological environments have the highest significance differences, mean and standard deviation respectively. The microenvironment shows that the financial institutions have the highest significance differences and mean, while the parent companies have the highest standard deviation.

The measurement of predictability of external environment is based on competitive environment which include: new entrants, rivalry competition, exit barriers, customers, suppliers, substitute products; macro-environment consisting of political, economic, socio-cultural, technological, ecological, and legal; and micro-environment involving labor markets, financial institutions, trading organizations, trade unions and parent companies. The t-value, mean, standard deviation and p-value were used to measure predictability of the external environment.

Table 4.13: Measurement of Predictability of External Environment

Predictability of External Environment	One-Sample Test				
	Test Value = 3				
	N	t	Mean	Std. Deviation	P-value
Competitive Environment					
New entrants	56	1.722	3.23	1.00	.091
Rivalry competition	56	5.582	3.64	.86	.000
Exit barriers	56	.123	3.02	1.08	.903
Customers	56	3.237	3.39	.90	.002
Suppliers	56	3.032	3.38	.92	.004
Substitute products	56	1.498	3.23	1.16	.140
Macro-Environment					
Political	56	.617	3.09	1.083	.540
Economical	55	2.470	3.38	1.147	.017
Socio-cultural	55	-1.000	2.85	1.079	.322
Technological	55	3.131	3.47	1.120	.003
Ecological	54	-1.693	2.76	1.045	.096
Legal	55	1.722	3.24	1.018	.091
Micro-Environment					
Labor markets	55	3.515	3.47	.997	.001
Financial institutions	55	6.514	3.80	.911	.000
Trading organizations	55	3.956	3.49	.920	.000
Trade unions	55	.327	3.05	1.239	.745
Parent companies	52	2.132	3.38	1.301	.038

Source: Research Data, 2015

Note: Ranking was on a 5-point Likert type scale: (predictability) 1-not at all; 2-to a small extent; 3-to a moderate extent; 4- to a large extent; 5-to a very large extent.

Table 4.13 illustrates that, of the competitive environment, the significance difference for rivalry competition, t is 5.582, the mean for suppliers is 3.38 and the standard deviation for customers is 0.908. Among competitive environment, new entrants, exit barriers and substitute products ($p > 0.05$) are not significant while the rest are significant. Among macro-environment, technological ($p > 0.05$) is not significant while the rest are significant. Among the microenvironment, trade unions ($p < 0.05$) are significant while the rest are not significant.

The competitive environment shows that rivalry completion has the highest significance difference and mean and the lowest standard deviation. The macro-environment illustrate that technological environment has the highest significance difference, while the legal environment has the lowest standard deviation. The microenvironment shows that financial institutions have the highest significance difference and mean but the lowest standard deviation.

4.6.4 Organizational Performance

Organizational performance focused on the sustainable balanced scorecard. The dimensions of organizational performance of financial performance, customer performance, internal business process performance, learning and growth performance and non-market performance have been analyzed using the t-value. The t-value shows how statistically significant are the differences in the manifestation of organizational performance across the organizations. The financial performance measurements are based on the 5-point Likert type Scale used to measure its indicators. The same was applied for the non-financial performance.

The measurement of organizational performance is based on financial performance which include: sales growth, return on sales, return on assets, return on equity and gearing; internal business performance consisting of productivity, labor turnover, unit product costs, working capital / sales and capacity utilization; and customer performance involving market share, number of customer, product return rate, defects rate and order cycle time. For learning and development performance this consists of new products, new market entered, R&D spend / sales, training spend / sales, investments / total sales and employee satisfaction.

Social performance include: social performance of suppliers, community relationships, philanthropic investments / revenue and community open day; and the environmental performance which consist of key material use / unit, energy use / unit, water use / unit; emission, effluent and waste / unit and greenhouse emission. The t-value, mean and standard deviation were used to measure organizational performance.

Table 4.14: Measurement of the Organizational Performance

Organizational Performance	One-Sample Test				
	Test Value = 3				
	N	t	Mean	Std. Deviation	P-value
Financial Performance					
Sales growth	54	5.339	3.69	.960	.000
Return on sales	54	4.015	3.51	.940	.000
Return on assets	54	2.973	3.38	.952	.004
Return on equity	52	3.829	3.49	.933	.000
Gearing	52	4.639	3.60	.947	.000
Internal Process Performance					
Productivity	54	8.399	3.82	.722	.000
Labour turnover	54	1.529	3.20	.970	.132
Unit production cost	54	1.529	3.20	.970	.132
Working capital / sales	54	3.935	3.45	.857	.000
Capacity utilization	49	4.104	3.54	.930	.000
Customer / Market Performance					
Market share	54	3.119	3.35	.821	.003
No. of new customers	54	3.524	3.44	.918	.001
Product return rate	54	2.446	3.27	.827	.018
Defects rate	54	1.692	3.22	.956	.096
Order cycle time	52	4.607	3.49	.775	.000

Table 4.14: Measurement of the Organizational Performance (Cont'd)					
Learning and Development Performance					
New products	53	6.046	3.72	.878	.000
New market entered	52	3.473	3.43	.910	.001
R&D spend / sales	53	1.561	3.20	.959	.125
Training spend / sales	54	2.354	3.29	.916	.022
Investment / total sales	53	5.387	3.61	.834	.000
Employee satisfaction	51	5.794	3.65	.814	.000
Social Performance					
Social Performance of suppliers	54	3.460	3.42	.896	.001
Community relationships	54	6.500	3.71	.809	.000
Philanthropic investments / revenue	54	4.068	3.42	.762	.000
Community open day	53	-1.755	2.76	1.008	.085
Environmental Performance					
Key material use / unit	54	9.067	3.82	.669	.000
Energy use / unit	54	11.128	4.09	.727	.000
Water use / unit	54	11.092	4.04	.693	.000
Emissions, effluent and waste / unit	54	8.110	3.96	.881	.000
Greenhouse emissions	54	9.616	3.91	.701	.000

Source: Research Data, 2015

Note: Ranking was on a 5-point Likert type scale: 1-Bad; 2-Below Average; 3- Average; 4- Above average; 5-Good.

Table 4.14 illustrates that of the customer performance, order of cycle time has a significance difference (t=4.607). The mean for defects rate was 3.22 while the standard deviation for market share was 0.345. All the indicators of financial performance are significant ($p < 0.05$).Among the customer / market performance, defect rates ($p > 0.05$) is not significant. Among learning and development performance, R&D and training ($p > 0.05$) are not significant.

Among the social performance, community open day ($p > 0.05$) is not significant, the rest are significant. All the indicators of environmental performance ($p < 0.05$) are significant. The financial performance shows that sales growth has the highest significance difference and standard deviation, while the return on assets has the highest mean. The internal business performance illustrates that productivity has the highest significance difference, while labor turnover and unit product costs have the same mean and standard deviation.

The customer / market performance show that order cycle time has the highest significance difference and standard deviation, while defects rate has the highest mean. The learning and growth development performance show that new products have the highest significance difference and standard deviation, while R&D has the highest mean. The social performance shows that community relations have the highest significance difference and standard deviation, while community open day has the highest mean. The environmental performance show that energy use / unit has the highest significance difference and standard deviation, while all of the environmental performance elements have zero mean.

4.7 Tests of Hypotheses

The tests of hypotheses were based on the conceptual hypotheses of the study. These were first the effect of organizational resources on organizational performance and secondly, the effect of organizational resources on dynamic capabilities. Thirdly the moderating influence of environmental dynamism on the relationship between organizational resources and dynamic capabilities, and fourthly the intervening influence of dynamic capabilities on the relationship between organizational resources and organizational performance; and finally the joint effect of organizational resources, dynamic capabilities, environmental dynamism and organizational performance.

4.7.1 Organizational Resources and Organizational Performance

The first objective of the study was to determine the effect of organizational resources on organizational performance of large manufacturing companies in Kenya. It was tackled by testing hypothesis one (H_{01}) which stated that, organizational resources have no significant influence on organizational performance. Regression analysis was used to test the hypothesis. The equation of organizational resources on organizational performance stated that, $Y_1 = \alpha_o + \alpha_1 X + \epsilon_o$. Where Y_1 = Performance; X = Organizational Resources; α_1= coefficient estimate of the effect of X on Y; α_o= coefficient estimate of the intercept; ϵ_o= the regression error term.

The independent effect of organizational resources on performance explains the significance effects. The tests include the combined effect of organizational resources on organizational performance. The combined effect organizational resources on organizational performance explain the correlation coefficient (R), the coefficient of determination (R^2), and the overall statistical significance of the model (F-ratio) at ($p < 0.05$). R denotes the coefficient of correlation, which is a measure of strength and direction of the linear relationship between two variables (Lind, Marchal and Wathen, 2015). The coefficient of correlation can vary from +1.0 to -1.0. A value of 0 indicates that there is little linear relationship between the variables.

A value of near 1 indicates that a direct or positive relationship between the variable while a value of near -1 indicates an inverse or negative liner relationship between the variables. R^2 denotes the coefficient of determination, which is the proportion of the total variation in the dependent variable Y that is explained, or accounted for, by the variation of independent variable, X (Lind et al, 2015). R^2 is the correlation coefficient squared thus the term R-square.

To better interpret the coefficient of determination, the same is converted to a percentage. R^2 is adjusted to reflect the models goodness of fit for the population. This allows for situations where equations with different number of independent variables have been used. F ratio denotes the analysis of variance measures. This is whether or not the equation represents a set of regression coefficients that, in total are statistically significant from zero (Cooper and Schindler, 2011).

The equation is statistically significant at less than the 0.05 level of significance. The Durbin-Watson test was used to check autocorrelation (Anderson, Sweeney and Williams, 2011). Often the data used for regression studies in business and economics are collected over time. Autocorrelation is said to be present in the data when, for example, the value of y at time t, denoted by y_t, is related to the value of y at previous time periods. When autocorrelation is present then one of the assumptions of the regression model is violated; the error terms are not independent. When autocorrelation is present, serious errors can be made in performing tests of statistical significance based upon the assumed regression model. The Dublin-Watson test is therefore used to detect autocorrelation so that corrective action can be taken. The Dublin-Watson test statistics ranges in value from zero to four, with a value of two indicating no autocorrelation present.

Table 4.15: The Combined Effect of Organizational Resources on Financial Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.304[a]	.092	.092	5.391	1	53	.024	2.138

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: Financial Perspective

Source: Research Data, 2015

Table 4.15 illustrates the combined effect of organizational resources on financial performance. The results show that there is a relationship between organizational resources and organizational performance. Correlation coefficient (R) is 0.304 for financial performance. The correlation between organizational resources and financial performance is moderately weak. The results further indicate that there are different variations in organizational performance and organizational resources. The coefficient of determination, $R^2 = 0.092$ explains that 9.2% of the variations of financial performance have been explained by the variable of organizational resources. 90.8% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the financial performance does not have a good fit.

The analysis of variance, F-ratio is 5.391 for financial performance. In this case, with 1 and 53 degrees of freedom of critical values are between 4.03 and 4.00. The overall results reveal that organizational resources have significant influence on financial performance ($p < 0.05$). Financial performance comprises of the sales growth, increase in return on sales, increase in return on assets, increase in equity and increase in gearing. The effect of organizational resources on financial performance considers the organizational resources and financial performance. The financial performance include sales growth, return on sales, return on assets, return on equity and return on gearing. The tests include R, R square, F-Ratio and P-value.

Table 4.16: Organizational Resources and Financial Perspective

Model Summary[b]

Financial Performance	R	R Square	F - Ratio	P - value
Sales Growth	.319[a]	.102	5.994	.018
Increase in return on sales (ROS)	.421[a]	.177	11.432	.001
Increase in return on assets (ROA)	.136[a]	.018	.994	.323
Increase in return on equity (ROE)	.179[a]	.032	1.685	.200
Increase in return on gearing	.306[a]	.094	5.279	.026

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: Sales growth, increase in return on sales, increase in return on assets, increase in return on equity, increase in return on gearing

Source: Research Data, 2015

Table 4.16 illustrates that the effect of organizational resources on sales growth, return on sales and return on gearing are significant ($p < 0.05$). Their F-Ratio is 5.994, 11.432 and 5.279 respectively, in this case, with 1 and 53 degrees of freedom of critical values are between 4.03 and 4.00. The R^2 are 10.2%, 17.7% and 9.4% respectively. While R, are 0.319, 0.421 and 0.306 respectively. The study shows that organizational resources have significant influence on the financial perspective of sales growth, return on sales, and return on gearing.

However, organizational resources have no significant influence on return on assets and return on equity. Moreover, the sales growth, return on sales and return on gearing have moderately weak correlation with organizational resources. The organizational resources comprise of tangible resources and intangible resources. The study further examined the individual effect of tangible resources and tangible resources on financial performance. The tests include R, R square, F-Ratio and P-value.

Table 4.17: The Effect of Tangible Resources on Financial Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.208[a]	.043	.043	2.387	1	53	.128	2.050

a. Predictors: (Constant), Tangible Resources
b. Dependent Variable: Financial Perspective

Source: Research Data, 2015

Table 4.17 illustrates the effect of tangible resources on financial performance. The results show that tangible resources have no significant influence on financial performance ($p > 0.05$). Correlation coefficient (R) is 0.208 for tangible resources and financial performance. The correlation between tangible resources and financial performance is weak. The results further indicate that there are different variations in tangible resources and financial performance. The coefficient of determination, $R^2 = 0.043$ explains that 4.3% of the variations of financial performance have been explained by the variable of tangible resources. 95.7% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the financial performance does not have a good fit.

The analysis of variance, F-ratio is 2.387 for financial performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is less than the critical value. The overall results reveal that Tangible resources have no significant influence on financial performance ($p > 0.05$). The tangible resources comprise of physical resources, financial resources and technological resources.

Table 4.18: Intangible Resources and Financial Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.360[a]	.130	.130	7.914	1	53	.007	2.124

a. Predictors: (Constant), In-Tangible Resources

b. Dependent Variable: Financial Performance

Source: Research Data, 2015

Table 4.18 illustrates the intangible resources on financial performance. The results show that Intangible resources have significant influence on financial performance ($p < 0.05$). Correlation coefficient (R) is 0.360 for intangible resources and financial performance. The correlation between intangible resources and financial performance is moderately weak. The results further indicate that there are different variations in tangible resources and financial performance. The coefficient of determination, $R^2 = 0.130$ explains that 13% of the variations of financial performance have been explained by the variable of intangible resources. 87% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the financial performance does have a good fit.

The analysis of variance, F-ratio is 7.914 for financial performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that Intangible resources have significant influence on financial performance ($p < 0.05$). The intangible resources comprise of human assets and intellectual capital and skills.

The non-financial performance comprise of the customer performance, internal business process performance, learning and growth performance, social performance and environmental performance.

Table 4.19: The Effect of Organizational Resources on Non-Financial Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.438[a]	.192	.192	12.568	1	53	.001	1.793

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: Non-Financial Performance

Source: Research Data, 2015

Table 4.19 illustrates the combined effect of organizational resources on non-financial performance. The results show that there is a relationship between organizational resources and non-financial performance. Correlation coefficient (R) is 0.438 for non-financial performance. The results further indicate that there are different variations in non-financial performance and organizational resources. The coefficient of determination, $R^2 = 0.192$ explains that 19.2% of the variations of non-financial performance have been explained by the variable of organizational resources. 80.8% of the variations are explained by other factors, which are not part of this study.

The conclusion is that the regression model for the non-financial performance does not have a good fit. The analysis of variance, F-ratio is 12.568 for non-financial performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that organizational resources have significant influence on non-financial performance ($p < 0.05$).

The effect of organizational resources on internal business performance considers the organizational resources internal business performance. The organizational resources comprise of tangible resources and intangible resources. The internal business performance include productivity, labor turnover, unit production cost, working capital / sales, working capacity utilization, organization's market share, number of new customers and product rate return. The tests include R, R square, F-Ratio and P-value.

Table 4.20: Organizational Resources and Internal Process Perspective

Model Summary[b]

Internal Process Performance	R	R Square	F - Ratio	P - value
Productivity	.332[a]	.110	6.570	.013
Labour Turnover	.069[a]	.005	.253	.617
Unit production cost	.083[a]	.007	.364	.549
Working capital / sales	.377[a]	.142	8.789	.005
Working capacity utilization	.303[a]	.092	4.859	.032
Organization's market share	.374[a]	.140	8.644	.005
No. of new customers	.312[a]	.098	5.729	.020
Product rate return	.154[a]	.024	1.293	.261

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: Productivity, Labour turnover, Unit production cost, Working capital / sales, Working capacity utilization.

Source: Research Data, 2015

Table 4.20 illustrates that productivity, working capital / sales, working capacity utilization, organization's market share and number of new customers are significant ($p < 0.05$). Their F-Ratio are 6.570, 8.789, 4.859, 8.644 and 5.729 respectively, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance. The R^2 are 11%, 14.2%, 9.2%, 14% and 9.8% respectively.

The study reveals that organizational resources have significant influence on productivity, working capital / sales, working capacity utilization, organization's market share and a number of new customers. However, organizational resources have no significant influence on labor turnover, unit production cost and product rate return. Besides, there are moderately weak correlations between organizational resources and internal business performance in productivity, working capital / sales, working capacity utilization, organization's market share and a number of new customers.

Table 4.21: Tangible Resources and Internal Business Processes Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.181[a]	.033	.033	1.795	1	53	.186	2.155

a. Predictors: (Constant), Tangible Resources
b. Dependent Variable: Internal Business Processes Performance

Source: Research Data, 2015

Table 4.21 illustrates the effect of tangible resources on internal business processes performance. The results show that tangible resources have no significant influence on internal business processes performance ($p > 0.05$). Correlation coefficient (R) is 0.181 for tangible resources and internal business processes performance. The correlation between tangible resources and internal business processes performance is weak. The results further indicate that there are different variations in tangible resources and internal business processes performance. The coefficient of determination, $R^2 = 0.033$ explains that 3.3% of the variations of internal business performance have been explained by the variable of tangible resources. 96.7% of the variations are explained by other factors, which are not part of this study.

The conclusion is that the regression model for the internal business processes performance does not have a good fit. The analysis of variance, F-ratio is 1.795 for internal business processes performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is less than the critical value. The overall results reveal that Tangible resources have no significant influence on internal business performance ($p > 0.05$). The tangible resources comprise of physical resources, financial resources and technological resources.

Table 4.22: Intangible Resources and Internal Business Processes Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.197[a]	.039	.039	2.132	1	53	.150	2.113

a. Predictors: (Constant), In-Tangible Resources
b. Dependent Variable: Internal Business Processes Performance

Source: Research Data, 2015

Table 4.22 illustrates the intangible resources on internal business processes performance. The results show that Intangible resources have no significant influence on internal business processes performance ($p > 0.05$). Correlation coefficient (R) is 0.197 for intangible resources and internal business processes performance. The correlation between intangible resources and internal business processes performance is weak. The results further indicate that there are different variations in tangible resources and internal business processes performance. The coefficient of determination, $R^2 = 0.039$ explains that 3.9% of the variations of internal business processes performance have been explained by the variable of intangible resources. 96.1% of the variations are explained by other factors, which are not part of this study.

The conclusion is that the regression model for the internal business processes performance does have a good fit. The analysis of variance, F-ratio is 2.132 for internal business processes performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is less than the critical value. The overall results reveal that Intangible resources have no significant influence on financial performance ($p > 0.05$). The intangible resources comprise of human assets and intellectual capital and skills. The effect of organizational resources on customer / market performance considers the organizational resources customer / market performance. The organizational resources comprise of tangible resources and intangible resources. The customer / market performance include organization's market share, number of new customers, product rate return, defects rate and order cycle time. The tests include R, R square, F-Ratio and P-value.

Table 4.23: Organizational Resources and Customer / Market Perspective

Model Summary[b]

Customer / Market Performance	R	R Square	F - Ratio	P - value
Organization's market share	.374[a]	.140	8.644	.005
No. of new customers	.312[a]	.098	5.729	.020
Product return rate	.154[a]	.024	1.293	.261
Defects	.049[a]	.002	.126	.724
Order cycle time	.304[a]	.093	5.206	.027

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: Organization's market share, No. of new customers, Product return rate, defects, order cycle time.

Source: Research Data, 2015

Table 4.23 illustrates that organization's market share, the number of new customers and order cycle time are significant ($p < 0.05$). Their F-Ratio is 8.644, 5.729 and 5.206 respectively, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance. Their R^2 are 14%, 9.8% and 9.3% respectively. Their R is 0.374, 0.312 and 0.304 respectively.

The study reveals that the effect of organizational resources is significant on organization's market share, the number of new customers and order cycle time. However, organizational performance is not significant on product rate return and defects rate. The correlation between organizational resources and customer / market performance in organization's market share the number of new customers and order cycle time is moderately weak.

Table 4.24: Tangible Resources and Customer / Market Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.253[a]	.064	.064	3.627	1	53	.062	1.706

a. Predictors: (Constant), Tangible Resources
b. Dependent Variable: Customer / Market Performance

Source: Research Data, 2015

Table 4.24 illustrates the tangible resources on customer / market performance. The results show that tangible resources have no significant influence on customer / market performance ($p > 0.05$). Correlation coefficient (R) is 0.253 for tangible resources and customer / market performance. The correlation between tangible resources and customer / market performance is weak.

The results further indicate that there are different variations in tangible resources and customer / market performance. The coefficient of determination, $R^2 = 0.064$ explains that 6.4% of the variations of customer / market performance have been explained by the variable of tangible resources. 93.6% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the customer / market performance does not have a good fit. The analysis of variance, F-ratio is 3.627 for customer / market performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is less than the critical value. The overall results reveal that Tangible resources have no significant influence on customer / market performance ($p > 0.05$). The tangible resources comprise of physical resources, financial resources and technological resources.

Table 4.25: Intangible Resources and Customer / Market Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.283[a]	.080	.080	4.627	1	53	.036	1.716

a. Predictors: (Constant), In-Tangible Resources
b. Dependent Variable: Customer Market Performance

Source: Research Data, 2015

Table 4.25 illustrates the intangible resources on customer / market performance. The results show that Intangible resources have significant influence on customer / market performance ($p < 0.05$). Correlation coefficient (R) is 0.283 for intangible resources and customer / market performance. The correlation between intangible resources and customer / market performance is moderately weak. The results further indicate that there are different variations in tangible resources and customer / market performance.

The coefficient of determination, $R^2 = 0.080$ explains that 8% of the variations of customer / market performance have been explained by the variable of intangible resources. 92% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the customer / market performance does not have a good fit. The analysis of variance, F-ratio is 4.627 for customer / market performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that Intangible resources have significant influence on customer / market performance ($p < 0.05$). The intangible resources comprise of human assets and intellectual capital and skills. The effect of organizational resources on learning and development performance considers the organizational resources learning and development performance. The organizational resources comprise of tangible resources and intangible resources. The learning and development performance include new products, new markets, research and development, training, investments and employee satisfaction. The tests include R, R square, F-Ratio and P-value.

Table 4.26: Organizational Resources and Learning and Development Perspective

Model Summary[b]

Learning and Development Performance	R	R Square	F - Ratio	P - value
New products	.480[a]	.231	15.589	.000
New markets	.503[a]	.253	17.257	.000
Research and Development	.474[a]	.225	15.054	.000
Training	.168[a]	.028	1.545	.219
Investments	.162[a]	.026	1.398	.242
Employee satisfaction	.132[a]	.017	.888	.351

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: New products, New Markets, Research and Development, Training, Investments, Employee satisfaction.

Source: Research Data, 2015

Table 4.26 illustrates that new products, new markets and research and development are dominant and significant ($p < 0.05$). Their F-Ratio is 15.589, 17.257 and 15.054 respectively. Their R^2 is 23.1%, 25.3% and 22.5% respectively. Their R is 0.480, 0.503 and 0.474 respectively. The study reveals that organizational resources have significant influence on new products, new markets and research and development. However, organizational resources have no significant influence on training, investments and employee satisfaction. Organizational resources have moderately strong correlations with new market, while they have moderately weak correlation with new products and research and development.

Table 4.27: Tangible Resources and Learning and Development Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.434[a]	.188	.188	12.302	1	53	.001	1.925

a. Predictors: (Constant), Tangible Resources
b. Dependent Variable: Learning and Development Performance

Source: Research Data, 2015

Table 4.27 illustrates the effect of tangible resources on financial performance. The results show that tangible resources have no significant influence on financial performance ($p > 0.05$). Correlation coefficient (R) is 0.434 for tangible resources and financial performance. The correlation between tangible resources and financial performance is weak. The results further indicate that there are different variations in tangible resources and financial performance. The coefficient of determination, $R^2 = 0.043$ explains that 4.3% of the variations of financial performance have been explained by the variable of tangible resources. 95.7% of the variations are explained by other factors, which are not part of this study.

The conclusion is that the regression model for the financial performance does not have a good fit. The analysis of variance, F-ratio is 2.387 for financial performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is less than the critical value. The overall results reveal that Tangible resources have no significant influence on financial performance ($p > 0.05$). The tangible resources comprise of physical resources, financial resources and technological resources.

Table 4.28: Intangible Resources and Learning and Development Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.503[a]	.253	.253	17.949	1	53	.000	1.638

a. Predictors: (Constant), In-Tangible Resources
b. Dependent Variable: Learning and Development Performance

Source: Research Data, 2015

Table 4.28 illustrates the intangible resources on learning and development performance. The results show that Intangible resources have significant influence on learning and development performance ($p < 0.05$). Correlation coefficient (R) is 0.503 for intangible resources and learning and development performance. The correlation between intangible resources and learning and development performance is moderately strong.

The results further indicate that there are different variations in tangible resources and learning and development performance. The coefficient of determination, $R^2 = 0.253$ explains that 25.3% of the variations of learning and development performance have been explained by the variable of intangible resources. 74.7% of the variations are explained by other factors, which are not part of this study.

The conclusion is that the regression model for the learning and development performance does have a good fit. The analysis of variance, F-ratio is 17.949 for learning and development performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that Intangible resources have significant influence on learning and performance ($p < 0.05$). The intangible resources comprise of human assets and intellectual capital and skills.

The effect of organizational resources on social performance considers the organizational resources and social performance. The organizational resources comprise of tangible resources and intangible resources. The social performance includes social performance of suppliers, community relationship, philanthropic investment / revenue and community open day. The tests include R, R square, F-Ratio and P-value.

Table 4.29: Organizational Resources and Social Perspective

Model Summary[b]

Social Performance	R	R Square	F - Ratio	P - value
Social performance of suppliers	.211[a]	.045	2.478	.121
Community relationship	.483[a]	.233	16.130	.000
Philanthropic Investment / Revenue	.430[a]	.185	12.051	.001
Community Open Day	.532[a]	.283	20.525	.000

a. Predictors: (Constant), Organizational Resources
b. Dependent Variable: Social performance of suppliers, Community relationship, Philanthropic investment / Revenue, Community open day.

Source: Research Data, 2015

Table 4.29 shows that community relationship, philanthropic investment / revenue and community open day are significant ($p < 0.05$). Their F-Ratio is 16.130, 12.051 and 20.525 respectively. Their R^2 is 23.3%, 18.5% and 28.3% respectively. Their R is 0.483, 0.430 and 0.532 respectively.

The study reveals that organizational resources have significant influence on community relationship, philanthropic investment / revenue and community open day. However, organizational resources have no significant influence on social performance suppliers. Organizational resources have moderately strong correlation with community open day, and moderately weak correlation with community relationship and philanthropic investment / revenue.

Table 4.30: Tangible Resources and Social Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.429[a]	.184	.184	11.975	1	53	.001	1.811

a. Predictors: (Constant), Tangible Resources
b. Dependent Variable: Social Performance

Source: Research Data, 2015

Table 4.30 illustrates the effect of tangible resources on social performance. The results show that tangible resources have significant influence on social performance ($p < 0.05$). Correlation coefficient (R) is 0.429 for tangible resources and social performance. The correlation between tangible resources and social performance is moderately weak.

The results further indicate that there are different variations in tangible resources and social performance. The coefficient of determination, $R^2 = 0.184$ explains that 18.4% of the variations of social performance have been explained by the variable of tangible resources. 81.6% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the social performance does have a good fit.

The analysis of variance, F-ratio is 11.975 for social performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that Tangible resources have no significant influence on social performance ($p > 0.05$). The tangible resources comprise of physical resources, financial resources and technological resources.

Table 4.31: Intangible Resources and Social Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.560[a]	.314	.314	24.271	1	53	.000	1.815

a. Predictors: (Constant), In-Tangible Resources
b. Dependent Variable: Social Performance

Source: Research Data, 2015

Table 4.31 illustrates the effect of Intangible resources on social performance. The results show that Intangible resources have significant influence on social performance ($p < 0.05$). Correlation coefficient (R) is 0.560 for intangible resources and social performance. The correlation between intangible resources and social performance is moderately strong. The results further indicate that there are different variations in tangible resources and financial performance. The coefficient of determination, $R^2 = 0.314$ explains that 31.4% of the variations of social performance have been explained by the variable of intangible resources. 68.6% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the social performance does have a good fit.

The analysis of variance, F-ratio is 24.271 for social performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that Intangible resources have significant influence on social performance ($p < 0.05$). The intangible resources comprise of human assets and intellectual capital and skills. The effect of organizational resources on environmental performance considers the organizational resources and environmental performance.

The organizational resources comprise of tangible resources and intangible resources. The environmental performance includes key material use / unit, energy use / unit, water use / unit; emissions, effluent and waste / unit and greenhouse emissions. The tests include R, R square, F-Ratio and P-value.

Table 4.32: Organizational Resources and Environmental Perspective

Model Summary[b]

Environmental Performance	R	R Square	F - Ratio	P - value
Key material use/unit	.052[a]	.003	.143	.707
Energy use/unit	.015[a]	.000	.012	.912
Water use/unit	.131[a]	.017	.924	.341
Emissions, effluent and waste/unit	.133[a]	.018	.957	.332
Greenhouse emissions	.188[a]	.035	1.940	.169

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: Key material use / unit, Energy use / unit, Water use / unit, Emissions, effluent and waste/unit, Greenhouse emissions.

Source: Research Data, 2015

Table 4.32 illustrates the effect of organizational resources on environmental perspective. The study shows that organizational resources have no significant influence on environmental performance ($p > 0.05$). F-Ratio is low. R^2 is low. R is low. The study reveals that organizational performance have no significant relationship on environmental performance. Organizational performance has very weak correlations with environmental performance.

Table 4.33: Tangible Resources and Environmental Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.118[a]	.014	.014	.746	1	53	.392	1.839

a. Predictors: (Constant), Tangible Resources
b. Dependent Variable: Environmental Performance

Source: Research Data, 2015

Table 4.33 illustrates the effect of tangible resources on environmental performance. The results show that tangible resources have no significant influence on environmental performance ($p > 0.05$). Correlation coefficient (R) is 0.208 for tangible resources and environmental performance. The correlation between tangible resources and environmental performance is weak.

The results further indicate that there are different variations in tangible resources and environmental performance. The coefficient of determination, $R^2 = 0.014$ explains that 1.4% of the variations of environmental performance have been explained by the variable of tangible resources. 98.6% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the environmental performance does not have a good fit.

The analysis of variance, F-ratio is 0.746 for environmental performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is less than the critical value. The overall results reveal that Tangible resources have no significant influence on environmental performance ($p > 0.05$). The tangible resources comprise of physical resources, financial resources and technological resources.

Table 4.34: Intangible Resources and Environmental Performance

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.109[a]	.012	.012	.634	1	53	.429	1.840

a. Predictors: (Constant), In-Tangible Resources
b. Dependent Variable: Environmental Performance

Source: Research Data, 2015

Table 4.34 illustrates the effect of Intangible resources on environmental performance. The results show that Intangible resources have no significant influence on environmental performance ($p > 0.05$). Correlation coefficient (R) is 0.109 for intangible resources and environmental performance. The correlation between intangible resources and environmental performance is very weak.

The results further indicate that there are different variations in tangible resources and environmental performance. The coefficient of determination, $R^2 = 0.012$ explains that 1.2% of the variations of environmental performance have been explained by the variable of intangible resources. 98.8% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the environmental performance does have a good fit.

The analysis of variance, F-ratio is 0.634 for environmental performance, in this case, with 1 and 53 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is less than the critical value. The overall results reveal that Intangible resources have no significant influence on environmental performance ($p < 0.05$). The intangible resources comprise of human assets and intellectual capital and skills.

4.7.2 Organizational Resources and Dynamic Capabilities

The second objective was to determine the effect of organization resources on dynamic capabilities large manufacturing companies in Kenya. It was tackled by testing hypothesis two, which stated that, organizational resources have significant influence on dynamic capabilities.

The equation of the effect of organizational resources on dynamic capabilities stated that, $M_1 = \alpha_\circ + \alpha_1 X + \epsilon_\circ$. Where M_1 = Dynamic Capabilities; X = Organizational Resources; α_1= coefficient estimate of the effect of X on Y; $\alpha_\circ$= coefficient estimate of the intercept; $\epsilon_\circ$= error term. The combined effect of organizational resources on dynamic capabilities explains the significance effects. The tests include the combined effect of organizational resources on dynamic capabilities. The combined effect knowledge transfer on strategy content explains the correlation coefficient (R), the coefficient of determination (R^2), the overall statistical significance (F-ratio) and level of significance (p-value).

Table 4.35: Organizational Resources and Dynamic Capabilities

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.555[a]	.308	.308	24.031	1	54	.000	2.102

a. Predictors: (Constant), Organizational Resources
b. Dependent Variable: Dynamic Capabilities

Source: Research Data, 2015

Table 4.35 illustrates the combined effect of organizational resources on dynamic capabilities. The results show that there is a relationship between organizational resources and dynamic capabilities. Correlation coefficient (R) is 0.555. The correlation between organizational resources and dynamic capabilities is moderately strong. The results further indicate that there are different variations in dynamic capabilities by organizational resources. The coefficient of determination, $R^2 = 0.308$ explains that 30.8% of the variations of dynamic capabilities have been explained by the variable of organizational resources. 69.2% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the dynamic capabilities does have a good fit.

The analysis of variance, F-ratio for the model is 24.031, in this case, with 1 and 54 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that organizational resources have significant influence on dynamic capabilities ($p < 0.05$). The effect of organizational resources on resource integration considers the organizational resources and resource integration. The resource integration includes skills and functional background combinations, business expertise pooling, functional expertise pooling and personal expertise pooling. The tests include R, R square, F-Ratio and P-value.

Table 4.36: Organizational Resources and Resource Integration

Model Summary[b]

Resource Integration	R	R Square	F - Ratio	P - value
Skills and functional background combinations	.382[a]	.146	9.231	.004
Business expertise pooling	.466[a]	.217	14.964	.000
Functional expertise pooling	.469[a]	.220	15.229	.000
Personal expertise pooling	.398[a]	.158	10.148	.002

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: Skills and functional background combinations, business expertise

Pooling, functional expertise pooling, personal expertise pooling.

Source: Research Data, 2015

Table 4.36 shows that organizational resources have significant influence on resource integration ($p < 0.05$). F- Ratio is high. R^2 is high. The study reveals that organizational resources have significant influence on resource integration. Organizational resources have moderately weak correlation with resource integration. The study further tested the dimensions of organizational resources and dynamic capabilities. The dimensions of organizational resources are tangible resources and intangible resources. The dimensions of dynamic capabilities are resource integration, resource reconfiguration and gaining and releasing resources. The tests include R, R square, F-Ratio and P-value.

Table 4.37: Tangible Resources and Resource Integration

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df 1	df 2	Sig. F Change	
1	.398[a]	.158	.158	10.160	1	54	.002	2.071

a. Predictors: (Constant), Tangible Resources

b. Dependent Variable: Resources Integration

Source: Research Data, 2015

Table 4.37 illustrates the effect of tangible resources on resource integration. The results show that tangible resources have significant influence on resource integration ($p < 0.05$). Correlation coefficient (R) is 0.398 for tangible resources and resource integration. The correlation between tangible resources and resource integration is moderately weak. The results further indicate that there are different variations in tangible resources and resource integration. The coefficient of determination, $R^2 = 0.158$ explains that 15.8% of the variations of resource integration have been explained by the variable of tangible resources. 84.2% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the resource integration does have a good fit.

The analysis of variance, F-ratio is 10.160 for resource integration, in this case, with 1 and 54 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that Tangible resources have no significant influence on resource integration ($p < 0.05$). The tangible resources comprise of physical resources, financial resources and technological resources.

Table 4.38: Intangible Resources and Resource Integration

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df 1	df 2	Sig. F Change	
1	.499[a]	.249	.249	17.907	1	54	.000	2.044

a. Predictors: (Constant), In-Tangible Resources

b. Dependent Variable: Resources Integration

Source: Research Data, 2015

Table 4.38 illustrates the effect of Intangible resources on resource integration. The results show that Intangible resources have significant influence on resource integration ($p < 0.05$). Correlation coefficient (R) is 0.499 for intangible resources and resource integration. The correlation between intangible resources and resource integration is moderately strong. The results further indicate that there are different variations in tangible resources and resource integration performance.

The coefficient of determination, $R^2 = 0.249$ explains that 24.9% of the variations of resource integration have been explained by the variable of intangible resources. 75.1% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the resource integration does have a good fit. The analysis of variance, F-ratio is 17.907 for resource integration, in this case, with 1 and 54 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value.

The overall results reveal that Intangible resources have significant influence on resource integration ($p < 0.05$). The intangible resources comprise of human assets and intellectual capital and skills. The effect of organizational resources on resource reconfiguration considers the organizational resources and resource reconfiguration. Organizational resources include tangible resources and intangible resources. The resource reconfiguration includes knowledge-based transfer, resource allocation routines, co-evolving routines and patching routines. The tests include R, R square, F-Ratio and P-value.

Table 4.39: Organizational Resources and Resource Reconfiguration

Model Summary[b]

Resource Reconfiguration	R	R Square	F - Ratio	P - value
Knowledge based transfer	.433[a]	.187	12.441	.001
Resource allocation routines	.329[a]	.108	6.557	.013
Co-evolving routines	.297[a]	.088	5.122	.028
Patching routines	.173[a]	.030	1.639	.206

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: Knowledge based transfer, resource allocation routine, Co-evolving routine, Patching routine

Source: Research Data, 2015

Table 4.39 shows that organizational resources have significant influence on knowledge based transfer, resource allocation routines and co-evolving routine ($p < 0.05$). F-Ratio is high. R^2 is high. The study reveals that organizational resources have significant influence on knowledge-based transfer, resource allocation routines and co-evolving routines. However, organizational resources have no significant influence on patching routines. Organizational resources have moderately weak correlations with knowledge-based transfer, resource allocation routines and co-evolving routines.

The effect of organizational resources on gaining and releasing of resources considers the organizational resources, gaining, and releasing of resources. Organizational resources include tangible resources and intangible resources. The gaining and releasing of resources includes knowledge creation, alliance and acquisition and exit routines. The tests include R, R square, F-Ratio and P-value.

Table 4.40: Tangible Resources and Resource Reconfiguration

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.396[a]	.157	.157	10.071	1	54	.002	2.064

a. Predictors: (Constant), Tangible Resources
b. Dependent Variable: Resource Reconfiguration

Source: Research Data, 2015

Table 4.40 illustrates the effect of tangible resources on resource reconfiguration. The results show that tangible resources have significant influence on resource reconfiguration ($p < 0.05$). Correlation coefficient (R) is 0.396 for tangible resources and resource reconfiguration. The correlation between tangible resources and resource reconfiguration is moderately weak.

The results further indicate that there are different variations in tangible resources and resource reconfiguration. The coefficient of determination, $R^2 = 0.157$ explains that 15.7% of the variations of resource reconfiguration have been explained by the variable of tangible resources. 84.3% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the resource reconfiguration does have a good fit. The analysis of variance, F-ratio is 10.071 for resource reconfiguration, with 1 and 54 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that Tangible resources have no significant influence on resource reconfiguration ($p > 0.05$). The tangible resources comprise of physical resources, financial resources and technological resources.

Table 4.41: Intangible Resources and Resource Configuration

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.301[a]	.091	.091	5.379	1	54	.024	2.007

a. Predictors: (Constant), In-Tangible Resources
b. Dependent Variable: Resource Reconfiguration

Source: Research Data, 2015

Table 4.41 illustrates the effect of Intangible resources on reconfiguration. The results show that Intangible resources have significant influence on resource reconfiguration ($p < 0.05$). Correlation coefficient (R) is 0.301 for intangible resources and resource reconfiguration. The correlation between intangible resources and resource reconfiguration is moderately weak. The results further indicate that there are different variations in tangible resources and resource reconfiguration. The coefficient of determination, $R^2 = 0.091$ explains that 9.1% of the variations of resource reconfiguration have been explained by the variable of intangible resources. 90.9% of the variations are explained by other factors, which are not part of this study.

The conclusion is that the regression model for the resource reconfiguration does not have a good fit. The analysis of variance, F-ratio is 5.379 for resource reconfiguration, with 1 and 54 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that Intangible resources have significant influence on resource reconfiguration ($p < 0.05$). The intangible resources comprise of human assets and intellectual capital and skills.

Table 4.42: Organizational Resources and Gaining and Releasing of Resources

Model Summary[b]

Gaining and Releasing of Resources	R	R Square	F - Ratio	P - value
Knowledge creation routines	.503[a]	.253	18.276	.000
Alliance and acquisition routines	.314[a]	.099	5.812	.019
Exit routines	.342[a]	.117	7.143	.010

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: Knowledge creation routines, Alliance and acquisition routines, Exit routines.

Source: Research Data, 2015

Table 4.42 shows that organizational resources have significant influence on the dimensions of gaining and releasing of resources ($p < 0.05$). F-Ratio is high. R^2 is high. The study reveals that organizational resources have significant influence on knowledge creation, alliances and acquisition and exit routines. Organizational resources have moderately strong correlation with knowledge creation routines, while moderately weak correlation with alliance and acquisition routines; and exit routines.

Table 4.43: Tangible Resources, Gaining and Releasing of Resources

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.531[a]	.282	.282	21.180	1	54	.000	2.476

a. Predictors: (Constant), Tangible Resources

b. Dependent Variable: Gaining and releasing of resources

Source: Research Data, 2015

Table 4.43 illustrates the effect of tangible resources on gaining and releasing of resources. The results show that tangible resources have significant influence on gaining and releasing of resources ($p < 0.05$). Correlation coefficient (R) is 0.531 for tangible resources and gaining and releasing of resources. The correlation between tangible resources and gaining and releasing of resources is moderately strong. The results further indicate that there are different variations in tangible resources and gaining and releasing of resources. The coefficient of determination, $R^2 = 0.282$ explains that 28.2% of the variations of gaining and releasing of resources have been explained by the variable of tangible resources. 71.8% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the gaining and releasing of resources does have a good fit.

The analysis of variance, F-ratio is 21.180 for gaining and releasing of resources, with 1 and 54 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that Tangible resources have significant influence on gaining and releasing of resources ($p < 0.05$). The tangible resources comprise of physical resources, financial resources and technological resources.

Table 4.44: Intangible Resources, Gaining and Releasing of Resources

Model Summary[b]

Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df 1	df 2	Sig. F Change	
1	.473[a]	.224	.224	15.557	1	54	.000	2.347

a. Predictors: (Constant), In-Tangible Resources
b. Dependent Variable: Gaining and releasing of resources

Source: Research Data, 2015

Table 4.44 illustrates the effect of Intangible resources on gaining and releasing of resources. The results show that Intangible resources have significant influence on gaining and releasing of resources ($p < 0.05$). Correlation coefficient (R) is 0.473 for intangible resources and gaining and releasing of resources. The correlation between intangible resources and gaining and releasing of resources is moderately strong.

The results further indicate that there are different variations in tangible resources and gaining and releasing of resources. The coefficient of determination, $R^2 = 0.224$ explains that 22.4% of the variations of gaining and releasing of resources have been explained by the variable of intangible resources. 77.6% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the gaining and releasing of resources does have a good fit. The analysis of variance, F-ratio is 15.557 for gaining and releasing of resources, with 1 and 54 degrees of freedom of critical values are between 4.030 and 4.000 at 0.05 level of significance, the observed value is more than the critical value. The overall results reveal that Intangible resources have significant influence on gaining and releasing of resources ($p < 0.05$). The intangible resources comprise of human assets and intellectual capital and skills.

4.7.3 The Influence of Environmental Dynamism on the Relationship between Organizational Resources and Dynamic Capabilities

The third objective was to determine the moderating influence of environmental dynamism on the relationship between organizational resources and dynamic capabilities of large companies in Kenya. It was tackled by testing hypothesis three, which stated that environmental dynamism has significant moderating influence on the relationship between organizational resources and dynamic capabilities.

The equation of this hypothesis stated that, $M_2 = \alpha_o + \alpha_1 X + \alpha_2 Z + \alpha_3 (X*Z)$. Where M_2 = Dynamic Capabilities; X = Organizational Resources; Z= Environmental Dynamism; α_1, α_2, α_3 = coefficient estimate of the effect of X, Z and X*Z on Y respectively; α_o = coefficient estimate of the intercept.

The organizational resources consist of tangible resources and intangible resources. The environmental dynamism consists of changeability of external environment and predictability of external environment. The dynamic capabilities consist of resource integration, resource reconfiguration, Gaining, and releasing of resources. The tests include the moderating influence of environmental dynamism on the relationship between organizational resources and dynamic capabilities.

The combined effect organizational resources and environmental dynamism on dynamic capabilities explain the correlation coefficient (R), the coefficient of determination (R^2), the overall statistical significance (F-ratio) and level of significance (p-value). The research used the hierarchical method of regression analysis to examine the significant moderating influence of environmental dynamism on the relationship between organizational resources and dynamic capabilities. The third model labeled three on each table illustrates the results of the environmental dynamism influence.

Table 4.45: The Combined Effect of the Organizational Resources, Environmental Dynamism on Dynamic Capabilities

Model Summary[d]

Model	R	R Square	Adjusted R Square	Change Statistics			Durbin-Watson
				R Square Change	F Change	Sig. F Change	
1	.555[a]	.308	.295	.308	24.031	.000	
2	.558[b]	.312	.286	.004	.277	.601	
3	.565[c]	.319	.280	.007	.555	.460	2.150

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Environmental Dynamism
c. Predictors: (Constant), Organizational Resources, Environmental Dynamism, Organizational Resources *Environmental Dynamism
d. Dependent Variable: Dynamic Capabilities

Source: Research Data, 2015

Table 4.45 illustrates the summary of the combined effect of organizational resources and environmental dynamism on dynamic capabilities. The results show that the correlation coefficient (R) of organizational resource is 0.555, when the parameter of environmental dynamism is added it increases to 0.558, with addition of the parameter of the interaction of organizational resources and environmental dynamism it increases to 0.565. The correlation between organizational resources, dynamic capabilities and organizational performance is moderately strong.

The results further indicate that there are different variations in dynamic capabilities by organizational resources and environmental dynamism. The coefficient of determination, $R^2 = 0.319$ explains that 31.9% of the variations of dynamic capabilities have been explained by the variables of organizational resources, environmental dynamism and the interaction of organizational resources and environmental dynamism. 68.1% of the variations are explained by other factors, which are not part of this study.

The conclusion is that the regression model for the dynamic capabilities does not have a good fit. When parameter of environmental dynamism is added, the change of the coefficient of determination (ΔR^2) increases by 4%, with a further addition of the parameter of the interaction of organizational resources and environmental dynamism the percentage of variability accounted for increases by 7%. The corresponding F-ratio for the model, organizational resources F-ratio is 24.031.

When the parameter of environmental dynamism is added, the change in F-ratio is 0.277, with a further addition of the parameter of the interaction of organizational resources and environmental dynamism the change in F- ratio is 0.555. The corresponding p- value for the model, organizational resources is significant ($p < 0.05$). When the parameter of environmental dynamism is added model two is not significant ($p > 0.05$), with a further addition of the interaction of organizational resources and environmental dynamism Model 3 is not significant ($p > 0.05$). The results indicate that environmental dynamism has no statistically significant relationship between organizational resources and dynamic capabilities.

Table 4.46: Tangible Resources, Changeability of External Environment and Resource Integration

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.398[a]	.158	.158	10.160	.002	
2	.400[b]	.160	.001	.079	.780	
3	.424[c]	.180	.021	1.305	.259	2.188

a. Predictors: (Constant), Tangible Resources
b. Predictors: (Constant), Tangible Resources, Changeability of External Environment
c. Predictors: (Constant), Tangible Resources, Changeability of External Environment, Tangible*changeability
d. Dependent Variable: Resources Integration

Source: Research Data, 2015

Table 4.46 illustrates the summary of the effect of tangible resources and on resource integration. The results show that the correlation coefficient (R) of tangible resources is 0.398, when the parameter of changeability of external environment is added it increases to 0.400, with addition of the parameter of the interaction of tangible resources and changeability of external environment it increases to 0.424. The correlation between tangible resources, resource integration and organizational performance is moderately strong. The results further indicate that there are different variations in resource integration by tangible resources and changeability of external environment. The coefficient of determination, $R^2 = 0.158$ explains that 15.8% of the variations of resource integration have been explained by the variables of tangible resources, changeability of external environment and the interaction of tangible resources and changeability of external environment. 84.2% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the resource integration does have a good fit.

When parameter of changeability of external environment is added, the change of the coefficient of determination (ΔR^2) increases by 0.1%, with a further addition of the parameter of the interaction of tangible resources and changeability of external environment the percentage of variability accounted for increases by 2.1%. The analysis of variance F-ratio for the model, tangible resources F-ratio is 10.160. When the parameter of changeability of external environment is added, the change in F-ratio is 0.079, with a further addition of the parameter of the interaction of tangible resources and changeability of external environment the change in F- ratio is 1.305. The corresponding p- value for the model, tangible resources is significant ($p < 0.05$).

When the parameter of changeability of external environment is added model two is not significant ($p > 0.05$), with a further addition of the interaction of tangible resources and changeability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that changeability of external environment has no statistically significant relationship between tangible resources and resource integration.

Table 4.47: Tangible Resources, Changeability of External Environment and Resource Reconfiguration

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.396[a]	.157	.157	10.071	.002	
2	.396[b]	.157	.000	.001	.974	
3	.399[c]	.159	.002	.125	.725	2.070

a. Predictors: (Constant), Tangible Resources
b. Predictors: (Constant), Tangible Resources, Changeability of External Environment
c. Predictors: (Constant), Tangible Resources, Changeability of External Environment, Tangible*changeability
d. Dependent Variable: Resource Reconfiguration

Source: Research Data, 2015

Table 4.47 illustrates the summary of the effect of tangible resources and changeability of external environment on resource reconfiguration. The results show that the correlation coefficient (R) of organizational resource is 0.396, when the parameter of changeability of external environment is added it increases to 0.396, with addition of the parameter of the interaction of tangible resources and changeability of external environment it increases to 0.399. The correlation between tangible resources, resource reconfiguration and organizational performance is moderately weak.

The results further indicate that there are different variations in resource reconfiguration by tangible resources and changeability of external environment. The coefficient of determination, $R^2 = 0.157$ explains that 15.7% of the variations of resource reconfiguration have been explained by the variables of tangible resources, changeability of external environment and the interaction of tangible resources and changeability of external environment. 84.3% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the resource reconfiguration does have a good fit. When parameter of changeability of external environment is added, the change of the coefficient of determination (ΔR^2) increases by 0% with a further addition of the parameter of the interaction of tangible resources and changeability of external environment the percentage of variability accounted for increases by 0.2%.

The analysis of variance, F-ratio for the model, tangible resources F-ratio is 10.071. When the parameter of changeability of external environment is added, the change in F-ratio is 0.001, with a further addition of the parameter of the interaction of tangible resources and changeability of external environment the change in F- ratio is 0.125. The corresponding p- value for the model, tangible resources is significant ($p < 0.05$). When the parameter of changeability of external environment is added model 2 is not significant ($p > 0.05$), with a further addition of the interaction of tangible resources and changeability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that changeability of external environment has no statistically significant relationship between tangible resources and resource reconfiguration.

Table 4.48: Tangible Resources, Changeability of External Environment and Gaining and Releasing of Resources

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.531[a]	.282	.282	21.180	.000	
2	.550[b]	.303	.021	1.602	.211	
3	.576[c]	.332	.029	2.287	.137	2.570

a. Predictors: (Constant), Tangible Resources
b. Predictors: (Constant), Tangible Resources, Changeability of External Environment
c. Predictors: (Constant), Tangible Resources, Changeability of External Environment, Tangible*changeability
d. Dependent Variable: Gaining and releasing of Resources

Source: Research Data, 2015

Table 4.48 illustrates the summary of the effect of tangible resources and changeability of external environment on gaining and releasing of resources. The results show that the correlation coefficient (R) of organizational resource is 0.531, when the parameter of changeability of external environment is added it increases to 0.550, with addition of the parameter of the interaction of tangible resources and changeability of external environment it increases to 0.576. The correlation between tangible resources, gaining and releasing of resources and changeability of external environment is moderately strong.

The results further indicate that there are different variations in gaining and releasing of resources by tangible resources and changeability of external environment. The coefficient of determination, $R^2 = 0.282$ explains that 28.2% of the variations of gaining and releasing of resources have been explained by the variables of tangible resources, changeability of external environment and the interaction of tangible resources and changeability of external environment.

71.8% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the gaining and releasing of resources does not have a good fit. When parameter of changeability of external environment is added, the change of the coefficient of determination (ΔR^2) increases by 2.1%, with a further addition of the parameter of the interaction of tangible resources and changeability of external environment the percentage of variability accounted for increases by 2.9%. The analysis of variance, F-ratio for the model, tangible resources F-ratio is 21.180. When the parameter of changeability of external environment is added, the change in F-ratio is 1.602, with a further addition of the parameter of the interaction of tangible resources and changeability of external environment the change in F- ratio is 2.287. The corresponding p- value for the model, tangible resources is significant ($p < 0.05$). When the parameter of changeability of external environment is added model two is not significant ($p > 0.05$), with a further addition of the interaction of tangible resources and changeability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that changeability of external environment has no statistically significant relationship between tangible resources and gaining and releasing of resources.

Table 4.49: Intangible Resources, Changeability of External Environment and Resource Integration

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.499[a]	.249	.249	17.907	.000	
2	.499[b]	.249	.000	.012	.914	
3	.500[c]	.250	.001	.041	.841	2.042

a. Predictors: (Constant), Intangible Resources
b. Predictors: (Constant), Intangible Resources, Changeability of External Environment
c. Predictors: (Constant), Intangible Resources, Changeability of External Environment, Intangible*changeability
d. Dependent Variable: Resources Integration

Source: Research Data, 2015

Table 4.49 illustrates the summary of the combined effect of intangible resources and changeability of external environment on resource integration. The results show that the correlation coefficient (R) of intangible resource is 0.499, when the parameter of changeability of external environment is added it increases to 0.499, with addition of the parameter of the interaction of intangible resources and changeability of external environment it increases to 0.500. The correlation between intangible resources, resource integration and changeability of external environment is moderately strong. The results further indicate that there are different variations in resource integration by intangible resources and changeability of external environment.

The coefficient of determination, $R^2 = 0.249$ explains that 24.9% of the variations of resource integration have been explained by the variables of intangible resources, changeability of external environment and the interaction of intangible resources and changeability of external environment. 75.1% of the variations are explained by other factors, which are not part of this study.

The conclusion is that the regression model for the resource integration does have a good fit. When parameter of changeability of external environment is added, the change of the coefficient of determination (ΔR^2) increases by 0%, with a further addition of the parameter of the interaction of intangible resources and changeability of external environment the percentage of variability accounted for increases by 0.1%. The analysis of variance, F-ratio for the model, intangible resources F-ratio is 17.907. When the parameter of changeability of external environment is added, the change in F-ratio is 0.012, with a further addition of the parameter of the interaction of intangible resources and changeability of external environment the change in F- ratio is 0.014. The corresponding p- value for the model,

intangible resources is significant ($p < 0.05$). When the parameter of changeability of external environment is added model two is not significant ($p > 0.05$), with a further addition of the interaction of intangible resources and changeability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that changeability of external environment has no statistically significant relationship between intangible resources and resource integration.

Table 4.50: Intangible Resources, Changeability of External Environment and Resource Reconfiguration

Model Summary[d]

Model	R	R squared	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.301[a]	0.091	.091	5.379	.024	
2	.303[b]	0.092	.001	.071	.791	
3	.305[c]	0.093	.001	.079	.779	2.012

a. Predictors: (Constant), Intangible Resources
b. Predictors: (Constant), Intangible Resources, Changeability of External Environment
c. Predictors: (Constant), Intangible Resources, Changeability of External Environment, Intangible*changeability
d. Dependent Variable: Resource Reconfiguration

Source: Research Data, 2015

Table 4.50 illustrates the summary of the effect of intangible resources and changeability of external environment on resource reconfiguration. The results show that the correlation coefficient (R) of intangible resources is 0.301, when the parameter of changeability of external environment is added it increases to 0.303, with addition of the parameter of the interaction of intangible resources and changeability of external environment it increases to 0.305. The correlation between intangible resources, resource reconfiguration and changeability of external environment is moderately weak. The results further indicate that there are different variations in resource reconfiguration by intangible resources and

changeability of external environment. The coefficient of determination, $R^2 = 0.091$ explains that 9.1% of the variations of resource reconfiguration have been explained by the variables of intangible resources, changeability of external environment and the interaction of intangible resources and changeability of external environment. 90.9% of the variations are explained by other factors, which are not part of this study.

The conclusion is that the regression model for the resource reconfiguration does not have a good fit. When parameter of changeability of external environment is added, the change of the coefficient of determination (ΔR^2) increases by 0.1%, with a further addition of the parameter of the interaction of intangible resources and changeability of external environment the percentage of variability accounted for increases by 0.1%. The analysis of variance, F-ratio for the model, intangible resources F-ratio is 5.379. When the parameter of changeability of external environment is added, the change in F-ratio is 0.071, with a further addition of the parameter of the interaction of intangible resources and changeability of external environment the change in F- ratio is 0.079. The corresponding p- value for the model, intangible resources is significant ($p < 0.05$).

When the parameter of changeability of external environment is added model 2 is not significant ($p > 0.05$), with a further addition of the interaction of intangible resources and changeability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that changeability of external environment has no statistically significant relationship between intangible resources and resource reconfiguration.

Table 4.51: Intangible Resources, Changeability of External Environment and Gaining and Releasing of Resources

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.473[a]	.224	.224	15.557	.000	
2	.481[b]	.232	.008	.554	.460	
3	.490[c]	.240	.008	.580	.450	2.386

a. Predictors: (Constant), Intangible Resources
b. Predictors: (Constant), Intangible Resources, Changeability of External Environment
c. Predictors: (Constant), Intangible Resources, Changeability of External Environment, Intangible*changeability
d. Dependent Variable: Gaining and releasing of Resources

Source: Research Data, 2015

Table 4.51 illustrates the summary of the effect of intangible resources and changeability of external environment on gaining and releasing of resources. The results show that the correlation coefficient (R) of intangible resources is 0.473, when the parameter of changeability of external environment is added it increases to 0.481, with addition of the parameter of the interaction of intangible resources and changeability of external environment it increases to 0.490. The correlation between intangible resources, gaining and releasing of resources and changeability of external environment is moderately strong.

The results further indicate that there are different variations in gaining and releasing of resources by intangible resources and changeability of external environment. The coefficient of determination, $R^2 = 0.224$ explains that 22.4% of the variations of gaining and releasing of resources have been explained by the variables of intangible resources, changeability of external environment and the interaction of intangible resources and changeability of external environment.

77.6% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the gaining and releasing of resources does not have a good fit. When parameter of changeability of external environment is added, the change of the coefficient of determination (ΔR^2) increases by 0.8%, with a further addition of the parameter of the interaction of intangible resources and changeability of external environment the % of variability accounted for increases by 0.8%.

The analysis of variance, F-ratio for the model, intangible resources F-ratio is 15.557. When the parameter of changeability of external environment is added, the change in F-ratio is 0.554, with a further addition of the parameter of the interaction of intangible resources and changeability of external environment the change in F- ratio is 0.558.

The corresponding p- value for the model, intangible resources is significant ($p < 0.05$). When the parameter of changeability of external environment is added model 2 is not significant ($p > 0.05$), with a further addition of the interaction of intangible resources and changeability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that changeability of external environment has no statistically significant relationship between intangible resources and gaining and releasing of resources.

Table 4.52: Tangible Resources, Predictability of External Environment and Resource Integration

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.398[a]	.158	.158	10.160	.002	
2	.508[b]	.258	.100	7.147	.010	
3	.511[c]	.261	.003	.177	.676	1.987

a. Predictors: (Constant), Tangible Resources
b. Predictors: (Constant), Tangible Resources, Predictability of External Environment
c. Predictors: (Constant), Tangible Resources, Predictability of External Environment, Tangible*Predictability
d. Dependent Variable: Resources Integration

Source: Research Data, 2015

Table 4.52 illustrates the summary of the effect of tangible resources and predictability of external environment on resource integration. The results show that the correlation coefficient (R) of organizational resource is 0.398, when the parameter of predictability of external environment is added it increases to 0.508, with addition of the parameter of the interaction of tangible resources and predictability of external environment it increases to 0.511. The correlation between tangible resources, resource integration and predictability of external environment is moderately strong. The results further indicate that there are different variations in resource integration by tangible resources and predictability of external environment.

The coefficient of determination, $R^2 = 0.158$ explains that 15.8% of the variations of resource integration have been explained by the variables of tangible resources, predictability of external environment and the interaction of tangible resources and predictability of external environment. 84.2% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the resource integration does not have a good fit.

When parameter of predictability of external environment is added, the change of the coefficient of determination (ΔR^2) increases by 10%, with a further addition of the parameter of the interaction of tangible resources and predictability of external environment the percentage of variability accounted for increases by 0.3%. The analysis of variance, F-ratio for the model, tangible resources F-ratio is 10.160. When the parameter of predictability of external environment is added, the change in F-ratio is 7.147, with a further addition of the parameter of the interaction of tangible resources and predictability of external environment the change in F- ratio is 0.177.

The corresponding p- value for the model, tangible resources is significant ($p < 0.05$). When the parameter of predictability of external environment is added model 2 is significant ($p < 0.05$), with a further addition of the interaction of tangible resources and predictability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that predictability of external environment has no statistically significant relationship between tangible resources and resource integration.

Table 4.53: Tangible Resources, Predictability of External Environment and Resource Reconfiguration

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.396[a]	.157	.157	10.071	.002	
2	.397[b]	.157	.000	.002	.964	
3	.397[c]	.157	.000	.009	.925	2.067

a. Predictors: (Constant), Tangible Resources
b. Predictors: (Constant), Tangible Resources, Predictability of External Environment
c. Predictors: (Constant), Tangible Resources, Predictability of External Environment, Tangible*Predictability
d. Dependent Variable: Resource Reconfiguration

Source: Research Data, 2015

Table 4.53 illustrates the summary of the combined effect of tangible resources and predictability of external environment on resource reconfiguration. The results show that the correlation coefficient (R) of tangible resources is 0.396, when the parameter of predictability of external environment is added it increases to 0.397, with addition of the parameter of the interaction of tangible resources and predictability of external environment it increases to 0.397. The correlation between tangible resources, resource reconfiguration and predictability of external environment is moderately weak.

The results further indicate that there are different variations in resource reconfiguration by tangible resources and predictability of external environment. The coefficient of determination, $R^2 = 0.157$ explains that 15.7% of the variations of resource reconfiguration have been explained by the variables of tangible resources, predictability of external environment and the interaction of tangible resources and predictability of external environment. 84.3% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the resource reconfiguration does have a good fit.

When parameter of predictability of external environment is added, the change of the coefficient of determination (ΔR^2) increases by 0%, with a further addition of the parameter of the interaction of tangible resources and predictability of external environment the percentage of variability accounted for increases by 0%. The analysis of variance, F-ratio for the model, tangible resources F-ratio is 10.071. When the parameter of predictability of external environment is added, the change in F-ratio is 0.002, with a further addition of the parameter of the interaction of tangible resources and predictability of external environment the change in F- ratio is 0.009. The corresponding p- value for the model, tangible resources is significant ($p < 0.05$).

When the parameter of predictability of external environment is added model two is not significant ($p > 0.05$), with a further addition of the interaction of tangible resources and predictability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that predictability of external environment has no statistically significant relationship between tangible resources and resource reconfiguration.

Table 4.54: Tangible Resources, Predictability of External Environment and Gaining and Releasing Resources

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.531[a]	.282	.282	21.180	.000	
2	.534[b]	.285	.003	.216	.644	
3	.536[c]	.287	.003	.201	.656	2.472

a. Predictors: (Constant), Tangible Resources
b. Predictors: (Constant), Tangible Resources, Predictability of External Environment
c. Predictors: (Constant), Tangible Resources, Predictability of External Environment, Tangible*Predictability
d. Dependent Variable: Gaining and releasing of Resources

Source: Research Data, 2015

Table 4.54 illustrates the summary of the effect of tangible resources and predictability of external environment on gaining and releasing of resources. The results show that the correlation coefficient (R) of tangible resources is 0.531, when the parameter of predictability of external environment is added it increases to 0.534, with addition of the parameter of the interaction of tangible resources and predictability of external environment it increases to 0.536. The correlation between tangible resources, gaining and releasing of resources and predictability of external environment is moderately strong.

The results further indicate that there are different variations in gaining and releasing of resources by tangible resources and predictability of external environment. The coefficient of determination, $R^2 = 0.282$ explains that 28.2% of the variations of gaining and releasing of resources have been explained by the variables of tangible resources, predictability of external environment and the interaction of tangible resources and predictability of external environment. 71.8% of the variations are explained by other factors, which are not part of this study.

The conclusion is that the regression model for the gaining and releasing of resources does have a good fit. When parameter of predictability of external environment is added, the change of the coefficient of determination (ΔR^2) increases by 0.3%, with a further addition of the parameter of the interaction of tangible resources and predictability of external environment the percentage of variability accounted for increases by 0.3%.

The analysis of variance, F-ratio for the model, tangible resources F-ratio is 21.180. When the parameter of predictability of external environment is added, the change in F-ratio is 0.216, with a further addition of the parameter of the interaction of tangible resources and predictability of external environment the change in F- ratio is 0.201.

The corresponding p- value for the model, tangible resources is significant ($p < 0.05$). When the parameter of predictability of external environment is added model two is not significant ($p > 0.05$), with a further addition of the interaction of tangible resources and predictability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that predictability of external environment has no statistically significant relationship between tangible resources and gaining and releasing of resources.

Table 4.55: Intangible Resources, Changeability of External Environment and Resource Integration

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.499[a]	.249	.249	17.907	.000	
2	.541[b]	.292	.043	3.237	.078	
3	.541[c]	.292	.000	.006	.936	1.908

a. Predictors: (Constant), Intangible Resources
b. Predictors: (Constant), Intangible Resources, Predictability of External Environment
c. Predictors: (Constant), Intangible Resources, Predictability of External Environment, Intangible*Predictability
d. Dependent Variable: Resources Integration

Source: Research Data, 2015

Table 4.55 illustrates the summary of the effect of intangible resources and predictability of external environment on resource integration. The results show that the correlation coefficient (R) of intangible resourced is 0.499, when the parameter of predictability of external environment is added it increases to 0.541, with addition of the parameter of the interaction of intangible resources and predictability of external environment it increases to 0.541. The correlation between intangible resources, resource integration and predictability of external environment is moderately strong. The results further indicate that there are different variations in resource integration by intangible resources and predictability of external environment.

The coefficient of determination, $R^2 = 0.249$ explains that 24.9% of the variations of resource integration have been explained by the variables of intangible resources, predictability of external environment and the interaction of intangible resources and predictability of external environment. 75.1% of the variations are explained by other factors, which are not part of this study. The conclusion is that the regression model for the resource integration does have a good fit.

When parameter of predictability of external environment is included, the change of the coefficient of determination (ΔR^2) increases by 4.3%, with a further addition of the parameter of the interaction of intangible resources and predictability of external environment the percentage of variability accounted for increases by 0%. The analysis of variance, F-ratio for the model, intangible resources F-ratio is 17.907. When the parameter of predictability of external environment is added, the change in F-ratio is 3.237, with a further addition of the parameter of the interaction of intangible resources and predictability of external environment the change in F- ratio is 0.006.

The corresponding p- value for the model, intangible resources is significant ($p < 0.05$). When the parameter of predictability of external environment is added model two is not significant ($p > 0.05$), with a further addition of the interaction of intangible resources and predictability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that predictability of external environment has no statistically significant relationship between intangible resources and resource integration.

Table 4.56: Intangible Resources, Changeability of External Environment and Resource Reconfiguration

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.301[a]	.091	.091	5.379	.024	
2	.312[b]	.097	.007	.402	.529	
3	.315[c]	.099	.002	.113	.738	2.039

a. Predictors: (Constant), Intangible Resources
b. Predictors: (Constant), Intangible Resources, Predictability of External Environment
c. Predictors: (Constant), Intangible Resources, Predictability of External Environment, Intangible*predictability
d. Dependent Variable: Resource Reconfiguration

Source: Research Data, 2015

Table 4.56 illustrates the summary of the effect of intangible resources and predictability of external environment on resource reconfiguration. The results show that the correlation coefficient (R) of intangible resources is 0.301, when the parameter of predictability of external environment is included it increases to 0.312, with addition of the parameter of the interaction of intangible resources and predictability of external environment it increases to 0.315. The correlation between intangible resources, resource reconfiguration and predictability of external environment is moderately weak.

The results further indicate that there are different variations in resource reconfiguration by intangible resources and predictability of external environment. The coefficient of determination, $R^2 = 0.091$ explains that 9.1% of the variations of resource reconfiguration have been explained by the variables of intangible resources, predictability of external environment and the interaction of intangible resources and predictability of external environment. 90.9% of the variations are explained by other factors, which are not part of this study.

The conclusion is that the regression model for the resource reconfiguration does not have a good fit. When parameter of predictability of external environment is added, the change of the coefficient of determination (ΔR^2) increases by 0.7%, with a further addition of the parameter of the interaction of intangible resources and predictability of external environment the percentage of variability accounted for increases by 0.2%. The analysis of variance, F-ratio for the model, intangible resources F-ratio is 5.379.

When the parameter of predictability of external environment is added, the change in F-ratio is 0.402, with a further addition of the parameter of the interaction of intangible resources and predictability of external environment the change in F- ratio is 0.113. The corresponding p- value for the model, intangible resources is significant ($p < 0.05$).

When the parameter of predictability of external environment is added model 2 is not significant ($p > 0.05$), with a further addition of the interaction of intangible resources and predictability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that predictability of external environment has no statistically significant relationship between intangible resources and resource reconfiguration.

Table 4.57: Intangible Resources, Changeability of External Environment and Gaining and Releasing of Resources

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.473[a]	.224	.224	15.557	.000	
2	.503[b]	.253	.029	2.063	.157	
3	.522[c]	.273	.020	1.434	.237	2.383

a. Predictors: (Constant), Intangible Resources
b. Predictors: (Constant), Intangible Resources, Predictability of External Environment
c. Predictors: (Constant), Intangible Resources, Predictability of External Environment, Intangible*Predictability
d. Dependent Variable: Gaining and releasing of Resources

Source: Research Data, 2015

Table 4.57 illustrates the summary of the effect of intangible resources and predictability of external environment on gaining and releasing of resources. The results show that the correlation coefficient (R) of intangible resources is 0.473, when the parameter of predictability of external environment is added it increases to 0.503, with addition of the parameter of the interaction of intangible resources and predictability of external environment it increases to 0.522.

The correlation between intangible resources, gaining and releasing of resources and predictability of external environment is moderately strong. The results further indicate that there are different variations in gaining and releasing of resources by intangible resources and predictability of external environment.

The coefficient of determination, $R^2 = 0.224$ explains that 22.4% of the variations of gaining and releasing of resources have been explained by the variables of intangible resources, predictability of external environment and the interaction of intangible resources and predictability of external environment. 77.6% of the variations are explained by other

factors, which are not part of this study. The conclusion is that the regression model for the gaining and releasing of resources does not have a good fit. When parameter of predictability of external environment is included, the change of the coefficient of determination (ΔR^2) increases by 2.9%, with a further addition of the parameter of the interaction of intangible resources and predictability of external environment the percentage of variability accounted for increases by 2%.

The analysis of variance, F-ratio for the model, intangible resources F-ratio is 15.557. When the parameter of predictability of external environment is included, the change in F-ratio is 2.063, with a further addition of the parameter of the interaction of intangible resources and predictability of external environment the change in F- ratio is 1.434. The corresponding p- value for the model, intangible resources is significant ($p < 0.05$). When the parameter of predictability of external environment is added model two is not significant ($p > 0.05$), with a further addition of the interaction of intangible resources and predictability of external environment Model 3 is not significant ($p > 0.05$). The results indicate that predictability of external environment has no statistically significant relationship between intangible resources and gaining and releasing of resources.

4.7.4 The influence of Dynamic Capabilities on the Relationship between Organizational Resources and Organizational Performance

The fourth objective was to determine the influence of dynamic capabilities on the relationship between organizational resources and organizational performance of large manufacturing companies in Kenya. It was dealt with by testing hypothesis four which stated that, dynamic capabilities has significant intervening influence on the relationship between organizational resources and organizational performance.

The three equations analyzed included $Y_1 = \alpha_o + cX + \epsilon_o$ - (2); $M_1 = \alpha_1 + aX + \epsilon_1$ - (1); $Y_2 = \alpha_2 + c'X + bM_1 + \epsilon_2$ - (3). Where Y_1 & Y_2 = Organization Performance, M_1 = Dynamic Capabilities, and X = Organizational Resources. Where c is the coefficient estimate of the effect of X on Y_1, a = coefficient estimate of the effect of X on M_1, b = coefficient estimate of the effect of M_1 on Y_2, and c' = coefficient estimate of the effect of X on Y_2; ε_0, ε_1, ε_2 = the regression error terms. Simultaneous entries of organizational resources and dynamic capabilities were used.

The tests include the combined effect of organizational resources and dynamic capabilities on performance, which explains the correlation coefficient (R), the coefficient of determination (R^2), the overall statistical significance (F-ratio) and level of significance (p-value). The research used the simultaneous method of regression analysis to examine the significant intervening influence of dynamic capabilities on the relationship between organizational resources and organizational performance. The second hierarchy labeled model *b* for significance influence and labeled 2 for combined influence on each table illustrates the results of the dynamic capabilities influence.

Equation 1: $Y1 = \alpha_o + cX + \epsilon_o$ - (1)

Table 4.58: The Combined Effect of Organizational Resources on Financial Performance

Model Summary[b]

Model	R	R Square	Adjusted R Square	Change Statistics			Durbin-Watson
				R Square Change	F Change	Sig. F Change	
1	.304[a]	.092	.075	.092	5.391	.024	2.138

a. Predictors: (Constant), Organizational Resources
b. Dependent Variable: Financial Perspective
Source: Research Data, 2015

Table 4.59: The Combined Effect of Organizational Resources on Non-Financial Performance

Model Summary[b]

Model	R	R Square	Adjusted R Square	Change Statistics			Durbin-Watson
				R Square Change	F Change	Sig. F Change	
1	.438[a]	.192	.176	.192	12.568	.001	1.793

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: Non-Financial Performance

Source: Research Data, 2015

Equation 2: $M_1 = \alpha_1 + aX + \epsilon_1$

Table 4.60: The Combined Effect of Organizational Resources on Dynamic Capabilities

Model Summary[b]

Model	R	R Square	Adjusted R Square	Change Statistics			Durbin-Watson
				R Square Change	F Change	Sig. F Change	
1	.555[a]	.308	.295	.308	24.031	.000	2.102

a. Predictors: (Constant), Organizational Resources

b. Dependent Variable: Dynamic Capabilities

Source: Research Data, 2015

Equation 3: $Y_2 = \alpha_2 + c'X + bM_1 + \epsilon_2$ - (3)

Table 4.61: Organizational Resources, Dynamic Capabilities and Financial Performance

Model Summary[c]

Model	R	R Square	Adjusted R Square	Change Statistics			Durbin-Watson
				R Square Change	F Change	Sig. F Change	
1	.304[a]	.092	.075	.092	5.391	.024	
2	.363[b]	.132	.098	.039	2.361	.130	2.058

a. Predictors: (Constant), Organizational Resources

b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities

c. Dependent Variable: Financial Performance

Source: Research Data, 2015

Table 4.62: Organizational Resources, Dynamic Capabilities and Non-financial Performance

Model Summary[c]

Model	R	R Square	Adjusted R Square	Change Statistics			
				R Square Change	F Change	Sig. F Change	Durbin-Watson
1	.438[a]	.192	.176	.192	12.568	.001	
2	.524[b]	.275	.247	.083	5.950	.018	1.590

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Dependent Variable: Non-Financial Performance

Source: Research Data, 2015

Table 4.58 and 4.59 represent equation 1, which shows that the effect of organizational resources on financial and non-financial performance respectively is also significant ($p < 0.05$). Table 4.60 represents equation 2; it shows that the effect of organizational resources on dynamic capabilities is significant ($p < 0.05$).

In equation 3, Table 4.61 and 4.62 shows that the effect of organizational resources and dynamic capabilities on financial performance is not significant, ($p > 0.05$), while on non-financial performance is significant, ($p < 0.05$).

Table 4.61 illustrates the combined effect of organizational resources and dynamic capabilities on financial performance. The results show that the correlation coefficient (R) of organizational resources is 0.304, when the parameter of dynamic capabilities is added, it increases to 0.363. The results further indicate that there are different variations in financial performance by organizational resources and dynamic capabilities. The coefficient of determination (R^2) of organizational resources is 9.2%. When parameter of dynamic capabilities is included, then change of the coefficient of determination (ΔR^2) increases by 3.9%. The corresponding F-ratio for the model, organizational capabilities F-ratio is 5.391.

When the parameter of dynamic capabilities is included, the change in F-ratio is 2.361. The corresponding p-value for model, organizational resources is significant ($p < 0.05$). When the parameter of dynamic capabilities is added model 2 is not significant ($p > 0.05$). The results show that dynamic capabilities have no intervening significant influence on the relationship between organizational resources and financial performance ($p > 0.05$).

Table 4.62 illustrates the combined effect of organizational resources and dynamic capabilities on non-financial performance. The results show that the correlation coefficient (R) of organizational resources is 0.438, when the parameter of dynamic capabilities is added, it increases to 0.524. The results further indicate that there are different variations in non-financial performance by organizational resources and dynamic capabilities. The coefficient of determination (R^2) of organizational resources is 19.2%.

When parameter of dynamic capabilities is added, then change of the coefficient of determination (ΔR^2) increases by 8.3%. The corresponding F-ratio for the model, organizational resources F-ratio is 12.568. When the parameter of dynamic capabilities is added, the change in F-ratio is 5.950. The corresponding p-value for models 1 and 2 are significant ($p < 0.05$). The results show that dynamic capabilities have intervening influence on the relationship between organizational resources and non-financial performance.

4.7.5 The Joint Effect of Organizational Resources, Dynamic Capabilities and Environmental Dynamism on Organizational Performance

The fifth objective was to determine the joint effect of organizational resources, dynamic capabilities, and environmental dynamism on organizational performance of large manufacturing companies in Kenya. It was tackled by testing hypothesis five that stated that, the joint effect of organizational resources, dynamic capabilities and environmental dynamism on performance is significantly different from the independent effect of the variables. Regression analysis was used to analyze the data. The equation of this hypothesis stated that, $Y_3 = \alpha_o + \alpha_1 X + \alpha_2 M + \alpha_3 Z + \epsilon_o$. Y_3 = Organization Performance; X = Organizational Resources; M = Dynamic Capabilities; Z = Environmental Dynamism; α_1, α_2, α_3 = coefficient estimate of the effect of X, M and Z on Y respectively; α_o = coefficient estimate of the intercept; ϵ_o = the regression error term.

The tests include the combined effects of organizational resources, dynamic capabilities and environmental dynamism on financial performance, the combined effect of organizational resources and dynamic capabilities on non-financial performance. The combined effect explains the correlation coefficient (R), the coefficient of determination (R^2), the overall statistical significance (F-ratio) and level of significance (p-value).

The research used the hierarchical method of regression analysis to examine the joint effect of organizational resources, dynamic capabilities, environmental dynamism and organizational performance. The third hierarchy labeled *c* for combined joint effect and labeled model 3 for significance joint effect on each table illustrates the results.

Table 4.63: Joint Effect of Organizational Resources, Dynamic Capabilities, Environmental Dynamism on Financial Performance

Model Summary[d]

Model	R	R Square	Adjusted R Square	Change Statistics			Durbin-Watson
				R Square Change	F Change	Sig. F Change	
1	.304[a]	.092	.075	.092	5.391	.024	
2	.363[b]	.132	.098	.039	2.361	.130	
3	.367[c]	.135	.084	.003	.179	.674	2.026

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Environmental Dynamism
d. Dependent Variable: Financial Perspective

Source: Research Data, 2015

Table 4.63 illustrates the joint effect of organizational resources, dynamic capabilities and environmental dynamism on financial performance. The results show that the correlation coefficient (R) of organizational resources is 0.304, when the parameter of dynamic capabilities is added it increases to 0.363, with addition of the parameter of environmental dynamism it increases to 0.367. The results further indicate that there are different variations in non-financial performance by the joint effect of organizational resources, dynamic capabilities and environmental dynamism. The coefficient of determination (R^2) of organizational resources is 9.2%.

When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 3.9%, with a further addition of the parameter of environmental dynamism the % of variability accounted for increases by 0.3%. The corresponding F-ratio for the model, organizational resources F-ratio is 5.391. When the parameter of dynamic capabilities is added, the change in F-ratio is 2.361, with a further addition of the parameter of environmental dynamism the change in F- ratio is 0.179.

The corresponding p-value for the model, organizational resources is significant ($p < 0.05$). When the parameter of dynamic capabilities is added model 2 is not significant ($p > 0.05$), with a further addition of the environmental dynamism Model 3 is not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and environmental dynamism on financial performance has no statistically significant effect.

Table 4.64: Joint Effect of Organizational Resources, Dynamic Capabilities, Environmental Dynamism and Non - Financial Performance

Model Summary[d]

Model	R	R Square	Adjusted R Square	Change Statistics			Durbin - Watson
				R Square Change	F Change	Sig. F Change	
1	.438[a]	.192	.176	.192	12.568	.001	
2	.524[b]	.275	.247	.083	5.950	.018	
3	.524[c]	.275	.232	.000	.000	.991	1.589

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Environmental Dynamism
d. Dependent Variable: Non-Financial Performance

Source: Research Data, 2015

Table 4.64 illustrates the joint effect of organizational resources, dynamic capabilities and environmental dynamism on non-financial performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.438, when the parameter of dynamic capabilities is added it increases to 0.524, with addition of the parameter of environmental dynamism it increases to 0.524.

The results further indicate that there are different variations in non-financial performance by the joint effect of organizational resources, dynamic capabilities and environmental dynamism. The coefficient of determination (R^2) of organizational resources is 19.2%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 8.3%, with a further addition of the parameter of environmental dynamism the percentage of variability accounted for increases by 0%. The corresponding F-ratio for the various models, organizational dynamism F-ratio is 12.568. When the parameter of dynamic capabilities is added, the change in F-ratio is 5.950, with a further addition of the parameter of environmental dynamism the change in F- ratio is 0. The corresponding p-value for models 1 and 2 are significant ($p < 0.05$), with a further addition of the environmental dynamism, Model 3 is not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and environmental dynamism on non-financial performance has no statistically significant effect.

Table 4.65: Organizational Resources, Dynamic Capabilities, changeability of External Environment and Financial Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.304[a]	.092	.092	5.391	.024	
2	.363[b]	.132	.039	2.361	.130	
3	.421[c]	.177	.046	2.822	.099	1.997

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Changeability of External Environment
d. Dependent Variable: Financial Performance

Source: Research Data, 2015

Table 4.65 illustrates the joint effect of organizational resources, dynamic capabilities and changeability of external environment on financial performance. The results show that the correlation coefficient (R) of organizational resources is 0.304, when the parameter of dynamic capabilities is added it increases to 0.363, with addition of the parameter of changeability of external environment it increases to 0.421.

The results further indicate that there are different variations in financial performance by the joint effect of organizational resources, dynamic capabilities and changeability of external environment. The coefficient of determination (R^2) of organizational resources is 9.2%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 3.9%, with a further addition of the parameter of changeability of external environment the percentage of variability accounted for increases by 4.6%. The analysis of variance, F-ratio for the various models, organizational resources F-ratio is 5.391.

When the parameter of dynamic capabilities is added, the change in F-ratio is 2.361, with a further addition of the parameter of changeability of external environment the change in F- ratio is 2.822. The corresponding p-value for models 1 is significant ($p < 0.05$), with a further addition of the changeability of external environment, Model 2 and 3 are not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and changeability of external environment on non-financial performance has no statistically significant effect.

Table 4.66: Organizational Resources, Dynamic Capabilities, Changeability of External Environment and Non-Financial Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.438[a]	.192	.192	12.568	.001	
2	.524[b]	.275	.083	5.950	.018	
3	.527[c]	.277	.003	.187	.668	1.572

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Changeability of External Environment
d. Dependent Variable: Non-Financial Performance

Source: Research Data, 2015

Table 4.66 illustrates the joint effect of organizational dynamism, dynamic capabilities and changeability of external environment on non-financial performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.438, when the parameter of dynamic capabilities is added it increases to 0.524, with addition of the parameter of changeability of external environment it increases to 0.524. The results further indicate that there are different variations in non-financial performance by the joint effect of organizational resources, dynamic capabilities and changeability of external environment.

The coefficient of determination (R^2) of organizational dynamism is 19.2%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 8.3%, with a further addition of the parameter of changeability of external environment the percentage of variability accounted for increases by 0.3%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 12.568.

When the parameter of dynamic capabilities is added, the change in F-ratio is 5.950, with a further addition of the parameter of changeability of external environment the change in F- ratio is 0.187. The corresponding p-value for models 1 and 2 are significant ($p < 0.05$), with a further addition of the changeability of external environment, Model 3 is not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and changeability of external environment on non-financial performance has no statistically significant effect.

Table 4.67: Organizational Resources, Dynamic Capabilities, Predictability of External Environment and Financial Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.304[a]	.092	.092	5.391	.024	
2	.363[b]	.132	.039	2.361	.130	
3	.383[c]	.146	.015	.873	.355	2.128

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Predictability of External Environment
d. Dependent Variable: Financial Performance

Source: Research Data, 2015

Table 4.67 illustrates the joint effect of organizational dynamism, dynamic capabilities and predictability of external environment on financial performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.304, when the parameter of dynamic capabilities is added it increases to 0.363, with addition of the parameter of predictability of external environment it increases to 0.383. The results further indicate that there are different variations in financial performance by the joint effect of organizational resources, dynamic capabilities and predictability of external environment.

The coefficient of determination (R^2) of organizational dynamism is 9.2%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 3.9%, with a further addition of the parameter of predictability of external environment the % of variability accounted for increases by 1.5%. The corresponding F-ratio for the various models, organizational dynamism F-ratio is 5.319.

When the parameter of dynamic capabilities is added, the change in F-ratio is 2.361, with a further addition of the parameter of predictability of external environment the change in F- ratio is 0,873. The corresponding p-value for models 1 is significant ($p < 0.05$), with a further addition of the predictability of external environment, Model 2 and 3 are not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and predictability of external environment on financial performance has no statistically significant effect.

Table 4.68: Organizational Resources, Dynamic Capabilities, Predictability of External Environment and Non - Financial Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.438[a]	.192	.192	12.568	.001	
2	.524[b]	.275	.083	5.950	.018	
3	.526[c]	.277	.002	.168	.683	1.604

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Predictability of External Environment
d. Dependent Variable: Non-Financial Performance

Source: Research Data, 2015

Table 4.68 illustrates the joint effect of organizational dynamism, dynamic capabilities and predictability of external environment on non-financial performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.438, when the parameter of dynamic capabilities is added it increases to 0.524, with addition of the parameter of predictability of external environment it increases to 0.526. The results further indicate that there are different variations in non-financial performance by the joint effect of organizational resources, dynamic capabilities and predictability of external environment.

The coefficient of determination (R^2) of organizational dynamism is 19.2%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 8.3%, with a further addition of the parameter of predictability of external environment the % of variability accounted for increases by 0.2%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 12.568.

When the parameter of dynamic capabilities is added, the change in F-ratio is 5.950, with a further addition of the parameter of predictability of external environment the change in F- ratio is 0.168. The corresponding p-value for models 1 and 2 are significant ($p < 0.05$), with a further addition of the predictability of external environment, Model 3 is not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and predictability of external environment on non-financial performance has no statistically significant effect.

Table 4.69: Organizational Resources, Dynamic Capabilities, Changeability of External Environment and Internal Business Process Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.207[a]	.043	.043	2.381	.129	
2	.436[b]	.190	.147	9.456	.003	
3	.443[c]	.196	.006	.360	.551	1.950

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Changeability of External Environment
d. Dependent Variable: Internal Processes Perspective

Source: Research Data, 2015

Table 4.69 illustrates the joint effect of organizational dynamism, dynamic capabilities and changeability of external environment on internal business process performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.207, when the parameter of dynamic capabilities is added it increases to 0.436, with addition of the parameter of changeability of external environment it increases to 0.443. The results further indicate that there are different variations in internal business process performance by the joint effect of organizational resources, dynamic capabilities and changeability of external environment.

The coefficient of determination (R^2) of organizational dynamism is 4.3%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 14.7%, with a further addition of the parameter of changeability of external environment the percentage of variability accounted for increases by 0.6%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 2.381.

When the parameter of dynamic capabilities is added, the change in F-ratio is 9.456, with a further addition of the parameter of changeability of external environment the change in F- ratio is 0.360. The corresponding p-value for models 2 significant ($p < 0.05$), with a further addition of the changeability of external environment, Model 1 and 3 are not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and changeability of external environment on internal business process performance has no statistically significant effect.

Table 4.70: Organizational Resources, Dynamic Capabilities, Changeability of External Environment and Customer / Market Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.294[a]	.086	.086	5.017	.029	
2	.381[b]	.145	.059	3.574	.064	
3	.439[c]	.193	.048	3.006	.089	1.368

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Changeability of External Environment
d. Dependent Variable: Customer Market Perspective

Source: Research Data, 2015

Table 4.70 illustrates the joint effect of organizational dynamism, dynamic capabilities and changeability of external environment on customer / market performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.294, when the parameter of dynamic capabilities is added it increases to 0.381, with addition of the parameter of changeability of external environment it increases to 0.439.

The results further indicate that there are different variations in customer / market performance by the joint effect of organizational resources, dynamic capabilities and changeability of external environment. The coefficient of determination (R^2) of organizational dynamism is 8.6%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 5.9%, with a further addition of the parameter of changeability of external environment the percentage of variability accounted for increases by 4.8%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 5.017.

When the parameter of dynamic capabilities is added, the change in F-ratio is 3.574, with a further addition of the parameter of changeability of external environment the change in F- ratio is 3.006. The corresponding p-value for models 1 is significant ($p < 0.05$), with a further addition of the changeability of external environment, Model 2 and 3 are not significant ($p > 0.05$). The result indicate that the joint effect of organizational resources, dynamic capabilities and changeability of external environment on customer / market performance has no statistically significant effect.

Table 4.71: Organizational Resources, Dynamic Capabilities, Changeability of External Environment and Learning and Development Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.513[a]	.263	.263	18.892	.000	
2	.523[b]	.273	.010	.738	.394	
3	.529[c]	.280	.007	.487	.488	1.878

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Changeability of External Environment
d. Dependent Variable: Learning and Development Perspective

Source: Research Data, 2015

Table 4.71 illustrates the joint effect of organizational dynamism, dynamic capabilities and changeability of external environment on learning and development performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.513, when the parameter of dynamic capabilities is added it increases to 0.523, with addition of the parameter of changeability of external environment it increases to 0.529.

The results further indicate that there are different variations in learning and development performance by the joint effect of organizational resources, dynamic capabilities and changeability of external environment. The coefficient of determination (R^2) of organizational dynamism is 26.3%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 1%, with a further addition of the parameter of changeability of external environment the percentage of variability accounted for increases by 0.7%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 18.892.

When the parameter of dynamic capabilities is added, the change in F-ratio is 0.738, with a further addition of the parameter of changeability of external environment the change in F- ratio is 0.487. The corresponding p-value for models 1 is significant ($p < 0.05$), with a further addition of the changeability of external environment, Model 2 and 3 is not significant ($p > 0.05$). The result indicate that the joint effect of organizational resources, dynamic capabilities and changeability of external environment on learning and development performance has no statistically significant effect.

Table 4.72: Organizational Resources, Dynamic Capabilities, Changeability of External Environment and Social Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.538[a]	.289	.289	21.572	.000	
2	.558[b]	.311	.022	1.633	.207	
3	.582[c]	.339	.028	2.147	.149	1.762

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Changeability of External Environment
d. Dependent Variable: Social Performance

Source: Research Data, 2015

Table 4.72 illustrates the joint effect of organizational dynamism, dynamic capabilities and changeability of external environment on social performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.538, when the parameter of dynamic capabilities is added it increases to 0.558, with addition of the parameter of changeability of external environment it increases to 0.582.

The results further indicate that there are different variations in social performance by the joint effect of organizational resources, dynamic capabilities and changeability of external environment. The coefficient of determination (R^2) of organizational dynamism is 28.9%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 2.2%, with a further addition of the parameter of changeability of external environment the percentage of variability accounted for increases by 2.8%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 21.572.

When the parameter of dynamic capabilities is added, the change in F-ratio is 1.633, with a further addition of the parameter of changeability of external environment the change in F- ratio is 2.147. The corresponding p-value for models 1 is significant ($p < 0.05$), with a further addition of the changeability of external environment, Model 2 and 3 is not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and changeability of external environment on social performance has no statistically significant effect.

Table 4.73: Organizational Resources, Dynamic Capabilities, Changeability of External Environment and Environmental Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.126[a]	.016	.016	.849	.361	
2	.306[b]	.094	.078	4.476	.039	
3	.313[c]	.098	.004	.230	.634	1.791

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Changeability of External Environment
d. Dependent Variable: Environmental Performance

Source: Research Data, 2015

Table 4.73 illustrates the joint effect of organizational dynamism, dynamic capabilities and changeability of external environment on environmental performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.126, when the parameter of dynamic capabilities is added it increases to 0.306, with addition of the parameter of changeability of external environment it increases to 0.313.

The results further indicate that there are different variations in environmental performance by the joint effect of organizational resources, dynamic capabilities and changeability of external environment. The coefficient of determination (R^2) of organizational dynamism is 1.6%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 7.8%, with a further addition of the parameter of changeability of external environment the percentage of variability accounted for increases by 0.4%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 0.849.

When the parameter of dynamic capabilities is added, the change in F-ratio is 4.476, with a further addition of the parameter of changeability of external environment the change in F- ratio is 0.230. The corresponding p-value for models 2 is significant ($p < 0.05$), with a further addition of the changeability of external environment, Models 1 and 3 is not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and changeability of external environment on environmental performance has no statistically significant effect.

Table 4.74: Organizational Resources, Dynamic Capabilities, Predictability of External Environment and Internal Business Process Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.207[a]	.043	.043	2.381	.129	
2	.436[b]	.190	.147	9.456	.003	
3	.436[c]	.190	.000	.003	.955	1.969

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Predictability of External Environment
d. Dependent Variable: Internal Processes Perspective

Source: Research Data, 2015

Table 4.74 illustrates the joint effect of organizational dynamism, dynamic capabilities and predictability of external environment on internal business process performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.207, when the parameter of dynamic capabilities is added it increases to 0.436, with addition of the parameter of predictability of external environment it increases to 0.436. The results further indicate that there are different variations in internal business process performance by the joint effect of organizational resources, dynamic capabilities and predictability of external environment.

The coefficient of determination (R^2) of organizational dynamism is 4.3%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 14.7%, with a further addition of the parameter of predictability of external environment the percentage of variability accounted for increases by 0%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 2.381.

When the parameter of dynamic capabilities is added, the change in F-ratio is 9.456, with a further addition of the parameter of predictability of external environment the change in F- ratio is 0.003. The corresponding p-value for model 2 is significant ($p < 0.05$), with a further addition of the predictability of external environment, Model 1 and 3 is not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and predictability of external environment on internal business process performance has no statistically significant effect.

Table 4.75: Organizational Resources, Dynamic Capabilities, Predictability of External Environment and Customer Market Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.294[a]	.086	.086	5.017	.029	
2	.381[b]	.145	.059	3.574	.064	
3	.391[c]	.153	.007	.447	.507	1.487

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Predictability of External Environment
d. Dependent Variable: Customer Market Perspective

Source: Research Data, 2015

Table 4.75 illustrates the joint effect of organizational dynamism, dynamic capabilities and predictability of external environment on customer market performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.294, when the parameter of dynamic capabilities is added it increases to 0.381, with addition of the parameter of predictability of external environment it increases to 0.391.

The results further indicate that there are different variations in customer market performance by the joint effect of organizational resources, dynamic capabilities and predictability of external environment. The coefficient of determination (R^2) of organizational dynamism is 8.6%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 5.9%, with a further addition of the parameter of predictability of external environment the percentage of variability accounted for increases by 0.7%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 5.017.

When the parameter of dynamic capabilities is added, the change in F-ratio is 3.574, with a further addition of the parameter of predictability of external environment the change in F- ratio is 0.447. The corresponding p-value for model 1 is significant ($p < 0.05$), with a further addition of the predictability of external environment, Model 2 and 3 are not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and predictability of external environment on customer market performance has no statistically significant effect.

Table 4.76: Organizational Resources, Dynamic Capabilities, Predictability of External Environment and Learning and Development Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.513[a]	.263	.263	18.892	.000	
2	.523[b]	.273	.010	.738	.394	
3	.533[c]	.284	.011	.771	.384	1.917

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Predictability of External Environment
d. Dependent Variable: Learning and Development Performance

Source: Research Data, 2015

Table 4.76 illustrates the joint effect of organizational dynamism, dynamic capabilities and predictability of external environment on learning and development performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.513, when the parameter of dynamic capabilities is added it increases to 0.523, with addition of the parameter of predictability of external environment it increases to 0.533.

The results further indicate that there are different variations in learning and development performance by the joint effect of organizational resources, dynamic capabilities and predictability of external environment. The coefficient of determination (R^2) of organizational dynamism is 26.3%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 1%, with a further addition of the parameter of predictability of external environment the percentage of variability accounted for increases by 1.1%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 18.892.

When the parameter of dynamic capabilities is added, the change in F-ratio is 0.738, with a further addition of the parameter of predictability of external environment the change in F- ratio is 0.771. The corresponding p-value for models 1 is significant ($p < 0.05$), with a further addition of the predictability of external environment, Model 2 and 3 are not significant ($p > 0.05$). The result indicate that the joint effect of organizational resources, dynamic capabilities and predictability of external environment on learning and development performance has no statistically significant effect.

Table 4.77: Organizational Resources, Dynamic Capabilities, Predictability of External Environment and Social Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.538[a]	.289	.289	21.572	.000	
2	.558[b]	.311	.022	1.633	.207	
3	.587[c]	.345	.034	2.656	.109	1.793

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Predictability of External Environment
d. Dependent Variable: Social Performance

Source: Research Data, 2015

Table 4.77 illustrates the joint effect of organizational dynamism, dynamic capabilities and predictability of external environment on social performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.538, when the parameter of dynamic capabilities is added it increases to 0.558, with addition of the parameter of predictability of external environment it increases to 0.587.

The results further indicate that there are different variations in social performance by the joint effect of organizational resources, dynamic capabilities and predictability of external environment. The coefficient of determination (R^2) of organizational dynamism is 28.9%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 2.2%, with a further addition of the parameter of predictability of external environment the percentage of variability accounted for increases by 3.4%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 21.572. When the parameter of dynamic capabilities is added, the change in F-ratio is 1.633, with a further addition of the parameter of predictability of external environment the change in F- ratio is 2.656.

The corresponding p-value for model 1 is significant ($p < 0.05$), with a further addition of the predictability of external environment, Model 2 and 3 are not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and predictability of external environment on social performance has no statistically significant effect.

Table 4.78: Organizational Resources, Dynamic Capabilities, Predictability of External Environment and Environmental Performance

Model Summary[d]

Model	R	R Square	Change Statistics			Durbin-Watson
			R Square Change	F Change	Sig. F Change	
1	.126[a]	.016	.016	.849	.361	
2	.306[b]	.094	.078	4.476	.039	
3	.325[c]	.106	.012	.685	.412	1.826

a. Predictors: (Constant), Organizational Resources
b. Predictors: (Constant), Organizational Resources, Dynamic Capabilities
c. Predictors: (Constant), Organizational Resources, Dynamic Capabilities, Predictability of External Environment
d. Dependent Variable: Environmental Performance

Source: Research Data, 2015

Table 4.78 illustrates the joint effect of organizational dynamism, dynamic capabilities and predictability of external environment on environmental performance. The results show that the correlation coefficient (R) of organizational dynamism is 0.126, when the parameter of dynamic capabilities is added it increases to 0.306, with addition of the parameter of predictability of external environment it increases to 0.325. The results further indicate that there are different variations in environmental performance by the joint effect of organizational resources, dynamic capabilities and predictability of external environment.

The coefficient of determination (R^2) of organizational dynamism is 1.6%. When parameter of dynamic capabilities is added, the change of the coefficient of determination (ΔR^2) increases by 7.8%, with a further addition of the parameter of predictability of external environment the % of variability accounted for increases by 1.2%. The analysis of variance, F-ratio for the various models, organizational dynamism F-ratio is 0.849.

When the parameter of dynamic capabilities is added, the change in F-ratio is 4.476, with a further addition of the parameter of predictability of external environment the change in F- ratio is 0.685. The corresponding p-value for model 2 is significant ($p < 0.05$), with a further addition of the predictability of external environment, Model 1 and 3 is not significant ($p > 0.05$). The results indicate that the joint effect of organizational resources, dynamic capabilities and predictability of external environment on environmental performance has no statistically significant effect.

4.8 Interpretation of Results

The interpretation of the results includes the tests results for hypotheses one, two, three, four and five. The nature and strength of the variable relationships; and the variations explained by the models are interpreted. The F- ratio and p – values are also interpreted.

4.8.1 Test of Hypothesis One (H_{01})

The overall results reveal that organizational resources have significant influence on organizational performance ($p < 0.05$). Financial performance comprises of the sales growth, increase in return on sales, increase in return on assets, increase in equity and increase in gearing. The study shows that organizational resources have significant influence on the financial perspective of sales growth, return on sales, and return on gearing. However, organizational resources have no significant influence on return on assets and return on equity.

The sales growth, return on sales and return on gearing have moderately weak correlation with organizational performance. The results further reveal that organizational resources have significant influence on financial performance ($p < 0.05$). Besides, the results further reveal that organizational resources have significant influence on non-financial performance ($p < 0.05$).

Organizational resources have significant influence on internal business performance in productivity, working capital / sales, working capacity utilization, organization's market share and a number of new customers. However, organizational resources have no significant influence on labor turnover, unit production cost and product rate return. Besides, there are moderately weak correlations between organizational resources and internal business performance in productivity, working capital / sales, working capacity utilization, organization's market share and a number of new customers.

Moreover, The study reveals that the effect of organizational resources is significant on customer / market performance in organization's market share, the number of new customers and order cycle time. However, organizational performance is not significant on product rate return and defects rate. The correlation between organizational resources and customer / market performance in organization's market share, the number of new customers and order cycle time is moderately weak.

The study reveals that organizational resources have significant influence on learning and growth performance in new products, new markets and research and development. However, organizational resources have no significant influence on training, investments and employee satisfaction. Organizational resources have moderately strong correlations with new market, while they have moderately weak correlation with new products and research and development.

The study further reveals that organizational resources have significant influence on social performance in community relationship, philanthropic investment / revenue and community open day.

However, organizational resources have no significant influence on social performance suppliers. Organizational resources have moderately strong correlation with community open day, and moderately weak correlation with community relationship and philanthropic investment /revenue. Consequently, the study reveals that organizational performance have no significant relationship on environmental performance. Organizational performance has very weak correlations with environmental performance.

4.8.2 Test of Hypothesis Two (H_{02})

The overall results reveal that organizational resources have significant influence on dynamic capabilities ($p < 0.05$). The dimensions of dynamic capabilities involve resource integration, resource configuration and; gaining and releasing of resources. The study reveals that organizational resources have significant influence on resource integration.

Organizational resources have moderately weak correlation with resource integration. The study further reveals that organizational resources have significant influence on resource reconfiguration in knowledge-based transfer, resource allocation routines and co-evolving routines. However, organizational resources have no significant influence on patching routines. Organizational resources have moderately weak correlations with knowledge-based transfer, resource allocation routines and co-evolving routines. Besides, the study reveals that organizational resources have significant influence on gaining and releasing of resources in knowledge creation routines, alliances and acquisition routines and exit routines. Organizational resources have moderately strong correlation with knowledge creation routines, while moderately weak correlation with alliance and acquisition routines; and exit routines.

4.8.3 Test of Hypothesis Three (H_{03})

The results indicate that environmental dynamism has no statistically significant relationship between organizational resources and environmental dynamism ($p < 0.05$). The p- value for the model 1 of the hypothesis shows that the effect of organizational resources on dynamic capabilities is significant ($p < 0.05$). When the parameter of environmental dynamism is added in model 2, the effect of organizational resources and environmental dynamism on dynamic capabilities is not significant ($p > 0.05$), with a further addition of the interaction of organizational resources and environmental dynamism Model 3, the effect of organizational resources, environmental dynamism and the interaction of organizational resources and environmental dynamism is not significant ($p > 0.05$).

4.8.4 Test of Hypothesis Four ((H_{04})

Overall, the results show that dynamic capabilities have no intervening significant influence on the relationship between organizational resources and financial performance ($p > 0.05$) but have intervening influence on the relationship between organizational resources and non-financial performance ($p < 0.05$). On financial performance, the p-value for the model 1 reveals that the effect of organizational resources on financial performance is significant ($p < 0.05$). When the parameter of dynamic capabilities is added in model 2, the intervening effect of dynamic capabilities on the relationship between organizational resources and financial performance is not significant ($p > 0.05$). The results show that dynamic capabilities have intervening influence on the relationship between organizational resources and non-financial performance. The p-value for models 1 reveals that the effect of organizational resources on non-financial performance; and model 2 whereby the intervening effect of dynamic capabilities on the relationship between organizational resources and non-financial performance are significant ($p < 0.05$).

4.8.5 Test of Hypothesis Five ((H_{05})

Overall, the joint effect of organizational resources, dynamic capabilities and environmental dynamism on organizational performance is significantly different from the independent effect of the variables. For financial, the p-value for the model, the effect of organizational resources on financial performance is significant ($p < 0.05$).

When the parameter of dynamic capabilities is added model 2, the effect of organizational resources and dynamic capabilities on financial performance is not significant ($p > 0.05$), with a further addition of the environmental dynamism Model 3, the joint effect of organizational resources, dynamic capabilities and environmental dynamism on financial performance is not significant ($p > 0.05$).

The results indicate that the joint effect of organizational resources, dynamic capabilities and environmental dynamism on financial performance has no statistically significant effect. The results indicate that the joint effect of organizational resources, dynamic capabilities and environmental dynamism on non-financial performance has no statistically significant effect. For non-financial, the p-value for the model, the effect of organizational resources on non-financial performance is significant ($p < 0.05$). When the parameter of dynamic capabilities is added model 2, the effect of organizational resources and dynamic capabilities on non-financial performance is not significant ($p > 0.05$), with a further addition of the environmental dynamism Model 3, the joint effect of organizational resources, dynamic capabilities and environmental dynamism on non-financial performance is not significant ($p > 0.05$).

4.9 Test for Auto-correlation

When serial correlations of errors in regression models are observed as missing Durbin-Watson tests are done (Ogendo, 2014). If the observed value of the test is greater than the tabulated lower bound, then there is auto-correlation. If the statistics tests value lies between the lower and the upper bounds or the values are approaching 2 there is no autocorrelation.

Table 4.79: Tests for Auto-Correlation

Hypotheses	Auto-Correlation (Durbin-Watson Test)
H1 – Financial Performance	2.138
H1 – Non-financial Performance	1.793
H2	2.102
H3	2.150
H4 – Financial Performance	2.058
H4 – Non-financial Performance	1.590
H5 – Financial Performance	2.026
H5 - Non-financial Performance	1.589

Source: Research Data, 2015

Table 4.79 reveals that all the non-financial performance of H_1, H4 and H_5 of Durbin-Watson test values are approaching 2; all the financial performance of H_1, H4 and H_5 of Durbin-Watson test values are approaching 2; H_2 and H_3 above the tabulated above are also approaching 2. This shows that there are no auto-correlated errors.

4.10 Comparison of Objectives, Hypotheses and Results

The objectives, hypotheses and the results of the study have been compared. This is significant to ascertain whether the achievement of the study was successful or not. The comparison also clarifies the results of the objectives. The results may either support or not support the hypotheses of the study. Table 4.86 illustrates the summary of the comparison of the research objectives, corresponding hypotheses and results.

Table 4.80: Summary of the Objectives, corresponding Hypotheses and Results

Objectives	Hypotheses	Results
i. To determine the effect of organizational resources on organizational performance of large manufacturing companies in Kenya.	**H_{01}**: Organizational resources have no significant influence on organizational performance.	Reject hypothesis
ii. To determine the effect of organizational resources on dynamic capabilities of large manufacturing companies in Kenya.	**H_{02}**: Organizational resources have no significant influence on dynamic capabilities.	Reject hypothesis
iii. To establish out the influence of environmental dynamism on the relationship between organizational resources and the dynamic capabilities of large manufacturing companies in Kenya	**H_{03}**: Environment dynamism has no significant moderating influence on the relationship between organizational resources and dynamic capabilities.	Fail to reject the hypothesis
iv. To assess the influence of dynamic capabilities on the relationship between organizational resources and organizational performance large manufacturing companies in Kenya.	**H_{04}**: Dynamic capabilities have no significant intervening influence on the relationship between organizational resources and financial performance, but have significant intervening influence on the relationship between organizational resources and non-financial performance.	Partly fail to reject the hypothesis
v. To determine the joint effect of organizational resources, dynamic capabilities and environmental dynamism on organizational performance of large manufacturing companies in Kenya.	**H_{05}**: The joint effect of organizational resources, dynamic capabilities and environmental dynamism on organizational performance is not significantly different from the independent effect of the variables.	Fail to reject hypothesis

Table 4.80 illustrates the objectives corresponding hypotheses and results. There are five objectives and hypotheses. Of the five hypotheses, two of them have been supported by the results of this study; two others have not been supported, while another one has been partly supported. The study reveals that the overall environmental dynamism has no significant moderating influence on the relationship between organizational resources and organizational performance. Therefore, H_{03} is supported. On the other hand, dynamic capabilities have no significant intervening influence on the relationship between organizational resources and non-financial performance, but have significant intervening influence on the relationship between organizational resources and non-financial performance. Therefore, H_{04} is partly supported.

4.11 Chapter Summary

This chapter dealt with the data analysis and findings of the study. This involved the use of descriptive and inferential statistics. Descriptive statistics was used on the analysis of data on the concepts, while inferential statistics was used on the tests of hypotheses. The response rate and organizational demographics of the study are presented. The chapter further evaluates the organizational resources, dynamic capabilities and tests the environmental dynamism. Measures of performance focusing the perspectives of sustainable balanced scorecard are also evaluated.

The tests of hypotheses and interpretation of results are also evaluated. The hypotheses tests include the relations of the variables based on the objectives of the study. Consequently, summary of significant correlation relationships in regression results was presented; the auto-correlation were tested and presented; and a table illustrating the comparison of the objectives and corresponding hypotheses and results was presented.

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.1 Introduction

This chapter will highlight the main considerations while conducting the research. The results for each hypothesis will be discussed. It will compare the findings with the literature and conclusion explained. The discussions include organizational resources and organizational performance; organizational resources and dynamic capabilities; organizational resources, environmental dynamism and dynamic capabilities; organizational resources, dynamic capabilities and organizational performance; and the joint effect of organizational resources, dynamic capabilities, environmental dynamism and organizational performance.

5.2 Organizational Resources and Organizational Performance

The overall results reveal that organizational resources have a significant influence on organizational performance. The study shows that organizational resources have a significant influence on the financial perspective of sales growth, return on sales, and return on gearing. The study however indicates that organizational resources have no significant influence on return on assets and return on equity. The sales growth, return on sales and return on gearing have moderately weak correlation with organizational performance.

Organizational resources have a significant influence on internal business performance specifically on productivity, working capital / sales, working capacity utilization, and Customer/market performance specifically on organization's market share and increase in the number of new customers. Besides, there are moderately weak correlations between organizational resources and internal business performance in productivity, working capital / sales, working capacity utilization, organization's market share and a number of new customers.

However, organizational resources have no significant influence on labor turnover, unit production cost and product return rate. These results are comparable to Lo (2012) who while studying managerial capabilities, organizational culture and organizational performance, was able to establish that there was a significant relationship between managerial capabilities and organizational performance, specifically on profitability, growth in sales and ROI.

The study reveals that the effect of organizational resources is significant on customer / market performance in organization's market share, the number of new customers and order cycle time. However, organizational performance is not significant on product rate return and defects rate. The correlation between organizational resources and customer / market performance in organization's market share the number of new customers and order cycle time is moderately weak. The study reveals that organizational resources have significant influence on learning and growth performance specifically in introduction of new products, gaining new markets and increase in research and development.

However, organizational resources have no significant influence on training, investments and employee satisfaction. Organizational resources have moderately strong correlations with new market, while they have moderately weak correlation with new products and research and development. These results concur with studies done by Jabbouri and Zahari (2014) and Ombaka (2014). Jabbouri and Zahari (2014) were able to conclude that core competences have a significant relationship with customer satisfaction, internal process and learning and growth, while Ombaka (2014) was able to establish a significant relationship between intangible resources and corporate social responsibility (CSR).

The study further reveals that organizational resources have a significant influence on social performance in community relationship, philanthropic investment / revenue and community open day. However, organizational resources have no significant influence on social performance of suppliers. Organizational resources have moderately strong correlation with participation in community open day, and moderately weak correlation with community relationship and philanthropic investment / revenue. Consequently, the study reveals that organizational performance have no significant relationship on environmental performance. Organizational performance has very weak correlations with environmental performance. This is in agreements with the findings by Ombaka (2014) who concluded that intangible resources do not influence the environmental perspective.

Amit and Schoemaker (1993) while building up on resource based view theory identified strategic assets as the "set of difficult to trade and imitate scarce resources and capabilities that bestow a firm's competitive advantage". Barney (1991) argued those firms are expected conduct an analysis on their resources and capabilities to ascertain which of these are competitively valuable and to what extent they can support their quest for sustainable competitive advantage over market rivals.

If this advantage proves durable despite the best effort of competitor to overcome it, the organization is said to have competitive advantage. Resource based view theory assumes that a firm can be conceptualized as bundles of resources and that those resources are distributed heterogeneously in firms and that the resource differences persist over time (Amit and Schoemaker, 1993; Wernefelt, 1984; Penrose 1959). It has further been argued that when these resources are valuable, rare, inimitable and non-substitutable, firms are able to achieve and SCA, which will lead to organizational performance.

The study reveals that most organizations possess VRIN resources that enable them to achieve their financial performance especially in their sales growth, return on sales and return on gearing. With regard to non-financial performance, most organization possess VRIN resources that enable them to achieve productivity, working capital / sales, working capacity utilization for internal processes; increase organization's market share, the number of new customers and order cycle time for the customer / market performance. For learning and growth, this included new products, new markets and research and development; and community relationship, philanthropic investment / revenue and community open day for social performance.

The results are comparable with empirical studies done by Tuan and Yoshi (2010), Ogendo (2014), Jabbouri, and Zahari, 2014. Ogendo (2014) was able to establish that knowledge transfer has a significant influence on organizational performance while Tuan and Yoshi (2010) were able to conclude that organizational capabilities are related competitive advantage, which are in turn related to performance. Jabbouri and Zahari (2014) while studying the role of core competencies and organizational performance found out that there is a significant correlation among core competencies and organizational performance.

However, these organizations do not possess VRIN resources to enable them attain labor turnover, unit production cost and product rate return for internal business performance; product rate return and defects rate for customer / market performance; social performance suppliers for social performance and the general environmental performance. In order for organizations to achieve and sustain competitive advantage, which lead to organizational performance, they need to possess VRIN resources (Amit and Schoemaker, 1993; Wernefelt, 1984; Penrose 1959).

This study has provided empirical support on existing RBV theory, but also provided a new dimension that the influence of organizational resource on organizational performance does not include return on equity and return on assets.

5.3 Organizational Resources and Dynamic Capabilities

The overall results reveal that organizational resources have significant influence on dynamic capabilities. The dimensions of dynamic capabilities involve resource integration, resource configuration and; gaining and releasing of resources. The study reveals that organizational resources have significant influence on resource integration. Organizational resources have moderately weak correlation with resource integration.

The study further reveals that organizational resources have significant influence on resource reconfiguration in knowledge-based transfer, resource allocation routines and co-evolving routines. However, organizational resources have no significant influence on patching routines. Organizational resources have moderately weak correlations with knowledge-based transfer, resource allocation routines and co-evolving routines. The study reveals that organizational resources have significant influence on gaining and releasing of resources in knowledge creation routines, alliances and acquisition routines and exit routines. Organizational resources have moderately strong correlation with knowledge creation routines, while moderately weak correlation with alliance and acquisition routines; and exit routines.

The results are comparable with empirical studies done by Tuan and Yoshi (2010). Tuan and Yoshi (2010) was able to use establish organizational capabilities as an output of a process where specific resources have been integrated, reconfigured and released. While building on earlier literature, Helfat et al (2007) defined dynamic capability as "the capacity of an organization to purposefully create and extend, or modify the resource base".

In the term ‘resource base’, they considered assets as well as capabilities, which the organization owns, controls. Helfat et al (2007) argued that, while this might appear to be a contradiction, there are many instances that one dynamic capability may alter another, may help to extend or modify dynamic as well as operational capabilities of all types while dynamic managerial capabilities can create, modify, and extend many types of capabilities, including dynamic ones.

The study reveals that most organizations possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve their dynamic capabilities. The dynamic capabilities involve integrating, reconfiguring, gaining and releasing resources. Most organization possesses valuable, rare, inimitable and non-substitutable resources that enable them to achieve resource integration. Regarding resource reconfiguration, most organization possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve knowledge based transfer, resource allocation routines and co-evolving routines.

As for the gaining and releasing of resources, most organization possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve knowledge creation routines, alliances and acquisition routines and exit routines. Helfat et al (2007) argued that there are many instances that one dynamic capability may alter another, and extend many types of capabilities, including dynamic ones such as those for innovation, acquisition, and alliance.

However, the study further reveals that most organization do not possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve patching routines in resource reconfiguration. The study confirms that organization possess VRIN resources that enable them to achieve dynamic capabilities. This study contradicts the conceptual thinking that dynamic capabilities influence organizational resources.

To the contrary, it is actually the organizational resources that have an influence on dynamic capabilities. Dynamic capabilities therefore have an indirect effect on organizational performance.

5.4 Organizational Resources, Dynamic Capabilities and Environmental Dynamism

The results of the study confirm that environmental dynamism has no statistically significant relationship between organizational resources and dynamic capabilities. Model 1 of the hypothesis shows that the effect of organizational resources on dynamic capabilities is significant. When the parameter of environmental dynamism is added in model 2, the effect of organizational resources and environmental dynamism on dynamic capabilities is not significant, with a further addition of the interaction of organizational resources and environmental dynamism Model 3, the effect of organizational resources, environmental dynamism and the interaction of organizational resources and environmental dynamism is not significant.

The results are comparable with empirical studies done by Protogerou et al. (2011), Ogendo (2014) and Schilke (2014). Protogerou et al (2011) established that the rate of industry change has little influence on the effect of dynamic capabilities on organizational capabilities. This is to say that dynamic capabilities have a positive impact on operational capabilities in the entire spectrum of environmental dynamism whether stable or highly volatile. Schilke (2014) in his study on dynamic capabilities and competitive advantage, using environmental dynamism as a moderating effect was able to conclude that dynamic capabilities are more related with competitive advantage in moderately dynamic than in stable or highly dynamic environments. This is to say that dynamic capabilities can give a firm competitive advantage, but this effect is contingent on the level of dynamism of the firm's external environment, which means that the study by Schilke (2014) produced mixed results.

Ogendo (2014) found out that overall external environment had no significant moderating influence on the relationship between knowledge transfer and strategic content. Eisenhardt and Martin (2000) posit that the pattern of effective capabilities depends upon market dynamism and that dynamic capabilities vary on their reliance on existing knowledge.

Moderately dynamic markets are the ones in which change occurs frequently, but along predictable and linear paths, have relatively stable industry structures such that market boundaries are clear and the players are well known. Organizations can develop processes that are predictable and relatively stable with linear steps (Helfat, 1997). In contrast, Eisenhardt and Martin (2000) further argued when markets are very dynamic change becomes nonlinear and less predictable (Eisenhardt, 1989). In these markets, dynamic capabilities necessarily are much less on existing knowledge and much more on rapidly creating situation-specific new knowledge.

Zahra et al. (2006) argued that dynamic capabilities might be most valuable when the external environment is changing rapidly and unpredictably, but a volatile or changing environment is not necessary component of dynamic capability thus a firm's capability may still be dynamic even if the environment is not very volatile. The study reveals that most organization does not possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve dynamic capabilities despite the environmental dynamism.

This study therefore reveals that organizations need to engage their dynamic capabilities regardless of the changeability and predictability of the environmental dynamisms. Environmental dynamism therefore should not be a determinant to the strategic direction related to the use of dynamic capabilities. In other words, dynamic capabilities should be applied in both relatively stable and high velocity markets.

5.5 Organizational Resources, Dynamic Capabilities and Organizational Performance

Overall, the results show that dynamic capabilities have no intervening significant influence on the relationship between organizational resources and financial performance but have intervening influence on the relationship between organizational resources and non-financial performance.

On financial performance, the p-value for the model 1 reveals that the effect of organizational resources on financial performance is significant. When the parameter of dynamic capabilities is added model 2, the intervening effect of dynamic capabilities on the relationship between organizational resources and financial performance is not significant. These findings partly support and partly contradict empirical studies done by Protogerou et al., (2011) and Schilke (2014) who were able to establish that dynamic capabilities have indirect influence on the relationship between first order capabilities and performance including both financial and non-financial ones. The results further show that, dynamic capabilities have intervening influence on the relationship between organizational resources and non-financial performance.

Model 1 reveals that the effect of organizational resources on non-financial performance is significant while model 2 reveals that the intervening effect of dynamic capabilities on the relationship between organizational resources and non-financial performance are significant. Resources and capabilities require more than difficult to imitate assets in regimes of rapidly changing environments. Teece (2007) argued that in fast moving business environments, sustainable advantage requires unique and difficult to replicate dynamic capabilities. These capabilities can be harnessed to continuously create, extend, upgrade, protect, and keep relevant the enterprise's unique

asset base. Nelson and Winter (1982) argued that for organizations to identify and shape opportunities, they must constantly, scan, search and explore across technologies and markets, both local and distant.

Teece (2007) posited that, key to sustain profitable growth is the ability to recombine and to reconfigure assets and organizational structures. Reconfiguration is needed to maintain evolutionary fitness and if necessary, to try to escape from unfavorable path dependencies. Wang and Ahmed (2007) posit that resources are the foundation of a firm and the basis for firm capabilities and they can be a source of competitive advantage when demonstrating valuable, rare, inimitable and non-substitutable traits. However, in dynamic market environments, valuable, rare, inimitable and non-substitutable resources do not persist over time and hence cannot be a source of sustainable competitive advantage.

The study reveals that most organizations do not possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve their financial performance through the application of dynamic capabilities. Wang and Ahmed (2007) posit that in dynamic market environments, valuable, rare, inimitable and non-substitutable resources do not persist over time and hence cannot be a source of sustainable competitive advantage. However, the further argued that resources are the foundation of a firm and the basis for firm capabilities and they can be a source of competitive advantage when demonstrating valuable, rare, inimitable and non-substitutable traits. This confirms the results of the study that reveal that most organizations do possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve their non-financial performance through the application of dynamic capabilities.

This study has brought forth an empirical grounding that dynamic capabilities influence the relationship between organizational resources and organizational performance specifically on the non-financial indicators. Those non-financial indicators include business processes, customer and market, social and environmental performance.

5.6 Organizational Resources, Dynamic Capabilities, Environmental Dynamism and Organizational Performance

Overall, the joint effect of organizational resources, dynamic capabilities and environmental dynamism on organizational performance is significantly different from the independent effect of the variables. For financial, the effect of organizational resources on financial performance is significant. When the parameter of dynamic capabilities is added model 2, the effect of organizational resources and dynamic capabilities on financial performance is not significant. With a further addition of the environmental dynamism Model 3, the joint effect of organizational resources, dynamic capabilities and environmental dynamism on financial performance is not significant.

The results indicate that the joint effect of organizational resources, dynamic capabilities and environmental dynamism on financial performance has no statistically significant effect. This is comparable to the study done by Ombaka (2014) who establish that the joint effect of organizational resources, innovation and the external environment on non-financial performance was found to be greater than that of the individual variables.

The result further confirms that the joint effect of organizational resources, dynamic capabilities and environmental dynamism on non-financial performance has no statistically significant effect. For non-financial, the p-value for the model, the effect of organizational resources on non-financial performance is significant.

When the parameter of dynamic capabilities is added model 2, the effect of organizational resources and dynamic capabilities on non-financial performance is not significant. With a further addition of the environmental dynamism Model 3, the joint effect of organizational resources, dynamic capabilities and environmental dynamism on non-financial performance is not significant. The study is comparable to studies done by Protogerou (2011) and Ogendo (2014).

Protogerou (2011) was able to find that dynamic capabilities impinge on operational capabilities, which in turn have a significant influence on performance. Similar effects were found to hold for both higher and lower levels of environmental dynamism while the direct effects of the variables on performance were found to be insignificant. Ogendo (2014) was able to conclude that the joint effect of knowledge transfer, strategic content and external environment on organizational performance is significantly different from the independent effect of the variables.

This study reveals that resource integration and resource reconfiguration are popular in these organizations. Eisenhardt and Martin (2000) argued that the value of dynamic capabilities for competitive advantage lies in the resource configurations that they create. They posit that dynamic capabilities are necessary, but not sufficient conditions for competitive advantage. They also argued that dynamic capabilities could be used to enhance existing resource configurations in the pursuit of competitive advantage and build new resource configurations.

They further suggest that resource based view theory breaks down in highly dynamic markets, where the strategic challenge is maintaining competitive advantage when the duration of that advantage is unpredictable, where time is an essential, and the dynamic capabilities that drive competitive advantage are themselves unstable processes.

Hence, dynamic capabilities emphasize a firm's constant pursuit of the renewal, reconfiguration and re-creation of resources, capabilities and core capabilities to address the environmental change. Thus, they contended that dynamic capabilities are the 'ultimate' organizational resources that are conducive to long-term performance, rather than simply a 'subset' of the capabilities.

The study reveals that most organizations do not possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve their organizational performance through resource integration, reconfiguration, gaining and releasing in a changing and unpredictable environment. This study confirms Eisenhardt and Martin (2000) findings. Eisenhardt and Martin (2000) argued that the value of dynamic capabilities for competitive advantage lies in the resource configurations that they create. They further suggest that resource based view theory breaks down in highly dynamic markets.

5.7 Chapter Summary

This chapter dealt with the discussions of the findings obtained from the data analysis. The discussions of the tests of hypotheses involved the relations of organizational resources and organizational performance; organizational resources and dynamic capabilities; organizational resources, environmental dynamism and dynamic capabilities; organizational resources, dynamic capabilities and organizational performance; organizational resources, dynamic capabilities, environmental dynamism and organizational performance. The literature review was compared to the results and conclusions were made. The interpretations of the individual hypotheses tests were expounded. The findings were compared with the literature. Finally, the conclusion of each hypothesis was explained.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter evaluates the outcome of the study. It is comprised of the summary of the findings, conclusion, implications of the study, limitations of the study and area for further research. The implications of the study include the theoretical, methodological and managerial values of the study.

6.2 Summary

The main objective of the study was to examine the influence of dynamic capabilities and environmental dynamism on the relationship between organizational resources and organizational performance. The specific objectives included firstly the determination of organizational performance on performance and secondly on the determination of organizational resources on dynamic capabilities. Thirdly the influence of environmental dynamism on the relationship between organizational resources and dynamic capabilities and fourthly the influence of dynamic capabilities on the relationship between organizational resources and organizational performance and finally the joint effect of organizational resources, dynamic capabilities, environmental dynamism and organizational performance.

The study reveals that organizational resources have significant influence on organizational performance. The study also shows that organizational resources have a significant influence on dynamic capabilities. However, environmental dynamism has no significant moderating effect on the relationship between organizational resources and dynamic capabilities.

The study further shows that dynamic capabilities have no significant intervening influence on the relationship between organizational resources and financial performance but have an influence on the relationship between organizational resources and non-financial performance.

Further, the joint effect of organizational resources, dynamic capabilities and environmental dynamism on organizational performance is significantly different from the independent effect of the variables. The study reveals that most organizations possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve their financial performance especially in their sales growth, return on sales and return on gearing. However, these organizations do not possess appropriate valuable, rare, inimitable and non-substitutable resources to enable them attain return on assets and return on equity.

With regard to non-financial performance, most organization possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve productivity, working capital / sales, working capacity utilization, organization's market share and a number of new Customers. For the internal business performance; organization's market share, the number of new customers and order cycle time for the customer / market performance; new products, new markets and research and development for learning and growth performance; and community relationship, philanthropic investment / revenue and community open day for social performance.

However, these organizations do not possess valuable, rare, inimitable and non-substitutable resources to enable them attain labor turnover, unit production cost and product rate return for internal business performance; product rate return and defects rate for customer / market performance; social performance suppliers for social

performance and the general environmental performance. The determination of organizational resources on dynamic capabilities results reveals that organizational resources have significant influence on dynamic capabilities. The study reveals that most organizations possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve their dynamic capabilities. The dynamic capabilities involve integrating, reconfiguring, gaining and releasing resources.

Most organization possesses valuable, rare, inimitable and non-substitutable resources that enable them to achieve resource integration. Regarding resource reconfiguration, most organization possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve knowledge based transfer, resource allocation routines and co-evolving routines. As for the gaining and releasing of resources, most organization possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve knowledge creation routines, alliances and acquisition routines and exit routines. However, the study further reveals that most organization do not possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve patching routines in resource reconfiguration. The study confirms that organization possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve dynamic capabilities.

In the establishment of the influence of environmental dynamism on the relationship between organizational resources and dynamic capabilities, the results of the study confirm that environmental dynamism has no statistically significant relationship between organizational resources and dynamic capabilities. The study reveals that most organization does not possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve dynamic capabilities despite the environmental dynamism.

In the assessment of the influence of dynamic capabilities in the relationship between organizational resources and organizational performance, the results show that dynamic capabilities have no intervening significant influence on the relationship between organizational resources and financial performance but have intervening influence on the relationship between organizational resources and non-financial performance.

The study reveals that most organizations do not possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve their financial performance through the application of dynamic capabilities. In the determination of the joint effect of organizational resources, dynamic capabilities and environmental dynamism on organizational performance, the result of the study reveals that the joint effect of organizational resources, dynamic capabilities and environmental dynamism on organizational performance is significantly different from the independent effect of the variables. The study reveals that most organizations do not possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve their organizational performance through resource integration, reconfiguration, gaining and releasing in a changing and unpredictable environment.

6.3 Conclusion

The main objective of the study was to determine the effect of dynamic capabilities and environmental dynamism on the relationship between organizational resources and performance of the large manufacturing companies in Kenya. This was achieved by first, determining the effect of organizational resources on organizational performance. Secondly, the effect of organizational resources on dynamic capabilities was also determined. Thirdly, the influence of environmental dynamism in the relationship between organizational resources and performance was assessed.

Fourthly, the influence of dynamic capabilities on the relationship between organizational resources and organizational performance was established. Finally, the joint effect of organizational resources, dynamic capabilities, environmental dynamism and organizational performance was determined. The study reveals that organizational resources have significant influence on organizational performance. The study reveals that most organizations possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve their financial performance especially in their sales growth, return on sales and return on gearing.

The study confirms that most organization possess valuable, rare, inimitable and non-substitutable resources which lead to organizational performance. However, these organizations do not possess appropriate valuable, rare, inimitable and non-substitutable resources to enable them attain return on assets and return on equity. With regard to non-financial performance, most organization possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve productivity, working capital / sales, working capacity utilization, organization's market share and a number of new customers. For the internal business performance; organization's market share, the number of new customers and order cycle time for the customer / market performance; new products, new markets and research and development for learning and growth performance; and community relationship, philanthropic investment / revenue and community open day for social performance.

It was also revealed that these organizations do not possess valuable, rare, inimitable and non-substitutable resources to enable them attain labor turnover, unit production cost and product rate return for internal business performance; product rate return and defects rate for customer / market performance; social performance suppliers for social performance and the general environmental performance. The study reveals that organizational resources have significant influence on dynamic capabilities.

The study reveals that organizational resources have significant influence on resource integration. Organizational resources have moderately weak correlation with resource integration. The study further reveals that organizational resources have significant influence on resource reconfiguration in knowledge-based transfer, resource allocation routines and co-evolving routines. However, organizational resources have no significant influence on patching routines.

Organizational resources have moderately weak correlations with knowledge-based transfer, resource allocation routines and co-evolving routines. The study reveals that organizational resources have significant influence on gaining and releasing of resources in knowledge creation routines, alliances and acquisition routines and exit routines. Organizational resources have moderately strong correlation with knowledge creation routines, while moderately weak correlation with alliance and acquisition routines; and exit routines. The study further reveals that environmental dynamism has no moderating influence on the relationship between organizational resources and organizational performance.

The study reveals that most organization does not possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve dynamic capabilities despite the environmental dynamism. The study shows that dynamic capabilities have no significant intervening influence on the relationship between organizational resources and organizational performance. The study reveals that most organizations do not possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve their financial performance through the application of dynamic capabilities. Finally, the study reveals that joint effect of organizational resources, dynamic capabilities and environmental dynamism on organizational performance is significantly different from the independent effect of the variables.

The study reveals that most organizations do not possess valuable, rare, inimitable and non-substitutable resources that enable them to achieve their organizational performance through resource integration, reconfiguration, gaining and releasing in a changing and unpredictable environment. The study fully supports resource base theory (Barney, 1991) on tangible and intangible resources, the evolutionary economic theory (Nelson and Winter, 1982) in terms of routines used by the organizations to enhance their dynamic capabilities in order for them to able to integrate, reconfigure, gain and release resources.

It also supports the Stakeholder theory (Hubbard, 2009) specifically on the sustainable balanced scorecard used for organizational performance. However the contingency theory (Lawrence and Lorsch, 1967) and Open System Theory (Burnes, 2004) are contradicted by some of the organizations.

The study reveals that for tangible resources, most organizations possess technological resources more than they possess physical and financial resources and for intangible resources, most utilize human assets and intellectual capital than they use skills. These resources, specifically the intangible ones are used to influence organizational performance related to sales growth, return on sale, return on assets and gearing. Most organizations utilize intangible resources to attain non-financial performance. This support the assertion by Amit and Schoemaker (1993) that in order for organizations to achieve and sustain competitive advantage which lead to organizational performance, they need to possess valuable, rare, inimitable and non-substitutable resources.

The study also revealed that organizations utilize dynamic capabilities mainly those related to resource integration and reconfiguration. Gaining and releasing of resources is practiced to a lesser extent. The resource integration involves use of skills and functional combination, business, financial and personal expertise pooling.

Resource configuration entails knowledge base transfer, resource allocation routines co-evolving routines and patching routines. Organizations also practice gaining and releasing of resources, which include knowledge creation, alliance and acquisition and exit routines. Most organizations integrate, reconfigure their resources and are involved in gaining and releasing of resources.

This is in support to the arguments proposed by Eisenhardt and Martin (2000) that dynamic capabilities are those processes that a firm uses-specifically the processes that they use integrate, reconfigure, and release resources to match and even create market change. Dynamic capabilities they further argued are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die.

The study revealed that most organizations are operating in an environment changeability is more prominent than predictability. External environment included competitive environment, macro-environment and microenvironment. In the competitive environment, most organizations face competition rivalry. In the macro-environment, most organizations experience prominent changeability in the economical, technological and ecological perspectives. Most organizations experience inconsistent relationships with financial institutions. This study has established that environmental dynamism does not influence the relationship between organization resources and dynamic capabilities in most organizations.

These findings support the argument by Zahra et al. (2006) who posited that DCs might be most valuable when the external environment is changing rapidly and unpredictably, but changing environment is not necessary component of dynamic capability, therefore, a firm's capability may still be dynamic even if the environment is not very volatile.

Schilke (2014) was also able to establish in his study that dynamic capabilities are more strongly associated with competitive advantage in moderately dynamic than stable or highly dynamic environments. The study reports that most organization utilizes the learning and development perspective. However, environmental performance was more significant than financial, customer/market, internal processes, learning, development, and social performances.

Most organization exhibited high sales growth, high productivity, short order cycle times, emphasis on new product development, involvement in community relations, control of energy use/per unit of production for the last five years. This indicates that most organization focus on the stakeholders theory by Hubbard (2009) which has the six perspectives.

6.4 Implications of the Study

The implications of the study are categorized into theoretical, methodological and managerial. Theoretical implications include the additional knowledge on theories and the academic implication. The additional knowledge on theories contributes to the existing theories. In terms, academic implication the study enhances empirical knowledge. Methodological implication includes the relevance of the methodology used and the managerial implication describes the policy and practice. The relevance of the methodology used confirms its accomplishment of the findings of the study. The managerial implications focus on the decision making of the organizations.

6.4.1 Theoretical Implications

The study contributes to the development of the resource based view theory, the evolutionary economic theory of the firm, the contingency theory, the open systems theory and the stakeholders' theory. The study links the resource based view theory and

the stakeholders' theory in organizational resources and organization performance by confirming that organizational resources have significant influence on organizational performance.

The study further links resource based view theory and evolutionary economic theory in organizational resources and dynamic capabilities by confirming that organizational resources have significant influence on dynamic capabilities. The study confirms that resource based view theory; the evolutionary economic theory and the stakeholders' theory are relevant.

The study also links resource based view theory, the contingency theory, the open system theory and the evolutionary economic theory in organizational resources, environmental dynamism and dynamic capabilities by confirming that environmental dynamism has no moderating effect in the relationship between organizational resources and dynamic capabilities.

The study promotes links between RBV theory, the economic evolutionary theory and stakeholders' theory in organizational performance, DCs and organizational performance by confirming that dynamic capabilities have significant intervening influence in the relationship between organizational resources and organizational performance. The study further links the resource based view theory, the evolutionary economic theory, the contingency theory, the open system theory and the stakeholders theory in organizational resources, dynamic capabilities, environmental dynamism and stakeholders theory by confirming that the joint effect of organizational resources, dynamic capabilities, environmental dynamism and organizational performance.

6.4.2 Methodological Implications

The study confirmed the application of cross sectional survey when carrying out a survey. The simple regression analysis is relevant in analyzing the hypotheses on the independent effect of organizational resources on organizational performance and; organizational resources on organizational performance. However, simultaneous method is appropriate for intervening variables, while multiple regression analysis of hierarchical method is appropriate in analyzing the moderating and joint variables. Regression analyses provide inferential statistics, while Pearson correlation is relevance in correlation of the variables.

The one sample t-test used in the descriptive statistics is appropriate in the data analysis of this kind of study. The one sample test presents the number of organizations captured, their t- value, mean, standard deviation and p-value to measure the statistical description of the data. The descriptive statistics gauges the preliminary parameter of the organization, their frequency and corresponding percentages.

6.4.3 Policy Implications

Organizations resources can enhance the effectiveness and efficiency of the organization to realize organizational performance. The study reveals that organizations that possess valuable, rare, inimitable and non-substitutable organizational resources, achieve financial performance especially on sales growth, return on sales and gearing. Organizations that possess valuable, rare, inimitable and non-substitutable organizational resources achieve non-financial performance related to productivity, working capital/sales, working capacity utilization.

Organizations also realize increase in market share and attaining new customers for internal business performance, improved order cycle time, introduction of new products, entry into new markets, improved research and development for learning and growth performance, improved community relationship, increased philanthropic invest/revenue and community days for social performance. Organizations can therefore formulated policies focusing on acquiring valuable rare inimitable and non-substitutable organization resources that can lead to organizational performance related to specific financial and nonfinancial performance revealed in the study.

6.4.4 Managerial Implications and Practice

The managerial practices of most companies reveal that dynamic capabilities they have enable them to achieve non-financial performance. Organization can therefore focus on using dynamic capabilities such as resource integration, resource reconfiguration and resource gain and releasing to achieve non-financial performance.

Specifically the dynamic capabilities can be used to enhance nonfinancial performance related to productivity, labour turnover, average unit production, working capital/sales and capacity utilization for Internal Processes; Market share, new products, R&D spend/sale. Product return rate, defects and order cycle time for Customer/market perspective among others.

6.5 Contribution to Knowledge

Generally, the study has highlighted that organizational resources have a significant influence on organizational performance and that organizational resources have a significant influence on dynamic capabilities. However, the study has revealed that environmental dynamism has no significant influence on the relationship between organizational resources and dynamic capabilities. This study has revealed that DCs

have no intervening effect on financial performance; however, the same have an intervening effect on the relationship between organizational resources and non-financial performance. The study has also revealed that the joint effect of organizational resources, dynamic capabilities and environmental dynamism on organizational performance is significantly different from the independent effect of the variables.

6.6 Limitations of the Study

The limitations of the study were that some respondents were unwilling to provide information out of fear the same might leak to competition. The respondents were assured in confidence that the data will solely be used for academic purposes. Another limitation of the study was on the data collection given that LMCs are located throughout the country. To overcome this, this researcher recruited a number of research assistants to collect data based on regions for easy access. Some respondents had issues interpreting the questionnaire and in such cases, the researcher was able to provide clarification as and when required. Since self-reported data was used in the study, to avoid bias in the data obtained and also subjectivity of the response the study relied on CEOs, Heads of Departments and General Managers who were experienced.

6.7 Areas for Further Research

Future research should consider research specific components of organizational resources, environmental dynamism, dynamic capabilities and organizational performance**.** This may provide more distinct results in terms of specific variables that should be given more focus. Secondly, studies should be done on small and medium manufacturing companies using the concepts of organizational resources, dynamic capabilities, environmental dynamism and performance. Such studies will add value to the theory of knowledge of organizations. Future findings may also provide a platform

for debate on the current findings of this study. Thirdly, specific components on organizational resources specifically on how resources manifest themselves should be considered along with the concepts of dynamic capabilities, environmental dynamism and performance.

This may provide more ammunition for organizations while formulating future policies. Next, other types off surveys such as longitudinal and case studies could be used in future research to distinguish the outcome of this study. Such surveys could assist in managerial decisions and build on the much needed contribution to the field of strategic management especially on how firms out-do each other on performance. Finally, apart from the regression and correlation methods used in data analysis, other techniques could be used to test similar research. This includes other techniques such as discriminant analysis, Structural Equation Modelling (SEM), Factor analysis to allow for comparison.

REFERENCES

Adner, R., & Helfat, E.H. (2003). Corporate effects and dynamic capabilities. *Strategic Management Journal, 24*, 1011-1025.

Ambrosini, V., & Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management? *International Journal of Management Reviews, 11*(1), 29-49.

American Psychological Association (2010). *Publication manual of American Psychological Association (6th ed.).* Washington DC: Author.

Aminu, M.I., & Mahmood, R. (2015). Mediating role of dynamic capabilities on the relationship between intellectual capital performance: A Hierarchical component model perspective in PLS-SEM path modelling. *Research Journal of Business Management, 9,* 443-456.

Amit, R., & Schoemaker P.J.H. (1993). Strategic assets and organizational rent. *Strategic Management Journal, 14*(1), 33-46.

Anderson, D.R., Sweeney, D.J. & Williams, T.A. (2011). *Statistics for Business and Economics.* 11th Ed, USA: South-Western, Cengage Learning.

Ansoff, H. I., & McDonnell, E.J. (1990). *Implanting Strategic Management,* 2nd Ed., NY: Prentice Hall.

Ansoff, H.I., & Sullivan, P.A. (1993). Optimizing profitability in turbulent environments: A formula for strategic success. *Long Range Planning, 26*, 11-23.

Argote, L. (1999). *Organizational Learning: Creating, Retaining, and Transferring Knowledge.* Boston, MA: Kluwer Academic.

Awino, Z.B. (2007). *The effect of selected strategy variables on corporate performance: A survey of supply chain management in large private manufacturing firms in Kenya*. (Published Ph.D. Thesis).School of Business, University of Nairobi, Kenya.

Barney, J.B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*, 99-120.

Barney, J.B., & Clarke, D.N. (2009). *Resource-based theory: Creating and sustaining competitive advantage.* New York: Oxford University Press.

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,* 1173-1182.

Baretto, I. (2010). Dynamic capabilities: A review of past research and an agenda for the future. *Journal of Management, 36,* 256-280.

Blueberg, B., Cooper, D.R, & Schindler, P.S. (2011), *Business Research Methods*. (3rd European ed.). London: McGraw Hill.

Bryman, A., & Bell, E. (2011). *Business Research Methods*. Oxford: Oxford University Press.

Buckley, W. (1968). *Modern Systems and Research for the Behavioral Scientist.* Aldine Publishing: Chicago, USA.

Burnes, B. (2004). *Managing Change*: *A Strategic approach to firm's dynamics*.4th Edition. London: Prentice Hall.

Camison, C., & Villar-Lopez, A. (2014). Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of Business Research, 67,* 2891-2902.

Chindia, E.W. (2013). *Supply chain strategies technology and performance of large scale manufacturing firms in Kenya.* (Unpublished Ph.D. Thesis). School of Business, University of Nairobi, Kenya.

Combs, J.G., Crook, T.R., & Shook, C.L. (2005). The dimensionality of organizational performance and its implications for strategic management research. *Research Methodology in Strategy and Management, 2,* 259-289.

Cooper, D.R., & Schindler, P.S. (2011). *Business Research Methods*. New York: McGraw-Hill.

Daft, R.L. (2000). *Organization Theory and Design. (7th Ed.)* U.S.A: South-Western College Publishing, Thomson Learning.

Dess, G.G., & Beard, D.W. (1984). Dimensions of organizational task environments. *Administrative Science Quarterly, 29*, 52-73.

Eisenhardt, K.M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal, 32*(3), 543-576.

Eisenhardt, K.M., & Martin, J.A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal, 21*(10/11), 1105-1121.

Easterby-Smith, M., Thorpe, R., & Jackson, P.R. (2008). *Management Research*. London: Sage

Fairchild, A.J., & MacKinnon, D.A. (2009). A general model for testing mediation and moderation effects. *Prevention Science, 10*. 87-99.

Ford, J.D., & Schellenberg, D.A. (1982). Conceptual issues of linkage in the assessment of organizational performance. *Academy of Management Review, 7*(1), 49-58.

Frankfort-Nachmias, C., & Nachmias, D. (2000). *Research Methods in Social Sciences.* New York: Worth Publishers.

Gilbert, C. (2003). The disruptive opportunity. *MIT Sloan Management Review, 44*(4), 27-32.

Hayes, A.F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs, 76*, 408–420.

Helfat, C.E. (1997). Know-how and asset complementarity and dynamic capability accumulation: the case of R&D. *Strategic Management Journal, 18*, 339–360.

Helfat, C. E., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D. J., & Winter, S. G. (2007) *Dynamic capabilities: Understanding strategic change in organizations*: Blackwell Publishing.

Hitt, M.A, Ireland, R.D., & Hoskisson, R.E. (2005). *Strategic management: Competitiveness and globalization* (6th Ed.). West Publishing Company.

Hubbard, G. (2009). Measuring organizational performance: Beyond the triple bottom line. *Business Strategy and the Environment, 19*, 177-191.

Javier (2002). A review paper on organizational culture and organizational performance. *International Journal of Business and Social Science, 1*(3), 52-76.

Jubar, J., Othman, A., & Idris, M. (2011). Enhancing organizational performance through strategic technology alliances: A study on Malaysian manufacturers. *International Journal of Innovation, Management and Technology, 2* (6), 506-510.

Jabbouri, N.I., & Zahari, I. (2014). The role of core competencies on organizational performance: An empirical study in the Iraqi private banking sector. *European Scientific Journal, Special Edition* (1), 130-138.

Kaplan, R., & Norton, D. (1992). *The Balanced Scorecard*. Harvard Business School

Kenya Association of Manufacturers. *Manufacturing Survey 2012*: *A survey of Kenya's manufacturing sector.*

Kenya Association of Manufacturers Members' database (2014).

Lawrence, P.R., & Lorsch, J.W. (1967). *Organization and environment; Managing differentiation and integration.* Division of Research Graduate School of Business Administration Harvard University: Boston, MA.

Lee, T. & Chu, W. (2013). How entrepreneurial orientation, environmental dynamism, and resource rareness influence firm performance. *Journal of Management & Organization, 19* (2), 167-187.

Li, D. & Liu, J. (2014). Dynamic capabilities environmental dynamism and competitive advantage: Evidence from China. *Journal of Business Research, 67,* 2793-2799.

Lind, D.A., Marchal, W.G., & Wathen, S.A. (2015). *Statistical Techniques in Business & Economics.* (6th, Ed.). New York: McGraw-Hill.

Lo, Y. (2012). Managerial capabilities, organizational culture and organizational performance: The resource-based perspective in Chinese lodging industry. *The Journal of International Management Studies, 7* (1), 151-157

Machuki, V.N. (2011). *External environment, strategy co-alignment, firm level institutions and performance of publicly quoted companies in Kenya.* (Unpublished Ph.D. Thesis).School of Business, University of Nairobi, Kenya.

MacKinnon, D.P., Lockwood, C.M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research,* 39*,* 99–128.

Magutu, P.O. (2013). *Supply chain strategies, technology and performance of large scale manufacturing firms in Kenya.* (Unpublished Ph.D. Thesis). School of Business, University of Nairobi, Kenya.

Makadok, R. (2001). Towards a synthesis of the resource based and dynamic capability of rent creation. *Strategic Management Journal*, 22, 387-401.

McKendrick, D.G. (2001). Global strategy and population learning: The case of hard disk drives. *Strategic Management Journal, 22,* 307-334.

Mugenda, O.M., & Mugenda, A.G. (2003). *Research Methods*. Nairobi: ACTS Press

Muller, D., Judd, C. M., & Yzerbyt, V. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology, 89,* 852-863.

Murgor, P.K. (2014). *External environment, firm capabilities, strategic responses and performance of large scale manufacturing firms in Kenya.* (Unpublished Ph.D. Thesis). School of Business, University of Nairobi, Kenya.

Nedzinskas, S., Pundziene, A., Bouziute-Rafanaviciene, S., & Pilkiene, M. (2013). The impact of dynamic capabilities on SME performance in a volatile environment as moderated by organizational inertia. *Baltic Journal of Management, 8*(4), 376-396.

Nelson R., & Winter S. 1982. *An Evolutionary Theory of Economic Change.* Cambridge, MA: Belknap Press.

Newbert, S.L. (2007). Empirical research on the resource-based view of the firm: An assessment and suggestions for future research. *Strategic Management Journal, 28*, 121-146.

Ombaka, B.E. (2014). *Organizational resources, external environment, innovation and performance of insurance companies in Kenya.* (Unpublished Ph.D. Thesis).School of Business, University of Nairobi, Kenya.

Ogendo, J.L. (2014). *Knowledge transfer, strategy content, external environment and performance of companies listed in the Nairobi Securities Exchange.* (Unpublished Ph.D. Thesis).School of Business, University of Nairobi, Kenya.

Ongeti, W.J. (2014*). Organizational resources, corporate governance structures and performance of Kenyan State corporations.* (Unpublished Ph.D. Thesis). School of Business, University of Nairobi, Kenya.

Pearce II, J.A., Robinson, R.B., & Mital, A. (2012). *Strategic Management: Formulation, Implementation and Control 12th Edition.* New-Delhi: Tata McGraw Hill Education Private Ltd.

Penrose, E.T. (1959). *The Theory of the Growth of the Firm*. New York: Wiley.

Poppo, L., & Zenger, T. (1995). Opportunism, routines and boundary choices: A comparative test of transaction cost and resource based explanation for make-or-by decision. *Academy of Journal, 38*(1), 42-46.

Prahalad, C.V., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, *68,* 79–91.

Preacher, K.J., & Hayes, A.F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers, 36*(4), 717–731.

Protogerou, A., Caloghirou, Y., & Lioukas, S. (2011). Dynamic capabilities and their indirect impact on firm performance. *Industrial and Corporate Change*, *21*(3), 615-647.

Priem, R.I., & Butler, J.E. (2001a). Is the resource-based 'view' a useful perspective for strategic management research? *Academy of Management Review*, *26* (1), 22-40.

Saunder, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students.* UK: Prentice Hall.

Sawyer M.C. (1985*). The Economics of Industries and Firms.* 2nd Ed. Kent: Croom Helm Limited

Schilke, O. (2014). On the contingent value of dynamic capabilities for competitive advantage: The nonlinear moderating effect of environmental dynamism. *Strategic Management Journal, 35*, 179-203.

Scott, W.R. (1987). *Organizations: Rational, Natural and Open Systems.* Prentice Hall: Englewood Cliffs, NJ, USA.

Sekaran, U., & Bougie, R. (2009). *Research methods for business: A skill building approach.* Cornwall: Wiley.

Teece, D.J. (2007). Explicating dynamic capabilities: The nature and micro foundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28, 1319-1350.

Teece, D.J, Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, *18*(7), 509-533.

Thompson, A.A., Strickland III, A.J., Peteraf, M.A., Janes, A., Gamble, J.E., & Sutton, C. (2013). *Crafting and executing strategy: The quest for competitive advantage*. London: McGraw-Hill Irwin.

Tuan, N.P., & Yoshi, T. (2010). Organizational capabilities, competitive advantage and performance in supporting industries in Vietnam. *Asian Academy of Management Journal, 15(1),* 1-21.

Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *The Academy of Management Review, 11(4),* 801-814.

Wang, C.L. & Ahmed, P.K. (2007). Dynamic capabilities: A review and research agenda. *International Journal of Management Review, 9(1),* 31–51.

Wernefelt, B. (1984). A resource based view of the firm. *Strategic Management Journal, 4(2),* 171-180.

Winter, S. (2003). Understanding dynamic capabilities. *Strategic Management Journal, 24(10),* 991-5.

Woodward, J. (1965). *Industrial Organization: Behaviour and Control.* Oxford University Press: London

Zahra, S., Sapienza, H.J., & Davidsson, P. (2006), Entrepreneurship and dynamic capabilities: a review, model and research agenda. *Journal of Management Studies, 43*(4), 917-55.

Zollo, M., & Winter, S.G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science, 13*(3), 339-51.

APPENDICES

Appendix 1: Questionnaire

Dear Respondent,

This questionnaire is designed to collect data from large manufacturing companies in Kenya on the influence of dynamic capabilities and environmental dynamism on the relationship between organizational resources and organizational performance. The data collected shall be used solely for academic research and shall treated with strict confidence. Your participation in facilitating the study is highly appreciated.

SECTION 1: COMPANY INFORMATION

1.	**Name of Organization (Optional):**

2.	**Years of operation in Kenya (Tick one as appropriate)**									
	Up to 10 years	☐	11-20years	☐	21-30years	☐	31-40 years	☐	Above 40 years	☐
3.	**Ownership structure (Tick one as appropriate)**									
	Local	☐	Local and Foreign	☐	Foreign only					☐
4.	**Number of employees (Tick one as appropriate)**									
	Up to 100	☐	101-200	☐	201-300	☐	301-400	☐	Above 400	☐
5.	**Scope of operation (Tick one as appropriate)**									
	National	☐	Regional	☐	International					☐

6.	Please indicate in which category below the organization's turnover for the last 5 years	
a.	Between 251 Million and 500 Million per annum	☐
b.	Between 501 Million and 1.0 Billion per annum	☐
c.	Between 1.1 Billion and 1.5 Billion per annum	☐
d.	Between 1.6 Billion and 2.0 Billion per annum	☐
e.	Between 2.1 Billion and 2.5 Billion per annum	☐
f.	Between 2.6 Billion and 3.0 Billion per annum	☐
g.	Between 3.1 Billion and 3.5 Billion per annum	☐
h.	Between 3.6 Billion and 4.0 Billion per annum	☐
i.	Between 4.1 Billion and 4.5 Billion per annum	☐
j.	Between 4.6 Billion and 5.0 Billion per annum	☐
k.	Above 5.0 Billion per annum	

Appendix 1:Cont'd

SECTION 1: DEMOGRAPHICS (TICK AS APPROPRIATE)

7.	Please state your position/Title**(Tick one as appropriate)**									
	Chief Executive Officer						☐			
	General Manager/Functional Head						☐			
	Head of Department						☐			
8.	Indicate the number of years you have worked for this organization**(Tick one as appropriate)**									
	Less than 1 year	☐	1-5 years	☐	6-10 years	☐	11-15 years	☐	Over 16 years	☐

SECTION 3: ORGANIZATIONAL RESOURCES

9. The following statements describe the nature of resources owned and possessed by your organization. In a scale of 1-5 indicate the extent to which these statements apply to your organization **(Where 1 is "Not at all", 2 is "To a small extent", 3 is "To a moderate extent", 4 is "To a large extent", 5 is "To a very large extent").**Tick one as appropriate

	Statements	1	2	3	4	5
9.1.	**Tangible resources**					
a.	Possession of **valuable, rare, inimitable and non-substitutable** physical resources related to manufacturing plants, location and equipment.					
b.	Possession of **valuable, rare, inimitable and non-substitutable** physical resources related to distribution facilities.					
c.	Possession of adequate financial resources related to cash and cash equivalents, marketable securities and borrowing capacity					
d.	Possession of **valuable, rare, inimitable and non-substitutable** technological resources related to patents					
e.	Possession of **valuable, rare, inimitable and non-substitutable** technological resources related to copyrights and trade secrets					
f.	Possession of **valuable, rare, inimitable and non-substitutable** technological resources related to trade secrets					
g.	Possession of **valuable, rare, inimitable and non-substitutable** technological resources related to production technologies and processes					
h.	Possession of **valuable, rare, inimitable and non-substitutable** organizational resources related to IT, communication (servers, workstations etc.) and other planning co-ordination and control systems					
i.	Possession of **valuable, rare, inimitable and non-substitutable** organizational resources related planning co-ordination and control systems (e.g. Enterprise resource planning)					

Appendix 1:Cont'd

j.	Possession of **valuable, rare, inimitable and non-substitutable** organizational resources related to organizational design and reporting structure					
9.2.	**Intangible resources**					
a.	Possession of **valuable, rare, inimitable and non-substitutable** human assets and intellectual capital related to experience					
b.	Possession of **valuable, rare, inimitable and non-substitutable** human assets and intellectual capital related to learning knowledge					
c.	Possession of **valuable, rare, inimitable and non-substitutable** human assets and intellectual capital related to tacit knowledge					
d.	Possession of **valuable, rare, inimitable and non-substitutable** human assets and intellectual capital related to the education.					
e.	Possession of **valuable, rare, inimitable and non-substitutable** human assets and intellectual capital related to know-how of specialized teams and workgroups					
f.	Possession of **valuable, rare, inimitable and non-substitutable** skills in keeping operation costs down.					
g.	Possession of **valuable, rare, inimitable and non-substitutable** skills in improving product and service quality.					
h.	Possession of **valuable, rare, inimitable and non-substitutable** skills in providing customer service)					
i.	Possession of **valuable, rare, inimitable and non-substitutable** human assets and intellectual capital related to managerial talent.					
j.	Possession of **valuable, rare, inimitable and non-substitutable** human assets and intellectual capital related to creativity and innovativeness of certain employees					

SECTION 4: DYNAMIC CAPABILITIES

10. The statements below describe the aspects of dynamic capabilities. **In a scale of 1-5 indicate the extent to which the statements apply to your organizations (Where 1 – Not at all, 2 – To small extent, 3 – To a moderate extent, 4 – To a large extent, 5 – To a very large extent). ((Tick one as appropriate).**

	Statements	1	2	3	4	5
a.	Organization uses managers to combine their varied skills to create revenue producing products and services.					
b.	Organization uses managers to combine their varied functional backgrounds to create revenue producing products and services					
c.	Organization uses managers to pool their business expertise to make the choices that shape strategic moves of the firm					
d.	Organization uses managers to pool their functional expertise to make the choices that shape strategic moves of the firm					
e.	Organization uses managers to pool their personal expertise to make the choices that shape strategic moves of the firm					

Appendix 1:Cont'd

f.	The organization uses knowledge based transfer processes related to routines for replication (i.e. to copy, transfer and recombine resources)					
g.	The organization uses knowledge based transfer processes related to routines for brokering (i.e. creating new products by knowledge brokering from variety of previous design projects in many industries and from many clients)					
h.	The organization use resource allocation routines to distribute scarce resources such as capital from central points within the hierarchy					
i.	The organization use resource allocation routines to distribute scarce resources such as manufacturing assets from central points within the hierarchy					
j.	The organization use coevolving routines (routines by which managers reconnect webs of collaborations among various parts of the firm to generate new and synergistic resource combinations among business).					
k.	Managers use patching routines [strategic process that centres on routines to realign the match-up of businesses (i.e., add, combine, and split) and their related resources to changing market opportunities]					
l.	Managers use knowledge creation routines to build new thinking within the firm					
m.	Management use alliance and acquisition routines that bring new resources into the firm from external resources					
n.	Managers use exit routines that jettison resource combinations that no longer provide competitive advantage as markets undergo change					

SECTION 5: ENVIRONMENTAL DYNAMISM

11. Based on the statements below please indicate in a scale of 1-5 how much change your organization has experienced the same in the last 5 years (Where 1 – Not at all, 2 – Minor change, 3 – Moderate change, 4 – Significant change, 5 – Very Significant change). (Tick one as appropriate).

	Changeability	1	2	3	4	5
a.	Threat of new entrants in the industry					
b.	Competition among rivals in the industry					
c.	Exit barriers in the industry					
d.	Relative power of customers of the organization					
e.	Relative power of suppliers of the organization					
f.	Threats of substitute products within the industry					
g.	Political factors in the economy					
h.	Economic factors in the country					
i.	Socio-cultural activities in the market					

Appendix 1:Cont'd

j.	Technological changes in the market					
k.	Ecological changes e.g. weather and any other climatic effects					
l.	Legal factors in the economy					
m.	Relations with labour market					
n.	Relations with financial institutions					
o.	Relations with trading organizations					
p.	Relations with trade unions					
q.	Relations with parent companies					

Based on the statements below please indicate in a scale of 1-5 how is has it been to predict them in the last 5 years (Where 1 – Not at all, 2 – Small extent, 3 – Moderate extent, 4 – Large extent, 5 – Very large extent). (Tick one as appropriate).

	Predictability	1	2	3	4	5
a.	Threat of new entrants in the industry					
b.	Competition among rivals in the industry					
c.	Exit barriers in the industry					
d.	Relative power of customers of the organization					
e.	Relative power of suppliers of the organization					
f.	Threats of substitute products within the industry					
g.	Political factors in the economy					
h.	Economic factors in the country					
i.	Socio-cultural activities in the market					
j.	Technological changes in the market					
k.	Ecological changes e.g. weather and any other climatic effects					
l.	Legal factors in the economy					
m.	Relations with labour market					
n.	Relations with financial institutions					
o.	Relations with trading organizations					
p.	Relations with trade unions					
q.	Relations with parent companies					

SECTION 6: ORGANIZATIONAL PERFORMANCE

12. The statements below describe financial and nonfinancial measures related to organizational performance. **In a scale of 1-5 indicate the performance of the organization for the last 5 years (Where 1 – Bad, 2 – Below average, 3 – Average, 4 – Above average, 5 – Good). ((Tick one as appropriate).**

	Statements	1	2	3	4	5
12.1.	**Financial Performance**					
a.	Sales growth					
b.	Increase in return on sales					
c.	Increase in return on assets					
d.	Increase on equity					

Appendix 1:Cont'd

e.	Increase in gearing					
12.2.	**Internal process performance**					
a.	Productivity					
b.	Labour turnover					
c.	Unit production cost					
d.	Working capital/sales					
e.	Working capacity utilization					
12.3.	**Customer/market performance**					
a.	Organization's market share					
b.	Increase in the ability to attain new customers					
c.	Reduction in product return rate					
d.	Reduction in organization's defects rate					
e.	Reduction in organization's order cycle time					
12.4.	**Learning and development performance**					
a.	Increase in organization capacity to introduce new products					
b.	Increase in number of new markets entered					
c.	Increase in R&D spend/sales					
d.	Increase in training spend/sales					
e.	Increase in investment/total sales					
f.	Increase in employee satisfaction					
12.5.	**Social performance**					
a.	Increase in the organization's social performance of suppliers					
b.	Increase in the organization's community relationships					
c.	Increase in organization's philanthropic investments/revenue or profit					
d.	Increase in the organization's industry specific factors e.g. community open days					
12.6.	**Environmental performance**					
a.	Control of the organization's key material use/unit					
b.	Control of the organization's energy use/unit					
c.	Control of organization's water use/unit					
d.	Control of the organization's emissions, effluent and waste/unit or as % of total resources used					
e.	Control of the organization's industry specific factor e.g. GHG emissions					

THANK YOU FOR YOUR PARTICIPATION

Appendix 2: Large Manufacturing Companies in Kenya

Building, Mining and Construction (5)	
Organization	**Location**
ARM Cement Ltd	Nairobi
Bamburi Cement Limited	Nairobi
Central Glass Industries	Nairobi
East African Portland Cement	Athi River
Mombasa Cement Ltd	Mombasa
Chemical and Allied Sector (13)	
Bayer East Africa Ltd	Nairobi
Interconsumer Products Ltd	Nairobi
L'Oreal East Africa Ltd	Nairobi
PZ Cussons EA Ltd	Nairobi
Strategic Industries Limited	Nairobi
Sadolin Paints (E.A.) Ltd	Nairobi
BOC Kenya Limited	Nairobi
Crown Berger Kenya Limited	Nairobi
Johnson Diversey East Africa Ltd	Nairobi
Osho Chemicals Industries Ltd	Nairobi
Reckitt Benckiser (E.A.) Ltd	Nairobi
Tata Chemicals Magadi Ltd	Magadi
Unilever East and Southern Africa	Nairobi
Energy, Electricals and Electronics (4)	
IberaAfrica (EA) Ltd	Nairobi
Kenya Petroleum Refineries Ltd	Mombasa
East African Cables Ltd	Nairobi
Libya Oil Kenya Limited Formerly Mobil Oil Kenya)	Nairobi
Fresh Produce (1)	
Frigoken Limited	Nairobi

Appendix 2:Cont'd

Food, Beverages and Tobacco (34)	
Beverage Services (K) Ltd	Nairobi
British American Tobacco Kenya Limited	Nairobi
Coastal Bottlers Limited	Mombasa
East African Breweries Ltd	Nairobi
Gold Crown Beverages (EPZ) Ltd	Mombasa
James Finlay Kenya Ltd	Kericho
Kenblest Limited	Thika
Kensalt Ltd	Mombasa
Mastermind Tobacco (K) Ltd	Nairobi
Kenya Wine Agencies Limited	Nairobi
Keroche Industries Ltd	Naivasha
London Distillers (K) Ltd	Nairobi
Mombasa Maize Millers	Mombasa
Mount Kenya Bottlers Limited	Nyeri
Nestle Kenya Ltd	Nairobi
Rift Valley Bottlers Ltd	Eldoret
West Kenya Sugar Company Limited	Kakamega
Bidco Oil Refineries Ltd	Thika
Brookside Dairy Ltd	Ruiru
Chemelil Sugar Company Ltd	Kisumu
Del Monte Kenya Ltd	Thika
Farmers Choice Ltd	Nairobi
Kapa Oil Refineries Limited	Nairobi
Kenafric Industries Ltd	Nairobi
Kenchic Limited	Nairobi
Kitui Flour Mills Ltd	Mombasa
Mini Bakeries (NBI) Ltd	Nairobi
Nairobi Bottlers Ltd	Nairobi
Mumias Sugar Company Limited	Mumias
New Kenya Co-operative Creameries Ltd	Nairobi
Pwani Oil Products Ltd	Mombasa

Appendix 2:Cont'd

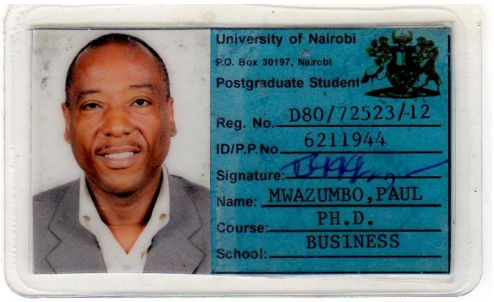
Krystalline Salt Ltd	Mombasa
Unga Group Ltd	Nairobi
Wrigleys Company E.A. Limited	Nairobi
Leather and Footwear (2)	
Alpharama Limited	Athi River
Bata Shoe Company (Kenya) Ltd	Limuru
Metal and Allied Sector (13)	
Corrugated Sheets Ltd	Mombasa
Devki Steel Mills Ltd	Nairobi
Greif East Africa Ltd	Mombasa
Kaluworks Ltd	Nairobi
Mabati Rolling Mills Limited	Athi River
Nampak Kenya Ltd	Thika
Standard Rolling Mills Ltd	Nairobi
Doshi Enterprises Ltd	Nairobi
Insteel Limited	Nairobi
Kenya United Steel Company (2006) Ltd	Mombasa
Metal Crowns Ltd	Nairobi
Steel Structures Ltd	Mombasa
Steelmakers Ltd	Nairobi
Motor Vehicle and Accessories (1)	
Sameer East Africa Ltd	Nairobi
Paper and Board (9)	
Allpack Industries Ltd	Nairobi
Dodhia Packaging Limited	Nairobi
English Press Limited	Nairobi
Nation Media Group Limited – Printing Plant	Nairobi
Chandaria Industries Ltd	Nairobi
East Africa Packaging Industries Limited	Nairobi
General Printers Limited	Nairobi

Appendix 2:Cont'd

Packaging Manufacturers (1976) Ltd	Mombasa
Tetra Pak Ltd	Nairobi
Pharmaceutical and Medical Equipment (1)	
Glaxo Smithkline Kenya Ltd	Nairobi
Plastics and Rubber (4)	
Polly Propelin Bags Ltd	Mombasa
Premier Industries Limited	Nairobi
General Plastics Limited	Nairobi
Silpak Limited	Nairobi
Textile and Apparels (1)	
Spinners and Spinners Ltd	Nairobi
Timber, Wood and Furniture (1)	
Rai Plywoods (Kenya) Ltd	Nairobi

Source: Kenya Association of Manufacturers Members' Electronic Database, 2014.

Appendix 3: Letter of Introduction



Paul Mwasaru Mwazumbo
University of Nairobi,
School of Business,
P.O. Box 30582 -

00100
Nairobi
E-mail: paul.mwasaru@aims.co.ke
Mobile: +254 722 353739.

1st August 2015

To_____

_____

Dear Sir/Madam,

REQUEST FOR DATA: ORGANIZATIONAL RESOURCES, ENVIRONMENTAL DYNAMISM, DYNAMIC CAPABILITIES AND PERFORMANCE OF LARGE MANUFACTURING COMPANIES IN KENYA.

I am a Doctor of Philosophy (Ph.D.) candidate in the Department of Business Administration, School of Business, at the University of Nairobi. As part of the requirements for the award of the Ph.D. degree. I am required to undertake a research study. My research topic is as indicated above. Since you fall under the category of large manufacturing companies in Kenya as per the database available at Kenya Association of Manufacturers (2014), I kindly request that you take part in this study by filling the questionnaire attached.

The research results will be used solely for academic purposes and will be treated with strict confidentiality. Should you require the summary of the research findings, kindly indicate so at the end of the questionnaire.

Thank you,

Paul Mwasaru Mwazumbo, BSc, MBA
Doctor of Philosophy (Ph.D.) Candidate.

Appendix 4: Authority Letter to Conduct Research

UNIVERSITY OF NAIROBI
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
SCHOOL OF BUSINESS
DOCTORAL STUDIES PROGRAMME
Telephone: 4184160/1-5 Ext. 225 **P.O. Box 30197**
Email: dsp@uonbi.ac.ke **Nairobi, Kenya**

20th August, 2015

TO WHOM IT MAY CONCERN

RE: PAUL MWASARU MWAZUMBO – D80/72523/2012

This is to certify that, **PAUL MWASARU MWAZUMBO: D80/72523/2012** is a Ph.D candidate in the School of Business, University of Nairobi. The title of his study is: **"Organizational Resources, Environmental Dynamism, Dynamic Capabilities and Performance of Large Manufacturing Companies in Kenya".**

The purpose of this letter therefore, is to kindly request you to assist and facilitate in carrying out the research/study in your organization. A questionnaire is herewith attached for your kind consideration and necessary action.

Data and information obtained through this exercise will be used for academic purposes only. Hence, the respondents are requested not to indicate their names anywhere on the questionnaire.

We look forward to your cooperation.

ASSOCIATE DEAN
Graduate Business Studies
School of Business (UON)
P.O. Box 30197 – 00100, NAIROBI

PROF. STEPHEN N.M. NZUVE
ASSOCIATE DEAN,
GRADUATE BUSINESS STUDIES
SCHOOL OF BUSINESS

SNMN/nwk