

**FIRM LEVEL FACTORS, INDUSTRY ENVIRONMENT,  
COMPETITIVE STRATEGY AND PERFORMANCE OF LARGE  
MANUFACTURING FIRMS IN KENYA**

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OF PHILOSOPHY IN BUSINESS ADMINISTRATION, SCHOOL OF  
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**2015**

## DECLARATION

I declare that this thesis is my original work and has not been presented to any other university.

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## **DEDICATION**

I dedicate this thesis to dear brethren in Call Anointed Ministries and Higher Ground Ministries International. Your prayers and encouragement were very instrumental in pursuit of my PhD.

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## **ABBREVIATIONS AND ACRONYMS**

<b>AGOA</b>	African Growth Opportunity Act
<b>BSC</b>	Balanced Score Card
<b>COMESA</b>	Common Market for Eastern and Southern Africa
<b>EAC</b>	East African Community
<b>FDA</b>	Food and Drug Administration
<b>FTC</b>	Federal Trade Commission
<b>GDP</b>	Gross Domestic Product
<b>IBM</b>	International Business Machine
<b>IO</b>	Industry Organization
<b>KAM</b>	Kenya Association of Manufacturers
<b>KIRDI</b>	Kenya Industrial Research and Development Institute
<b>KNBS</b>	Kenya National Bureau of Statistics
<b>PESTEL</b>	Political, Economic, Social, Technological, Environmental and Legal
<b>RBV</b>	Resource Based View
<b>ROA</b>	Return on Assets
<b>ROE</b>	Return on Equity
<b>ROI</b>	Return on Investment
<b>ROS</b>	Return on Sales
<b>SCP</b>	Structure-Conduct-Performance
<b>SSP</b>	Strategy Structure Performance
<b>OP</b>	Organizational performance

## **ABSTRACT**

The general objective of this study was to determine the independent and combined effect of firm level factors on performance of large manufacturing firms in Kenya. The specific objectives of this study were to determine the influence of structure on performance of large manufacturing firms, determine the influence of culture on performance of large manufacturing firms, establish the influence of resources on performance of large manufacturing firms, determine the combined effect of structure, culture and resources on performance of large manufacturing firms and establish the intervening effect of competitive strategy and moderating effect of industry environment on combined effect of structure, culture and resources on performance of large manufacturing firms. The study was a cross sectional survey targeting 102 large manufacturing firms and the response rate was from 94 firms. The data was analyzed using Statistical Package for Social Sciences. Hypotheses were tested and nearly all were rejected apart from two hypotheses. The two hypotheses indicated that organizational structure had no influence on return on assets and that organizational culture did not influence customer perspective. Results indicated that organizational structure, culture and resources had combined effect on organizational performance. Competitive strategy had an intervening effect and industry environment had moderating effect on combined effect of organizational structure, culture and resources on organizational performance. The study established that different measures of performance indicated varying results. The results of the study are important in influencing the government policy. The Ministry of Industrialization and Enterprise Development in liaison with other key ministries and agencies should ensure that there is appropriate legal framework that enhances the industry environment. This is important because with globalization, the industry environment has become more dynamic and turbulent. When the government formulates and implement appropriate policies based on empirical data, the manufacturing firms will have more conducive environment to be competitive locally and globally. Kenya association of manufacturer through the results obtained is able to advise the organization members adequately. The study results indicated the relevance of contingency theory that an organizational performance is dependent to certain independent factors. This implies that the theory is relevant and important in understanding what are the key factors that would be instrumental in making a business competitive. The results indicated that organizational resources influences organizational performance. This support the resource based view of strategy but the dynamic capability theory cannot be overlooked because it emphasizes on the importance of effective use of organizational resources. This study supports organizational behavior theory because organizational structure and organizational culture were found to significantly influence organizational performance. The theory can be used as a foundation to understand why different organizations respond in a particular way to varying factors. The management of large manufacturing firms should carefully make an objective assessment about the appropriateness of the organizational structure, culture and effective utilization of resources. The study was limited in that change in various variables of study was not monitored or observed over time as would be the case with longitudinal studies. The study was restricted by non response from some managers on profit after tax and earnings per share. Further studies can be carried out on organizational structure and return on assets and organizational culture and customer perspective.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background**

This study aimed at examining the relationship of firm level factors, industry environment, competitive strategy and organizational performance. The study focused on organizational structure, organizational culture, organizational resources and organizational performance. The study was to determine both the independent and combined effect of organizational structure, organizational culture and organizational resources on organizational performance. Different firms in the same industry may employ different competitive strategies and there is expectation of moderating role of industry environment and intervening effect of competitive strategy on relationship between firm level factors and organizational performance.

The study had the following theoretical foundations; Resource based view (RBV) theory, industrial organization theory, contingency theory, dynamic capability theory and organizational behavior which were considered important for this research. According to the industrial organization theory, industry structure has the major effect on performance while the RBV theory, firm internal environment especially resources have major influence on firm performance. Contingency theory suggests that there is no optimal strategy for all organizations and posits that the most desirable choice of strategy alters according to certain variables, termed as contingency factors (Donaldson, 1996). Dynamic capability theory suggests that the ability of a firm to reconfigure assets and

existing capabilities, explains long-term competitive advantage. Organization behavior theory is concerned with the adaptation and response of organization to internal and external environment. The resource based view was considered to be the main anchorage theory for the study because there were three firm level variables (organizational structure, resources and culture) which are the internal environment factors.

The research context was the large manufacturing firms in Kenya which account for over 10 percent of Gross Domestic Product (GDP). It therefore plays a major role in the Kenyan economy. The manufacturing sector is comprised of different industries and is operating in very competitive environment from local and international businesses. Kenya's manufacturing sector has been the main conduit for the country's integration into regional and world markets. It is key to achieving the country's vision of becoming prosperous and globally competitive nation by 2030.

The manufacturing sector decelerated from an expansion of 3.4 percent in 2011 to a growth rate of 3.1 percent in 2012. The slower growth was due to high cost of production, stiff competition from imported goods, high cost of credit and political uncertainty due to the 2013 general elections (Kenya National Bureau of Statistics (KNBS), 2013). Manufacturing exports are targeted at both regional markets, including the Common Market for Eastern and Southern Africa (COMESA) and the East African Community (EAC) as well as European and American markets. Kenyan manufacturers have in recent years through African Growth Opportunity Act (AGOA) and associated export processing zones, increased exports of textiles, mainly targeting the US market.

### **1.1.1 Firm Level Factors**

Firm level factors are features specific to a particular business. According to Higgins (2005) these factors are structure, system and processes, style, staff, re-sources, shared values, strategy and strategic performance. Strategic management scholars have examined a wide range of contingency factors, such as aspects of the environment, organization structure (Duncan, 1972; Leavitt,1965; Miller, 1988), technology (Dowling & McGee, 1994) and marketing choices (Claycomb, et al., 2008). They explored how the factors interact with strategy variables to influence firm performance. The firm level factors in the study were organizational structure, organizational culture and organizational resources.

According to Kilmann, et al., (1985), organizational culture is something to do with people and the unique quality and style of the organization. Organizational structure is sets of relations between the roles of an organization (Fararo, 1997). Organizational resources are the various intangible and tangible assets an organization owns or controls (Grewal & Tansuhaj, 2001). In the strategic management literature, scholars have identified several factors influencing organizational performance. There are variables related to the external environment, such as industry structure (Porter, 1980) and type of industry (Hawawini, et al., 2003; McGahan & Porter, 1997). They also include internal firm characteristics such as organizational culture, access to scarce resources, managerial competence degree of business unit autonomy and marketing orientation (Jacobson, 1990). Variables related to firm strategy have also been shown to influence performance, such as competitive strategy (Porter, 1985), strategic posture and strategic planning

process (March & Simon, 1958; Pearce, et al., 1987). Review of literature indicates conflicting results in some studies, for instance Germain, et al., (2008) found that structure had a positive effect on the performance. Zheng, et al., (2010) study observed a negative effect of structure on organizational effectiveness (performance).

Spanos, et al., (2004) study on Greek manufacturing found that firm specific factors explained more than twice as much profit variability as industry factors. These studies also focused on independent effect of firm level factors and current study focused not only on independent effect but combined effect. Karabag and Berggren (2013) study, based on 1,000 largest manufacturing firms in Turkey found that firm related factors did not significantly influence performance, instead factors related to industry structure and business groups membership were the strongest determinants of firm perspective. Chen (2010) showed that firm factors explained a substantial part of Korean and Taiwanese firm performance. Tan and Litschert (1994) stated that in China some strategic approaches significantly explained firm performance. Galbreath and Galvin (2008) demonstrated that firms' resources were more important than industry. Dong, et al, (2008) found insignificant relations between strategy and performance in their study of Chinese firms.

Efendioglu and Karabulut (2010) did not observe any significant relationship between firm level factors and performance. Karabag (2008) argued that industry can affect firm performance more than firm factors. Efendioglu and Karabulut (2010); Karabag (2008) and Chen (2010) results were conflicting and the current study sought to determine what is the independent and combined relationship of firm level factors and performance in

large manufacturing firms in Kenya. Furthermore current study looked at the moderating role of the industry environment and intervening role of competitive strategy in the relationship of firm level factors and organization performance in large manufacturing firms in Kenya.

### **1.1.2 Industry Environment**

Duncan (1972) defined business environment as the totality of physical and social factors taken into consideration by a firm for making decisions. The business environment is divided into external and internal categories. The internal environment comprises of physical and social factors within the boundaries of a firm or industry. The external environment comprises of correlating factors existing outside the boundaries of the firm. The external environment refers to phenomena not in control of the firm and is classified into remote and task environments. The remote environment is comprised of political, socio-cultural, economic, ecological, and technological categories while the task environment comprises of customers, suppliers, competitors, and regulators. The task environment is affected by the remote environment, while most of the external environment is beyond a firm's or industry's control. The remote factors affect the activities of the company in long-term environment (Woodward, 1965; Duncan, 1972).

This environment creates opportunities risks, or control for the company. The business environment can be considered to be in terms of the following layers; macro environment (remote), industry environment and operating environment (micro). The most general layer of the environment is referred to as micro-environment. The macro environment

consists of broad environmental factors that impact to a greater extent on almost all organizations. The macro environmental influences that might affect organizations can be categorized using Political, Economic, Social, Technological, Environmental and Legal (PESTEL) frame work. These factors are not independent of each other and when they change, they affect the competitive environment (Johnson, et al, 2002).

The macro environment might influence the success or failure of an organization's strategies but the impact of these general factors tends to surface in the more immediate environment through changes in the competitive forces on organization. A key aspect is competition within the industry which is the industry environment. An industry is a group of firms producing the same principal product (Johnson, et al., 2002). The five forces framework helps identify the sources of competition in an industry or sector. The five forces framework is composed of threat of entry by potential entrants, bargaining power of buyers, threat of substitutes, bargaining power of suppliers and competitive rivalry within (Porter, 1980). The operating environment is composed of competitors, customers, suppliers and markets. According to Johnson, et al., (2002) these are the strategic groups, market segments and the understanding of what customer's value. Strategic groups are organizations within an industry with similar strategic characteristics following similar strategies or competing on similar bases. A market segment is a group of customers who have similar needs that are different from customer needs in other parts of the market (Porter, 1985).

Ansoff and McDonnell (1990) strategic success hypothesis was that strategic diagnosis is a systematic approach to determining the changes that have to be made to a firm's strategy and its internal capability in order to assure the firm's success in its future environment. The strategic success hypothesis states that a firm's performance potential is optimum when the following three conditions are met; aggressiveness of the firm's strategic behavior matches the turbulence of its environment, responsiveness of the firm's capability matches the aggressiveness of its strategy and the components of the firm's capability must be supportive of one another. Environmental turbulence is a combined measure of the changeability and predictability of the firm's environment.

The environment turbulence can be repetitive, expanding, changing, discontinuous or surprising. The corresponding strategic aggressiveness can be stable, reactive, anticipatory, entrepreneurial and creative. The aggressiveness level of the firm's strategic behavior must match the turbulence level of the environment. The responsiveness of the firm's organizational capability must also be matched to the environmental turbulence (Ansoff & McDonnell, 1990). A firm has to match its strategy and supporting capability with the environment to optimize its competitiveness and profitability. The different environment in which firm operate is classified into five distinct turbulence levels; repetitive environment, expanding environment, changing environment, discontinuous environment and surpriseful environment. The strategic diagnosis identifies a combination of turbulence levels, strategic aggressiveness and organizational capability responsiveness that will produce optimum profitability (Ansoff & McDonnell, 1990).

Success, which is the survival and prosperity of any organization, depends on how the organization relates to the environment. Strategy is a link between an organization and its environment and must be consistent with the goals, values, the external environment, resources, organizational structure and system (Ansoff & Mcdonell, 1990). Environment establishes the context in which to evaluate the importance of relationship between strategy and performance. Strategist need to identify sub environment in which the firm are to compete. The influence of environments on firm performance has been one of the central themes in strategy (Porter, 1980).

Firms must continuously survey the environment for signs of future discontinuity and potential surprises. They must respond to frequent changes in competitive structure and dynamics. A firm needs to diagnose its unique pattern of future challenges, threats, and opportunities and must design and implement its unique response to these challenges. Porter (1985) study on service and manufacturing industries found a larger industry effect of 19 percent. The implication of their work was that firm specific factors influence profitability more than industry factors. External influences can matter more in some industries than others (Johnson, et al., 2002). The industry environment is the overall economic, regulatory, social and political conditions that affect all participants in an industrial market in a similar way and cannot readily be influenced by marketing. The industry environment experienced by a business can include such things as demographics, lifestyle shifts and economic cycles (Brown, 2000). The importance of industry environment in determining organizational performance has been challenged (Peteraf, 1993). The debate is whether strategy making should be externally oriented,

starting with environment (industrial organization theory) or internally oriented starting with the organizations own skills and resources (resource based view theory). The deterministic environment and strategy was developed by organization theorists and viewed management as a reactive agent that must deal with a deterministic environment (Duncan, 1972).

### **1.1.3 Competitive Strategy**

Drucker (1954) first addressed strategy and strategic formulation as an approach to managing organizations. Drucker concern was with defining the business domain of a company. Little attention was given to this concept of strategy until when Chandler (1962) in the ground breaking work “structure follows strategy”, recognized the importance of coordinating the various aspects under one all-encompassing strategy. According to Andrews (1980), corporate strategy defines the businesses in which a company will compete, preferably in a way that focuses resources to convert distinctive competence into competitive advantage.

Andrew (1980) emphasizes on the need to build on resources and utilize them and out-compete competition. Bracker (1980) stated that the word strategy comes from the Greek word stratego, meaning to plan the destruction of one’s enemies through the effective use of resources. The concept of strategy was developed purely in relation to the successful pursuit of victory in war. The concept remained a military one until the nineteenth century, when it began to be applied to the business world (Bracker, 1980; Chandler, 1962). Porter’s (1980) generic strategy typology suggested that a business can achieve

success through low cost leadership or differentiation of its good or services. Organizations adopting either approach could emphasize the entire market or focus on a single niche. Porter (1985) suggested that a business attempting to combine cost leadership and differentiation tends to perform poorly because the low cost and differentiation strategies are based on incompatible assumptions and necessary trade-offs.

Porter (1985) defines competitive strategy as the search for a favorable competitive position in an industry, the fundamental arena in which competition occurs. Strategy should aim at making the organization more relevant, attract and retain customers. According to Mintzberg, et al., (1998), there are five main and interrelated definitions of strategy: plan, ploy, pattern, position and perspective. Andrew (1998) defined strategy as a pattern of decisions in a company that determines and reveals its objectives, goals, plans for achieving those goals and defines the range of business the company is to pursue. Worthington (2002) attempted to make sense of the many definitions and categories of strategy by identifying four generic approaches to strategy; classical, evolutionary, processional and systematic. A competitive strategy is based on an analysis of factors of the industry and its evolution. Industry forces underline economic and technical characteristics of an industry. The purpose of Porter's five forces model is to gain a thorough understanding of a particular industry by analyzing the external environments (Passemard & Kleiner, 2000).

Parthasarthy (2007) describes strategy as a set of decisions and actions that managers make and take to attain superior company performance relative to rivals. The relationship

between resources/capabilities and performance may be incomplete if we do not consider the moderating role of competitive strategy (Newbert, 2008). Although some studies have demonstrated the existence of a positive relationship between the firm's resources and performance, these studies have not considered in their analysis whether the relationship is direct or moderated by competitive strategy (Miller & Shamsie, 1996). This approach suggests that the optimal organizational design is contingent on strategy, among other factors. What ultimately influences the performance of firms is their strategy, because strategy directly influences costs and revenues (Eriksen, 2006). This is confirmed by the studies of Beard and Dess (1981), Ebben and Johnson (2005), Edelman, et al., (2005), Spanos and Lioukas (2001), and White (1986). Influence of organizational structure on firm performance is exerted indirectly, through competitive strategy (Edelman, et al., 2005).

Harris and Ruefli (2000) found that firms that held their strategy constant and made only structural changes out-performed firms that changed neither strategy nor structure, and the latter outperformed firms that changed their strategy but held their structure constant. Kitching, et al., (2009) affirm that the main motive of competitive strategy is to provide answers to two fundamental questions, which are; what business is the organisation doing? how do firms compete in the rapid changing environment? Thus, how an organisation attains a superior performance and sustains competitive advantage in relation to its strategy is the main focus of strategic management as a field of study.

Managers are confronted with flood of ideas with different business dimensions that requires sixth sense and rational reasoning when formulating strategy (Barney, 2001; Priem & Butler, 2001). An organization strategy defines its unique image and provides its purpose and direction to its activities and to the people within and outside the organization (Grant, et al., 1988). Since no single measure effectively captures the performance outcomes of different strategic types, several researchers have suggested that financial measures must be used in conjunction with market based measures (Dess & Davis, 1984; Scherer & Ross, 1990). Pearce, et al., (1987) suggested that the effect of strategic planning on performance is contingent upon the level of turbulence firm face. Kim and Lim (1988) studied the impact of global diversification strategy on corporate profit performance. Their study of 62 multinationals suggested that the profit performance impact of related and unrelated diversification (primarily based on product diversity) varied contingent upon the extent of a firm international market diversification.

Grant, et al., (1988) studied on the relationship between diversity, diversification (increases in diversity over time), and profitability for 304 larger British manufacturing companies. Their results indicated that in general, diversity was positively related to profitability. The measure used was Return on Assets (ROA). Beard and Dess (1981), found both corporate-level strategy and business-level strategies are significant in explaining variation in firm profitability. The business strategy choices are found to be significant in explaining firm profitability (Beard & Dess, 1981) and its long-term performance.

Allen and Helms (2006), found that cost leadership strategy has only one significant tactic minimizing distribution costs that affect organizational performance. Dess and Davis (1984) found that the overall low cost cluster has the higher average ROA. A Profit Impact of Marketing Strategy (PIMS) study by Phillips, et al., (1983) found a significant and positive relationship between differentiation and market share. Firms choose between low cost strategy and differentiation to establish and defend their desired strategic positioning against rivals.

Porter (1985) and the PIMS study by Phillips, et al., (1983) suggested that differentiation can be a way of achieving a low-cost position and there often is no unique low-cost position. A firm may have to base its sustainable competitive advantage on the simultaneous and continuous pursuit of both low cost and differentiation. Porter (1985) suggested that the combination of cost and differentiation strategies will result in poor performance and unlikely to generate a sustainable competitive advantage except in the most exceptional circumstances that such a combination results in a sustainable competitive advantage. Some other studies have found that some firms have successfully employed combination strategies (Dess & Davis, 1984; Kim & Lim, 1988; Parthasarthy, 2007). Another line of study in the literature focuses on firm resources and strategies as determinants of firm performance (McGahan & Porter, 1997; Miles, 1978; Roquebert, et al., 1996; Rumelt, 1991).

Porter (1980) argues that a firm, based on its strategic scope and strategic strength, can build its performance by implementing one of three core strategies; differentiation, low-

cost, or focus. This is one of most used and discussed typology of competitive strategies (Gopalakrishna & Subramanian, 2001; Wright, et al., 1992). Porter (1980, 1985) strongly suggests that competitive strategies are distinct from each other, and some researchers found that distinctive (“pure”) strategies display better performance. Empirical studies conducted in several countries show that a combination strategy might be another strategic alternative (Wright, et al., 1991; Donaldson, 1985; Yasai-Ardekani & Nystrom, 1996). The strategy literature reveals contradictory results on the link between generic strategy and performance. There is no consensus from the previous findings on the impact of strategy on performance in strategic management literature, but O’Regan, et al., (2008) report that extant literature reveals that positive relationship exist between strategic planning and strategy. This is consistent with the assertion of Miller and Cardinal (1994) who drew inferences from 26 previously published studies and conclude that there was relationship exist between strategy and performance.

O’Regan, et al., (2008) argue that there is no “clear cut” evidence on the influence of strategy on performance the way researchers expected. Empirical studies confirm that there are some relationships between strategy and performance measures in various dimensions (Maltz, et al., 2003; Gosselin, 2005; Pongatichat & Johnson, 2008). European study by Spanos, et al., (2004) analyzed three different firm strategies (low cost, differentiation, and combination) and found that these strategies significantly affected firm performance.

Lou (1999) stated that in China some strategic approaches significantly explained firm performance in the uncertain environment. Dong, et al., (2008) found insignificant relationship between strategy and performance in their study of Chinese firms. Teeratansirikool and Siengthai (2012) study on Thai listed companies found that overall competitive strategy positively significantly enhanced organizational performance. Waweru (2008) study on large private sector in Kenya found that there was weak correlation of strategy and performance. Kwasi and Moses (2008) study found significant and positive relationship between strategy and performance.

#### **1.1.4 Organizational Performance**

According to Daft (2000), organizational performance is the organization's ability to attain its goals by using resources in an efficient and effective manner. Ricardo and Wade (2001) defined organizational performance as the ability of the organization to achieve its goals and objectives. Organizational performance has suffered from not only a definition problem, but also from a conceptual problem. Performance refers to the degree of achievement of the mission at work place that builds up an employee's job (Cascio, 2006). Different researchers have different thoughts about performance; mostly researcher's used the term performance to express the range of measurements of transactional efficiency and input and output efficiency (Stannack, 1996). According to Barney (1991), performance is a continuous process to controversial issue between organizational researchers. Organizational performance does not only mean to define problem, but it also for solution of problem (Heffernan & Flood, 2000).

Previous research had used many variables to measure organizational performance. These variables included profitability, gross profit, ROA, Return on Investment (ROI), Return on Equity (ROE), Return on Sales (ROS), revenue growth, market share, stock price, sales growth, export growth, liquidity and operational efficiency (Thomas & Ramaswamy, 1996; Gimenez, 2000). Postma and Zwart (2001) argue that to measure performance both objective and subjective measures should be included in the measuring instrument. According to Kaplan and Norton (1996; 2008) balance scorecard consist of finance perspective, business process, learning and growth and customer perspective.

Organizational performance is anchored around a multidimensional conceptualization related predominately to stakeholders, heterogeneous market circumstances, and time (Richard, 2009). Different studies propose different viewpoints on performance measurement. Performance measurement and management is considered by many organizations as an important activity to be done to keep organization on track in achieving its strategic goals and objectives.

David (2011) argues that strategy evaluation in terms of performance measurement is crucial to a healthy organization; this will provide health checks and give the signal of potential constraints before the situation becomes worse. David (2011) asserted that specious strategic direction can inflict untold hardship on an organization, and this can be extremely difficult or impossible to reverse. This position, underscores some of the earlier studies that argue that lack of performance measurement may cause serious difficulties for organizations and disillusion among workers and managers (Wheelen &

Hunger, 2000; Luu, et al., 2008). This is especially, when there are no performance measurement data to establish meaningful and objective organizational comparison that will enhance effectiveness and efficiency of their efforts (Luu, et al., 2008). David (2011) sums up strategy evaluation or performance measurement to entail three basic activities; an examination of the underlying bases of organization's strategic direction, comparison of the expected outcomes with the actual outcome, and taking of corrective measures to ensure that organizational performance falls in line with plans. This indicates that performance measures or measurement system must be related to activities originating from organizations strategic planning efforts (O'Regan, et al., 2008).

Performance measurement may be different depending on angle from which it is measured, it may be evaluated from project, organization, stakeholder or client's perspective (Yang, et al., 2010). Organizational performance can be measured using both financial and non-financial measures, but measures of performance in the past have been financial driven with focus on accounting measure of performance such as profitability and ROI. O'Regan, et al., (2008) assert that there is a paradigm shift towards all-inclusive measures of performance consisting of both financial and non-financial measures, recurrent and result measures.

According to Phua (2006), measurements of performance by organizations play a very vital role in translating organizational corporate strategies into results. Phua (2006) asserts that performance of construction organization is dependent on the dynamics of the industry and organization specific factors. However, evidence that exist in extant

literature indicates incongruence in the findings of researchers on many of the factors that have influence on performance (Short, et al., 2002). Having access to objective performance data of organizations is becoming difficult and cautionary advice has been given when measuring performance of private organizations. This is especially when managers are not well disposed to revealing detailed accounting data of their organization's performance (Barney, 2011; O'Regan, et al., 2008). Efforts should be intensified to investigate what drives organization performance within the industry and organization context. As a result, subject measures of performance or self-reporting performance measures such overall objective fulfillment/overall perceived performance is adopted (Nandakumar, et al., 2010; Garg, et al., 2003).

Accounting measures of performance have been widely used in the diversification research (Grant, et al., 1988; Kim & Lim, 1988). The ROA reflects firm's relative efficiency in the utilization of its assets. According to Brown (2000), a realistic model of organizational performance must reflect a highly complex paradigm and require more than a single criterion. These studies identified financial performance and organizational effectiveness qualitative attributes dimensions associated with the planning process.

The first dimension focused on the impact of planning on financial performance, and the second dimension was concerned with qualitative attributes (Cameron & Quinn, 2005). Organizations are more focusing on the management of non- financial or intangible assets like customer's link, services, quality and performance, not on the assets which are financial in nature (Kaplan & Norton, 2008). There is a need for proper performance

measurement system to measure and evaluate the performance of employee financial or non-financial. Strategic Performance Measurement System (SPMS) is a new approach to measure performance. Chenhall (2005) said that the SPMS provide a way to translate and measure both financial and non-financial performance. Chenhall (2005) suggests that it is the incorporative nature of this measurement technique that provides the potential to increase the strategic competitiveness of the organization. He indicated that the use of multiple performance measures consist on financial and non-financial is generally better.

Kaplan and Norton (1992) suggested that Balance Scorecard (BSC) is one of most important SPMS tool. The BSC provides help or framework to ensure that the strategy is interpreted into rational set of performance measurement. Linked together on causal relationship, it covers four main viewpoints; financial, internal business process, customer, and learning and growth.

### **1.1.5 Linkages of the Study Variables**

The study variables were firm level factors; organizational structure, organizational resources and organizational culture which are the independent variables. The firm level factors are considered to be internal factors in the firm and therefore relates to resource based view of strategy (Barney, 2001). The dependent variable was organizational performance. The industry environment postulated to have moderating effect on relationship between firm level factors and organizational performance. The industrial organization theory emphasizes on the external factors influence to firm performance especially the industry in which the organization operates (Porter, 1985).

The competitive strategy in the study was the intervening variable in the relationship between firm level factors and organizational performance. The strategy is the link of a firm to the environment. It brings about the achievement of firms objectives measured in terms of performance which can be qualitative measures or quantitative measures (Johnson, Scholes & Whittington, 2002).

#### **1.1.6 Manufacturing Sector in Kenya**

The manufacturing sector refers to any business that transforms raw materials into finished or semi-finished goods using machines, tools and labor. Kirkpatrick (1984) define large business firm as those employing more than 50 employees and above. In Ghana, a large business enterprise generally employs 30 people and above (Osei, et al., 1993). In Kenya a large business employs 50 or more people, has sales turnover of at least KShs 3 million and sales per employee of KShs 6,000 (Aosa, 1992). The KNBS (2012) defines a large firm as those organizations that employ 50 people and above. Another definition provided by the Kenya Industrial Resource Development Institute (KIRDI) 2007) defines large business as those employing a minimum of 50 employees and constitutes that compartment of the economy concerned with the production or making of finished goods out of raw materials by means of an elaborate system of labour with the aid of machinery.

Kibe (2000) and Nyamwange (2001) in a study of large business enterprises in Kenya posits that when using the number of employees to determine a firm's size, a firm with at least 50 employees is considered large. Nickels and McHugh (1996) in a study of large

business enterprises in USA states that employee size, asset size and sales size are the key criteria used to define company size. They define large business as an entity which employs over 1,000 people, with an asset value of USD 100 million plus and sales size of USD 250 million plus. In another study by Worthington (2002) done in the UK and USA, the same parameters were used. The common measures were turnover, value of output, capital employed or level of employment.

The British American Tobacco, for example is a large tobacco manufacturing company and the most common measure of size is the level of employment. The smaller firms in the UK dominate the economy in terms of number with 98.2 percent of firms employing fewer than 100 employees. However, these firms account for only 37.4 percent of the total level of employment in manufacturing. At the other end, establishment with over 500 employees account for only 0.3 percent of the total number (considered large companies) but account for 38.7 percent of total employment. From the definitions above, the key parameters used to define large business firm are turnover, number of employees, capital employed, value of output and sales turnover. These definitions have also revealed variations from county to county, however for the purpose of this study, definition by (KIRDI 2007, Aosa 1992, KNBS 2012, Kibe 2000, Nyamwange, 2001) were considered more appropriate since the studies were conducted in Kenya under similar condition.

Manufacturing sector is a major source of employment and possesses substantial backward and forward linkages to the rest of the economy and is key to achieving the country's vision of becoming prosperous and globally competitive nation by 2030 (KNBS, 2012). Sales from the Export Processing Zone (EPZ) enterprises rose by 12.0 percent in 2012 to stand at KShs 47.5 billion from KShs 42.4 billion in 2011. Total employment under EPZ rose from 2,043 in 2011 to 32,516 in 2012. The manufacturing sector performance would be expected to be influenced by firm level factors and moderated by industry environment and competitive strategy due to local and global competition.

## **1.2 Research Problem**

Firm level factors include organizational structure, organizational culture and organization resources. Organizational structure is how the organization is designed to meet its goals and objectives. Organizational culture is an idea in the field of organizational studies management which describes the psychology, attitudes, experiences, beliefs and values of an organization. The organizational resources include finance, unique technology, knowledge, human and other assets that are key in implementation of organization strategies. The effect of various firm variables on organization performance would be expected to be moderated by the industry environment.

The Kenyan manufacturing sector is operating in a dynamic environment facing competition from within and outside especially because of globalization. Large

manufacturing firms in Kenya are operating in turbulent and very competitive environment. To remain competitive, there is need to align various firm variables in a way aimed at maximizing the organization performance. The manufacturing sector is comprised of various industries and, thus is expected to have diversity because of the differences across the industry making the sector appropriate for the study.

Lopez (2003) carried out a survey of Spanish manufacturing firms and found a significant relationship between intangible resources and organizational performance. Spanos et al., (2004) study on Greek manufacturing found that firm specific factors explain more than twice as much profit variability as industry factors. Galbreath and Galvin (2008) demonstrated that firms' resources are more important than industry. Germain et al. (2008) found that structure has a positive effect on the performance. Kwasi and Moses (2008) researched on manufacturing strategy, competitive strategy and firm performance of Ghanaian manufacturing firms and found positive relationship between competitive strategy, manufacturing strategies and firm performance. Efendioglu and Karabulut (2010) did not observe any significant relation between firm level factors and performance. Chen (2010) showed that firm factors explain a substantial part of Korean and Taiwan firm performance. Zheng, et al., (2010) study observed a negative effect of structure on organizational effectiveness. Fazli and Alishahi (2012) study found that that culture, strategy and knowledge management has positive influence on performance.

Adeoye and Elegunde (2012) surveyed food and beverage industry in Nigeria on impacts of external business environment on organizational performance. Dong, et al., (2013)

found insignificant relations between strategy and performance in their study of Chinese firms. Karabag and Berggren (2013) study, based on 1,000 largest manufacturing firms in Turkey found that firm related factors do not significantly influence performance. Lopez (2003); Spanos, et al., (2004); Kwasi and Moses (2008); Galbreath and Galvin 2008; Germain, et al., (2008); Zheng, et al., (2010); Efendioglu and Karabulut (2010); Chen (2010); Adeoye and Elegunde (2012); Dong, et al., (2013) and Karabag & Berggren (2013) focused on independent effect rather than the combined effect on performance.

Awino (2007) used survey method to study effect of selected strategy variables in corporate performance in the supply chain management of large private manufacturing firms in Kenya. The study indicated that the independent effect of core competencies, core capabilities, strategy, strategy implementation on firms performance was weaker compared to the joint effect. The independent effect had conflicting results necessitating the study of the combined effect.

There was methodological gap; Karabag & Berggren (2013) used exploratory factor analysis employing principal component analysis with Varimax and Kaiser Normalization, Yin-His (2012) used structural equation modeling as the main data analysis tool and Aluko (2012) used logistic regression. Kwasi and Moses (2008) factor-analyzed all the performance, manufacturing strategy and competitive strategy variables. Chen (2010) used the multilevel approach of hierarchical linear modeling and the conventional variance components approach. There was also contextual gap because many of studies mentioned above apart from Awino (2007) and Waweru (2008) have

been done in other continents, and therefore there was need to carry out a study in Kenyan context. Awino (2007) and Waweru (2008) studies did not address the moderating effect of industry environment and intervening effect of competitive strategy. Review of previous studies indicates there was methodological and contextual gaps and they have not addressed linkage of various firm level factors, the intervening effect of competitive strategy and moderating effect of industry environment on organizational performance. This study, therefore sought to answer the question; was there an independent effect and combined effect of the organizational structure, culture and resources on organizational performance as moderated by industry environment and intervened by competitive strategies?

### **1.3 Research Objectives**

The general objective of this study was to determine the independent and combined effect of firm level factors on performance of large manufacturing firms in Kenya, industry environment as the moderating variable and competitive strategy as the intervening variable. The specific objectives were to:

- (i) Establish the influence of organizational structure on performance of large manufacturing firms.
- (ii) Assess the influence of organizational culture on performance of large manufacturing firms.
- (iii) Examine the influence of organizational resources on performance of large manufacturing firms.

- (iv) Determine the combined effect of organizational structure, culture and resources on performance of large manufacturing firms.
- (v) Establish the moderating effect of industry environment on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms.
- (vi) Determine the intervening effect of competitive strategy on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms
- (vii) Establish the moderating effect of industry environment and the intervening effect of competitive strategy on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms

#### **1.4 Value of the Study**

The finding of this study is important and indicates how the linkage of different contingent factors influences organizational performance. The study provides empirical data of combined effect of various firm level factors on organizational performance. The findings of the study enhances replication of similar studies in different context, thus fostering comparative study. The study results will contribute to the resource based view theory because it was establishing influence of firm level factors on performance. The study results important to the dynamic capability theory because firms with similar resources could perform differently depending on how they configure the available resources. The study contributes to industrial organization theory because it considered the industry environment as moderating variable in the relationship of firm level factors

and performance. The current study findings are an indicator that contingency theory is relevant because in organizations there are specific variables that firm performance is contingent (dependent) on. The study is of value to organizational behavior theory because it determined how large manufacturing organizations respond to changes in particular variables or factors.

The study findings will influence policy statements and development in the Ministry of Industrialization and Entrepreneurship Development in Kenya and the Kenya Association of Manufacturers (KAM) that will in turn affect the manufacturing sector. The findings of the study will provide information on firm level factors, industry environment and this will enable the policy makers to formulate policies that are relevant to the current needs of the manufacturing sector. The study established the moderating role of industry environment and therefore this would provide government with information key to enhancing conducive business environment.

The findings of the study will enable management of various firms to focus on core factors that gives the firm a competitive advantage in the dynamic environment. This will provide management with the understanding of the relevance of various factors in terms of the extent of the influence on the overall business performance. The findings of the study will enable the management of manufacturing companies to align various firm level factors to improve their performance. The management of the various manufacturing firms will be able to consider both the moderating variable industry environment and the competitive strategy as the intervening variable.

## **1.5 Outline of the Thesis**

Chapter one provides the introduction of the study which includes the background, research problem, research objectives and value of the study. Chapter two covers the literature review of study variables which ends with conceptual model and hypotheses. Chapter three discusses the research methodology which includes research design, data collection and analysis. It further shows how the firm level factors and organizational performance variables are operationalized. Chapter four pinpoints at the data analysis and results. Chapter five provides discussion of findings and lastly chapter six gives the summary, conclusion and recommendations of the study.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter explains theoretical foundation, literature review on organizational performance, relationship of organizational resources, organizational structure, organizational culture and organizational performance and summary of the previous studies and knowledge gaps. The chapter ends with conceptual framework for the study and the hypotheses.

#### **2.2 Theoretical Foundation**

This section discusses the theories underpinning the study. These theories include RBV theory, industry organization theory, contingency theory, dynamic capability theory and organizational behavior theory. Resource based view of strategy was relevant to this study because the study was considering organizational resources and performance. The industry organization theory was used as a theoretical foundation because the study was considering industry environment as the moderating variable. The contingency theory was relevant for the study because there was determination of effect on performance by contingency factors, the firm level factors. The dynamic capability theory was used as a foundation because of the study consideration that availability of resources may not be enough to influence but it matters the utilization and their combination to give the company competitive advantage. The organization behavior theory was considered as a theoretical foundation because the study involved determination of the firms' performance response towards firm level factors.

### **2.2.1 Resource Based View Theory**

The main anchoring theory is RBV theory and it proposes that a firm can use its resources to create new opportunities (Acedo, Barroso & Galan, 2006). The characteristics of a firm's crucial resources and strategic capability in Johnson, et al., (2002) terms was developed by Barney (2001a), who suggested that to sustain competitive advantage, a firm has to possess the resources that are valuable, rare, and non-substitutable. Barney (2001b) claims the fundamental assumptions of RBV theory are the heterogeneity of resources and capacities held by each firm, and the long lasting duration of these differences within the firm.

The RBV theory has emerged as one of the most dominant theoretical perspectives in the field of strategic management (Newbert, 2007). The first formalization of RBV is the empirical paper written by Barney (2001a). Based on the works of previous scholar such as Wernerfelt (1984), Barney suggested that firms possessing valuable, rare resources and capabilities would attain competitive advantage, which would in turn improve their performance. The RBV is considered a very popular theoretical perspective to explain organizational performance (Newbert, 2007).

According to Kraaijenbrink, Spender and Groen (2010), there appear to be two fundamentally different bases of non-imitability; some resources cannot be imitated because they are protected by property rights, such as contracts or patents; other resources are protected by knowledge barriers, that is, by the fact that competitors do not know how to imitate a firm's processes or skills. Imperfect imitability may result from

causal ambiguity (Priem and Butler, 2001), that is, the inability of competitors to determine the true source of competitive advantage. Ambiguity may be derived from the complexity of skills and/or resource interactions within competencies and from interaction between competencies. The complexity of the intra-organizational relationships and coordination mechanisms, which are established by the design of an organization, cannot be easily imitated by competitors, because they are subtle, and hard to understand outside the organization, and their connection with performance is difficult to discern (Acedo, Barroso & Galan, 2006).

### **2.2.2 Industrial Organization Theory**

Industry organization theory emphasis on the role of external environment especially the industry that the firm belongs to in determining its performance. The key argument was that the structural characteristics of industries were the main determinants of performance (Porter, 1980; Spanos et al., 2004). This is contrary to the RBV theory of the firm that proposes that firm-specific idiosyncrasies in the unique and durable resources were the source of SCA. The industry organization theory economists favored theoretical framework was the Structure-Conduct-Performance (SCP) model, which proposed the existence of the relationship between market structure and profitability. There were major shifts in the strategic management field regarding the unit of analysis (Porter, 1980).

Industrial organization economics considers industry as the primary unit of analysis, and strategic management increasingly focused on the firm itself to explain profitability differentials. The main reason for this shift was the inability of the industry organization

theory to provide a rigorous explanation for intra-industry differences in performance (Porter, 1985). According to the original proposition in industrial organization theory, industry structure is a primary antecedent of firm performance, whereas other studies rather find strategy to be more important for performance than industry structure (McGahan & Porter, 1997, 2002; Ruefli & Wiggins, 2003; Roquebert, et al., 1996; Rumelt, 1991). Industry structure was defined as the relatively stable economic and technical dimensions of an industry that provided the context in which competition occurred (Mason, 1953; Bain 1968; Bain, 1972).

A rich literature in the United States has attempted to establish the precise impact on firm performance of industry structure (defined as above), but the results are highly varying, from significant and substantial, explaining 30 percent of firm performance as measured by ROA (McGahan, 1999) to significant but very small (Adner & Helfat, 2003; Kim & Lim, 1988; Scherer & Ross, 1990). Studies in Europe have found significant but rather small impact of industry characteristics on performance. Spanos, et al., (2004) reported an impact of industry on firm performance at 7 percent. Kotha and Nair (1995) observed that the impact of industry on Japanese firm performance was very high. In Korea, Chen (2010) observed a very high industry impact on the performance of information technology firms. Studies of Chinese firms have also reported a strong impact of industry structure on performance. Lou (1999), noticed that industry factors such as general sales growth, increase in the number of firms in the industry and industrial uncertainty levels significantly affected the performance of firms. In Turkey, Karabag (2008) found that industry structure had a significant impact on firm performance.

### **2.2.3 Contingency Theory**

Contingency theory is a behavioral theory that claims that there is no single best way to design organizational structures. The best way of organizing a company is contingent upon the internal and external situation of the company. An organization has to ensure that they understand what can work most efficiently to the organization (Donaldson, 1996). The contingency theory acknowledges the influence of internal environment factors apart from external factors and therefore in support of RBV theory as internal variables that would influence the organization performance. The theory main emphasis is that outcomes in business are dependent on other factors whether internal or external.

Organization has to understand the environment its operating in (Daft, 2000). This is relevant because contingency theory argues that outcomes are subject to certain variables and the study sought to determine the influence of firm level factors on organization performance. A contingent perspective has also been suggested, whereby the influence of a given variable would not be universal, but rather depend on the level of another intervening variable (Miller, 1988; Snow & Hrebiniak, 1980; Venkatraman & Prescott, 1990; White, 1986).

According to Zsolt (2012) contingency theory may be intra- and extra-organizational. Contingency theory supposes that under different circumstances different solutions may prove effective (Dobak, 2006). This can be considered one of the primary insights of the theory, because instead of propagating universally applicable organization management principles, the theory tries to demonstrate that different circumstances require different

organisational structures (Baranyi, 2001). The fact that Dobak and Antal (2010) used the contingency approach (with the opportunity for strategic choice) highlights the theory's relevance. Beyond structural contingency theories, there are additional theories that focus on organizational characteristics such as management, human resources and strategic decision making (Donaldson, 2001). These theories only address a single factor at a time, however other multi-factor theories were developed that describe structural changes as the joint effect of two or more factors (environment and size), creating an integrated concept (Mintzberg, 1979; Powell, 1996 ; Baranyi, 2001; Davis & Schul,1993; Dobak, 2006; Dobak & Antal, 2010).

The most significant contemporary research fields of contingency theory are the comparing the final effectiveness to the expected performance relative to the contingency factors; to what degree was the performance realised, as forecast by a theory based on contingency factors; research of organizational elements affected by contingency factors and inclusion of contingency theory into other disciplines (Kieser, 1995; Donaldson, 2001). Dobak (2006) suggested a different classification and named the following imperfections of contingency theory that it studies the relationship of structure and influencing factors too mechanically, and does not bother with the possible choice opportunities of the organizations; the process of change is usually not emphasized enough; it does not correctly handle inter-organizational interests, power mechanics and conflicts; it does not examine organizational actions and processes; and the measurement of organizational characteristics, the causal relationship is only analysed with quantitative methods (Donaldson, 2001).

#### **2.2.4 Dynamic Capability Theory**

The concept of dynamic capabilities provides helpful additional insights in answering the question regarding the sources of a competitive advantage. This concept extends the RBV theory to an approach for a dynamic environment increasing global competition, shorter product life-cycles and rapid technological advancements (Winter, 2003). The term dynamic refers to the capacity to renew competences so as to achieve congruence with the changing business environment; certain innovative responses are required when time to market and timing are critical, the rate of technological change is rapid and the nature of future competition and markets difficult to determine (Teece, et al., 1997; Griffith & Harvey, 2001).

There is debate whether organizations can adapt and if so how. One perspective, organizational ecology, presents evidence suggesting that most organizations are largely inert and ultimately fail. A second perspective argues that some firms do learn and adapt to shifting environmental contexts. The latter view has coalesced around two themes. The first, based on research in strategy suggests that dynamic capabilities which is the ability of a firm to reconfigure assets and existing capabilities explain long-term competitive advantage (Carmeli & Tishler, 2004; Leonard, 1992; Collins, 1994; Teece, et al., 1997). The second perspective is based on organizational design, and argues that ambidexterity which is the ability of a firm to simultaneously explore and exploit and enables a firm to adapt over time.

Verona and Ravasi (2003) showed with an exploratory case study that certain knowledge based processes (knowledge creation, absorption, integration, and reconfiguration) play a crucial role in the development of dynamic capabilities, in this case, the ability to innovate continuously. Griffith and Harvey (2001) understand global dynamic capabilities as the creation of difficult-to-imitate combinations of resources on a global basis, thus generating a competitive advantage. In their research, the firm's power to influence the decision variables of its partner and to align resources among companies was a key influence factor for the dynamic capabilities of a firm.

Zott (2003) explored intra industrial performance differences among companies from a dynamic capabilities perspective. He discovered that these differences emerged through timing, cost, and learning effects that differ for similar dynamic capabilities in different companies. Managers can actively steer the process of morphing and consequently can have an influence on the development of dynamic capabilities of their company (Winter, 2003). Winter (2003) assumed that managers can invest in dynamic capabilities; he implied a certain level of managerial influence on the development of dynamic capabilities. The sustainability of a competitive advantage depends on the transferability and fungibility of a dynamic capability (Ethiraj, et al., 2005). Griffith and Harvey (2001) understand dynamic capabilities as the creation of difficult-to-imitate combinations of resources. This suggestion is supported by Verona and Ravasi (2003), who inferred from their study that dynamic capabilities were not identifiable processes like new product development or strategic decision making as advocated by (Eisenhardt & Martin, 2000; Trispa & Gavetti, 2000; Kogut & Zander, 1992; Zott, 2003).

### **2.2.5 Organizational Behavior Theory**

Organizational behavior is defined as the study of the behavior of individuals and groups in organizations, and organizations themselves, as they act and interact to attain desired outcomes. Organization behavior studies organization from multiples of viewpoints and levels because organizations are under-going unprecented and revolutionary change (Grewal & Tansuhaj, 2001). Organizational behavior is more complex than its managerial predecessors. It provides no simple answers to organizational problems. Its complexity is not by design of its progenitors but reflects the complexity of the subject it attempts to explain (Gosselin, 2005). The ethical acceptability of organizational knowledge depends on the uses to which it is put. The knowledge itself is ethically neutral and the frustration that comes from the interdependencies among factors and the incompleteness of understanding of organizational behavior which can blind one to the valuable information in the field (Cyert & March, 1965).

The organization behavior studies organizational differences to describe and model the behavior of individuals and groups in organization (Gosselin, 2005). Leavitt (1965) provided a model of the organization, which is useful for organizational analysis. Leavitt's model can be used in two ways. First, it can be used for storing and organizing knowledge extracted from the literature and can analyze them in terms of their meaning for task, technology, structure, and people or the relationships among the variable. Secondly, the model can be used as a guide for diagnosing an organizational problem and choosing points of intervention for organizational change.

### **2.3 Organizational Performance**

Measurement of performance is one of the issues confronting researchers (Liao & Wu, 2009). Grant, et al., (1988) looked at the relationship between diversity, diversification (increases in diversity over time), and profitability of 304 large British manufacturing companies. Their results indicated that in general, diversity was positively related to profitability; the measure used was ROA. According to Chavan (2007), exclusive reliance on financial measures in a management system was causing organizations to do the wrong things. Financial measures are lag indicators; they report on outcomes, the consequences of past actions. Exclusive reliance on financial indicators promoted short-term behavior that sacrificed long-term value creation for short-term performance.

There are different ways of evaluating performance including sink and tuttle, balanced score card, performance pyramid, performance charter and performance measurement matrix (Arabi & Raft, 2008). Triangulation of measures and methods is commonly understood to be important in validity assessment in applied research. The principle behind triangulation is simple; any measure in isolation can be misleading. Multiple measures that use variations in conceptual perspective reduce the possibility of in validity and provide a more comprehensive assessment of the concept (Arabi & Raft, 2008). Awino (2007) used survey method to study effect of selected strategy variables in corporate performance in the supply chain management of large private manufacturing firms in Kenya. The study indicated that the independent effect of core competencies, core capabilities, strategy, strategy implementation on firms performance is weaker compared to the joint effect.

Performance measurement is often criticized for over reliance on workload or output measures and for excluding the more powerful performance assessments found in efficiency and effectiveness measures. This understanding should be a guiding principle in the development of measures for valid and reliable assessment of performance. This broad construct is essential in allowing researchers and managers to evaluate firms over time and compare them to rivals. In short, organizational performance is the most important criterion in evaluating organizations, their actions, and environments. This importance is reflected in the pervasive use of organizational performance as a dependent variable (Rindova & Kotha, 2001; Chavan, 2007).

March and Sutton (1997) found that of 439 articles in the strategic management journal, the academy of management journal and administrative science quarterly over a three year period, 23 percent included some measure of performance as a dependent variable. In contrast to the dominant role that organizational performance plays in management fields, is the limited attention paid by researchers to what performance is and how it is measured. The definition of 'organizational performance' is a surprisingly open question with few studies using consistent definitions and measures (Evans, 1976; Cyert & March, 1965; Kirby, 2005). Performance is so common in management research that its structure and definition is rarely explicitly justified; instead its appropriateness, in no matter what form, is unquestionably assumed (March & Sutton, 1997). Reviewing the last three years of the journals examined by March and Sutton (1997) identified 66 papers that included organizational performance as a dependent, independent or control variable. Measures ranged from an assortment of operating ratios, Net Profit After Taxes (NPAT) and ROE

to Food and Drug Administration (FDA) approvals and broad perceptions of relative performance variously measured. Overall, out of measures identified, 92 different measures of ‘performance’ were used across the papers. The usage was further complicated by variation in the use of single, multiple and aggregated measures. This provided little scope for meaningful comparisons between the papers. What March and Sutton (1997) and the re-review indicates is that, despite its recognized importance, researchers still pay little theoretical attention to, or methodological rigor about, the choice, construction and use of the plethora of performance measures available to them.

Boyd, et al., (2005), found that in papers published in four leading management journals during 1998 to 2000, of the 677 dependent variables, of which performance was the most frequent, 228 (38.1 percent) were measured using single indicators. Only 19.6 percent of these studies used statistically constructed scales that allowed the measurement structure and error to be evaluated (Lawrence & Lorsch, 1967; Boyd, et al., 2005).

There are three common approaches to organizational performance measurement in the literature. The first is where a single measure is adopted based on the belief in the relationship of that measure to performance (Hawawini, et al., 2003; Spanos, et al., 2004). Ideally, these beliefs are supported by theory and evidence but, as noted above, are often merely assumed. The second approach is where the researcher utilizes several different measures to compare analyses with different dependent but identical independent variables (Baum & Wally, 2003; Contractor, et al., 2003; Miller, 2004). The third approach is where the researcher aggregates dependent variables, assuming

convergent validity based on the correlation between the measures (Cho & Pucick 2005; Goerzen & Beamish, 2003). This is most common with subjective measures of performance where the investigator is seeking something akin to trait based psychometric validity. However, it is not uncommon to see operational and market measures are also being aggregated. The justifiability of these approaches depends on whether the specific measures used meet the assumptions made.

Researcher address the nature of these specific measures below by first examining the objective measures of performance accounting and financial market measures, plus firm survival followed by subjective and quasi subjective measures such as survey based self reports; reputation measures and, accounting measures are the most common and readily available means of measuring organizational performance. The validity of their use is found in the extensive evidence showing that accounting and economic returns are related (Danielson & Press, 2003). Danielson and Press (2003) found that the correlation between accounting and economic rates of return was above 0.75, and Jacobson (1987) found that despite a weak correlation of 0.2, ROI was able to distinguish performance between firms and over time. Nevertheless, researchers must still be careful, as these measures can be distorted by accounting policies, human error and deception. Another important limitation of accounting measures of performance is that they emphasize historic activity over future performance. According to Richard (2009) organizational performance encompasses three specific areas of firm outcomes: financial performance (profits, ROA, ROI); product market performance (sales, market share); and shareholder return (total shareholder return, economic value added).

## **2.4 Organizational Resources and Performance**

Firm's resources have been classified into six strategic resources that are physical, reputational, organizational, financial, human intellectual, and technological (Barney, 1991). Resources can be defined as the productive assets of firms, the means through which activities are accomplished. In the same manner, it also has been defined as stocks of available factors (knowledge, physical assets, human capital, and other tangible and intangible) that are owned or controlled by the firm, which are converted into final products or services efficiently and effectively (Barney, 1991). Tangible resources include capital, access to capital and location such as location of the buildings, warehouse and other facilities. Intangible resources consist of knowledge, skills and reputation, proactiveness, innovativeness and risk-seeking ability.

The RBV theory theoretically predicts intangible resources as the important factors for firm success (Peteraf, 1993). Strategists who embrace the RBV theory point out that competitive advantage comes from aligning skills, strategic deployment, capable workforce with organizational systems, structures, and processes that achieve capabilities at the organizational level resource as those assets owned or controlled by a firm. The key dimension of differences in strategies and performance levels among competitors within an industry is the existence of unique firm characteristics capable of producing core resources that are difficult to imitate (Wernerfelt, 1984; Barney, 1986; Peteraf, 1993). The RBV theory states that only some of these resources can lead to SCA. A key aspect is that superior resources remain limited in supply. Barney (1991) proposes that advantage creating resources must meet four criteria; value, rareness, in-imitability and

non-substitutability. These last three criteria are internally focused or focused on competitors (on the input side of the firm). The value of a resource is determined by the customer (and therefore output oriented). Literature in RBV theory however does not pay further attention to what valuable then is. The value of a resource is measured in the market in which the firm operates. There have been some attempts to describe the value of resources (Miller & Shamsie, 1996). The RBV theory appears to provide only ex post explanations of firms successes. The literature offers little guidelines for managers seeking to create strategic assets. It is not possible to know a priori whether an asset will prove to be a strategic asset in the future.

According to Wernerfelt (1984), firms possessing valuable, rare resources and capabilities would attain competitive advantage, which would in turn improve their performance. In the theoretical outstanding works of RBV theory, Grant, et al., (1988) attempted to conceptualize a comprehensive framework of relationships among resources, organizational capabilities and competitive advantage. He suggested that the basic and primary inputs into organizational processes are the individual resources of the firm such as tangible resources (financial capital, physical equipment), intangible resources (intellectual property, reputation, firm culture and organizational structure), and human resources. Nonetheless, in most cases, resources on their own are not so productive. In order for the firm to create competitive advantage, individual resources must work together to initially establish organizational capabilities. Hence, it can be interpreted that there is no direct link between the individual resources and the competitive advantage or performance.

In empirical studies of RBV theory, there have so far been many researches which focus on the different approaches. Newbert (2007) categorized theoretical approaches into four types resource heterogeneity, organizing approach, conceptual-level, and dynamic capabilities. The resource heterogeneity approach argues that a specific resource, capability, or core competence controlled by a firm, affects its competitive advantage or performance. The organizing approach tends to indicate firm-level conditions in which the effective exploitation of resources and capabilities is implemented.

Scholars utilizing the conceptual-level approach try to investigate if the attributes of a resource identified by Barney (1986) such as value, rareness, and inimitability, can effectively explain performance. The dynamic capabilities approach emphasizes specific resource-level processes influencing on competitive advantage or performance, in which a specific resource interacts with a specific dynamic capability as an independent variable. Although Grant (1991) comprehensive framework had not been linked to approaches by Newbert (2007), they seemed to be consistent with each other.

Firm plans and implements various strategies in order to create competitive advantages so that they could out-perform their competitors and earn a higher rate of profits in their industry. To achieve superior competitive advantage, Besanko, et al., (2003) argue that a firm must create more values, which depends on its stock of resources and distinctive capabilities of using those resources. A firm must ensure its successful strategies and the created competitive strategies are sustainable for long-term profitability (Cullen & Parboteeah, 2005). A firm is essentially a pool of resources and capabilities which

determine the strategy and performance of the firm. If all firms in the market have the same pool of resources and capabilities, all firms will create the same value and, thus no competitive advantage is available in the industry (Barney, 1991; Peteraf, 1993; Dierickx & Cool, 1989; Grant, 1991; Wernerfelt, 1984; Mahoney & Pandian, 1992). Lockett and Thompson (2001) state that RBV theory emphasizes firm heterogeneity and path dependency, as each firm's resource bundle is unique, and the consequence of its past managerial decisions and subsequent experiences, it follows that so is each firm's opportunity set.

The RBV theory also argues that, to sustain competitive, a firm should possess resources and capabilities that are imperfectly mobile, valuable, non-substitutable and difficult to imitate. These four characteristics can lead to the asymmetries in the resources and capabilities of firms in the industry and serve as the basis of sustainability. Besanko, et al., (2003) suggest that these four characteristics can be induced or reinforced through isolating mechanisms that are defined by Rumelt (1984) as the forces that limit the extent to which a competitive advantage can be duplicated or neutralized through the resource-creation activities of other firms. There are two groups of isolating mechanisms; impediments to imitation that impede existing firms and potential entrants from duplicating resources and capabilities, such as legal restrictions and intangible barriers (causal ambiguity, dependence on historical circumstances and social complexity; and early-mover advantages) that increase the economic power of a competitive advantage over time.

Grant, (1991) defines capabilities as a special type of resource; an organizationally embedded non-transferable firm-specific resource whose purpose it is to improve the productivity of the other resources possessed by the firm. The resources are less transferable and less imitable than “normal” resources. An organization achieves competence when it has an ability to sustain coordinated deployments of resources in ways that help that organization to achieve its goals.

The inability of competitors to duplicate resource endowments is one of the basic premises of the RBV theory. There are two ways for a firm to possess (and maintain) unique resources. The first is to buy them on factor markets (Barney, 1986). The way to build Sustainable Competitive Advantage (SCA) is to out-smart other firms on the resource market by applying a superior resource-picking skill. This is done by developing systematically more accurate expectations about the future value of resources than other market participants have. The second way to possess (and maintain) unique resources is to develop them. Capabilities by definition cannot be bought and must be developed or built (Teece, et al., 1997; Johnson, et al., (2002)). In both cases SCA is only achieved when the costs of acquiring the resources is lower than the gains they impact. From the RBV perspective, firms exist (instead of markets) because of the opportunity to seize rents created by resources and resource interdependencies within the firm.

Newbert (2007) concluded that the firm’s organizing context and its valuable, rare, inimitable capabilities (dynamic and otherwise) and core competencies may be more important to determine its competitive position than its static resources, identified mostly

by the resource heterogeneity approach. Peteraf (1993) suggested that a firm can sustain its competitive advantage if it is able to generate sustainable economic rent by endowing it with superior internal resources. To facilitate the sustainability of the economic rent for the firm in the long term, the superior resources of the firm must be inelastic in supply (Dierickx & Cool, 1989; Peteraf, 1993), inimitable or non-substitutable (Lippman & Rumelt, 1982; Porter, 1980; Rumelt, 1984) and the costs of the resources must be lower than their economic rents (Barney, 1986; Dierickx & Cool, 1989). Resources have generally defined as those assets owned or controlled by a firm. According to Wernerfelt (1984) a firm's resources are those tangible and intangible assets tied semi-permanently to the firm".

The RBV theory has greater perceived advantage due to its focus on firm-level determinants of company strategy and performance. The RBV theory is compatible with both behavioral and economic schools of thought in strategy (Mahoney & Pandian, 1992). The RBV theory logic is simple and easy to understand and has a high level of trialability "the degree to which an innovation may be experimented with on a limited basis" (Rogers, 1983, p 15). With the attributes above, the RBV theory is adopted by most firms all over the world. In the early 1980s, the work of Porter (1980, 1985) focused attention on the role of industry in determining firm level profitability. Porter argued that some industries were more profitable than others due to their characteristics and that firms should select these "structurally attractive" industries or manipulate the forces driving competition in their favour through the selection of generic competitive strategies (Porter, 1980). Research showed differences in performance between firms in the same

industry and even firms in the same strategic group (Cool & Schendel, 1988; Wernerfelt, 1984; Rumelt, 1991). Building on the work of evolutionary economics the RBV theory has re-established the importance of an individual firm, as opposed to an industry as the critical unit of analysis. The RBV theory sees the firm as a bundle of resources (Barney, 1991; Wernerfelt, 1984). These resources explain the (occurred) success of the firm. In the RBV theory the firm's resources are generally defined as all the assets, capabilities, processes and knowledge that reside in the firm (Grant, 1991).

Tangible resources are those physical items or assets within an organization, such as equipment, facilities, raw materials, and equipment (Carmeli & Tishler, 2004). Intangible resources on the other hand, are those assets identified as know-how, skills, knowledge, perceptions, product reputation, culture and network that cannot be listed in regular managerial, accounting reports. Intangible resources are heterogeneous and immobile in nature (Barney, 1991; Peteraf, 1993). In the study of 72 Spanish manufacturing firm, Lopez (2003) found empirically a significant relationship between a group of intangible resources (company reputation, human capital and organizational culture) and organizational performance. The empirical results of the regression coefficients analysis indicated that intangible resources were positively related to the firm's performance. Corresponding to the results of López (2003), Henderson & Cockburn (1994) also found significant differences in firms performance when they possess different level of intangible resources. Awino (2007) study on selected strategy variable found that all cited strategy variable had independent effect on performance and joint effect was more than independent effect. Henderson and Cockburn (1994), Carmeli and Tishler (2004)

examined 99 local government authorities in Israel for the relationships of a set of intangible resources with a set of multi-performance measures (financial performance, municipal development, internal migration, and employment rate). The results from the multiple regression analysis indicated that all intangible resources variables were positively and significantly related to organizational performance variables.

Tuan and Takahashi (2012) study on resources, organizational capabilities and performance of manufacturing firms in Vietnam, found that different group of resources are related to each organizational capability and that cost reduction and quality capabilities are related to performance. The study was based on comprehensive framework of RBV theory.

## **2.5 Organizational Structure and Performance**

Chandler (1962) substantiated 'structure follows strategy' thesis based on four case studies of American conglomerates that dominated their industry from the 1920's onward. The ensuing debate on the contingent relationship between strategy, structure, and firm performance flourished in the 1970s and 1980s. Researchers have used ground-breaking work by Chandler (1962) to build the Strategy-Structure Performance (SSP) paradigm, which has become the most important sub stream of research on structural contingency theory (Galunic & Eisenhardt, 1994). Rather than seeing each of strategy or structure alone having an important impact on performance, the paradigm holds that it is the linkage between them that is important (Lenz, 1980; Child, 1972; Pugh et al.,1969; Thompson,1967; Miller, 1988).

According to Akinyele (2011) the organizational structure and strategies adopted by oil and gas marketing companies affect market share positively. Lavie (2006) gave evidence that the level of organizational structure and strategies was positively related to company effectiveness. Grewal and Tansuhaj (2001) reported that more successful companies had well defined organizational structures in sharp contrast to less successful companies. Focusing on large firms (Ekpu, 2004) found a positive relationship between the unstructured organizational patterns and large firm financial performance.

Organizational structure is normally described as the way responsibility and power are allocated, and work procedures are carried out among organizational members. Robbin and DeCenzo (2005) argue that the organizational structure performs a significant role in the achievement of organisations set objectives and accomplishment of its strategic goals and direction. The organisational structure becomes more relevant when it is in harmony with the objective mission, competitive environment and resources of the organisation. The believe “one cap fits all” is non-existence in an organisational structure design as no two firms are entirely similar and as such faces different challenges from its environment.

Mansoor, et al., (2012) asserted that performance effect of organizational structure is moderated by changes in the environment and hence, conclude that to attain desired superior performance by an organization, adequate attention is required to have organizational structure that can match the prevailing environment dynamism in place. These structures are characterized with different attributes such as control, communication, organizational knowledge, task, prestige, governance and values.

Hajipour, et al., (2011) studied on relationship between industry structure, strategy type and organizational characteristics and the results indicated that industry structure determine organizational characteristics. Mansoor, et al., (2012) contended that ideal organisational structure is a recipe for superior performance. Organizational structures are discussed in the extant literature with reference to two key factors; formalisation and centralization (Bucic & Gudergan, 2004). Organizational structure includes the nature of layers of hierarchy, centralization of authority, and horizontal integration. It is a multi-dimensional construct in which concerns: work division especially roles or responsibility including specialization, differentiation or departmentalization, centralization or decentralization, complexity, and communication or coordination mechanisms including standardization, formalization and flexibility.

The main feature of new organizational structures is the flexibility and the ability to acclimatize to the changing environment (Lenz, 1980). Mintzberg (1979) indicated that an organic structure, with its low degree of formality and high degree of information sharing and decentralization, improves an organization's flexibility and ability to adapt to continual environment change. Organizations having different levels of adaptation would utilize different strategies to match their structural arrangements. According to Miles and Snow (1978), strategy typology organizations with a high-level of adaptation would exhibit a prospector strategy and organic structure while organizations with a low-level of adaptation would adopt a defendant. Oyewobi, et al., (2013), study on impact of organizational structure and strategies on construction organizations performance, found that organization structure had no direct impact on both financial and non financial

performance. Qingmin, et al., (2012) study in Austria and China found that organizational structure influence performance directly and indirectly. According to Robbin and DeCenzo (2005) organizational structure has two essential functions which were control and coordination. Controls involved making sure that decision makers at all levels use the managerial or hierarchial constrains as of one of the criteria in making their decisions.

According to Bucic and Gudergan (2004), there are four generic types of control mechanism which include centralization, formalization, outputs and cloning. Robbin and DeCenzo (2005), defines formalization as degree to which jobs are standardized while defines centralization as a situation where decisions are made at the top of the organization. Bucic and Gudergan (2004), considered decentralization as pushing decision authority downward to lower level employees. There are different types of organizational structure which include divisional structure, functional structure geographical structure, horizontal structure, hybrid structure and matrix structure. According to Bucic and Gudergan (2004), organizational structure is the formal system of task and reporting relationships that controls, coordinates and motivates employees so that they cooperate to achieve organizational goals. According to Lenz (1980) organization structure has a direct effect in the success of an organization operation strategy. Lenz (1980) supports the argument that organizational structure shapes performance. Adeoye and Elegunde (2012) found that external environment had impact on organization performance in study of food and beverage industry in Nigeria.

## **2.6 Organizational Culture and Performance**

Organizational culture is an idea in the field of organizational studies management which describes the psychology, attitudes, experiences, beliefs and values (personal and cultural values) of an organization (Schein, 2009). One of the major reasons for the widespread popularity and interest in organization culture stems from the argument (or assumption) that certain organizational cultures lead to superior organizational financial performance. Cameron and Quinn (2005), emphasize that the success of organizations is not only determined by external conditions but concluded that the remarkable and sustained success of some US companies “has had less to do with market forces than with company values” (Cameron & Quinn, 2005, p. 4).

O’Cass and Viet (2007), suggest that organizations with an innovative culture will attain better performance not only through getting feedback from customers and their present competitors but also by means of the organization's capability for creative extension of unique methods for delivering special value to customers. More than 60 research studies were conducted between 1990 and 2007, which covered more than 7,600 small business units and companies to find out the cultural impact on the organizational performance (Gallagher, 2007). Results of these studies showed positive association between strong culture and performance.

Fazli and Alishahi (2012) study found that culture, strategy and knowledge management had positive influence on performance. Newbert (2007) categorized theoretical approaches into four types resource heterogeneity, organizing approach, conceptual-level,

and dynamic capabilities. The resource heterogeneity approach argues that a specific resource, capability, or core competence controlled by a firm, affects its competitive advantage or performance. Henderson and Cockburn (1994), Carmeli and Tishler (2004), studies of local government authorities in Israel identified that organizational culture and perceived organizational reputation were the two most significant variables relating to organizational performance in the Israel government authorities. Organizational culture refers to the underlying values, beliefs, and principles that serve as foundation for the organization's management system as well as the set of management practices and behaviors that both exemplify and reinforce those basic principles (Denison, 1990). Organizational culture serves as a function to explain the type of activity that the organization is engaged upon and the lifecycle stage that the organization has reached. Barney (1986), for example, who asserted organizational culture as a valuable, rare, and imperfectly imitable resources, which was a source of sustainable competitive advantage.

Zheng, et al., (2010) also describes organizational culture as a mode, composed by some basic assumptions and the assumptions are found and created gradually by a certain group in the process of exploring the method of adapting to external environment and solving internal interconnected system. Internal integration is the socialisation of new members in the organizations, creating the new boundaries of the organization and the feeling of identity among personnel and commitment to the organization. Hofstede (1980), used the gathered data from International Business Machines (IBM) employees from more than 50 countries and classified organizational culture into four dimensions; power distance (the degree in which employees and management have distant

relationship, formal and informal); individualism (the degree in which people may create difference between interest of organization and self interest); uncertainty avoidance (the level in which people are willing to mitigate the uncertainty and tolerant of ambiguity); and masculinity (the level in which success is defined as the ambition, challenge and insolence, rather than caring and promotion). Denison (1984) used data from 34 American firms on cultural performance over a period of five years and scrutinized the characteristics of organizational culture and tracked the performance over time in these firms.

Denison (1984) found that organizations that have participative corporate cultures and well organized work places had a better performance records than those that did not. Companies with participative culture had a ROI that averaged nearly twice as high as those in firms with less efficient cultures. Theorists also argue that SCA arises from the formation of organizational competencies, which are both superior and incorrectly imitable by competitors (Saa-Pere, et al., 2002). Practitioners and academics suggested that the performance of an organization is dependent on the values of the culture (Denison, 1990).

In Denison's model, comparisons of organizations based on relatively more "surface-level" values and their manifest practices are made. Such values are deemed both more accessible than the assumptions and more reliable than the artifacts (Denison, 1990). Denison (1990) organizational culture model was based on four cultural traits involvement, consistency, adaptability, and mission that had been shown in the literature

to have an influence on organizational performance (Denison, 1990). The four traits of organizational culture in Denison's framework was that effective organizations empower their people, build their organizations around teams, and develop human capability at all levels. Olanipekun, et al., (2013), study on quantity surveying firms in Nigeria found that organization culture influenced performance

## **2.7 Organizational Structure, Culture, Resources and Performance**

According to DeWaal (2004), various factors influence the degree in which organization exhibit performance. These factors include organization structure, organization culture and the organization resources. As reviewed in the previous sections, many studies have focused on independent effect on firm performance. Further, research is required to determine the combined effect of organizational structure, organizational culture and the organizational resources on organizational performance.

The joint effect would be expected to differ with the independent effect of each of the variables. Organization would be expected to ensure that there is proper combination of the various firm factors especially organization structure, organization culture and the organization resources. According to DeWaal (2004), high performance organizations are those that maximizes on joint effect of the firm level characteristics.

The empirical literature reviewed above is summarized in Table 2.1 below. The Table 2.1 gives a summary of the focus of the cited studies, methodology, main finding, knowledge gaps and focus of this study.

**Table 2.1:** Summary of Previous Studies and Knowledge Gaps

Authors	Focus of the Cited Studies	Methodology	Main Finding	Knowledge Gaps	Focus of the Study
Lopez (2003)	Intangible resources as drivers of performance. evidence from Spanish manufacturing firms	Descriptive survey method	Significant relationship between intangible resources and organizations performance	Focused on intangible resources	Focused on both tangible and intangible resources. Studied on moderating role of industry environment and intervening effect of competitive strategy
Hawawini, et al., (2003)	Firm factors and industry factors and performance, used value based measures	Survey methods –variance component analysis	Found that significant proportion of the variance was due to presence of few exceptional firms in a given industry, industry effects was more significant to performance than Firm factors	Used only economic measures of performance. Did not study the role of competitive strategy.	The study was to determine the moderating effect of industry environment and intervening effect of competitive strategy in the relationship of firm level factors and performance. Used quantitative and qualitative performance measures
Hajipour, et al., (2011)	Investigated on the relationship between industry structure, strategy type, organizational characteristics and organizational performance	Descriptive survey method	Industry structure determines organizational characteristics, which in turn leads to superior organizational performance	Focused on independent effect.	The study was determine combined effect of firm level factors on performance and moderating effect of industry environment and intervening effect of competitive strategy

**Table 2.1** Continued..

Awino (2007)	Effect of selected strategy variables on corporate performance in the supply chain management of large private manufacturing firms in Kenya.	Survey method applied positivist philosophical orientation	All cited strategy variables had independent effect on corporate performance albeit of low explanatory power joint effect of variables was greater than independent effect	Measures were only qualitative, did not study on moderating effect of industry environment and strategy.	Both qualitative and quantitative measures. Studied on moderating effect of industry and Intervening effect of competitive strategy
Waweru (2008)	Competitive strategy implementation and its effect on performance in large private sector firms in Kenya	Triangulation of philosophical approach. Used both qualitative and quantitative method	There was weak positive correlation between strategy and performance. Firms competing by use of dual strategy had significantly higher revenue and performance than either low cost leaders or differentiations	Did not study on firm level factors and role of industry environment	The study was to determine the moderating role of industry environment and intervening effect of competitive strategy on firm level factors relationship with organization performance
Kwasi and Moses (2008)	Focused on manufacturing strategy, competitive strategy and firm performance in Ghanaian manufacturing firms	Descriptive survey method	Found significant and positive relationship between competitive strategy and manufacturing strategy, Competitive strategy indirectly influences firm performance	Focused only on strategy and did not study on role of firm level factors and industry Environment	Studied on combined effect of firm level factors and the moderating role of industry environment and intervening effect of competitive strategy

**Table 2.1** Continued..

Adeoye and Elegunde (2012)	Studied on impact of external business environment on organizational performance in the food and beverage industry in Nigeria	Survey research methodology	The external business environment had an impact on organization performance	Focused only on the external Environment	This study was to determine the firm level factors relationship with performance and the moderating role of industry environment and intervening effect of competitive strategy
Fazil and Alishahi (2012)	Focused on the relationship of culture, strategy, knowledge management and performance	Descriptive survey qualitative and quantitative method	Found that culture, strategy, knowledge and management had a positive influence on performance	Did not study on the role of the environment	To study was on the moderating role of industry environment and intervening effect of competitive strategy on performance
Abdula and Jasmani (2010)	Business strategy of manufacturing firms in Malaysia	Structured questionnaires data gathered through mail	Innovative product differentiation had good impression on export performance	Focused only on strategy and not other contingent factors	To study on firm level factors and relationship with performance and intervening effect of competitive strategy and moderating role of industry environment
Yin-His (2012)	Managerial capabilities, organizational culture and organizational performance and RBV theory perspective.	Census sampling; used covariance based structural equation modeling and linear structural relation model	Managerial capabilities and organizational culture had no impact on financial performance	Did not study on moderating role of industry environment and intervening effect of competitive strategy	The current study determined the moderating role of industry environment and intervening effect of competitive strategy

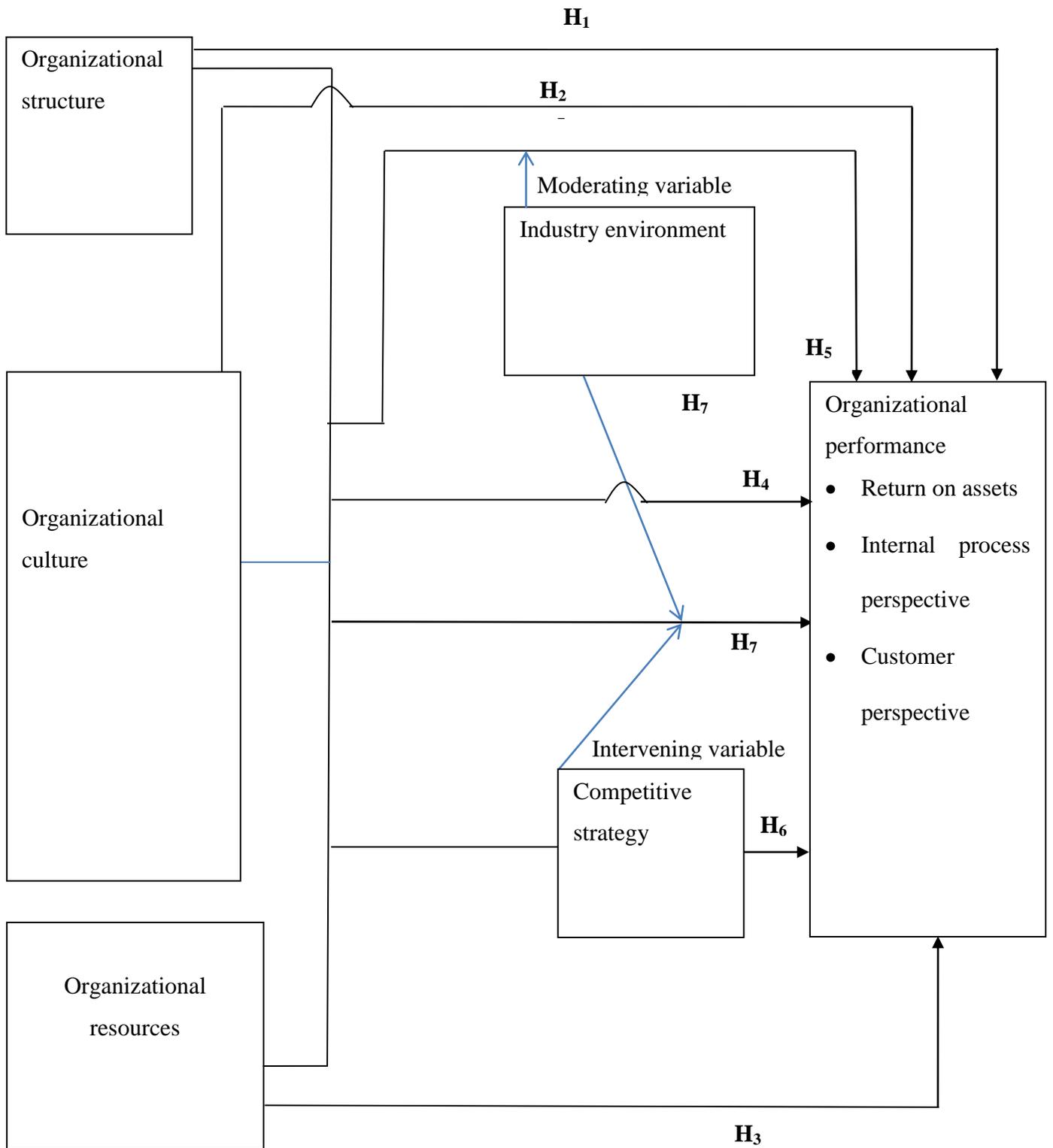
The current study addressed the following gaps indicated in Table 2:1. The study determined the influence of organizational resources both tangible and intangible, on performance. The study established the moderating role of industry environment and intervening effect of competitive strategy. The current study used both qualitative and quantitative performance measures. The study also bridged the gaps by considering both internal environment (firm level factors) and external environment (Industry environment) as determinant of organizational performance.

## **2.8 Conceptual Framework**

The study was guided by the conceptual framework which is founded on the relationships as diagrammatically presented in Figure 2.1. Organizational structure was determined using management control system and formality. Organizational culture was based on equity, people orientation, innovativeness, high performance expectation and employees commitment. Organizational resources was measured using tangible and intangible resources. Industry environment was measured basing on porter five forces model. Competitive strategy was based on emphasis on finding ways to reduce costs, emphasis on using innovative methods and technologies to create superior products, targeting a clearly identified segment, emphasis on building strong brand identification and emphasis on price competition.

The conceptual framework in Figure 2.1 shows the relationship of six variables under study; organizational structure, culture, resources, industry environment, competitive strategy and performance of large manufacturing firms in Kenya. In this framework,

organizational structure, culture and resources were the independent variables while performance was the dependent variable. Industry environment was the moderating variable and competitive strategy was intervening variable in the relationship of the independent variables and dependent variable. The environment was conceptualized to moderate because organization operates within an open environmental system. Competitive strategy conceptualized to intervene because firms remain relevant if their strategies are competitive and a strategy is the link of organization to environment.



**Figure 2.1:** Conceptual Framework  
 Source: Author, 2014

## **2.9 Conceptual Hypotheses**

The conceptual hypotheses for the study were as follows:

**H<sub>1</sub>:** Organizational structure does not influence performance of large manufacturing firms.

**H<sub>2</sub>:** Organizational culture does not influence performance of large manufacturing firms.

**H<sub>3</sub>:** Organizational resources do not influence performance of large manufacturing firms.

**H<sub>4</sub>:** Organizational structure, culture and resources does not have combined effect on performance of large manufacturing firms.

**H<sub>5</sub>:** Industry environment has no moderating effect on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms.

**H<sub>6</sub>:** Competitive strategy does not have intervening effect on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms.

**H<sub>7</sub>:** Industry environment has no moderating effect and competitive strategy does not have intervening effect on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms.

Chapter two was on literature review. The chapter covered theoretical foundation, organizational performance, organizational resources and performance, organizational structure and performance, organizational culture and performance, organizational structure, culture, resources and performance, conceptual framework and conceptual hypotheses.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter describes the approaches used in this study. The chapter discusses the research philosophy, research design, population of the study and data collection methods. The chapter also presents an operationalisation of the study variables as well as the data analysis techniques used for testing the research hypotheses.

#### **3.2 Research Philosophy**

There are many distinct positions regarding the approach to scientific inquiry. A paradigm can be defined as the “basic belief system or world view that guides the investigation” (Guba & Lincoln, 1994, p. 105). The paradigms fall under the positivism approach and phenomenology. The positivists argue that true knowledge is scientific in character and describes inter-relationships between real and observable phenomenon. Positivists orientation is characterized by operational definitions, objectivity, hypothesis testing, causality and reliability (Cooper & Schindler, 2003). According to phenomenology paradigm, the world is socially constructed and subjective, science is driven by human interests and ideas develop through induction from data. It involves use of multiple methods to establish different views of phenomena and small samples are investigated in depth or over time (Guba & Lincoln, 1994)

This study was based on the positivist paradigm because it had predefined hypotheses. The study used positivist paradigm because it was for theory testing. In positivism

studies, the researcher is independent from the study and there are no provisions for human interests within the study and positivist studies usually adopt deductive approach. Moreover, positivism relates to the viewpoint that researcher needs to concentrate on facts. Positivism philosophy is in accordance with the empiricist view that knowledge stems from human experience. It has ontological view of the world as comprising discrete, observable elements and events that interact in an observable, determined and regular manner (Collins, 1994).

### **3.3 Research Design**

The study was a cross sectional survey to collect data at particular time rather than over a period of time. A research design should provide confidence to the scientific community that the findings derived are from following the design that captures the reality and possess high levels of reliability and validity (Kerlinger, 2008). Cross sectional studies allow for examining multiple factors and multiple outcomes in one single study.

Cross sectional research survey designs have been used by several researchers. Awino (2007) used a cross sectional survey in the study on the effect of selected strategy variables on corporate performance in large private manufacturing firms in Kenya. Waweru (2008) used a cross sectional survey in study on competitive strategy implementation and its effect on performance in large private sector firms in Kenya. Chindia (2013) used cross sectional survey in study on forecasting techniques, operating environment and accuracy of performance forecasting for large manufacturing companies in Kenya. According to Mugenda and Mugenda (2003), cross-sectional survey is

appropriate where the overall objective is to establish whether significant associations among variables exist at some point in time. This study sought to determine the effect of organizational structure, organizational culture and organizational resources on organization performance in large manufacturing firms in Kenya. The appropriateness of cross-sectional survey in the study is from the backdrop that conclusions about the research problem were to be based on the information provided at the time of enquiry.

### **3.4 Population of the Study**

The population of the study was all large manufacturing firms in Kenya; there are 102 large manufacturing firms in Kenya (KAM 2011). In determining the size of the firm, several different measures have been used and accepted as appropriate. They included turnover, capital employed, value of output, asset size and employment level. The indicators of large manufacturing firms in Kenya include a firm with more than 50 employees (Awino, 2007); KIRDI (2007); (Aosa, 1992), sales per employee KShs 60,000 and sales turnover of excess of KShs 400 million (Waweru, 2008).

The study used the number of employees to determine the size of the firm. Firms with more than 50 employees are considered large (Awino, 2007, KIRDI, 2007, Aosa, 1992). The use of number of employees is considered most appropriate since the studies were conducted in Kenya under similar conditions. Basing on the number of employees out of 627 manufacturing firms in Kenya, there are 102 large manufacturing firms with over 50 employees (KAM, 2011) and this formed the target population and the study used census survey.

### **3.5 Data Collection**

The study used both primary and secondary data; the primary data was collected using questionnaire and the secondary data was on financial measure of performance which was obtained from financial statements and the company yearly publications. The advantage of questionnaire is that responses are gathered in a standardized way and they are more objective than interviews.

The questionnaire incorporated both quantitative and qualitative data. The main reason for this approach was to achieve a more in-depth understanding of the various factors affecting organizations performance. The questionnaire was constructed based on literature review of the study variables. The questionnaire was divided into eight distinct sections, section one respondent profile, section two organization profile, section three industry environment, section four organization performance, section five organizational resources, section six organizational structure, section seven organizational culture and section eight competitive strategy.

Questionnaire was delivered to top level managers and middle level managers which included Chief Executive Officers (CEOs)/managing directors and head of departments. The CEO and other senior managers are key informant and are typically most familiar with and responsible for the firm's performance and its relationship with various organization variables (Mintzberg, et al., 1998). Some questionnaire were dropped and picked after response while others were sent by emails. The summary of data collection as per research objectives is indicated in Table 3.2.

### 3.6 Operationalization of the Study Variables

Organizational structure, culture, and resources were the independent variables while organizational performance was the dependent variable. Industry environment was the intervening variable and competitive strategy was moderating variable in the relationship of the independent variables and dependent variable. The organizational structure indicators are adapted from (Akinyele, 2011; Lavie, 2006) as shown in Table 3.1 below.

**Table 3.1:** Operationalization of Variables

Variable	Operational Definition	Measurement	Questionnaire Appendix III
Organizational performance	Turnover, Return on Asset (ROA), delivery performance to customer, quality performance for customer , customer satisfaction rate, market share, customer retention rate, process automation, supports innovation	Ratio scale Five point Likert type scale	Question 2(vi) 4 i, ii, iii
Industry environment	Rivalry among existing firms, substitute products, bargaining power of suppliers, bargaining power of buyers, new entrants	Interval scale Five point Likert type scale	Question 3
Organizational resources	Finance, non-current assets, human capital, managerial capabilities, organizational reputation, labor relations, internal auditing, control of specific equipment, valuable resources, product procedural knowledge and patent.	Ratio scale Five point Likert type- interval scale Five point Likert type scale	Question 5 (i) and (ii)
Organizational structure	Management control system, role assignment, formality, lines of authority, preference for tight control and strong insistence on a uniform management style throughout the company.	interval scale Five point Likert type scale	Question 6

**Table 3.1** Continued....

Organizational culture	Equity, people oriented, innovative, high performance expectation, organization knows the external environment and provides appropriate responses, employees a commitment and responsibility to the organization, coordination level.	Interval scale  Five point Likert type scale	Question 7
Competitive strategy	Emphasis on finding ways to reduce costs, emphasis on using innovative methods and technologies to create superior products, targeting a clearly identified segment, emphasis on building strong brand identification, Emphasis on price competition	Interval scale Five point Likert type scale	Question 8

Source: Author, 2014

Organizational culture operationalization adapted from (Schein, 2009; Carmeli & Tisher, 2004), Organizational resources operational definition adapted from (Peteraf, 1993). Industry environment indicators based on five forces model (Porter, 1980). Competitive strategy operationalization adapted from (Pongatichat & Johnson, 2008). The data was collected using both qualitative and quantitative indicators of variables.

### **3.7 Data Analysis**

Data was analyzed using Statistical Package for Social Sciences (SPSS) through a combination of both descriptive and inferential statistics. The data preparation involved data coding and presentation. Descriptive statistics was used to analyze data on scope of operations, number of employees and turnover and the statistic used was percentages. Correlation analysis was used to determine coefficient of correlation between variables and coefficient of determination for overall test for goodness of fit. Correlation was based on Cohen (1988). Ogolla (2012) used Cohen (1988) for correlation coefficient

interpretation. Simple linear regression and multiple linear regression analyses were done. Regression analysis provided the proportion of variance in the dependent variable (organizational performance) accounted for by the combination of independent variables and for contribution of each independent variable. The coefficients explained the extent to which an independent variable influenced the dependent variable.

Table 3.2 provides a summary of research objectives, data to be collected, questionnaire, data analysis and tests. Organizational performance (OP) was measured in terms of ROA, internal processes, customer perspective and non-financial performance (composite of internal processes and customer perspective). Therefore for every objective there were four models each as per the measure of organizational performance. The models are shown in section 3.9. Table 3.2 gives the general model for every objective but section 3.9 indicates the models as per performance measure.

**Table 3.2:** Research Objectives, Data Analysis and Tests

Research Objectives	Data Collected	Questionnaire Item	Analysis and Tests Done
Determine the influence of organizational structure on performance of large manufacturing firms.	Organizational structure and performance indicators.	Four and six	Simple linear regression $OP = \beta_0 + \beta_1 OS + e$ . correlation $r$ and coefficient of determination $R^2$ , $t$ -test
Determine the influence of organizational culture on performance of large manufacturing firms.	Organizational culture and performance indicators.	Four and seven	Simple linear regression $OP = \beta_0 + \beta_2 OC + e$ . $r$ , $R^2$ , $t$ -test
Determine the influence of organizational resources on performance of large manufacturing firms.	Organizational resources and performance indicators.	Four and five	Simple linear regression $OP = \beta_0 + \beta_3 OR + e$ $r$ , $R^2$ , $t$ -test

**Table 3.2** Continued...

Determine the combined effect of organizational structure, culture and resources on performance of large manufacturing firms.	Organizational structure, organizational culture, organizational resources and performance	Four, five, six and seven	Multiple linear regression $OP = \beta_0 + \beta_1 OS + \beta_2 OC + \beta_3 OR + e$ F-test, $R^2$ , t- test
Establish the moderating effect of industry environment on combined effect of organizational structure, culture and resources on performance of large manufacturing firms.	Organizational structure, culture, resources, industry environment and performance.	Three, four, five, six and seven	Multiple linear regression $OP = \beta_0 + \beta_1 OS + \beta_2 OC + \beta_3 OR + \beta_4 IE + e$ F-test, $R^2$ , t- test
Establish the intervening effect of competitive strategy on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms.	Organizational structure, culture, resources, competitive strategy and performance.	Four, five, six, seven and eight	Multiple linear regression $OP = \beta_0 + \beta_1 OS + \beta_2 OC + \beta_3 OR + \beta_4 CS + e$ F-test, $R^2$ , t- test
Establish the moderating effect of industry environment and intervening effect of competitive strategy on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms.	Organizational structure, culture, resources, industry environment and performance.	Three, four, five, six, seven and eight	Multiple linear regression $OP = \beta_0 + \beta_1 OS + \beta_2 OC + \beta_3 OR + \beta_4 IECS + e$ F-test, $R^2$ , t- test

Source: Author, 2014

The F test of significance was performed to determine if the variables significantly contributed to the prediction of the dependent variable. Overall significance used F-test and p- values. When  $p\text{-value} \leq 0.05$ , the null hypotheses were rejected, otherwise they were not rejected. To test individual significance, t- test and p-values were used using the same level of significance ( $\alpha = 0.05$ ). Table 3.2 gives a summary of research objectives, data analysis and tests that were done.

### **3.8 Reliability and Validity Test**

The data was subjected to reliability tests to check consistency of the measurement set. Reliability was operationalized as internal consistency and established through computation of Cronbach's alpha coefficient. A coefficient reliability of 0.70 or higher indicated that the instrument used is reliable (Cronbach, 2004). The alpha coefficient ranges from zero (no internal consistency) to one (complete internal consistency). Intertem analysis is used to check for internal consistency or reliability (Nunnally & Bernstein, 1994).

Validity tests were done to check on whether the instrument was testing what it should be testing. Internal validity is about the care exercised in taking measurements and decisions concerning what was and what was not, and the extent to which alternative explanations for any causal relationships that were explored were taken into account (Cooper & Schindler, 2003). External validity was about to what extent the results of the study were generalizable or transferable (Collins, 1994). Content validity was tested through expert judgment comprising of managers in manufacturing firms and scholars in strategic management. The content validity was tested by carrying out extensive literature review and adoption of survey instrument from existing literature. The questionnaire was pretested by issuing questionnaires to five managers of large manufacturing firms who were requested to complete the questionnaire and comment on the clarity and appropriateness of the items in the questionnaire. This was necessary in order to identify any ambiguous and unclear questions to the respondents and was used to improve the questionnaire to ensure content validity.

### 3.9 Hypotheses Testing

The hypotheses were subjected to regression analysis to determine the influence of organizational structure, culture, resources, industry environment and competitive strategy on organizational performance. Models 1 to 12 were simple linear regression models. Models 1, 2, 3 and 4 were for the relationship between organizational structure and organizational performance measured in ROA, internal processes, customer perspective and non financial performance. Non financial performance was a composite of internal processes and customer perspective. Models 5, 6, 7 and 8 were for the relationship between organizational culture and organizational performance measured in ROA, internal processes, customer perspective and non financial performance. Models 9, 10, 11 and 12 were for the relationship between organizational resources and organizational performance measured in ROA, internal processes, customer perspective and non financial performance.

**Model 1:  $ROA = \beta_0 + \beta_1 OS + \varepsilon$**

**Model 2:  $IP = \beta_0 + \beta_1 OS + \varepsilon$**

**Model 3:  $CP = \beta_0 + \beta_1 OS + \varepsilon$**

**Model 4:  $NFP = \beta_0 + \beta_1 OS + \varepsilon$**

**Model 5:  $ROA = \beta_0 + \beta_1 OC + \varepsilon$**

**Model 6:  $IP = \beta_0 + \beta_1 OC + \varepsilon$**

**Model 7:  $CP = \beta_0 + \beta_1 OC + \varepsilon$**

**Model 8:  $NFP = \beta_0 + \beta_1 OC + \varepsilon$**

**Model 9:  $ROA = \beta_0 + \beta_1 OR + \varepsilon$**

**Model 10:  $IP = \beta_0 + \beta_1 OR + \varepsilon$**

**Model 11:  $CP = \beta_0 + \beta_1 OR + \varepsilon$**

**Model 12:  $NFP = \beta_0 + \beta_1 OR + \varepsilon$**

**where**

**ROA is return on assets**

**OS is organizational structure**

**IP is internal processes**

**CP is customer perspective**

**NFP is non financial performance**

**OC is organizational culture**

**OR is organizational resources**

**$\beta_0$  is constant term**

**$\beta$ 's are population parameters**

**$\varepsilon$  is error term**

Models 13 to 28 were multiple linear regression models. Models 13 to 16 were for the combined effect of organizational structure, culture and resources on organizational performance measured in ROA, internal processes, customer perspective and non financial performance. Models 17 to 20 were for the moderating effect of industry environment on the combined effect of organizational structure, culture and resources on organizational performance. Models 21 to 24 were for the intervening effect of competitive strategy on combined effect of organizational structure, culture and resources on organizational performance. Models 25 to 28 were for the moderating effect of industry environment and intervening effect of competitive strategy on combined effect of organizational structure, culture and resources on organizational performance.

Organizational performance was measured in ROA, internal processes, customer perspective and non financial performance.

$$\text{Model 13: ROA} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \varepsilon$$

$$\text{Model 14: IP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \varepsilon$$

$$\text{Model 15: CP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \varepsilon$$

$$\text{Model 16: NFP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \varepsilon$$

$$\text{Model 17: ROA} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{IE} + \varepsilon$$

$$\text{Model 18: IP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{IE} + \varepsilon$$

$$\text{Model 19: CP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{IE} + \varepsilon$$

$$\text{Model 20: NFP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{IE} + \varepsilon$$

$$\text{Model 21: ROA} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{CS} + \varepsilon$$

$$\text{Model 22: IP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{CS} + \varepsilon$$

$$\text{Model 23: CP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{CS} + \varepsilon$$

$$\text{Model 24: NFP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{CS} + \varepsilon$$

$$\text{Model 25: ROA} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{IECS} + \varepsilon$$

$$\text{Model 26: IP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{IECS} + \varepsilon$$

$$\text{Model 27: CP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{IECS} + \varepsilon$$

$$\text{Model 28: NFP} = \beta_0 + \beta_1\text{OS} + \beta_2\text{OC} + \beta_3\text{OR} + \beta_4\text{IECS} + \varepsilon$$

where **IE** is industry environment,

**CS** is competitive strategy

**OP** is organizational performance

Chapter three was on research methodology. The chapter covered research philosophy, research design, population of the study, data collection, operationalization of the study variables, data analysis, reliability, validity test and hypotheses testing.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND RESULTS**

#### **4.1 Introduction**

This chapter covers reliability test, linearity, normality, multicollinearity, homogeneity tests, population of the study measurement and results based on the seven objectives. To carry out data analysis, the data was cleaned up, coded, recorded and analyzed using SPSS. Ninety four respondents out of 102 firms filled up questionnaire which represented 92 percent response rate.

#### **4.2 Reliability Tests**

The study had five variables namely organizational structure, organizational culture, organizational resources, industry environment and competitive strategy. These variables were subjected to reliability test and the results are shown in Table 4.1. Nunnaly (1978) suggested a value of Cronbach's alpha 0.70 and above indicate that the instrument was reliable.

This study determined the overall reliability of each of the variables, which was more than 0.7 indicating the data was reliable. Competitive strategy had the highest Cronbach's alpha of 0.870 and industry environment had the lowest Cronbach's alpha of 0.775. Organizational culture had the highest number of items of its operationalization and the second highest Cronbach's alpha of 0.857. Organizational resources had the third highest Cronbach's alpha of 0.814.

**Table 4.1:** Variables Overall Reliability Statistics

Variable	Number of Items	Cronbach's Alpha	Comment
Organizational structure	6	0.813	Reliable
Organizational culture	15	0.857	Reliable
Organizational resources	12	0.814	Reliable
Industry environment	5	0.775	Reliable
Competitive strategy	7	0.870	Reliable

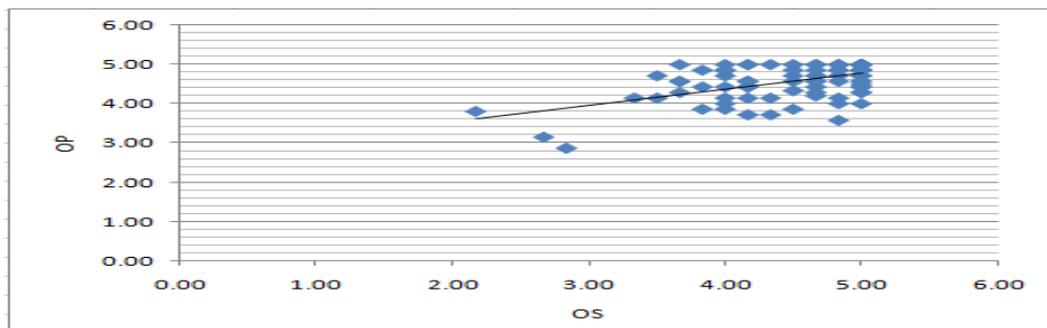
Source: Primary Data, 2014

### 4.3 Linearity, Normality, Multicollinearity and Homogeneity Tests

The study had five variables organizational structure, organizational culture, organizational resources, competitive strategy and industry environment. The tests were carried out for linearity, normality, multicollinearity and homogeneity.

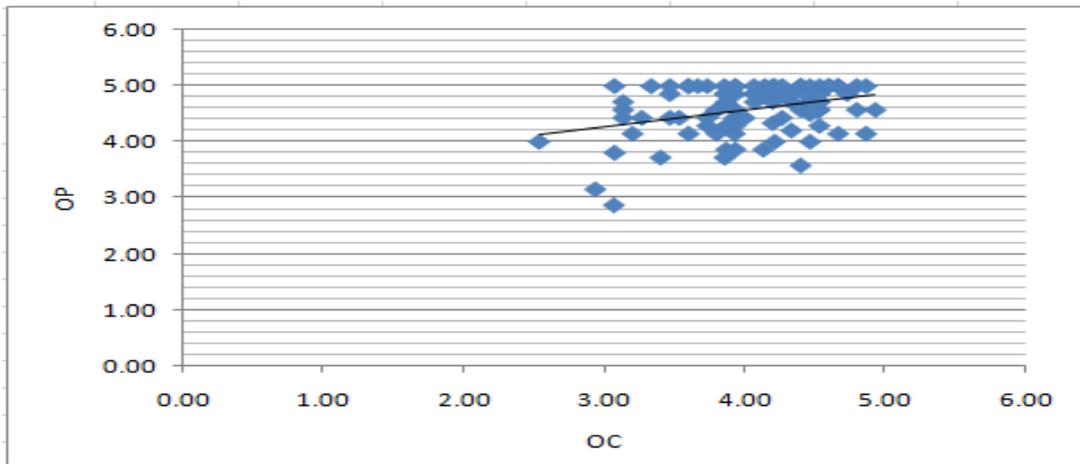
#### 4.3.1 Linearity Tests

The data was subjected to linearity tests; linearity is an assumption that the collection of data can be described by a straight line passing through the data array. Linearity was tested using scatter plot for organizational performance and organizational structure in Figures 4.1 which indicates that the data did not violate linearity test.



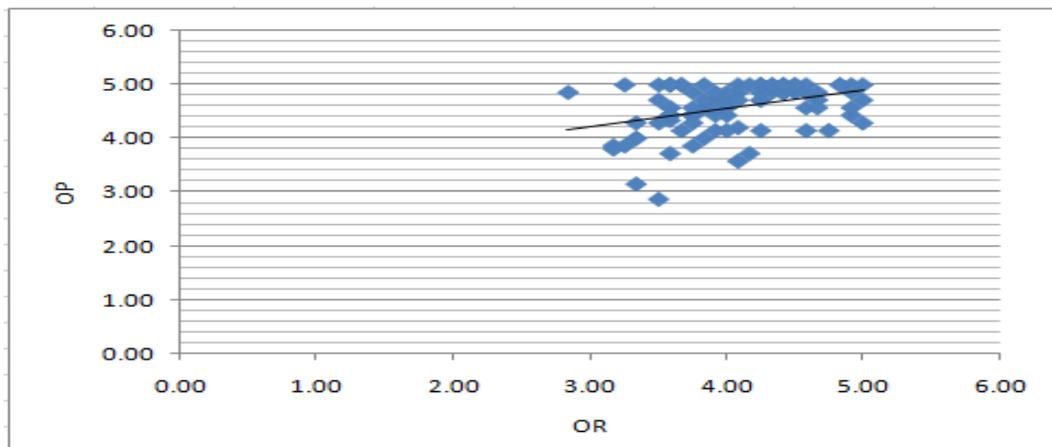
**Figure 4.1:** Scatter Plot of Organizational Structure and Organizational Performance  
Source: Primary data, 2014

Figures 4.2 is a scatter plot of organizational culture and organizational performance which indicates that the data did not violate linearity test because the collection of data was described by a straight line passing through the data array



**Figure 4.2:** Scatter Plot of Organizational Culture and Organizational Performance  
Source: Primary data, 2014

Figures 4.3 is a scatter plot of organizational resources and organizational performance which indicates that the data did not violate linearity test because the collection of data was described by a straight line passing through the data array



**Figure 4.3:** Scatter Plot of Organizational Resources and Organizational Performance  
Source: Primary data, 2014

### 4.3.2 Normality Tests

The data was subjected to normality tests using Shapiro-Wilk test. According to Field (2009) when the Shapiro–Wilk significant value is less than 0.05 it indicates a deviation from normality otherwise data is approximately normally distributed. Shapiro-Wilk test the null hypothesis that the population is normally distributed. If  $p\text{-value} \leq 0.05$ , null hypothesis is rejected and the data is not normally distributed. However, since the test is biased by sample size, the test may be statistically significant from a normal distribution in any large samples. Thus, Q-Q plots are required for verification.

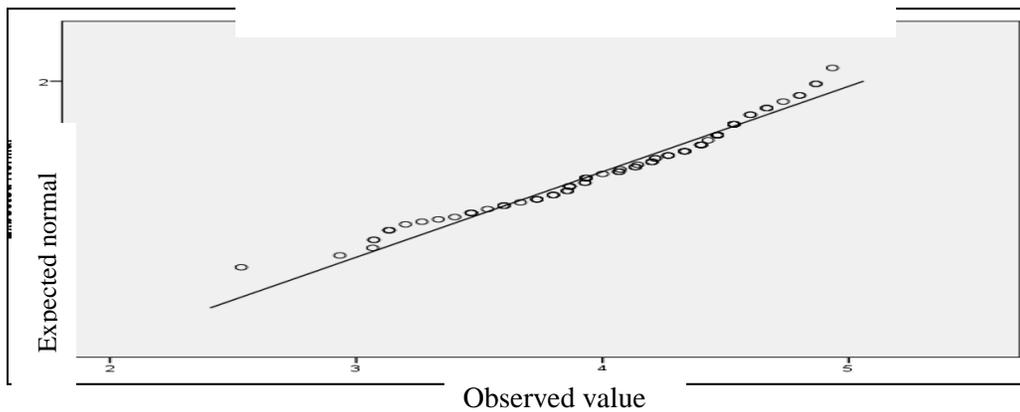
In Table 4.2 below, organizational structure, organizational culture, industry environment and competitive strategy had p- values below 0.05 significance level. This implies that data was not normally distributed. Organizational resources had p-value of 0.187 which was more than 0.05 significance level, which implies that the data was normally distributed. In large samples, Shapiro-Wilk tests can be significant even when the scores are only slightly different from a normal distribution. Therefore, they should always be interpreted in conjunction with Q–Q plots (Field, 2009).

**Table 4.2:** Shapiro-Wilk Test for Normality

Variable	Shapiro-Wilk		
	Statistic	df	Sig.
Organizational structure	.812	94	.000
Organizational culture	.963	94	.009
Organizational resources	.981	94	.187
Industry environment	.873	94	.000
Competitive strategy	.738	94	.000

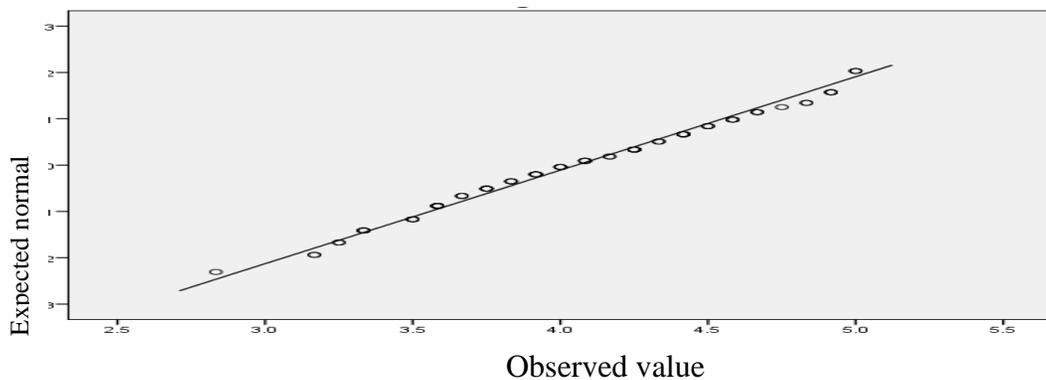
Source: Primary data, 2014

The data was further checked for normality using Q-Q plot. The Q-Q plot was drawn to compare observed values and expected value. The normality test using normal Q-Q plots in Figure 4.4 indicates that the study variables observed data is close to the expected values. The normal Q-Q plot of organizational culture indicates that most data points are very close to the ideal diagonal line; this indicates the data was normally distributed.



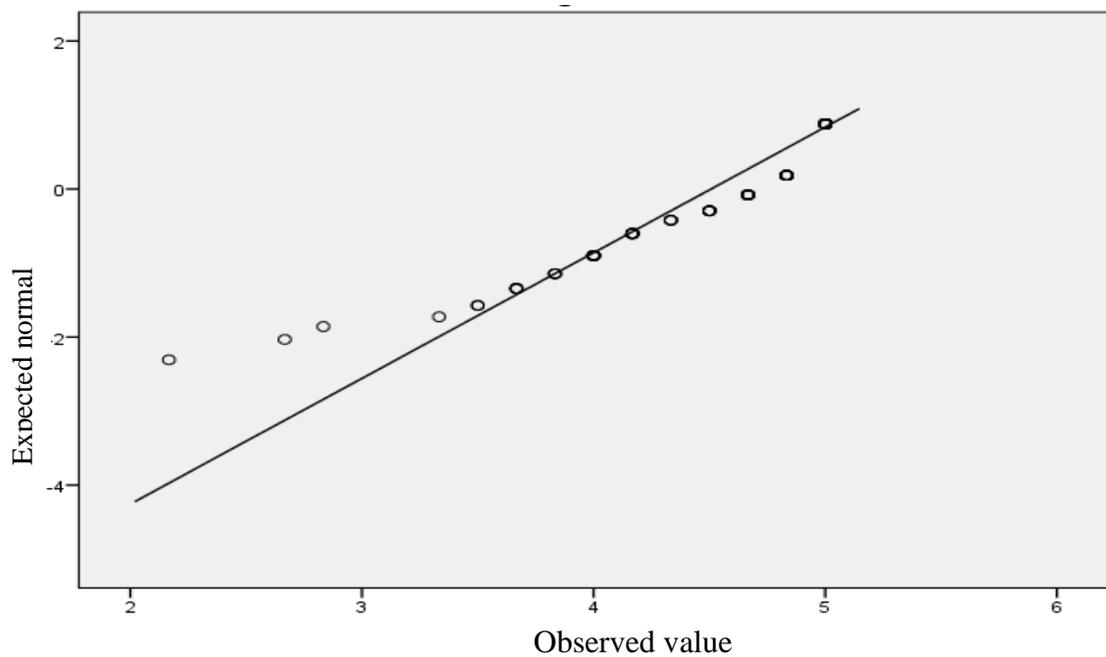
**Figure 4.4:** Normal Q-Q Plot of Organizational Culture  
Source: Primary data, 2014

The normality test using normal Q-Q plots in Figure 4.5 indicates that the study variables observed data is close to the expected values. The Q-Q plot indicates that most data points are very close to the ideal diagonal line; this indicates the data was normally distributed.



**Figure 4.5:** Normal Q-Q Plot of Organizational Resources  
Source: Primary data, 2014

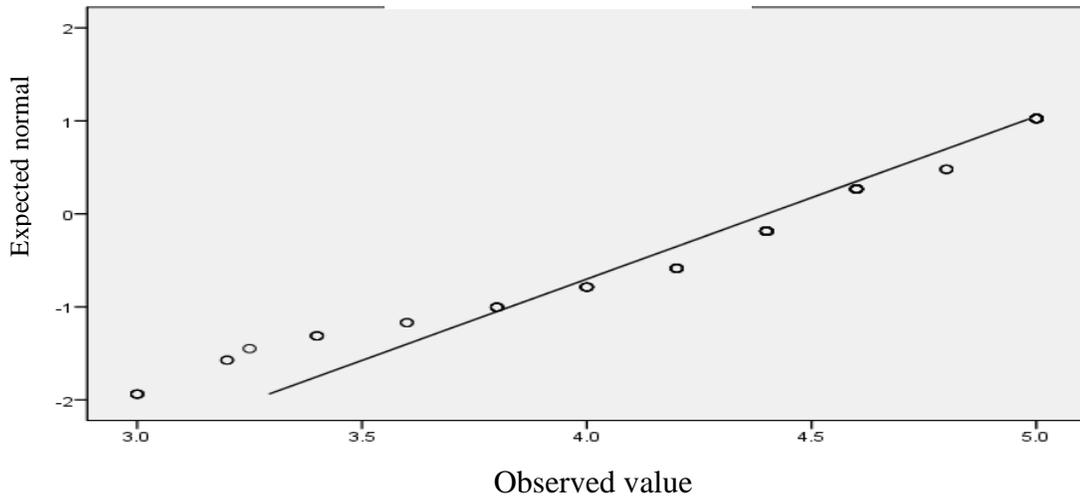
The normality test using normal Q-Q plots in Figure 4.6 indicates that the study variables observed data is close to the expected values. The Q-Q plot indicates that most data points are very close to the ideal diagonal line; this indicates the data was normally distributed.



**Figure 4.6:** Normal Q-Q Plot of Organizational Structure

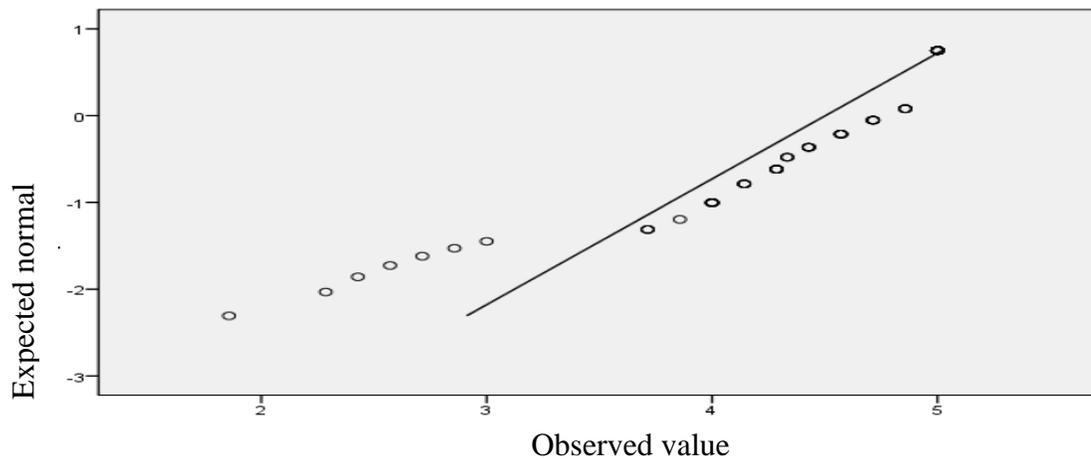
Source: Primary data, 2014

The normality test using normal Q-Q plots in Figure 4.7 indicates that the study variables observed data is not very close to the expected values. The Q-Q plot indicates that most data points are not very close to the ideal diagonal line; this indicates the data for industrial environment was not normally distributed.



**Figure 4.7:** Normal Q-Q Plot of Industry Environment  
Source: Primary data, 2014

The normality test using normal Q-Q plots in 4.8 indicates that the study variables observed data is not very close to the expected values. The Q-Q plot indicates that most data points are not very close to the ideal diagonal line; this indicates the data for competitive strategy was not normally distributed.



**Figure 4.8:** Normal Q-Q Plot of Competitive Strategy  
Source: Primary data, 2014

### 4.3.3 Multicollinearity Tests

The data was subjected to multicollinearity test. According to Cooper and Schindler (2007) collinearity is where two independent variables are highly correlated while multicollinerity is where more than two independent variables are highly correlated. This would have a negative effect on multiple regressions which would make it risky to interpret the coefficient as an indicator of the relative importance of predictor variables. To determine whether there was multicollinearity Variation Inflation Factor (VIF) and tolerance were determined. According to Hair et al. (2010), VIF should be lower than 10 and according to Menard (1995) a tolerance of less than 0.10 almost certainly indicates a serious multicollinearity problem. Table 4.3 indicates that the VIF were below 10 and tolerance level was more than 0.1, therefore there was no multicollinearity.

**Table 4.3:** Tolerance and Variation Inflation Factor Statistics

Variable	Multicollinearity Statistics	
	Tolerance	VIF
Organizational structure	.799	1.251
Organizational culture	.581	1.721
Organizational resources	.828	1.207
Industry environment	.964	1.037
Competitive strategy	.654	1.529

a. Dependent Variable: Organizational performance  
Source: Primary data, 2014

### 4.3.4 Homogeneity Tests

The data was subjected to homoscedacity test to test whether the variances were equal. This involved use of Levene's test, which is used to assess the tenability of the assumption of equal variances (homogeneity of variance). Levene's test looks at whether there are any significant differences between group variances and so a non-significant

result is indicative of the assumption being met. It tests the null hypothesis that the population variances are equal. If Levene's test is significant at  $p \leq 0.05$ , then the null hypothesis is rejected and that the variances are significantly different therefore, the assumption of homogeneity of variances has been violated. If, however, Levene's test is non-significant ( $p \geq 0.05$ ) then the variances are roughly equal and the assumption is tenable and null hypothesis is not rejected (Hair, et al., 2010).

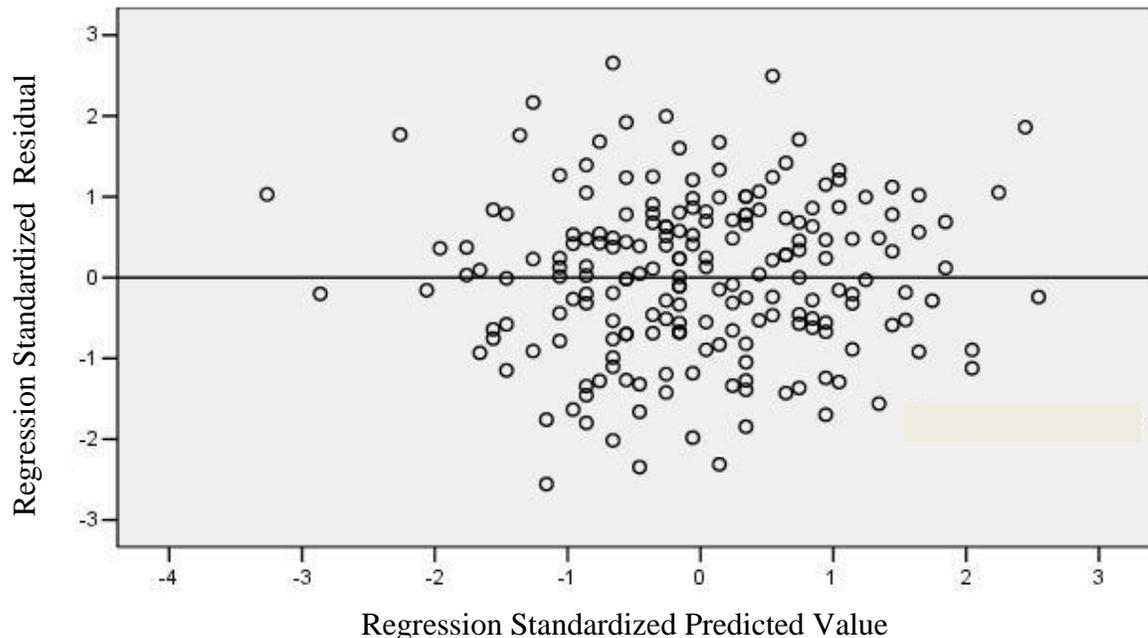
Table 4.4 indicates that Levene's test was not significant for the organizational structure (0.095), culture (0.293) resources (0.871) and competitive strategy (0.064) because p-values were more than 0.05 significance level. The null hypothesis was not rejected indicating that the variances were not significantly different (they were similar and the homogeneity of variance assumption is tenable). However, for the industry environment (p-value=0.005), Levene's test was significant ( $p < 0.05$ ) and, therefore null hypothesis was rejected indicating that the variances were significantly different; homogeneity of variance assumption was violated for the industry environment.

**Table 4.4:** Levene's Statistic Test for Homogeneity

Variable	Levene's Statistic	df1	df2	Sig.
Organizational structure	1.736	9	76	.095
Organizational culture	1.224	9	76	.293
Organizational resources	.499	9	76	.871
Industry environment	2.886	9	76	.005
Competitive strategy	1.986	9	76	.064

Source: Primary data, 2014

Figure 4.9 shows the scatter plot of residuals which indicate that there was homogeneity.



**Figure 4.9:** Scatter Plot of Standardized Residuals  
Source: Primary data, 2014

#### 4.4 Population of the Study Measurement

The data was analyzed for scope of operations, size of organizations, turnover of large manufacturing firms and relationship between the independent variables. The scope of operations was in terms of region that the large manufacturing firm operates in; size of the firms was in terms of number of employees and turnover of Kenya shillings million.

The relationship between the independent variables was on organization structure, organization culture, organizational resources, competitive strategy and industry environment. It involved determining whether there was correlation, whether positive or negative, the strength of the correlation and if it was statistically significant.

#### 4.4.1 Scope of Operations of Large Manufacturing Firms in Kenya

The results in Table 4.5 below indicated that 48.9 percent of manufacturing firms studied operated within Africa, 29.8 percent within Kenya and 21.3 percent within Africa and beyond. This indicated that majority of manufacturing firms studied were operating within Africa.

**Table 4.5:** Scope of Operations of Large Manufacturing Firms in Kenya

Region	Responses (Percent)
National (within Kenya)	29.8
Continental (within Africa)	48.9
Global (within Africa and beyond)	21.3
Total	100.0

Source: Primary data, 2014

#### 4.4.2 Size of Organization of Large Manufacturing Firms in Kenya

The study sought to find out the number of employees in large manufacturing firms in Kenya. Table 4.6 results indicated that 52.1 percent of manufacturing firms studied had employees between 50 and 200, 34 percent employees between 201 and 400 while 12.8 percent had 401 employees and above. This indicated that majority of manufacturing firms studied had 50 and above employees. This was within the expectation because the study was based on definition of large manufacturing firms as those firms that have 50 employees and above.

**Table 4.6:** Number of Employees of Large Manufacturing Firms in Kenya

Employees	Responses (Percent)
Below 50	1.1
50-200	52.1
201-400	34.0
401 and above	12.8
Total	100.0

Source: Primary data, 2014

#### 4.4.3 Turnover of Large Manufacturing Firms in Kenya

The study sought to determine the turnover of large manufacturing firms in Kenya. Table 4.7 below indicates that 4.3 percent of manufacturing firms had turnover of between KShs 51 to 100 million, 41.4 percent had turnover of KShs 100 to 500 and 54.3 percent had above KShs 500 million. This indicated that majority of firms studied had turnover of more than KShs 500 million.

**Table 4.7:** Turnover of Large Manufacturing Firms in Kenya

Turnover ( KShs million)	Responses (Percent)
51-100	4.3
100-500	41.4
Above 500	54.3
Total	100.0

Source: Primary data, 2014

#### 4.4.4 Relationship Between the Independent Variables

Table 4.8 indicates that organization culture was positively moderately weak (0.416) related with organization structure and the correlation was statistically significant. Industry environment and organization structure had a weak positive correlation (0.183) which was not statistically significant. Industry environment had a weak negative correlation (-0.098) with organization culture and was not statistically significant. Competitive strategy had a moderately weak positive correlation (0.472) with organization structure and was statistically significant. Organization culture had moderately strong positive correlation (0.575) with competitive strategy which was statistically significant.

Competitive strategy had a very weak positive correlation (0.068) with industry environment which was not statistically significant. Organizational resources had moderately weak positive correlation (0.311) with organizational structure and was statistically significant; moderately weak positive correlation (0.411) with organizational culture which was statistically significant; weak negative correlation (-0.088) with industry environment which was not statistically significant and a weak positive correlation (0.247) with competitive strategy and was statistically significant.

**Table 4.8:** Relationship between the Independent Variables

Variable		Organizational Structure	Organizational Culture	Industry Environment	Competitive Strategy	Organizational Resources
Organizational Structure	Pearson correlation	1				
	Sig. (2-tailed)					
Organizational Culture	Pearson Correlation	.416**	1			
	Sig. (2-tailed)	.000				
Industry Environment	Pearson Correlation	.183	-.098	1		
	Sig. (2-tailed)	.077	.346			
Competitive Strategy	Pearson Correlation	.472**	.575**	.068	1	
	Sig. (2-tailed)	.000	.000	.514		
Organizational Resources	Pearson Correlation	.311**	.411**	-.088	.247*	1
	Sig. (2-tailed)	.002	.000	.401	.016	

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

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

Source: Primary data, 2014

#### 4.5 Influence of Organizational Structure on Organizational Performance

The first objective was to determine the influence of organizational structure on performance of large manufacturing firms. To test this objective, null hypothesis (H1);

organizational structure does not influence performance of large manufacturing firms was tested at 0.05 significance level. The analysis was based on ROA, internal processes, customer perspective and non financial performance. Table 4.9 below indicates relationship between organizational structure and performance measured in terms of ROA. The coefficient of determination was 0.00 indicating that organizational structure does not influence ROA in large manufacturing firms in Kenya.

This implies that any changes in the large manufacturing firms studied, does not influence the organizational performance measured in terms of ROA. The overall test F-value statistic was 0.000 which was not significant because the p- value (0.997) was greater than 0.05 significance level. Therefore, the null hypothesis was not rejected that organizational structure does not influence ROA of large manufacturing firms.

**Table 4.9:** Relationship Between Organizational Structure and Return on Assets

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.000 <sup>a</sup>	.000	-.011	.07143		
a. Predictors: (Constant), Organizational Structure						
Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	.000	1	.000	.000	.997 <sup>b</sup>
	Residual	.464	91	.005		
	Total	.464	92			

a. Dependent Variable: ROA

b. Predictors: (Constant), Organizational Structure

Source: Primary data, 2014

The relationship of organizational structure with performance was determined using internal process as the measure of performance. Table 4.10 indicates that organization structure explains 27 percent of variation in internal process of large manufacturing firms in Kenya. The remaining 73 percent was explained by other variables not within this

study. The overall test of significance using F-value statistic was 34.058 which was significant because p-value (0.000) was less than 0.05 level of significance and the null hypothesis that organizational structure does not influence performance with respect to internal processes of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In order to establish individual significance t-test was carried out.

From Table 4.10, the constant and the organizational structure coefficient were significant.  $IP = 2.639 + 0.435 OS$

(0.000) (0.000)

This implies that a unit marginal change in organizational structure results into additional 0.435 units to internal processes of large manufacturing firms.

**Table 4.10:** Relationship Between Organizational Structure and Internal Processes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.520 <sup>a</sup>	.270	.262	.42392		
a. Predictors: (Constant), Organizational Structure						
	Model	Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	6.120	1	6.120	34.058	.000 <sup>b</sup>
	Residual	16.533	92	.180		
	Total	22.653	93			
a. Dependent Variable: Internal Processes						
b. Predictors: (Constant), Organizational Structure						
	Model	Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.639	.339		7.782	.000
	Organization Structure	.435	.075	.520	5.836	.000

a. Dependent Variable: Internal Processes

Source: Primary data, 2014

The relationship of organizational structure with performance was determined using customer perspective as the measure of performance. Table 4.11 indicates that organizational structure explained seven percent of variation in customer perspective of large manufacturing firms in Kenya. The remaining 93 percent was explained by other

variables not within this study. The overall test of significance using F-value statistic was 6.814 which was significant because p-value (0.011) was less than 0.05 level of significance and the null hypothesis that organizational structure does not influence performance with respect to customer perspective of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In order to establish individual significance t-test was carried out. From Table 4.11, the constant and the organizational structure coefficient were significant.

$$CP = 2.920 + 0.359 OS$$

(0.000) (0.011)

This implies that a unit marginal change in organizational structure results to increase of customer perspective of large manufacturing firms by 0.359 units.

**Table 4.11:** Relationship Between Organizational Structure and Customer Perspective

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.264 <sup>a</sup>	.070	.059	.71161		
a. Predictors: (Constant), Organizational Structure						
Model	Sum of Squares	Df	Mean Square	F-value	Sig.	
1 Regression	3.450	1	3.450	6.814	.011 <sup>b</sup>	
1 Residual	46.082	91	.506			
Total	49.532	92				
a. Dependent Variable: Customer Perspective						
b. Predictors: (Constant), Organizational Structure						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.920	.628		4.649	.000
	Organizational Structure	.359	.138	.264	2.610	.011

a. Dependent Variable: Customer Perspective

Source: Primary data, 2014

The relationship of organizational structure with performance was determined using non financial performance indicators a composite of internal process and customer perspective. Table 4.12, indicates that organizational structure explained 29.1 percent of variation in performance measured in terms of non financial performance. The remaining

70.9 percent was explained by other variables not within this study. The overall test of significance using F-value statistic was 37.679 which was significant because p-value (0.000) was less than 0.05 level of significance and the null hypothesis that organizational structure does not influence performance with respect to non financial performance of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In order to establish individual significance, t-test was carried out. In addition, Table 4.12 indicates that the constant and the organizational structure coefficients were significant,  $NFP = 2.734 + 0.410 OS$ .

(0.000) (0.000)

This implies that a unit marginal change in organizational structure results to increase of non financial performance of large manufacturing firms by 0.410 units.

**Table 4.12:** Relationship Between Organizational Structure and Non-Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.539 <sup>a</sup>	.291	.283	.37974		
a. Predictors: (Constant), Organizational Structure						
	Model	Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	5.433	1	5.433	37.679	.000 <sup>b</sup>
	Residual	13.267	92	.144		
	Total	18.700	93			
a. Dependent Variable: Non-Financial Performance						
b. Predictors: (Constant), Organizational Structure						
	Model	Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.734	.304		8.999	.000
	Organizational Structure	.410	.067	.539	6.138	.000

a. Dependent Variable: Non-Financial Performance

Source: Primary data, 2014

#### **4.6 Influence of Organizational Culture on Organizational Performance**

The second objective of the study was to determine the influence of organizational culture on performance of large manufacturing firms. To test this objective, null hypothesis (H2); organizational culture does not influence performance of large manufacturing firms was tested at 0.05 significance level. Table 4.13 indicates relationship of organization culture and performance measured in terms of ROA. The coefficient of determination was 0.072 indicating that organizational culture explained 7.2 percent of variation in ROA in large manufacturing firms in Kenya. The remaining 92.8 percent was explained by other variables not within this study.

The overall test of significance using F-value statistic was 7.168 which was significant because p-value (0.009) was less than 0.05 significance level and the null hypothesis that organizational culture does not influence performance with respect to ROA of large manufacturing firms at 0.05 significance level was consequently rejected. In order to establish individual significance t-test was carried out.

Further, Table 4.13 indicates that the constant coefficient was not significant but the organizational culture coefficient was significant

$$\text{ROA} = 0.038 \text{ OC} \\ (0.009)$$

This implies that a unit marginal change in organizational culture results to increase in ROA of large manufacturing firms by Kshs 0.038. When organizational culture is equal

to zero there is no effect on ROA. This implies that the organization should emphasize on having the appropriate culture to enhance the organizational performance.

**Table 4.13:** Relationship Between Organizational Culture and Return on Assets

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.269 <sup>a</sup>	.072	.062	.06930		
a. Predictors: (Constant), Organizational Culture						
Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	.034	1	.034	7.168	.009 <sup>b</sup>
	Residual	.442	92	.005		
	Total	.476	93			
a. Dependent Variable: ROA						
b. Predictors: (Constant), Organizational Culture						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.046	.058		-.795	.428
	Organization Culture	.038	.014	.269	2.677	.009

Dependent variable ROA

Source: Primary Data, 2014

The relationship of organizational culture with performance was determined using internal process as the measure of performance. Table 4.14 indicates that organization culture explained 14.7 percent of variation in internal process of large manufacturing firms in Kenya. The remaining 85.3 percent was explained by other variables not within this study. The overall test of significance using F-value statistic was 15.898 which was significant because the p-value (0.000) was less than 0.05 significance level and the null hypothesis that organizational culture does not influence performance with respect to internal processes of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out. From Table 4.14, the constant and the organizational culture coefficients were significant.

$$IP = 3.085 + 0.375 OC.$$

$$(0.000) (0.000)$$

This implies that a unit marginal change in organizational culture results in an increase of internal processes of large manufacturing firms by 0.375 units.

**Table 4.14:** Relationship Between Organizational Culture and Internal Processes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.384 <sup>a</sup>	.147	.138	.45820		
a. Predictors: (Constant), Organization Culture						
Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	3.338	1	3.338	15.898	.000 <sup>b</sup>
	Residual	19.315	92	.210		
	Total	22.653	93			
a. Dependent Variable: Internal Processes						
b. Predictors: (Constant), Organizational Culture						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.085	.383		8.044	.000
	Organizational Culture	.375	.094	.384	3.987	.000

a. Dependent Variable: Internal Processes

Source: Primary Data, 2014

The relationship of organizational culture with performance was determined using customer perspective as the measure of performance. Table 4.15 indicates that organizational culture explained 0.5 percent of variation in customer perspective of large manufacturing firms in Kenya and the remaining 99.5 percent was explained by other variables not considered in this study.

The overall test of significance using F-value statistic was 0.469 which was not statistically significant because p-value of 0.495 was greater than 0.05 significance level and the null hypothesis that organizational culture does not influence performance with respect to customer perspective of large manufacturing firms in Kenya at 0.05 level of significance was consequently not rejected.

**Table 4.15:** Relationship of Organizational Culture and Customer Perspective

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.072 <sup>a</sup>	.005	-.006	.73588		
a. Predictors: (Constant), Organizational Culture						
Model		Sum of Squares	Df	Mean Square	F-value	Sig.
1	Regression	.254	1	.254	.469	.495 <sup>b</sup>
	Residual	49.278	91	.542		
	Total	49.532	92			

a. Dependent Variable: Customer Perspective

b. Predictors: (Constant), Organizational Culture

Source: Primary Data, 2014

The relationship of organizational culture with performance was determined using non financial performance; this was the composite of internal process and customer perspective. Table 4.16 indicates that organizational culture explained 11.7 percent of variation in performance measured in terms of non financial performance. The remaining 88.3 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was 12.222 which was significant at p value = 0.001 which was lower than 0.05 significance level and the null hypothesis that organization culture does not influence performance with respect to non financial performance of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out. Table 4.16 indicates that the constant and the organizational culture coefficients are significant.

$$\text{NFP} = 3.353 + 0.304 \text{ OC}$$

(0.000) (0.001)

This implies that for one unit marginal change in organizational culture there is an additional 0.304 units on non financial performance.

**Table 4.16: Relationship of Organizational Culture and Non-Financial Performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.342 <sup>a</sup>	.117	.108	.42358		
a. Predictors: (Constant), Organizational Culture						
Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	2.193	1	2.193	12.222	.001 <sup>b</sup>
	Residual	16.507	92	.179		
	Total	18.700	93			
a. Dependent Variable: Non-Financial Performance						
b. Predictors: (Constant), Organizational Culture						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.353	.354		9.460	.000
	Organization Culture	.304	.087	.342	3.496	.001

a. Dependent Variable: Non-Financial Performance

Source: Primary data, 2014

#### 4.7 Influence of Organizational Resources on Organizational Performance

The third objective of the study was to determine the influence of organizational resources on performance of large manufacturing firms. To test this objective, null hypothesis (H3); organizational resources do not influence performance of large manufacturing firms was tested at 0.05 significance level. From Table 4.17, the relationship of organizational resources and ROA was 0.130 indicating that organization resources explained 13 percent of variation in ROA in large manufacturing firms in Kenya. The remaining 87 percent was explained by other variables not within the scope of this study. The overall test of significance using F-value statistic was 13.804 which was significant because p value (0.000) was less than 0.05 significance level and the null hypothesis that organizational resources does not influence performance with respect to ROA of large manufacturing firms in Kenya at 0.05 level of significance was

consequently rejected. In-order to establish individual significance t-test was carried out. Table 4.17 indicates that the constant coefficient was not statistically significant but organization resources coefficient was statistically significant.

$$\text{ROA} = 0.052 \text{ OR} \\ (0.000)$$

This implies that a unit marginal change in organizational resources result in an increase in ROA by Kshs 0.052. This implies that the organization should invest in more resources to enhance performance.

**Table 4.17:** Relationship Between Organizational Resources and Return on Assets

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.361 <sup>a</sup>	.130	.121	.06710		
a. Predictors: (Constant), Organization Resources						
Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	.062	1	.062	13.804	.000 <sup>b</sup>
	Residual	.414	92	.005		
	Total	.476	93			
a. Dependent Variable: ROA						
b. Predictors: (Constant), Organizational Resources						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.104	.057		-1.805	.074
	Organizational Resources	.052	.014	.361	3.715	.000

a. Dependent Variable: ROA  
Source: Primary data, 2014

The relationship of organizational resources with performance was determined using internal process as the measure of performance. Table 4.18 below indicates that the coefficient of determination was 0.109, which means that organizational resources explained 10.9 percent of variation in internal process of large manufacturing firms in Kenya. The remaining 89.1 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was 11.302 which was

significant because p-value (0.001) was less than was less than 0.05 significance level and the null hypothesis that organizational resources does not influence performance with respect to internal processes of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out. Table 4.18 indicates that the constant and organizational resources coefficients were statistically significant.

$$IP = 3.266 + 0.329 OR$$

(0.000) (0.001)

This implies that a unit marginal change in organizational resources result into additional 0.329 units in internal processes. When organizational resources are equal to zero the internal process will change with 3.266 units.

**Table 4.18:** Relationship Between Organizational Resources and Internal Processes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.331 <sup>a</sup>	.109	.100	.46829		
a. Predictors: (Constant), Organizational Resources						
	Model	Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	2.478	1	2.478	11.302	.001 <sup>b</sup>
	Residual	20.175	92	.219		
	Total	22.653	93			
a. Dependent Variable: Internal Processes						
b. Predictors: (Constant), Organizational Resources						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.266	.400		8.160	.000
	Organizational Resources	.329	.098	.331	3.362	.001

a. Dependent Variable: Internal Processes  
Source: Primary Data, 2014

The relationship of organizational resources with performance was determined using customer perspective as the measure of performance. Table 4.19 indicates that organization resources explained 6.4 percent of variation in customer perspective of large manufacturing firms in Kenya whereas the other 93.6 percent was explained by other variables not within this study.

The overall test of significance using F-value statistic was 6.192 which was statistically significant because p- value was 0.015 which was less than 0.05 significance level and the null hypothesis that organization resources does not influence performance with respect to customer perspective of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out.

Table 4.19 indicates that the constant and the organizational resources coefficients were statistically significant.

$$CP = 3.010 + 0.378 OR$$

(0.000) (0.015)

This implies that a marginal unit change in organizational resources results to an increase of customer perspective of large manufacturing firms by an additional 0.378 units

**Table 4.19:** Relationship Between Organizational Resources and Customer Perspective

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.252 <sup>a</sup>	.064	.053	.71388		
a. Predictors: (Constant), Organizational Resources						
Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	3.156	1	3.156	6.192	.015 <sup>b</sup>
	Residual	46.376	91	.510		
	Total	49.532	92			
a. Dependent Variable: Customer Perspective						
b. Predictors: (Constant), Organizational Resources						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.010	.622		4.837	.000
	Organizational Resources	.378	.152	.252	2.488	.015

a. Dependent Variable: Customer Perspective

Source: Primary Data, 2014

The relationship of organizational resources with performance was determined using non financial performance; this was the composite of internal process and customer perspective Table 4.20 below indicates that the coefficient of determination was 0.148 implying that organization resources explained 14.8 percent of variation in performance measured in terms of non financial performance. The remaining 85.2 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was 16.007 which was statistically significant because the p- value of 0.00 was less than 0.05 significance level and the null hypothesis that organization resources does not influence performance with respect to non financial performance of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out. Table 4.20 indicates that the constant and the organizational resources coefficients were significant.

$$\text{NFP} = 3.171 + 0.348 \text{ OR} \\ (0.000) \quad (0.000)$$

This implies that, for a unit marginal change in organizational resources, there is an additional 0.348 units in non financial performance.

**Table 4.20:** Relationship Between Organizational Resources and Non-Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.385 <sup>a</sup>	.148	.139	.41610		
a. Predictors: (Constant), Organizational Resources						
Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	2.771	1	2.771	16.007	.000 <sup>b</sup>
	Residual	15.929	92	.173		
	Total	18.700	93			
a. Dependent Variable: Non-Financial Performance						
b. Predictors: (Constant), Organizational Resources						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.171	.356		8.915	.000
	Organization Resources	.348	.087	.385	4.001	.000

a. Dependent Variable: Non-Financial Performance

Source: Primary Data, 2014

#### 4.8 Influence of Organizational Structure, Culture and Resources on Organizational Performance

The fourth objective of the study was to determine the influence of organizational structure, culture and resources on organizational performance of large manufacturing firms. To test this objective, null hypothesis (H4); organizational structure, culture, and resources do not have combined effect on performance of large manufacturing firms was tested. Table 4.21 shows the relationship between organizational structure, culture and resources on ROA. The coefficient of determination was 0.181 indicating that organization structure, culture and resources jointly explained 18.1 percent of variation in ROA in large manufacturing firms in Kenya. The remaining 81.9 percent was explained by other variables not included in this study. The overall test of significance using F-value statistic was 6.646 which was significant because the p-value (0.000) was less than

0.05 significance level and the null hypothesis that organization resources does not influence performance with respect to ROA of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out. Table 4.21 indicates that constant, organizational structure and organizational culture coefficients were not significant but organizational resources was significant.

$$ROA = 0.049OR$$

$$(0.002)$$

This implies that a unit marginal change in organizational resources result in an increase in ROA by Kshs 0.049.

**Table 4.21:** Relationship Between Organizational Structure, Culture, and Resources on Return on Assets

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.426 <sup>a</sup>	.181	.154	.06582		
a. Predictors:(Constant),organizational culture, organizational resources, organizational structure						
Model	Sum of Squares	df	Mean Square	F-value	Sig.	
1	Regression	.086	3	.029	6.646	.000 <sup>b</sup>
	Residual	.390	90	.004		
	Total	.476	93			
a. Dependent Variable: ROA						
b. Predictors: (Constant), Organizational Culture, Organizational Resources, Organizational Structure						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.101	.071		-1.412	.161
	Organizational Resources	.049	.015	.336	3.165	.002
	Organization Structure	-.025	.013	-.204	-1.917	.058
	Organization Culture	.031	.016	.216	1.944	.055

a. Dependent Variable: ROA  
Source: Primary Data, 2014

The relationship of organizational structure, resources and culture with performance was determined using internal processes as the measure of performance. Table 4.22 indicates that the coefficient of determination was 0.320, which indicates that organizational structure, resources and culture explained 32 percent of variation in internal process of large manufacturing firms in Kenya and the remaining 68 percent was explained by other variables not considered in this study.

The overall test of significance using F-value statistic was 14.098 which was significant because p-value of 0.000 was less than 0.05 significance level and the null hypothesis that organization resources does not influence performance with respect to internal processes of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected.

In-order to establish individual significance t-test was carried out. Table 4.22 indicates that the constant and organization structure coefficients were statistically significant while organizational resources and culture were not significant.

$$\text{IP} = 1.871 + 0.345 \text{ OS}$$

(0.000) (0.000)

This implies that a unit marginal change in organizational structure result into additional 0.345 units in internal processes.

**Table 4.22:** Relationships Between Organizational Structure, Culture and Resources on Internal Processes

Model	R	R Square	Adjusted R Square		Std. Error of the Estimate	
1	.565 <sup>a</sup>	.320	.297		.41380	
a. Predictors: (Constant), Organizational Culture, Organizational Resources, Organizational Structure						
Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	7.242	3	2.414	14.098	.000 <sup>b</sup>
	Residual	15.411	90	.171		
	Total	22.653	93			
a. Dependent Variable: Internal Processes						
b. Predictors: (Constant), Organizational Culture, Organizational Resources, Organizational Structure						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.871	.448		4.175	.000
	Organizational Resources	.138	.096	.139	1.435	.155
	Organizational Structure	.345	.081	.412	4.247	.000
	Organizational Culture	.152	.099	.155	1.536	.128

a. Dependent Variable: Internal Processes  
Source: Primary Data, 2014

The relationship of organizational structure, resources and culture with performance was determined using customer perspective as the measure of performance. Table 4.23 below indicates that organizational structure, resources and culture explained 11.5 percent of variation in customer perspective of large manufacturing firms in Kenya. The remaining 88.5 percent was explained by other variables not considered in this study.

The overall test of significance using F-value statistic was 3.855 which was statistically significant because p-value (0.012) was less than 0.05 significance level and the null hypothesis that organization structure, resources and culture does not influence performance with respect to customer perspective of large manufacturing firms in Kenya

at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out. Table 4.23 indicates that the constant, organizational resources and the organizational structure coefficients were statistically significant while culture was not significant.

$$CP = 2.287 + 0.346OR + 0.333OS$$

(0.006) (0.037) (0.027)

This implies that a unit marginal change in organization resources and organizational structure will increase customer perspective by additional 0.346 units and 0.333 units, respectively.

**Table 4.23:** Relationship Between Organizational Structure, Culture and Resources on Customer Perspective

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.339 <sup>a</sup>	.115	.085	.70182		
a. Predictors: (Constant), Organizational Culture, Organizational Structure, Organizational Resources						
Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	5.696	3	1.899	3.855	.012 <sup>b</sup>
	Residual	43.837	89	.493		
	Total	49.532	92			
a. Dependent Variable: Customer Perspective						
b. Predictors: (Constant), Organizational Culture, Organizational Structure, Organizational Resources						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.287	.816		2.804	.006
	Organizational Resources	.346	.164	.231	2.115	.037
	Organizational Structure	.333	.148	.244	2.253	.027
	Organization Culture	-.161	.168	-.109	-.961	.339

a. Dependent Variable: Customer Perspective  
Source: Primary Data, 2014

The relationship of organizational structure, organizational culture and organizational resources with performance was determined using non financial performance; this was the composite of internal process and customer perspective. Table 4.24 below indicates that the coefficient of determination was 0.346 implying that organizational structure, organizational culture and organizational resources organization resources explained 34.6 percent of variation in performance measured in terms of non financial performance. The remaining 65.4 percent was explained by other variables not within this study.

The overall test of significance using F-value statistic was 15.894 which was statistically significant because the p-value (0.000) was less than 0.05 significance level and the null hypothesis that organization structure, resources and culture does not influence performance with respect to non financial performance of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected.

In-order to establish individual significance t-test was carried out. Table 4.24 indicates that the constant and the organizational resources and structure coefficients were significant but organizational culture was not significant.

$$\text{NFP} = 2.015 + 0.199\text{OR} + 0.337\text{OS}$$

(0.000) (0.023) (0.000)

This indicates that a unit marginal change in organizational resources and organizational structure would result to an increase of 0.199 and 0.337 units, respectively to non financial performance.

**Table 4.24:** Relationship Between Organizational Structure, Culture, and Resources and Non-Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.588 <sup>a</sup>	.346	.325	.36854		
a. Predictors: (Constant), Organizational Culture, Organizational Resources, Organizational Structure						
Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	6.476	3	2.159	15.894	.000 <sup>b</sup>
	Residual	12.224	90	.136		
	Total	18.700	93			
a. Dependent Variable: Non-Financial Performance						
a. Predictors: (Constant), Organizational Culture, Organizational Resources, Organizational Structure						
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.015	.399		5.048	.000
	Organizational Resources	.199	.086	.219	2.314	.023
	Organizational Structure	.337	.072	.442	4.654	.000
	Organizational Culture	.060	.088	.068	.687	.494

a. Dependent Variable: Non-Financial Performance

Source: Primary Data, 2014

#### 4.9 Moderating Effect of Industry Environment on Combined Effect of Organizational Structure, Culture and Resources on Performance

The fifth objective of the study was to establish the moderating effect of industry environment on combined effect of organizational structure, culture and resources on performance of large manufacturing firms. To test this objective, null hypothesis (H5); industry environment has no moderating effect on combined effect of organizational structure, culture and resources on performance of large manufacturing firms was tested. Table 4.25 below indicates the effect of organizational structure, culture and resources on return on assets as moderated by industry environment. The results indicate that coefficient of determination increased by 0.048 from 0.142 which implied that industry

environment had moderating effect. The F change was statistically significant because the p-value of 0.026 was less than 0.05 significance level. On intervening effect by the industry environment the organization structure, culture and resources explained 19 percent of ROA variation. The remaining 81 percent was explained by other variables not considered in this study.

The overall test of significance using F-value statistic after intervening effect was 5.153 which was statistically significant because p value (0.01) was less than 0.05 significance level and the null hypothesis that industry environment has no moderating effect on combined effect of organizational structure, culture and resources on performance with respect to ROA of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out. The constant, organization structure, organization culture coefficients were not statistically significant but organizational resources and industry environment were significant.

$$\text{ROA} = 0.42\text{OR} - 0.028\text{IE}$$

$$(0.008) \quad (0.026)$$

This implies that a unit marginal change in organization resources and industry environment results to additional KShs 0.42 and reduction by Kshs 0.028 to ROA, respectively. This implies that the organization should invest in more resources and they should continuously scan the external environment so that to understand it and minimize negative effect.

**Table 4.25:** Organizational Structure, Culture and Resources on Return on Assets as moderated by Industry Environment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.377 <sup>a</sup>	.142	.113	.06689	.142	4.920	3	89	.003
2	.436 <sup>b</sup>	.190	.153	.06538	.048	5.162	1	88	.026
a. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment									
Model		Sum of Squares		df	Mean Square	F-value	Sig.		
1	Regression	.066		3	.022	4.920	.003 <sup>b</sup>		
	Residual	.398		89	.004				
	Total	.464		92					
2	Regression	.088		4	.022	5.153	.001 <sup>c</sup>		
	Residual	.376		88	.004				
	Total	.464		92					
a. Dependent Variable: ROA									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
c. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment									
Model		Unstandardized Coefficients		Standardized Coefficients		t-value	Sig.		
		B	Std. Error	Beta					
1	(Constant)	-.081	.073			-1.119	.266		
	Organization Structure	-.021	.013	-.177		-1.596	.114		
	Organization Culture	.024	.016	.171		1.492	.139		
	Organization Resources	.046	.016	.318		2.914	.005		
2	(Constant)	.045	.090			.500	.618		
	Organization Structure	-.013	.014	-.107		-.945	.347		
	Organization Culture	.018	.016	.127		1.117	.267		
	Organization Resources	.042	.015	.291		2.719	.008		
	Industry Environment	-.028	.012	-.228		-2.272	.026		

a. Dependent Variable: ROA

Source: Primary Data, 2014

Table 4.26 indicates the effect of organizational structure, culture and resources on internal processes as moderated by industry environment. The results indicate that coefficient of determination increased by 0.061 from 0.320 to 0.380 which implied that industry environment had moderating effect. The F change was statistically significant because the p- value was 0.004 which was less than 0.05 significance level.

On moderating effect by the industry environment, the organization structure, culture and resources explained 38 percent of internal processes variation; the remaining 62 percent was explained by other variables not considered in this study.

The F-value for overall test of significance after intervening effect was 13.657 which was statistically significant because the p-value (0.000) was less than 0.05 significance level and the null hypothesis that industry environment has no moderating effect on combined effect of organizational structure, culture and resources on performance of with respect to internal processes of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out.

The constant and organization resources were not statistically significant but organizational structure, culture and industry environment were significant.

$$IP = 0.283OS + 0.196OC + 0.222IE$$

(0.001) (0.044) (0.004)

This implies that a unit marginal change in organization structure, organizational culture and industry environment results to additional 0.283 units, 0.196 units and 0.222 units, respectively to internal processes. This indicates that the organization should ensure they have the appropriate organization structure, supportive culture and scan the environment to understand it. More emphasis should be on structure because it has the highest influence.

**Table 4.26:** Organizational Structure, Culture and Resources on Internal Processes as Moderated by Industry Environment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.565 <sup>a</sup>	.320	.297	.41380	.320	14.098	3	90	.000
2	.617 <sup>b</sup>	.380	.352	.39714	.061	8.709	1	89	.004
a. Predictors: (Constant), Organization Resources, Structure, Culture									
b. Predictors: (Constant), Organization Resources, Structure, Culture, Industry Environment									
Model		Sum of Squares		df	Mean Square		F-value	Sig.	
1	Regression	7.242		3	2.414		14.098	.000 <sup>b</sup>	
	Residual	15.411		90	.171				
	Total	22.653		93					
2	Regression	8.616		4	2.154		13.657	.000 <sup>c</sup>	
	Residual	14.037		89	.158				
	Total	22.653		93					
a. Dependent Variable: Internal Processes									
b. Predictors: (Constant), Organization Resources, Structure, Culture									
b. Predictors: (Constant), Organization Resources, Organization Structure, Culture, Industry Environment									
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.			
		B	Std. Error	Beta					
1	(Constant)	1.871	.448		4.175	.000			
	Organization Structure	.345	.081	.412	4.247	.000			
	Organization Culture	.152	.099	.155	1.536	.128			
	Organization Resources	.138	.096	.139	1.435	.155			
2	(Constant)	.889	.544		1.634	.106			
	Organization Structure	.283	.081	.338	3.504	.001			
	Organization Culture	.196	.096	.200	2.038	.044			
	Organization Resources	.165	.093	.166	1.778	.079			
	Industry Environment	.222	.075	.257	2.951	.004			

a. Dependent Variable: Internal Processes

Source: Primary Data, 2014

Table 4.27 below indicates the effect of organizational structure, culture and resources on customer perspective as moderated by industry environment. The results indicate that

coefficient of determination increased by 0.059 from 0.115 to 0.174 which implied that industry environment had the moderating effect. The F change was statistically significant because the p-value was 0.014 which was less than 0.05 significance level. On moderating effect by the industry environment the organizational structure, culture and resources explained 17.4 percent of customer perspective variation. The remaining 82.6 percent was explained by other variables not considered in this study.

The F-value for overall test of significance after moderating effect was 4.623 which was statistically significant because the p-value (0.002) was less than 0.05 significance level and the null hypothesis that industry environment has no moderating effect on combined effect of organizational structure, culture and resources on performance with respect to customer perspective of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out.

The constant organizational structure and culture were not statistically significant but organization resources and industry environment were significant.

$$CP = 0.382 OR + 0.329 IE$$

(0.019)      (0.014)

This implies that a marginal unit change in organization resources and industry environment results to additional 0.382 units and 0.329 units, respectively in customer perspective. This means that organization should invest in more resources and should scan and understand the industry environment.

**Table 4.27 :** Organizational Structure, Culture and Resources on Customer Perspective as moderated by Industry Environment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.339 <sup>a</sup>	.115	.085	.70182	.115	3.855	3	89	.012
2	.417 <sup>b</sup>	.174	.136	.68200	.059	6.247	1	88	.014

a. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture

b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment

Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	5.696	3	1.899	3.855	.012 <sup>b</sup>
	Residual	43.837	89	.493		
	Total	49.532	92			
2	Regression	8.601	4	2.150	4.623	.002 <sup>c</sup>
	Residual	40.931	88	.465		
	Total	49.532	92			

a. Dependent Variable: Customer Perspective

b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture

c. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment

Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.287	.816		2.804	.006
	Organization Structure	.333	.148	.244	2.253	.027
	Organization Culture	-.161	.168	-.109	-.961	.339
	Organization Resources	.346	.164	.231	2.115	.037
2	(Constant)	.975	.951		1.025	.308
	Organization Structure	.214	.151	.157	1.418	.160
	Organization Culture	-.097	.165	-.066	-.589	.557
	Organization Resources	.382	.160	.254	2.389	.019
	Industry Environment	.329	.132	.256	2.499	.014

a. Dependent Variable: Customer Perspective

Source: Primary Data, 2014

Table 4.28 indicates the effect of organizational structure, culture and resources on non financial performance as moderated by industry environment. The results indicate that coefficient of determination increased by 0.094 which implied that industry environment had the moderating effect. The F change was statistically significant because p-value (0.000) was less than 0.05 significance level. On intervening effect by the industry environment, the organizational structure, culture and resources explained 44.1 percent of non financial performance. The remaining 55.9 percent was explained by other variables not included in this study.

The F-value for overall test of significance after moderating effect was 17.530 which was statistically significant because p-value (0.000) was less than 0.05 significance level and the null hypothesis that industry environment has no moderating effect on combined effect of organizational structure, culture and resources on performance with respect to non-financial performance of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out. The constant and organizational culture was not statistically significant but organizational structure, resources and industry environment were significant.

$$\text{NFP} = 0.266\text{OS} + 0.229\text{OR} + 0.251\text{IE}$$

(0.000)    (0.005)    (0.000)

This implies that a marginal unit change in organizational structure, resources and industry environment results to additional 0.266 units, 0.229 units and 0.251 units, respectively in non financial performance.

**Table 4.28:** Organizational Structure, Culture and Resources on Non-Financial Performance as moderated by Industry Environment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.588 <sup>a</sup>	.346	.325	.36854	.346	15.894	3	90	.000
2	.664 <sup>b</sup>	.441	.416	.34281	.094	15.013	1	89	.000

a. Predictors: (Constant), Organization Resources, Structure, Culture

b. Predictors: (Constant), Organization Resources, Structure, Culture, Industry Environment

Model		Sum of Squares	df	Mean Square	F-value	Sig.
1	Regression	6.476	3	2.159	15.894	.000 <sup>b</sup>
	Residual	12.224	90	.136		
	Total	18.700	93			
2	Regression	8.241	4	2.060	17.530	.000 <sup>c</sup>
	Residual	10.459	89	.118		
	Total	18.700	93			

a. Dependent Variable: Non-Financial Performance

b. Predictors: (Constant), Organization Resources, Structure, Culture

c. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment

Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.015	.399		5.048	.000
	Organization Structure	.337	.072	.442	4.654	.000
	Organization Culture	.060	.088	.068	.687	.494
	Organization Resources	.199	.086	.219	2.314	.023
2	(Constant)	.902	.470		1.921	.058
	Organization Structure	.266	.070	.350	3.821	.000
	Organization Culture	.110	.083	.124	1.330	.187
	Organization Resources	.229	.080	.253	2.856	.005
	Industry Environment	.251	.065	.320	3.875	.000

a. Dependent Variable: Non-Financial Performance

Source: Primary Data, 2014

#### 4.10 Intervening Effect of Competitive Strategy on Combined Effect of Organizational Structure, Culture and Resources on Performance

The sixth objective of the study was to establish the intervening effect of competitive strategy on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms. To test this objective, null hypothesis (H6);

competitive strategy has no intervening effect on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms was tested. Table 4.29 below shows the effect of organizational structure, culture and resources on ROA as intervened by competitive strategy. The results indicated that there was no significant change in coefficient of determination on moderation by competitive strategy. The F change was not statistically significant because the p-value (0.856) was greater than 0.05 significance level. The combined effect of organization structure, culture and resources explained 14.2 percent of variation in ROA which did not significantly change with consideration of competitive strategy.

The overall test of significance using F-value after intervening effect was 3.658 which was statistically significant because the p value (0.008) was less than 0.05 significance level and the null hypothesis that competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on performance with respect to ROA of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out. The constant, organization structure, organization culture and competitive strategy were not statistically significant but organizational resources was significant.

ROA =0.046 OR  
(0.005)

This implies that a unit marginal change in organization resources results to additional KShs 0.046 on ROA. This indicates that the organization should invest more resources to enhance its performance.

**Table 4.29:** Organizational Structure, Culture and Resources on Return on Asset as intervened by Competitive Strategy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.377 <sup>a</sup>	.142	.113	.06689	.142	4.920	3	89	.003
2	.378 <sup>b</sup>	.143	.104	.06726	.000	.033	1	88	.856
a. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Competitive Strategy									
Model	Sum of Squares			df	Mean Square	F-value	Sig.		
1	Regression	.066		3	.022	4.920	.003 <sup>b</sup>		
	Residual	.398		89	.004				
	Total	.464		92					
2	Regression	.066		4	.017	3.658	.008 <sup>c</sup>		
	Residual	.398		88	.005				
	Total	.464		92					
a. Dependent Variable: ROA									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
c. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Competitive Strategy									
Model	Unstandardized Coefficients			Standardized Coefficients	t-value	Sig.			
		B	Std. Error	Beta					
1	(Constant)	-.081	.073		-1.119	.266			
	Organization Structure	-.021	.013	-.177	-1.596	.114			
	Organization Culture	.024	.016	.171	1.492	.139			
	Organization Resources	.046	.016	.318	2.914	.005			
2	(Constant)	-.083	.073		-1.125	.264			
	Organization Structure	-.022	.014	-.183	-1.569	.120			
	Organization Culture	.023	.018	.160	1.227	.223			
	Organization Resources	.046	.016	.318	2.902	.005			
	Competitive Strategy	.002	.013	.023	.182	.856			

a. Dependent Variable: ROA  
Source: Primary Data, 2014

Table 4.30 indicates the effect of organizational structure, culture and resources on internal processes as intervened by competitive strategy. The results indicate that there was no significance change in coefficient of determination. There was no significant F change because the p value of 0.789 was greater than 0.05 significance level. Organization structure, culture and resources explained 32 percent of internal processes variation; the remaining 68 percent was explained by other variables not considered in this study.

The F-value overall test of significance with consideration of competitive strategy was 10.483 which was statistically significant because the p-value (0.000) was less than 0.05 significance level and the null hypothesis that competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on performance with respect to internal processes of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. In-order to establish individual significance t-test was carried out. The organization culture, resources and competitive strategy were not statistically significant but the constant and organizational structure were significant.

$$IP = 1.884 + 0.352 OS$$

(0.000) (0.000)

This implies that a unit marginal change in organization structure results to additional 0.352 units to internal processes. This implies that the organization should ensure they have appropriate structure in-order to enhance internal processes.

**Table 4.30:** Organizational Structure, Culture and Resources on Internal Processes as intervened by Competitive Strategy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.565 <sup>a</sup>	.320	.297	.41380	.320	14.098	3	90	.000	
2	.566 <sup>b</sup>	.320	.290	.41595	.001	.072	1	89	.789	
a. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture										
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Competitive Strategy										
Model		Sum of Squares	Df	Mean Square	F-value	Sig.				
1	Regression	7.242	3	2.414	14.098	.000 <sup>b</sup>				
	Residual	15.411	90	.171						
	Total	22.653	93							
2	Regression	7.255	4	1.814	10.483	.000 <sup>c</sup>				
	Residual	15.399	89	.173						
	Total	22.653	93							
a. Dependent Variable: Internal Processes										
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture										
c. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Competitive Strategy										
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.				
		B	Std. Error	Beta						
1	(Constant)	1.871	.448		4.175	.000				
	Organization Structure	.345	.081	.412	4.247	.000				
	Organization Culture	.152	.099	.155	1.536	.128				
	Organization Resources	.138	.096	.139	1.435	.155				
2	(Constant)	1.884	.453		4.159	.000				
	Organization Structure	.352	.086	.421	4.094	.000				
	Organization Culture	.165	.112	.169	1.479	.143				
	Organization Resources	.137	.097	.138	1.416	.160				
		Competitive Strategy	-.022	.081	-.030	-2.68	.789			

a. Dependent Variable: Internal Processes

Source: Primary Data , 2014

Table 4.31 below indicates the effect of organizational structure, culture and resources on customer perspective as intervened by competitive strategy. The results indicate that coefficient of determination increased by 27 percent and the F change was significant because the p value (0.00) was less than 0.05 significance level; this implied that competitive strategy had intervening effect. On intervening effect by the competitive strategy the organization structure, culture and resources explained 38.5 percent of customer perspective variation, while the remaining 61.5 percent was explained by other variables not considered in this study.

The overall test of significance using F-value was 13.776 which was statistically significant because the p-value (0.000) was less than 0.05 significance level and the null hypothesis that competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on performance with respect to customer perspective of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. This implied that competitive strategy had intervening effect on combined effect of organizational structure, resources and culture on organizational performance. In-order to establish individual significance t-test was carried out. The organizational structure was not statistically significant but organizational culture, resources and competitive strategy were significant.

$$CP = 1.827 - 0.614 OC + 0.382OR + 0.708CS$$

(0.009) (0.000) (0.007) (0.000)

This implies that unit marginal change in organizational culture, resources and competitive strategy results into reduction by 0.614 units, increase by 0.382 units and 0.708 units respectively in customer perspective.

**Table 4.31:** Organizational Structure, Culture and Resources on Customer Perspective as intervened by Competitive Strategy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.339 <sup>a</sup>	.115	.085	.70182	.115	3.855	3	89	.012
2	.621 <sup>b</sup>	.385	.357	.58832	.270	38.650	1	88	.000
a. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Competitive Strategy									
Model		Sum of Squares		Df	Mean Square	F-value	Sig.		
1	Regression	5.696		3	1.899	3.855	.012 <sup>b</sup>		
	Residual	43.837		89	.493				
	Total	49.532		92					
2	Regression	19.073		4	4.768	13.776	.000 <sup>c</sup>		
	Residual	30.459		88	.346				
	Total	49.532		92					
a. Dependent Variable: Customer Perspective									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
c. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Competitive Strategy									
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.			
		B	Std. Error	Beta					
1	(Constant)	2.287	.816		2.804	.006			
	Organization Structure	.333	.148	.244	2.253	.027			
	Organization Culture	-.161	.168	-.109	-.961	.339			
	Organization Resources	.346	.164	.231	2.115	.037			
2	(Constant)	1.827	.688		2.656	.009			
	Organization Structure	.101	.129	.075	.785	.435			
	Organization Culture	-.614	.158	-.417	-3.882	.000			
	Organization Resources	.382	.137	.255	2.783	.007			
	Competitive Strategy	.708	.114	.652	6.217	.000			

a. Dependent Variable: Customer Perspective

Source: Primary Data, 2014

Table 4.32 below indicates the effect of organizational structure, culture and resources on non financial performance as intervened by competitive strategy. The results indicated that coefficient of determination increased by 5.1 percent and the F change was significant because p-value of 0.007 was less than 0.05 significance level. This implied that competitive strategy had an intervening effect. On intervening effect by the competitive strategy; the organization structure, culture and resources explained 39.7 percent of non financial performance variation. The remaining 60.3 percent was explained by other variables not included in this study.

The overall test of significance using F-value was 14.661 which was statistically significant because the p-value of 0.000 was less than 0.05 significance level and the null hypothesis that competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on performance with respect to non financial performance of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected.

The organizational culture was not statistically significant but organization structure, resources and competitive strategy were significant.

$$\text{NFP} = 1.904 + 0.273\text{OS} + 0.208\text{OR} + 0.189\text{CS}$$

(0.000) (0.000) (0.014) (0.007)

This implies that unit marginal change in organization structure, organizational resources and competitive strategy would results into additional 0.273 units, 0.208 units and 0.189 units respectively in non financial performance.

**Table 4.32:** Organizational Structure, Culture and Resources on Non-Financial Performance as intervened by Competitive Strategy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.588 <sup>a</sup>	.346	.325	.36854	.346	15.894	3	90	.000
2	.630 <sup>b</sup>	.397	.370	.35589	.051	7.510	1	89	.007

a. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture

b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Competitive Strategy

Model		Sum of Squares	Df	Mean Square	F-value	Sig.
1	Regression	6.476	3	2.159	15.894	.000 <sup>b</sup>
	Residual	12.224	90	.136		
	Total	18.700	93			
2	Regression	7.427	4	1.857	14.661	.000 <sup>c</sup>
	Residual	11.272	89	.127		
	Total	18.700	93			

a. Dependent Variable: Non-Financial Performance

b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture

c. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Competitive Strategy

Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.015	.399		5.048	.000
	Organization Structure	.337	.072	.442	4.654	.000
	Organization Culture	.060	.088	.068	.687	.494
	Organization Resources	.199	.086	.219	2.314	.023
2	(Constant)	1.904	.388		4.913	.000
	Organization Structure	.273	.074	.359	3.708	.000
	Organization Culture	-.060	.096	-.068	-.631	.529
	Organization Resources	.208	.083	.230	2.505	.014
	Competitive Strategy	.189	.069	.290	2.741	.007

a. Dependent Variable: Non-Financial Performance

Source: Primary Data, 2014

#### **4.11 Moderating Effect of Industry Environment and intervening Effect of Competitive Strategy on Combined Effect of Organizational Structure, Culture, Resources on Organizational Performance.**

The seventh objective of the study was to establish the moderating effect of industry environment and intervening effect of competitive strategy on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms. The fifth and the sixth objective were on determining on independent effect of moderating effect of industry environment and intervening effect of competitive strategy respectively, on combined effect of organizational structure, culture and resources on organizational performance. The seventh objective was to determine the combined effect of intervening effect of industry environment and moderating effect of competitive strategy.

To test this objective, null hypothesis; industry environment has no moderating effect and competitive strategy has no intervening effect on the combined effect of organizational structure, culture and resources on performance of large manufacturing firms was tested.

Table 4.33 indicates organizational structure, culture and resources on ROA as moderated by industry environment and intervened by competitive strategy. Table 4.33 shows that coefficient of determination increased by 0.049. When competitive strategy and industry environment were considered the organization structure, culture and resources explained

19.1 percent of ROA variation; the remaining 80.9 percent was explained by other variables not considered in this study. The overall test of significance using F-value was 4.112 which was statistically significant because the p-value (0.002) was less than was less than 0.05 significance level and the null hypothesis that industry environment has no intervening effect and competitive strategy has no moderating effect on combined effect of organizational structure, culture and resources on performance with respect to ROA of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. This implied that industry environment had moderating effect and competitive strategy had a intervening effect on combined effect of organizational structure, resources and culture on organizational performance.

The constant, organizational structure, culture and competitive strategy were not statistically significant but organization resources and industry environment were significant.

$$\text{ROA} = 0.042\text{OR} - 0.029\text{IE}$$

$$(0.008) \quad (0.025)$$

This implies that unit marginal change in organization resources and industry environment would result into additional KShs 0.042 and reduction by KShs 0.029, respectively in ROA. This implies that if an organization increases its resources, it would translate to improved performance. Therefore, organization should invest in more resources and ensure they scan and understand the industry environment.

**Table 4.33:** Organizational Structure, Culture and Resources on Return of Asset as moderated by Industry Environment and intervened by Competitive Strategy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.377 <sup>a</sup>	.142	.113	.06689	.142	4.920	3	89	.003	
2	.437 <sup>b</sup>	.191	.145	.06570	.049	2.631	2	87	.078	
a. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture										
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment, Competitive Strategy										
Model	Sum of Squares			df	Mean Square	F-value	Sig.			
1	Regression	.066			3	.022	4.920	.003 <sup>b</sup>		
	Residual	.398			89	.004				
	Total	.464			92					
2	Regression	.089			5	.018	4.112	.002 <sup>c</sup>		
	Residual	.376			87	.004				
	Total	.464			92					
a. Dependent Variable: ROA										
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture										
c. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment, Competitive Strategy										
Model	Unstandardized Coefficients			Standardized Coefficients		t-value	Sig.			
	B	Std. Error		Beta						
1	(Constant)	-.081	.073				-1.119	.266		
	Organization Structure	-.021	.013		-.177		-1.596	.114		
	Organization Culture	.024	.016		.171		1.492	.139		
	Organization Resources	.046	.016		.318		2.914	.005		
2	(Constant)	.044	.091				.488	.627		
	Organization Structure	-.014	.014		-.119		-1.010	.315		
	Organization Culture	.015	.018		.103		.796	.428		
	Organization Resources	.042	.015		.292		2.714	.008		
	Competitive Strategy	.005	.013		.048		.387	.700		
	Industry Environment	-.029	.013		-.232		-2.286	.025		

a. Dependent Variable: ROA  
Source: Primary Data, 2014

Table 4.34 indicates the organizational structure, culture and resources on internal processes as moderated by industry environment and intervened by competitive strategy. The results indicated that coefficient of determination increased by 0.062 and the F change was significant because p-value of 0.014 was less than 0.05 significance level, which implied that competitive strategy and industry environment influence was significant. The coefficient of determination was 0.382 which implied that organizational structure, culture and resources on moderation by industry environment and intervening effect by competitive strategy explained 38.2 percent variation of internal processes. The remaining 61.8 percent was explained by other variables not considered in this study.

The overall test of significance using F-value was 10.887 which was statistically significant because the p-value of 0.000 was less than 0.05 significance level and the null hypothesis that industry environment has no moderating effect and competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on performance with respect to internal processes of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. The constant, organizational resources and competitive strategy were not statistically significant but organization structure, culture and industry environment were significant.

$$IP = 0.296OS + 0.222OC + 0.225IE$$

(0.001)    (0.045)    (0.004)

This implies that unit marginal change in organization structure, organizational culture and industry environment would result into additional 0.296 units, 0.222 units and 0.225 units, respectively in internal processes. This implies that if an organization has

appropriate organization structure, supportive culture and favorable industry environment then performance measured in terms of internal processes would be enhanced.

**Table 4.34:** Organizational Structure, Culture and Resources on Internal Processes as moderated by Industry Environment and intervened by Competitive Strategy

Model	R	R Square	Adjusted R Square	Std. error of the estimate	Change Statistics				
					R Square change	F Change	df 1	df 2	Sig. F Change
1	.565 <sup>a</sup>	.320	.297	.41380	.320	14.098	3	90	.000
2	.618 <sup>b</sup>	.382	.347	.39880	.062	4.449	2	88	.014
a. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment, Competitive Strategy									
Model		Sum of Squares		Df	Mean Square		F-value	Sig.	
1	Regression	7.242		3	2.414		14.098	.000 <sup>b</sup>	
	Residual	15.411		90	.171				
	Total	22.653		93					
2	Regression	8.658		5	1.732		10.887	.000 <sup>c</sup>	
	Residual	13.996		88	.159				
	Total	22.653		93					
a. Dependent Variable: Internal Processes									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
c. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment, Competitive Strategy									
Model		Unstandardized Coefficients		Standardized Coefficients		t-value	Sig.		
		B	Std. Error	Beta					
1	(Constant)	1.871	.448			4.175	.000		
	Organization Structure	.345	.081	.412		4.247	.000		
	Organization Culture	.152	.099	.155		1.536	.128		
	Organization Resources	.138	.096	.139		1.435	.155		
2	(Constant)	.899	.547			1.644	.104		
	Organization Structure	.296	.085	.353		3.489	.001		
	Organization Culture	.222	.109	.227		2.034	.045		
	Organization Resources	.164	.093	.164		1.753	.083		
	Competitive Strategy	-.040	.077	-.055		-.512	.610		
	Industry Environment	.225	.076	.260		2.970	.004		

a. Dependent Variable: Internal Processes  
Source: Primary Data, 2014

Table 4.35 below indicates effect of organizational structure, culture and resources on customer perspective as moderated by industry environment and intervened by competitive strategy. The coefficient of determination increased by 30.9 percent and the F change was significant because the p-value of 0.000 was less than 0.05 significance level. This implied that competitive strategy and industry environment influence was significant on combined effect of organizational structure, culture and resources on customer perspective. The coefficient of determination was 0.424 which implied that organizational structure, culture and resources on moderation by competitive strategy and intervening effect of industry environment explained 42.4 percent variation in customer perspective. The remaining 57.6 percent was explained by other variables not considered in this study.

The overall test of significance using F-value was 12.829 which was statistically significant because the p-value (0.000) was less than 0.05 significance level and the null hypothesis that industry environment has no moderating effect and competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on performance with respect to customer perspective of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. The constant, organizational structures were not statistically significant but organizational culture, resources, competitive strategy and industry environment coefficients were statistically significant.

$$CP = -0.547OC + 0.410OR + 0.685CS + 0.270IE$$

(0.001)    (0.003)    (0.000)    (0.017)

This implies that unit marginal change in organization culture, organizational resources, competitive strategy and industry environment would result into reduction of 0.547 units, additional of 0.410 units, 0.685 units and 0.270 units, respectively in customer perspective.

**Table 4.35:** Organizational Structure, Culture and Resources on Customer Perspective as moderated by Industry Environment and intervened by Competitive Strategy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.339 <sup>a</sup>	.115	.085	.70182	.115	3.855	3	89	.012
2	.651 <sup>b</sup>	.424	.391	.57246	.309	23.383	2	87	.000
a. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment, Competitive Strategy									
Model		Sum of Squares		df	Mean Square	F-value	Sig.		
1	Regression	5.696		3	1.899	3.855	.012 <sup>b</sup>		
	Residual	43.837		89	.493				
	Total	49.532		92					
2	Regression	21.021		5	4.204	12.829	.000 <sup>c</sup>		
	Residual	28.511		87	.328				
	Total	49.532		92					
a. Dependent Variable: Customer Perspective									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
c. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment, Competitive Strategy									
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.			
		B	Std. Error	Beta					
1	(Constant)	2.287	.816		2.804	.006			
	Organization Structure	.333	.148	.244	2.253	.027			
	Organization Culture	-.161	.168	-.109	-.961	.339			
	Organization Resources	.346	.164	.231	2.115	.037			
2	(Constant)	.764	.799		.956	.342			
	Organization Structure	.012	.131	.009	.089	.929			
	Organization Culture	-.547	.156	-.371	-3.495	.001			
	Organization Resources	.410	.134	.274	3.057	.003			
	Competitive Strategy	.685	.111	.631	6.156	.000			
	Industry Environment	.270	.111	.210	2.438	.017			

a. Dependent Variable: Customer Perspective

Source: Primary Data, 2014

Table 4.36 below indicates the effect of organizational structure, culture and resources on non-financial performance as moderated by industry environment and intervened by competitive strategy. The coefficient of determination increased by 13.5 percent and the F change was significant because the p-value was 0.000 which was less than 0.05 significance level. This implied that competitive strategy and industry environment influence was significant. The coefficient of determination was 0.481 which implied that organizational structure, culture and resources on moderation by industry environment and intervening effect of competitive strategy explained 48.1 percent variation in non financial performance. The remaining 51.9 percent was explained by other variables not considered in this study.

The overall test of significance using F-value was 16.344 which was statistically significant because the p-value of 0.000 was less than 0.05 significance level and the null hypothesis that industrial environment has no moderating effect and competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on performance with respect to non financial performance of large manufacturing firms in Kenya at 0.05 level of significance was consequently rejected. The constant and organizational cultures were not statistically significant but organization structure, resources, competitive strategy and industry environment were significant.

$$NFP = 0.213OS + 0.236OR + 0.170CS + 0.238 IE$$

(0.003)    (0.003)    (0.010)    (0.000)

This implies that unit marginal change in organization structure, organizational resources, competitive strategy and industry environment would result into additional of 0.213 units, 0.236 units, 0.170 units and 0.238 units, respectively in non financial performance. This

implies that if an organization has appropriate organization structure, invest in more resources, use appropriate competitive strategy and favorable industry environment then performance measured in terms of non financial performance would be enhanced.

**Table 4.36:** Organizational Structure, Culture and Resources on Non-Financial Performance as moderated by Industry Environment and intervened by Competitive Strategy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.588 <sup>a</sup>	.346	.325	.36854	.346	15.894	3	90	.000
2	.694 <sup>b</sup>	.481	.452	.33193	.135	11.471	2	88	.000
a. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment, Competitive Strategy									
Model	Sum of Squares		df	Mean Square	F-value	Sig.			
1	Regression	6.476	3	2.159	15.894	.000 <sup>b</sup>			
	Residual	12.224	90	.136					
	Total	18.700	93						
2	Regression	9.004	5	1.801	16.344	.000 <sup>c</sup>			
	Residual	9.696	88	.110					
	Total	18.700	93						
a. Dependent Variable: Non-Financial Performance									
b. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture									
c. Predictors: (Constant), Organization Resources, Organization Structure, Organization Culture, Industry Environment, Competitive Strategy									
Model	Unstandardized Coefficients			Standardized Coefficients	t-value	Sig.			
	B	Std. Error	Beta						
1	(Constant)	2.015	.399		5.048	.000			
	Organization Structure	.337	.072	.442	4.654	.000			
	Organization Culture	.060	.088	.068	.687	.494			
	Organization Resources	.199	.086	.219	2.314	.023			
2	(Constant)	.860	.455		1.890	.062			
	Organization Structure	.213	.071	.280	3.018	.003			
	Organization Culture	-.001	.091	-.001	-.011	.991			
	Organization Resources	.236	.078	.261	3.034	.003			
	Competitive Strategy	.170	.064	.261	2.632	.010			
	Industry Environment	.238	.063	.304	3.783	.000			

a. Dependent Variable: Non-Financial Performance

Source: Primary Data, 2014

#### 4.12 Summary of Hypotheses Testing

Table 4.37 presents summary of hypothesis testing at 0.05 significance level. The study had seven hypotheses but each hypothesis was tested based on the performance measures used. The performance measures used in the study were ROA, internal processes and customer perspective. The composite of internal processes and customer perspective was referred to as non financial performance measure. A hypothesis was not rejected (failed to reject) if the p-value was more than 0.05 significance level (statistically insignificant). A hypothesis was rejected if the p-value was less than 0.05 significance level (statistically significant). Two hypotheses H<sub>1a</sub> (0.997) and H<sub>2c</sub> (0.495) were not rejected because the p-values were greater than 0.05 significance level. All the other hypotheses were rejected as shown in Table 4.37. This is because for all the other hypotheses p-values were less than 0.05 significance level. Further explanation and discussion of hypotheses testing is covered in chapter five.

**Table 4.37:** Summary of Hypotheses Testing

Hypotheses	Results
H <sub>1</sub> Organizational structure does not influence performance of large manufacturing firms	
H <sub>1a</sub> Organizational structure does not influence ROA	Failed to reject
H <sub>1b</sub> Organizational structure does not influence internal process	Rejected
H <sub>1c</sub> Organizational structure does not influence customer perspective	Rejected
H <sub>1d</sub> Organizational structure does not influence non financial performance Measure	Rejected
H <sub>2</sub> Organizational culture does not influence performance of large manufacturing firm:	
H <sub>2a</sub> Organizational culture does not influence ROA	Rejected
H <sub>2b</sub> Organizational culture does not influence internal process	Rejected
H <sub>2c</sub> Organizational culture does not influence customer perspective	Failed to reject
H <sub>2d</sub> Organizational culture does not influence non financial performance Measure	Rejected
H <sub>3</sub> Organizational resources does not influence performance of large manufacturing firms:	

**Table 4.37** Continued...

H <sub>3a</sub>	Organizational resources does not influence ROA	Rejected
H <sub>3b</sub>	Organizational resources does not influence internal process	Rejected
H <sub>3c</sub>	Organizational resources does not influence customer perspective	Rejected
H <sub>3d</sub>	Organizational resources does not influence non financial performance Measure	Rejected
H <sub>4</sub>	Organizational structure, culture and resources do not have combined effect on performance of large manufacturing firms:	
H <sub>4a</sub>	Organizational structure, culture and resources does not have combined effect on ROA	Rejected
H <sub>4b</sub>	Organizational structure, culture and resources does not have combined effect on internal processes	Rejected
H <sub>4c</sub>	Organizational structure, culture and resources does not have Combined effect on customer perspective	Rejected
H <sub>4d</sub>	Organizational structure, culture and resources does not have combined effect on non financial performance	Rejected
H <sub>5</sub>	Industry environment has no moderating effect on combined effect of organizational structure, culture and resources on performance of large manufacturing firms	
H <sub>5a</sub>	Industry environment has no moderating effect on combined effect of organizational structure, culture and resources on ROA	Rejected
H <sub>5 b</sub>	Industry environment has no moderating effect on combined effect of organizational structure, culture and resources on internal processes	Rejected
H <sub>5c</sub>	Industry environment has no moderating effect on combined effect of organizational structure, culture and resources on customer perspective	Rejected
H <sub>5d</sub>	Industry environment has no moderating effect on combined effect of organizational structure, culture and resources on non financial performance measures	Rejected
H <sub>6</sub>	Competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on performance	
H <sub>6a</sub>	Competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on ROA	Rejected
H <sub>6b</sub>	Competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on internal processes	Rejected
H <sub>6c</sub>	Competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on customer perspective	Rejected

**Table 4.37** Continued...

H <sub>6d</sub> Competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on non financial Performance	Rejected
H <sub>7</sub> Industry environment has no moderating effect and competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on return on assets	
H <sub>7a</sub> Industry environment has no moderating effect and competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on ROA	Rejected
H <sub>7b</sub> Industry environment has no moderating effect and competitive Strategy has no intervening effect on combined effect of organizational structure, culture and resources on internal processes	Rejected
H <sub>7c</sub> Industry environment has no moderating effect and competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on customer perspective	Rejected
H <sub>7d</sub> Industry environment has no moderating effect and competitive strategy has no intervening effect on combined effect of organizational structure, culture and resources on non financial performance measures	Rejected

Source: Primary Data, 2014

The chapter four was on the data analysis and results. The chapter covered reliability tests, linearity, normality, multicollinearity homogeneity tests and findings based on the seven objectives. The hypotheses developed from the objectives of the study were tested at 0.05 significance level. Two hypotheses on organizational structure and performance based on ROA, organizational culture and performance based on customer perspective were not rejected but all the other hypotheses were rejected (Table 4.37).

## **CHAPTER FIVE**

### **DISCUSSION OF FINDINGS**

#### **5.1 Introduction**

This chapter provides a discussion on the findings of the study based on the objectives of the study. The sections are influence of organizational structure on organizational performance, influence of organizational culture on organizational performance, influence of organizational resources on organizational performance, influence of organizational structure, culture and resources on organizational performance, moderating effect of industry environment on combined effect of organization structure, culture and resources on organizational performance, intervening effect of competitive strategy on combined effect of organization structure, culture and resources on organizational performance, moderation effect of industry environment and intervening effect of competitive strategy on combined effect of organization structure, culture and resources on organizational performance

#### **5.2 Influence of Organizational Structure on Organizational Performance**

The first objective was to determine the influence of organizational structure on performance of large manufacturing firms. To test this objective, null hypothesis (H1); organizational structure does not influence performance of large manufacturing firms was tested at 0.05 significance level. The relationship of organizational structure with performance was determined using ROA as one measure of performance. The coefficient of determination was 0.00 indicating that organization structure did not influence ROA in large manufacturing firms in Kenya. The overall test F-value statistic was 0.000 which

was not significant at 0.05 significance level. Therefore, the null hypothesis was not rejected that organization structure does not influence organizational performance with respect to ROA of large manufacturing firms. The results were consistent with Ogolla (2012) who found that ROA was not related to organization configuration. Similarly Zheng, et al., (2010) found that structure had negative effect on organizational effectiveness. Karabag and Berggren (2013) study on 1,000 largest manufacturing firms in Turkey found that firm related factors do not significantly influence performance. In contrast, Chen (2010) showed firm factors explain a substantial part of Korean and Taiwan firm performance.

The relationship of organizational structure with performance was determined using internal process as the measure of performance. Results indicated that organization structure explained 27 percent of variation in internal process of large manufacturing firms in Kenya, and 73 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was 34.058 which was significant. The null hypothesis was therefore rejected which meant that organization structure influenced organization performance. The results of the study were consistent with Lavie (2006) study that found that organization structure was positively related to company effectiveness which was a non financial performance measure. The results were also consistent with Ekpu (2004) study which found positive relationship between unstructured organization patterns and large firm performance.

Zheng, et al., (2010) study observed negative effect of structure on organizational effectiveness therefore inconsistent with this study. Oyewobi, et al., (2013) study on impact of organizational structure on organization performance, found that it had no direct impact on financial and non financial performance. Qingmin, et al., (2012) study in Austria and China found that organizational structure influence performance directly and indirectly. The relationship of organizational structure with performance was determined using customer perspective as the measure of performance. Results indicated that organization structure explained seven percent of variation in customer perspective of large manufacturing firms in Kenya. The remaining 93 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was 6.814 which was significant at 0.05 significance level. The null hypothesis was therefore rejected; this meant that organization structure influenced organization performance.

The results of the study were consistent with Lavie (2006) study that found that organization structure was positively related to company effectiveness which was non financial performance measure. The results were consistent with Ekpu (2004) study which found positive relationship between unstructured organization patterns and large firm performance. The results were inconsistent with Zheng, et al., (2010) study which found a negative effect of structure on organizational effectiveness. The relationship of organizational structure with performance was determined using non financial performance indicators. This was the composite of internal process and customer perspective. Results indicated that organization structure explained 29.1 percent of

variation in performance measured in terms of non financial performance, and 70.9 percent was explained by other variables not considered in this study because, F-value statistic was 37.679 and was significant and therefore null hypothesis was rejected which meant that organization structure influenced organization performance.

### **5.3 Influence of Organizational Culture on Organizational Performance**

The second objective of the study was to determine the influence of organizational culture on performance of large manufacturing firms. To test this objective, null hypothesis (H2); organizational culture does not influence performance of large manufacturing firms was tested at 0.05 significance level. The relationship of organizational culture with performance was determined using ROA as the measure of performance. The coefficient of determination was 0.072 indicating that organization culture explained 7.2 percent of variation in ROA in large manufacturing firms in Kenya. The remaining 92.8 percent was explained by other variables not considered in this study. The overall test of significance F-value statistic was 7.168 which was significant at 0.05 significance level and the null hypothesis was rejected that organizational culture did not influence organizational performance of large manufacturing firms. This implied that organization culture had an influence on organization performance with respect to ROA. The results were inconsistent with Yin-His (2012) study that found that culture had no impact on financial performance

The relationship of organizational culture with performance was determined using internal process as the measure of performance. Results indicated that organizational

culture explained 14.7 percent of variation in internal process of large manufacturing firms in Kenya. The remaining 85.3 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was 15.898 which was significant, therefore null hypothesis was rejected which meant that organization culture influenced organization performance measured in terms of internal processes. The results were consistent with Fazil and Alishahi (2012) study which found that culture had positive influence on performance. Similarly, Aluko (2003) study of Nigeria textiles found that culture had significant positive influence on organizational performance. Gallagher and Brown (2010) review of more than 60 empirical studies covering 7,619 companies between 1990 and 2007, found that culture and business performance were strongly related.

The relationship of organizational culture with performance was determined using customer perspective as the measure of performance. Results indicated that organizational culture explained 0.5 percent of variation in customer perspective of large manufacturing firms in Kenya and the remaining 99.5 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was 0.469 which was not significant at 0.05 significance level. The null hypothesis H2 was therefore not rejected, which meant that organizational culture did not influence organizational performance measured in terms of customer perspective. The results were consistent with Yin-His (2012) study that found that culture had no impact on performance

The relationship of organizational culture with performance was determined using non financial performance; this was the composite of internal processes and customer perspective. Results indicated that organization culture explained 11.7 percent of variation in performance measured in terms of non financial performance. The overall test of significance using F-value statistic was 12.222 which was significant at 0.05 significance level. The null hypothesis was therefore rejected; this meant that organization culture significantly influenced organization performance based on non financial measure of performance. The results of the study were consistent with Fazil and Alishahi (2012) study which found that culture had positive influence on performance.

Similarly Aluko (2003) study of Nigeria textiles found that culture had significant positive influence on organizational performance. These results were also consistent with Cameron and Quinn (2005) findings that success of some United States companies had to do less with market forces than with company values. Olanipekun, et al., 2013) study on quantity surveying firms in Nigeria found that organizational culture influence performance. Martinez and Poole (2004) found that culture enhanced organization performance.

#### **5.4 Influence of Organizational Resources on Organizational Performance**

The third objective of the study was to determine the influence of organizational resources on performance of large manufacturing firms. To test this objective, null hypothesis (H3); organizational resources does not influence performance of large manufacturing firms was tested at 0.05 significance level. The p-values based on ROA,

internal processes, customer perspective and non financial performance were less than 0.05 significance level meaning that organizational resources influenced performance significantly. The relationship of organizational resources with performance was determined using ROA as the measure of performance. Results indicated that the coefficient of determination was 0.130 indicating that organizational resources explained 13 percent of variation in ROA in large manufacturing firms in Kenya. The remaining 87 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was 13.804 which was significant at 0.05 significance level. Therefore, the null hypothesis was rejected and this implied that organization resources influenced organizational performance of large manufacturing firms; this is consistent with RBV theory (Wernerfelt, 1984; Barney, 1986; Peteraf, 1993).

Wernerfelt (1984) emphasized that organization possessing valuable, rare resources and capability would have competitive advantage, which would in turn improve their performance. The findings are consistent with Carmeli and Tishler (2004) study in Israel, local government which found that intangible resources were positively and significantly related to organizational performance. Lopez (2003) study of Spanish manufacturing firms found that there was significant relationship between resources and organization performance. The relationship of organizational resources with performance was determined using internal process as the measure of performance. Results indicated that the coefficient of determination was 0.109; this implied that organizational resources explained 10.9 percent of variation in internal process of large manufacturing firms in Kenya and the remaining 89.1 percent was explained by other variables not considered in

this study. The overall test of significance using F-value statistic was 11.302 which was significant and therefore the null hypothesis was rejected; this meant that organizational resources influenced organizational performance. The results of the study were consistent with Carmeli and Tishler (2004) and Lopez (2003) study.

The relationship of organizational resources with performance was determined using customer perspective as the measure of performance. Organizational resources explained 6.4 percent of variation in customer perspective of large manufacturing firms in Kenya. The remaining 93.6 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was 6.192 which was statistically significant at 0.05 significance level and, therefore the null hypothesis was rejected. This implied that organization resources influenced organization performance. The results were consistent with RBV theory (Wernerfelt, 1984; Peteraf 1993).

The RBV theory emphasizes that organization can use their unique and rare resources to enhance their performance better than the competitors who do not have such resources (Barney, 2011). Organization can have competitive advantage if they make effective use of rare and unique resources. Dynamic capability theory emphasizes on the organizational capacity to effectively use resources and this is very important in a turbulent environment. The relationship of organizational resources with performance was determined using non financial performance; this was the composite of internal process and customer perspective. The coefficient of determination was 0.148 implying that organizational resources explained 14.8 percent of variation in performance

measured in terms of non financial performance and the remaining 85.2 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was 16.007 was statistically significant at 0.05 significance level and therefore the null hypothesis was rejected. This meant that organization resources influenced performance of large manufacturing firms. The results were consistent with (Lopez, 2003) study of Spanish manufacturing firms found that there was significant relationship between resources and organization performance.

### **5.5 Influence of Organizational Structure, Culture and Resources on Organizational Performance**

The fourth objective of the study was to determine the influence of organizational structure, culture and resources on organizational performance of large manufacturing firms. To test this objective null, hypothesis (H4); organizational structure, culture, and resources do not have combined effect on performance of large manufacturing firms was tested. The relationship of organizational structure, resources and culture with performance was determined using ROA as the measure of performance. The coefficient of determination was 0.181 meaning that organizational structure, culture and resources jointly explained 18.1 percent of variation in ROA in large manufacturing firms in Kenya. The remaining 81.9 percent was explained by other variables not considered in this study. The combined effect was greater than independent effect of each of the three independent variables. This was consistent with Awino (2007).

Organizational structure had no independent effect (coefficient of determination was zero) on organizational performance measured in ROA, organizational resources independently explained 13 percent while organizational culture 7.2 percent. This implied that combined effect (18.1 percent) of organizational structure, resources and culture was more than independent effect. The results were consistent with Awino (2007) study in selected strategy variables on corporate in the supply chain management in private large manufacturing firms in Kenya which found that all strategy variables had independent effect on corporate performance albeit of low explanatory power; the joint effect was greater than independent effect.

The overall test of significance using F-value statistic was statistically significant at 0.05 significance level. The null hypothesis was therefore rejected; this indicated that organizational resources, culture and structure had combined effect on organizational performance of large manufacturing firms. The results were consistent with Awino (2007) study in selected strategy variables on corporate in the supply chain management in private large manufacturing firms in Kenya which found that all strategy variables had independent effect on corporate performance albeit of low explanatory power; the joint effect was greater than independent effect. According to DeWaal (2004) high performance organizations are those that maximize on joint effect of the firm level characteristics. Aluko (2003) study on textile firms in Nigeria concluded that organizational performance is a multidimensional phenomenon and is largely dependent on the contingency confronting a particular organization. Results support the contingency theory that performance is dependent on a combination of different variables.

Hajipour, et al., (2011) study indicated that superior performance is as a result of relationship of industry structure and organizational characteristics. Martinez and Poole (2004) found that culture and organizational structure were found to enhance organization performance. The relationship of organizational structure, resources and culture with performance was also determined using internal processes as the measure of performance. The coefficient of determination indicated that organizational structure, resources and culture explained 32 percent of variation in internal process of large manufacturing firms in Kenya and the remaining 68 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was statistically significant and therefore the null hypothesis was rejected. This meant that organizational structure, resources and culture resources had combined effect on organizational performance. The results were consistent with (Awino, 2007).

The relationship of organizational structure, resources and culture with performance was determined using customer perspective as the measure of performance. The organizational structure, resources and culture explained 11.5 percent of variation in customer perspective of large manufacturing firms in Kenya; the remaining 88.5 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was statistically significant at 0.05 significance level and therefore the null hypothesis was rejected. This meant that organization structure, organizational resources and culture influenced organizational performance measured in terms of customer perspective. The results were consistent with Hajipour, et al., (2011) study which found that superior performance is as a result of relationship of industry

structure and organizational characteristics. The relationship of organizational structure, organizational culture and organizational resources with performance was determined using non financial performance. This was the composite of internal process and customer perspective. Organizational structure, organizational culture and organizational resources explained 34.6 percent of variation in performance measured in terms of non financial performance. The remaining 65.4 percent was explained by other variables not considered in this study. The overall test of significance using F-value statistic was statistically significant at 0.05 significance level and, therefore the null hypothesis was rejected. This meant that organization resources, culture and structure had combined effect on organizational performance. According to DeWaal (2004) high performance organizations are those that maximize on joint effect of the firm level characteristics.

Aluko (2003) study on textile firms in Nigeria concluded that organizational performance was a multidimensional phenomenon and is largely dependent on the contingency confronting a particular organization. This implies that for optimal organizational performance it is important to consider various variables because performance is influenced by more than one factor.

## **5.6 Moderating Effect of Industry Environment on Combined Effect of Organization Structure, Culture and Resources on Organizational Performance**

The fifth objective of the study was to establish the moderating effect of industry environment on combined effect of organizational structure, culture and resources on performance of large manufacturing firms. To test this objective, null hypothesis (H5); industry environment has no moderating effect on combined effect of organizational structure, culture and resources on performance of large manufacturing firms was tested. The hypothesis was tested based on performance measures ROA, internal processes and customer perspective. Results indicated that on moderating effect by the industry environment on the organizational structure, culture and resources explained 19 percent of ROA variation. The remaining 81 percent was explained by variables not considered in this study. The overall test of significance after moderating effect was statistically significant and, therefore the null hypothesis was rejected which implied that industry environment had moderating effect on combined effect of organizational structure, resources and culture on organizational performance. The results were consistent with the industrial organization theory about the effect of the industry environment on various variables affecting performance (Porter, 1985). Porter (1985) emphasized on the importance of the external environment on an organizational performance.

Industrial organizational theory argues that external environment influences performance more than internal factors (Porter, 1985). Results of relationship of organizational structure, culture and resources on internal processes as intervened by industry

environment indicated that coefficient of determination increased by 0.061 from 0.320 to 0.380. This implied that industry environment had the moderating effect. On moderating effect by the industry environment; the organization structure, culture and resources explained 38 percent of internal processes variation. The remaining 62 percent was explained by other variables not considered within this study. The overall test of significance was statistically significant and, therefore the null hypothesis was rejected and industry environment had moderating effect on combined effect of organizational structure, resources and culture on organizational performance. The moderating effect of the industry environment is consistent with Porter (1985) about the relevance of industry environment to businesses.

The results are consistent with the industrial organizational theory which emphasis about the importance of external factors influence to organizational performance (Karabag, 2008). Organizational structure, culture and resources on customer perspective as moderated by industry environment indicated that coefficient of determination increased by 0.059 from 0.115 to 0.174 which implied that industry environment had the moderating effect. On moderation effect by the industry environment; the organization structure, culture and resources explained 17.4 percent of customer perspective variation. The remaining 82.6 percent was explained by other variables not considered in this study.

The overall test of significance after intervening effect was statistically significant and therefore the null hypothesis was rejected. This implied that industry environment had moderating effect on combined effect of organizational structure, resources and culture

on organizational performance. The results are consistent with Mansoor, et al, (2012) who asserted that for an organization structure to achieve superior performance there must be adequate attention to match the prevailing environment dynamism. Organizational structure, culture and resources on non financial performance as moderated by industry environment indicated that coefficient of determination increased by 0.094 which implied that industry environment had the intervening effect.

On moderation effect by the industry environment; the organization structure, culture and resources explained 44.1 percent of non financial performance. The remaining 55.9 percent was explained by other variables not considered in this study. The overall test of significance after intervening effect was statistically significant and therefore the null hypothesis was rejected. This implied that industry environment had moderating effect on combined effect of organizational structure, resources and culture on organizational performance. The results of the study were consistent with industrial organization theory (Ruefli & Wiggins, 2003). They were inconsistent with RBV theory which emphasizes more on importance of firm resources as a key variable to determine performance (Barney, 2001).

## **5.7 Intervening Effect of Competitive Strategy on Combined Effect of Organizational Structure, Culture and Resources on Organizational Performance**

The intervening effect by the competitive strategy was tested based on ROA, internal processes and customer perspective. Results on the effect of organizational structure, culture and resources on ROA as intervened by competitive strategy indicated that there was no significant change in coefficient of determination. The combined effect explained 14.2 percent of variation in ROA which did not significantly change with consideration of competitive strategy.

The overall test of significance after moderating effect was 3.658 which was statistically significant and therefore the null hypothesis was rejected. This implied that competitive strategy had a intervening effect on combined effect of organizational structure, resources and culture on organizational performance. This was consistent with Newbert (2008) that the relationship between resources and capabilities may be incomplete without consideration of the role of competitive strategy. Organizational structure, culture and resources on internal processes as intervened by competitive strategy indicated that there was no significance change in coefficient of determination. Organization structure, culture and resources explained 32 percent of internal processes variation with or without and competitive strategy. The remaining 68 percent was explained by other variables not considered in this study.

The overall test of significance with consideration of competitive strategy was statistically significant. The null hypothesis was rejected and therefore competitive strategy had an intervening effect on the combined effect of organizational structure, resources and culture on organizational performance. Edelman, et al., (2005) found that the influence of organizational structure on firm performance is exerted indirectly through competitive strategy. Organizational structure, culture and resources on customer perspective as intervened by competitive strategy indicated that the coefficient of determination increased by 27 percent and the F change was significant which implied that competitive strategy had an intervening effect. On the intervening effect by the competitive strategy; the organization structure, culture and resources explained 38.5 percent of customer perspective variation. The remaining 61.5 percent was explained by other variables not considered in this study.

The overall test of significance F was statistically significant and the null hypothesis was therefore rejected. This implied that competitive strategy had an intervening effect on the combined effect of organizational structure, resources and culture on organizational performance. This was consistent with Kwasi and Moses (2008) study on manufacturing firms that found that competitive strategy indirectly influences firm performance. The effect of organizational structure, culture and resources on non financial performance as intervened by competitive strategy indicated that the coefficient of determination increased by 5.1 percent and the F change was significant which implied that competitive strategy had an intervening effect.

On intervening effect by the competitive strategy; the organization structure, culture and resources explained 39.7 percent of non financial performance variation and the remaining 60.3 percent was explained by other variables not considered in this study. The overall test of significance F was statistically significant, and therefore the null hypothesis was rejected. This implied that the competitive strategy had a intervening effect on combined effect of organization structure, resources and culture. Results were consistent with Abdula and Jasmani (2010) study on business strategy of manufacturing firms in Malaysia which found that innovative product differentiation had a positive effect on performance.

#### **5.8 Moderation Effect of Industry Environment and Intervening Effect of Competitive Strategy on Combined Effect of Organization Structure, Culture and Resources on Organizational Performance**

The findings indicated that organizational structure, culture and resources on ROA as moderated by industry environment and intervened by competitive strategy had the coefficient of determination increased by 0.049. This meant that when competitive strategy and industry environment were considered, the organization structure, culture and resources explained 19.1 percent of ROA variation. The remaining 80.9 percent was explained by other factors not considered in this study.

The overall test of significance was statistically significant and therefore null hypothesis was rejected. This implied that industry environment had moderating intervening effect and competitive strategy had intervening effect on combined effect of organizational structure, resources and culture on organizational performance. The results were

consistent with Ansoff and McDonnell (1990) which emphasized on importance of external environment. Peteraf (1993), however challenged the importance of industry environment in influencing organization performance. Teeratansirikool and Siengthai (2012) study on Thai listed companies found that the overall competitive strategy positively and significantly enhanced organization performance. The effect of organizational structure, culture and resources on internal processes as intervened by competitive strategy and moderated by industry environment indicated that coefficient of determination increased by 0.062 and the F change was significant. This implied that competitive strategy and industry environment influence was significant. The coefficient of determination was 0.382 which implied that organizational structure, culture and resources on moderation by competitive strategy and intervening effect of industry environment explained 38.2 percent variation of internal processes.

The overall test of significance was statistically significant and, therefore the null hypothesis was rejected. This implied that industry environment had moderating effect and competitive strategy had an intervening effect on combined effect of organizational structure, resources and culture on organizational performance. The results on effect of organizational structure, culture and resources on customer perspective as moderated by industry environment and intervened by competitive strategy showed that coefficient of determination increased by 30.9 percent and the F change was significant. This implied that competitive strategy and industry environment influence was significant. This is consistent with Teeratansirikool and Siengthai (2012).

The coefficient of determination was 0.424 which implied that organizational structure, culture and resources on moderation by industry environment and intervening effect of competitive strategy explained 42.4 percent variation in customer perspective. The remaining 57.6 percent was explained by other variables not considered in this study. The overall test of significance was statistically significant and therefore null hypothesis was rejected. This implied that industry environment had moderating effect and competitive strategy had intervening effect on combined effect of organizational structure, resources and culture on organizational performance. Results were consistent with Eriksen (2006; Ebben & Johnson, 2005) who asserted that strategy is what ultimately influences performance. The results on the effect of organizational structure, culture and resources on non financial performance as moderated by industry environment and moderated by competitive strategy indicated that coefficient of determination increased by 13.5 percent and the F change was significant. This implied that competitive strategy and industry environment influence was significant.

The coefficient of determination was 0.481 which indicated that organizational structure, culture and resources on moderation by industry environment and intervening effect of competitive strategy explained 48.1 percent variation in non-financial performance. The remaining 51.9 percent was explained by other factors not considered in this study. The overall test of significance was statistically significant and therefore the null hypothesis was rejected; this implied that industry environment had a moderating effect and competitive strategy had a intervening effect on combined effect of organizational structure, resources and culture on organizational performance. The results were

consistent with Spanos & Lioukas (2001) which contrasted on Porter's competitive strategy framework and resources based perspective. Results were consistent with Muafi (2009) study which found that there was relationship between competitive strategy and contingency variables like culture, structure and resources. Results were also consistent with Teeratansirikool and Siengthai (2012) study on Thai listed companies which found that the overall competitive strategy significantly enhanced organization performance. Ansoff and McDonnell (1990) asserted on importance of external environment however, Peteraf (1993) challenged the importance of industry environment.

The chapter five was on discussion of findings. The chapter covered, influence of organizational structure on organizational performance, influence of organizational culture on organizational performance, influence of organizational resources on organizational performance, influence of organizational structure, culture and resources on organizational performance. The chapter also covered moderating effect of industry environment on combined effect of organization structure, culture and resources on organizational performance, intervening effect of competitive strategy on combined effect of organizational structure, culture and resources on organizational performance. It also covered moderation effect of industry environment and intervening effect of competitive strategy on combined effect of organization structure, culture and resources on organizational performance.

## **CHAPTER SIX**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **6.1 Introduction**

This chapter covers summary of the findings based on the seven objectives and seven hypotheses. The chapter also gives the main conclusion of this study, recommendations, limitations of study, implication of the study on policy, theory and practice. Finally, suggestion for further studies are provided which form a ground for other studies in strategic management.

#### **6.2 Summary**

The coefficient of determination was 0.00 indicating that organizational structure did not explain variation in ROA at all. Organizational structure explained 27 percent of variation in performance measured in terms of internal processes. Organizational structure explained seven percent of variation in customer perspective while it explained 29.1 percent of variation in non financial performance (composite of internal processes and customer perspective). Therefore, organizational structure explained the highest variation on performance when based on non financial performance. The hypothesis testing based on organization structure and ROA was not rejected which means that organization structure does not influence performance based on ROA. The hypotheses testing based on internal processes and customer perspective were rejected meaning that organizational structure influence performance based on internal processes and customer perspective.

Organizational culture explained 7.2 percent, 14.7 percent, 5 percent and 11.7 percent on variation in ROA, internal processes, customer perspective and non financial performance, respectively. Organizational culture explained the highest in organizational internal processes. The hypothesis testing based on organizational culture and customer perspective was not rejected which means that organizational culture did not influence customer perspective. The hypotheses testing based on ROA and internal processes were rejected which meant that organizational culture significantly influenced performance in terms of ROA and internal processes.

Organizational resources explained 13 percent, 10.9 percent, 6.4 percent and 14.8 percent of variation in ROA, internal processes, customer perspective and non financial performance, respectively. Therefore, organizational resources explained the highest variation on non financial performance. The hypotheses based on the ROA, internal processes, customer perspective and non financial performances were rejected which means that organizational resources significantly influenced performance.

Organizational structure, culture and resources had a combined effect on performance and explained variation as follows; 18.1 percent, 32 percent, 11.5 percent and 34.6 percent, respectively on variation of ROA, internal processes, customer perspective and non-financial performance. The hypotheses testing based on ROA, internal processes, customer perspective and non-financial performance, were rejected meaning that organizational structure, culture and resources had a combined effect on performance of large manufacturing firms in Kenya.

Organizational structure, resources and culture moderated by industry environment explained variation in performance as; 19 percent, 38 percent, 17 percent and 44.1 percent, respectively on variation of ROA, internal processes, customer perspective and non financial performance. The hypothesis based on ROA, internal processes, customer perspective and non financial performance was rejected which means that industry environment had a moderating effect on combined effect of organizational structure, resources and culture on performance.

Organizational structure, resources and culture intervened by competitive strategy explained variation in performance as; 14.3 percent, 32 percent, 38.5 percent and 39.7 percent, respectively of the variation of ROA, internal processes, customer perspective and non financial performance. The hypothesis based on ROA, internal processes, customer perspective and non financial performance was rejected which means that competitive strategy had a intervening effect on combined effect of organizational structure, resources and culture on performance. Organizational structure, resources and culture intervened by competitive strategy and moderated by industry environment explained variation in performance as; 19.1 percent, 38.2 percent, 42.4 percent and 48.1 percent of variation of ROA, internal processes, customer perspective and non financial performance, respectively. The hypothesis based on ROA, internal processes, customer perspective and non financial performance was rejected meaning that the industry environment had moderating effect and competitive strategy had intervening effect on combined effect of organizational structure, resources and culture on performance.

### **6.3 Conclusion**

Each of the hypothesis was tested based on the performance measures in terms of ROA, internal processes, customer perspective and non financial performance measure (composite of internal processes and customer perspective). The hypothesis of organizational structure does not influence performance based on ROA was not rejected which implied that organizational structure did not significantly influence ROA. Organizational structure influenced performance based on internal processes, customer perspective and non financial performance. The hypothesis that organizational culture does not influence performance based on customer perspective was not rejected implying that organizational culture did not influence performance in terms of customer perspective. Organizational culture influenced performance significantly based on ROA, internal processes and non financial performance.

Organizational resources significantly influenced performance based on ROA, internal processes, customer perspective and non financial performance measure. The combined effect of organizational structure, organizational culture and organizational resources on performance was statistically significant. The combined effect of organizational structure, organizational culture and organizational resources was more than the independent effect. This implied that when an organization combines the resources, appropriate culture and structure the effect on performance is better than when focusing specifically on each of them. The moderating role and intervening effect of industry environment and competitive strategy respectively on combined effect of structure, resources and culture, was statistically significant. This means that there was moderating effect of industry

environment and intervening effect of competitive strategy on the combined effect of organizational structure, organizational culture and organizational resources on performance. The study therefore concludes that organizational structure; organizational culture and organizational resources have independent effect on performance but have significant combined effect on organization performance. The industry environment in which organization operates and their competitive strategy contribute to organization performance.

#### **6.4 Recommendations**

This study was based on organizational structure, culture and resources relationship with performance to determine the independent effect and combined effect. The study also tested the moderating effect of industry environment and intervening effect of competitive strategy. The recommendations are based on results of the study and the literature review.

Organizational structure influenced performance based on performance measures of internal processes, customer perspective and composite non financial measure performance. There it would be important for management of large manufacturing companies to be reviewing their organizational structure to ensure that it is supportive in enhancing the performance. Organizational structure aspects that need to be constantly monitored would include extent of formality, lines of authority, role assignments and management control system. The organizational structure should be relevant by being in harmony with organizational objectives, mission, competitive environment and resources.

This study results indicate that organizational culture influences performance based on measures ROA, internal processes and non financial composite measure. This implies that the management should ensure the organizational values and beliefs create a suitable internal environment for achievement of the objectives. These values should be clearly communicated to all employees and the importance of adhering to them emphasized.

Organizational resources had statistically significant influence on organizational performance based on performance measures used in the study; ROA, internal processes, customer perspective and nonfinancial performance measure. The management of large manufacturing firms should ensure they have the necessary resources and effectively utilize them which would be expected to affect the organizational performance. The dynamic capability theory emphasis about the effective utilization of resources that would impact on the organizational performance. It is not enough to have resources but how they are utilized.

Organizational structure, culture and resources combined effect was more than independent effect and therefore the management of the large manufacturing firms should be careful to have the appropriate combination of variables that would translate to improved performance. The organization need to have the appropriate structure, resources and a supportive culture. This study indicated that there was moderating effect of industry environment and intervening effect of competitive strategy and therefore management should to ensure they scan and understand the industry environment and align competitive strategy to the environment. There is need to constantly scan the

industry environment because the business environment can be dynamic and turbulent. The strategy is the link of organization to the environment. It is important for management to ensure that they carefully formulate and implement competitive strategy and this would be expected to translate to superior organizational performance.

### **6.5 Limitations of the Study**

The study was mainly based on data of companies that were willing to give the data. Some companies were hesitant to provide data on finance performance especially earnings per share and profit after tax. For listed companies, the financial information was mainly obtained from secondary source.

The study was based on cross sectional survey design and, therefore results based on data at a particular point in time. The study was limited in that change in various variables of study was not monitored or observed over time as would be the case with longitudinal studies.

### **6.6 Implication of the Study on Policy, Theory and Practice**

The finding of the study has the following implications to the theories that formed the theoretical foundation. The results of study indicated that organization resources influence the organizational performance and therefore support the RBV theory of strategy. The dynamic capabilities theory is consistent with the study because it argues that beyond a firm having resources, it is imperative to determine how to maximize on their utilization. The study results indicated that industry environment had a moderating

role on relationship between firm level factors and performance. This therefore indicates the relevance of industrial organization theory about the role of external factors such as the industry environment. The results of the study indicated the influence of organizational structure on internal processes and customer perspective, and culture on ROA and internal processes, which is consistent with the organization behavior theory.

Organization behavior theory to some extent is consistent with the findings of this study because firms do respond in a particular way to changes within and outside the organization which ultimately is expected to impact on firm performance. The study results indicated the applicability of contingency theory that organizational performance is product of combination of different firm level factors. The theories are related and can be used to form a new frontier. This study used triangulation of performance measures both financial and non-financial. This enhances the possibility of getting all relevant information necessary to assess a firm performance. It is important for researchers to consider both financial and non-financial firm performance measures.

Research based on only one performance measure may not clearly give the true picture about an organization performance. Researchers can involve various data collection tool apart from questionnaire, like interview especially to top level management to confirm some response obtained using questionnaire. The results of the studies from the seven objectives provide new frontier in advancement of strategic management. The study was based on five theoretical underpinnings; RBV theory of strategy, industrial organization theory, dynamic capability theory, contingency and organization behavior theory. The

results of the study indicated the importance of consideration of more than one firm level factor because contingency theory support that an organization performance is likely to be dependent on set of different firm level factors. This was confirmed by results of study because none of the independent variables could independently influence or explain completely the variation of organization performance. The study will contribute to the body of knowledge; this is especially indicated by clear demonstration of combined effect of the independent variables on performance.

The study provides empirical evidence on large manufacturing firms in Kenya and provide a ground for more studies on contingency factors and organization performance. The results of the study contribute toward areas that have been having conflicting results, for example on what influences performance more. The concern has been whether is internal firm level factors or external factors such as industry environment. The results of this study are important in influencing the government policy. This is especially because of the intervening effect of industry environment.

The government should put measures to ensure that firms have favorable business environment. The Ministry of Industrialization and Enterprises Development in liaison with other ministries should ensure that there is appropriate legal framework that enhances the business environment. This is important because with globalization, the business environment has become more dynamic and turbulent. When the government formulates and implement appropriate policies based on empirical data, the manufacturing firms will have more conducive environment to be competitive locally and

globally. The government can develop policies of protecting or restricting international trade to enhance the growth of infant industries and, thus reduce rivalry amongst firms in the same industry. The study results indicated the relevance of the various firm level variables. The results can be useful in providing relevant information to KAM as representative body for manufacturing firms. The KAM through the results obtained might be able to advise the organization members adequately.

The moderating effect of competitive strategy and intervening effect of industry environment indicates that large manufacturing firms should constantly scan the environment to understand it, formulate and implement relevant competitive strategies to link appropriately to the environment. The intervening effect of industry environment indicates that a firm cannot ignore the external factors because it will become uncompetitive and out of the market. The use of the results of this study by KAM would put it and its members in a better and more informed position to participate in policy formulation affecting manufacturers by both central and county governments.

Organizational structure was found to influence the firm performance significantly. This implies that management from CEO, chief operating officers and other managers should carefully make an objective assessment about the appropriateness of the organization structure. The structure should be reviewed regularly to ensure it is supportive to organization effectiveness. The organizational culture is very important because it can affect performance positively or negatively. Different organization can have varying values and belief. The management should inculcate a culture that positively contributes

toward better performance. Organizational resources significantly influenced performance and this indicate that managers should work toward increasing the firm resources especially those that are non imitable. The argument of RBV theory is that for resources to have positive influence on firm performance, then they should be unique and that would give the organization competitive edge. Organizational resources availability may not guarantee positive performance unless there is effective utilization.

The organization management has to have the necessary capability to translate resources to make the firm succeed. This indicates that management responsibilities should be matched with relevant skill and qualification to ensure maximum, effective resources utilization. The results of this study indicated the moderating role of competitive strategy and intervening effect of industry environment. The management of a firm should not ignore the external environment especially the industry environment; managers should constantly scan and understand the environment. This has become more relevant especially because of stiff competition among firms in same industry. The managers need to closely work with regulatory authority together with KAM to enhance more conducive industry environment.

## **6.7 Suggestion for Further Study**

There is need to test to support the findings of this study that organizational structure does not influence ROA. The hypothesis that organizational culture does not influence customer perspective can be tested to support the findings of this study. There is need to test empirically what would be the combined effect if competitive strategy or industry

environment are independent variables rather than moderating variables. The objective and hypothesis of the study should be tested at industry level and find out whether the results would be similar as compared to results where the context is the entire manufacturing sector. An empirical study can also be done at industry level to determine the independent and joint influence of firm level factors. The study should also be carried in other sectors to determine the similarities or differences with the findings of this study.

Studies can also be done but considering more contingent firm level factors beyond the organizational culture, resources and structure studied. This study was based on large manufacturing firms in Kenya. The study can be replicated in other African countries to determine the similarities or differences. A study should be carried out in small and medium manufacturing firms in Kenya. There is need to carry out research and base performance on additional financial measures apart from ROA. More qualitative measures apart from BSC should be considered to ensure and enhance objectivity in measurement of organizational performance.

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## APPENDICES

### Appendix I: Researcher's Letter of Introduction

Paul Muturi Kariuki  
Department of Business Administration  
School of Business  
P.O. Box 30197-00100  
University of Nairobi  
Nairobi  
Kenya

Chief Executive Officer  
.....

Dear Sir/Madam

Re: Request for data

I am a PhD candidate at University of Nairobi. As part of the requirement for the award of degree, I am expected to undertake a research study. I am asking for your participation in a study on firm level factors, industry environment and competitive strategy and organization performance of large manufacturing firms in Kenya. Kindly answer all questions as completely as possible. Should you require a summary of the findings, please indicate so at the end of the questionnaire. Your cooperation will be highly appreciated.

Yours sincerely,

Paul Muturi Kariuki

## Appendix II: University Letter of Introduction



**UNIVERSITY OF NAIROBI**  
**COLLEGE OF HUMANITIES AND SOCIAL SCIENCES**  
**SCHOOL OF BUSINESS**  
**DOCTORAL STUDIES PROGRAMME**

Telephone: 4184160/1-5 Ext. 225  
Email: dsp@uonbi.ac.ke

P.O. Box 30197  
Nairobi, Kenya

16<sup>th</sup> December, 2013

**TO WHOM IT MAY CONCERN**

**RE: PAUL MUTURI KARIUKI: D80/60022/2010**

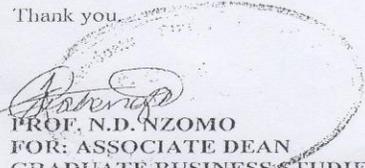
This is to certify that, **PAUL MUTURI KARIUKI: D80/60022/2010** is a Ph.D student in the School of Business, University of Nairobi. The title of his study is: **"Firm Level Factors, Industry Environment, Competitive Strategy and Performance of Large Manufacturing Firms in Kenya"**

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.

Thank you

*FOR*   
**PROF. N.D. NZOMO**  
**FOR: ASSOCIATE DEAN**  
**GRADUATE BUSINESS STUDIES**  
**SCHOOL OF BUSINESS**

NDN/mwk

### **Appendix III: Research Questionnaire**

The questionnaire is designed to collect data from large manufacturing firms in Kenya to be used in evaluating the firm level factors, industry environment, and competitive strategy on organization performance. The data shall be used for academic purposes only and will be treated with strict confidence. Your participation in facilitating the study is highly appreciated. All the information will be treated with confidentiality.

1. i). Name of organization\_\_\_\_\_

ii). Position/Title of Respondent (Your Position):\_\_\_\_\_

#### **2. Organizational Profile**

i)Year of incorporation\_\_\_\_\_

ii)Country of incorporation\_\_\_\_\_

iii) Scope of operation (tick as appropriate)

a)National (within Kenya) [ ]

b) Continental (within Africa) [ ]

c) Global (within Africa and beyond) [ ]

iv). Ownership (a) foreign... (b) Local....(c)other....

v) Size of organization (number of employees) (tick as appropriate)

a) Below 50 [ ]

b) Between 50-200 [ ]

c) Between 201-400 [ ]

d) 401 and above [ ]

vi. Company turnover for 2013 in Kenya Shillings million

Below 5	5-50	51-100	100-500	above 500 m

### 3. Industry Environment

To what extent do you think these factors have effect on your organization? Key:

1-Not at all; 2-to a less extent; 3-to a moderate extent; 4- to a large extent; 5- to a very large extent.

Indicators	(1)	(2)	(3)	(4)	(5)
Rivalry among existing firms					
Substitute products/services					

Bargaining power of suppliers					
Bargaining power of buyers					
New entrants					

**4. Organization Performance**

2013

i) Financial indicator	ROA		

(ii) The following aspects relate to customers. Please tick using the key provided what best describes each aspect. key: 1-very low; 2-low; 3-moderate; 4-high; 5-very high

	(1)	(2)	(3)	(4)	(5)
Delivery performance to customer					
Quality performance for customer					

Customer satisfaction rate					
Market share					
Customer retention rate					

iii) Internal processes - how would you describe the firm strength on internal processes? 1 very weak 2 weak 3 moderate 4 strong 5 very strong.

	(1)	(2)	(3)	(4)	(5)
There is process automation					
Supports innovation					

### 5. Organization Resources

(i) How would you describe the firm strength on following organization resources? 1 very weak 2 weak 3 moderate 4 strong 5.very strong.

Indicators	(1)	(2)	(3)	(4)	(5)
Financial					

Non- current assets					
Human capital					
Managerial capabilities					
Perceived organizational reputation					
labour relations					
Internal auditing					
Company reputation					

(ii) Please tick which of the following best describe each of the following aspects of organization resources? (1) Not at all (2) small extent (3) moderate extent (4) large extent (5) very large extent

Indicators	(1)	(2)	(3)	(4)	(5)
We possess or control specific equipment					
Firm resources are valuable, rare and non					

imitable					
Firm has product procedural knowledge					
We have patent for our product(s)					

**6. Organization Structure** Please tick which of the following best describe each of the following aspects of organizational structure? (1) Not at all (2) small extent (3) moderate extent (4) large extent (5) Very large extent

Indicators	(1)	(2)	(3)	(4)	(5)
Formal organization form					
Lines of authority					
Role assignments					
Management control system					
We prefer tight control of operations by means of sophisticated control					

We strongly emphasize getting things done by following formal procedures					
Strong insistence on a uniform management Style throughout the company					

**7. Organizational Culture** To what extent does your organization exhibit the following.

Put a tick in the appropriate space provided: 1) Not at all (2) small extent (3) moderate extent (4) large extent (5) very large extent

Indicators	(1)	(2)	(3)	(4)	(5)
There is a high involvement of our employees in the process, decisions, and their implementation.					
Equity					
people oriented-value for people					
Innovative					
Achievement orientation					

Have high expectations for performance					
Take advantage of opportunities					
The organization knows the external environment and provides appropriate responses					
Our employees are committed and held a high sense of responsibility to the organization					
There is a high level of coordination and agreement among our employees					
People know the clients' responsibilities and business pressures					
Staff may disagree with their manager without being penalized					

Regular follow-ups are made to ensure that clients are happy with the service					
Managers know the extent of their responsibilities					
We have frequent feedback on our personal performance					

**8. Competitive Strategy.** To what extent does your organization employ the following?

Strategies (Put a tick in the appropriate space provided: 1) Not at all (2) small extent (3) moderate extent (4) large extent (5) Very large extent

Indicators	(1)	(2)	(3)	(4)	(5)
Emphasis on finding ways to reduce costs					
Emphasis on using innovative methods and technologies to create superior products					
Emphasis on new product development					
Emphasis on the number of new products offered to the market					

Emphasis on price competition ( offering competitive prices)					
Targeting a clearly identified segment					
Emphasis on building strong brand identification					

#### **Appendix IV: List of the Large Manufacturing Firms in Kenya**

Ashut Limited	Vitafoam Products Limited
Silpack Limited	Kenya tea packers limited
Nairobi Plastics Limited	Chemilil Sugar Company
Premier Flour Mills (Chef)	Bamburi Cement
Morris & Co. Limited	Crown paints Limited
Delmonte	Dawa Limited
Tetra PAK Limited	Kevian Kenya Limited
Tata Chemicals Limited	Malik Laboratory international
Chania Feeds	Diamond Industries Limited
East African breweries	Pwani Oil Products Limited
HydraulicHose&Pipe Manufacturers	Athi River Mining
Bhachu Industries	Jetlack Food Limited
Sadolin paints	Malva Bus Coach Builders
Flamingo Tiles	Banbros Limited
Bags and Bailers	Williamson tea
Lab & Allied	Home Lime Co Limited
Twiga Chemicals	Kenbro Industries Limited
Kenya Vehicle Manufacturers	Apex Steel Limited Kenya
Chandaria Industries Limited	British American Tobacco Kenya
Devki Steel Mills	East African Portland Cement
Nutro Food Kenya Limited	Ecolabs East African Limited
Kapa Oil Limited	Gahir Engineering Limited
Cadbury	Excel Chemicals Limited
Spinners & Spinners	Bilco Engineering
Osho Chemical Industries	Broadway Bakery Limited
Megh Cushions Limited	Premier Food Limited
Pz Cussons East Africa Limited	Highlands Mineral Water
	Njoro Canning Factory

Kenblest Limited	East Africa Foundry Co. Limited
Nzoia Sugar company	Mabati Rolling Mills
WSK International Limited	Mastermind Tobacco
Mumias Sugar	Kenpoly industries Kenya Limited
Orbit Chemicals Limited	C. Czarnikow Sugar E.A Limited
Sigma Engineering Co. Limited	Carbacid
Shades Systems International	Relac Limited
Rosewood Office Systems Limited	Bata Shoe Company
Heluk International Limited	Kim-fay East Africa Limited
Farm Engineering Industries	Glaxo Smithkline
Mombasa Canvas Limited	Weetabix East Africa Limited
Crown foods	Bidco Oil Refineries
Elys Chemicals	Soy Ceramics
Doshi Industries Company	Kenya Wine Agencies
Savanna cement limited	Eveready
Inter consumer limited	Keroche Breweries
Adorn Kenya	Sameer Africa Limited
Primasidor (EPZ)	Manji Food Industries Limited
Pipe Manufacturers Limited	Brookside Dairy Limited
Nairobi bottlers	General Motors East Africa
Brush Engineering Co. Limited	Limuru Tea
United Genesha Manufacturers	Unga Limited
Wood Manufacturers	PEPSI
	Brush Industries

Source: KAM 2011