

**EXTERNAL ENVIRONMENT-STRATEGY CO-ALIGNMENT, FIRM-  
LEVEL INSTITUTIONS AND PERFORMANCE OF PUBLICLY  
QUOTED COMPANIES IN KENYA**

*By*

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A Thesis Submitted in Partial Fulfillment of the Requirements for the Award of  
the Degree of Doctor of Philosophy in Business Administration, School of  
Business, University of Nairobi



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## DECLARATION

I hereby declare that this thesis is my original work and has not been presented in its entirety or in part at any other University for the award of a degree.

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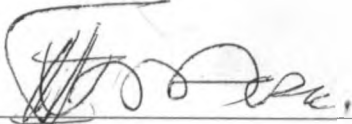
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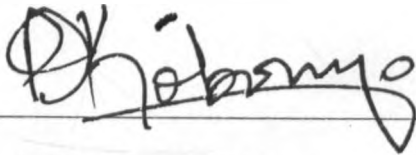
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## **DEDICATION**

This thesis is dedicated to my wife Jacqueline and son Luckysteve. Their patience and understanding inspired me a great deal.

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I thank the Almighty God for His endless grace that has seen me this far. May glory be unto Him forever and ever. The completion of this study was as a result of both direct and indirect support and encouragement from many quarters. I am indebted not only to people who gave me the inspiration to take up the PhD. program but also those who gave me the guidance and assistance on what I have reported here.

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## ABSTRACT

Performance implications of environment-strategy co-alignment derive from the Environment-Strategy-Performance (E-S-P) paradigm whose origin is the Structure-Conduct-Performance (SCP) paradigm of Industrial Organization literature. It is argued that the positive performance impact of co-alignment between the environment and strategy of a business is an important theoretical proposition in strategic management. This argument is the basis on which the current study was conceived with the main objective of determining the effect of environment-strategy co-alignment on the performance of publicly quoted companies in Kenya. Four specific objectives emanated from this main objective: (i) to determine the effect of the external environment on corporate performance, (ii) to determine the effect of strategy on corporate performance, (iii) to establish the effect of environment-strategy co-alignment on corporate performance, and (iv) to assess moderating effect of firm-level institutions on the relationship between external environment-strategy co-alignment and corporate performance. Out of these four objectives, seven hypotheses were stated and tested.

The study employed a cross-sectional survey design targeting companies listed in the Nairobi Stock Exchange as at 30<sup>th</sup> June 2010. Through structured questionnaires and interviews, data were obtained from 23 out of 53 companies that were targeted. Secondary data were obtained from published sources. Both descriptive and inferential statistics were used to analyze the data and test hypotheses on the effect of the external environment on corporate performance, the effect of organizational strategy on corporate performance, the effect of environment-strategy co-alignment on performance, and moderating effect of firm-level institutions on the relationship between environment-strategy co-alignment and corporate performance.

The study results showed that the surveyed companies experience varying degrees of external environmental complexity, dynamism, and munificence. These environmental dimensions tended to be mostly manifested in economic factors, competitive rivalry, market factors, technological factors, regulatory factors as well as threat of new entrants. Consequently, these factors appeared to have great influence in the companies' strategic decision making. However, the results for the effect of external environment on corporate performance were statistically not significant.

The results also revealed that the companies leaned more towards the strategic orientations of futurity, analysis, defensiveness, and proactiveness as well as pursued market development, product development, and diversification strategy types to a large extent. In spite of these results, overall results were statistically not significant for the effect of organizational strategy on corporate performance except for the effect of organizational strategy on total net assets.

There were mixed results regarding the individual effect of external environmental dimensions on the various organizational strategy variables. Statistically significant as

well as statistically not significant effects were reported. Similarly, positive as well as negative effects were also reported. However, overall results were statistically not significant for the effect of external environment on organizational strategy.

The results further showed existence of positive correlations between environment and most strategy variables even though most of the correlations were statistically not significant. The results on performance implications of environment-strategy co-alignment were mixed and contradictory. The results revealed a weak to moderate fit between environment and strategy, a fairly low explanatory power of environment-strategy co-alignment over various measures of corporate performance and statistically not significant results for the effect of environment-strategy co-alignment on corporate performance. Further, there was no relationship between the strength/degree of co-alignment and the resultant effect of the co-aligned environment-strategy variables on the various indicators of performance.

The study also offered evidence that most of the firm-level institutions have statistically not significant positive effects on some indicators of performance as well as negative effect on other indicators. Statistically significant results are reported for the independent effect of structure on Total Net Assets and systems on ROI. The results show a strong relationship between firm-level institutions and corporate performance. Also firm-level institutions accounted for relatively high variation in the various measures of performance. However, the overall results for the effect of firm-level institutions on corporate performance were statistically not significant.

Finally, the study revealed that the moderating effect of firm-level institutions on the relationship between environment-strategy co-alignment and performance increased the explanatory power ( $R^2$ ) of the co-aligned environment-strategy variables over the various measures of corporate performance. However, the positive change in the explanatory power ( $R^2$ ) as a result of the moderating effect of firm-level institutions is statistically not significant for all the performance indicators. Contrary to expectations, firm-level institutions changed results that were otherwise significant to be statistically not significant. The study did not yield definite conclusions with substantial implications on theory due to low statistical power occasioned by low response rate. Overall, the study partially concurs with related empirical studies but also contradicts some.

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# CHAPTER ONE: INTRODUCTION

This chapter provides both conceptual and contextual background to the study, statement of the problem and objectives of the study. It also covers the justification and the scope of the study.

## 1.1 Background of the Study

From time to time, organizational environments undergo catastrophic upheavals which lead to changes that are so sudden and extensive that they alter the trajectories of entire industries, overwhelm the adaptive capacities of resilient organizations, and surpass the comprehension of seasoned managers (Meyer et al., 1990). As the pace of technological, socioeconomic and regulatory changes accelerates, organizations' survival increasingly depends on devising entrepreneurial responses to unforeseen discontinuities (Huber, 1984).

The need to seek a match between the organization and its environment is at the centre of strategic management. Bourgeois (1985) observed that the central tenet in strategic management is that a match between environmental conditions and organizational capabilities and resources is critical to performance, and that a strategist's job is to find or create this match. According to Bourgeois (1985), this theme pervades the two strands of literature that are antecedent to the strategic management field. First is the traditional business policy literature which advanced the notion that success is a function of the degree of strategic fit between environmental trends (threats and opportunities) and an organization's distinctive competence (strengths and weaknesses) which he attributed to Andrews (1971). Second is the literature adopted from industrial organization economics which has a

similar orientation whereby industry structure constrains firm conduct, which in turn determines economic performance (Hatten et al., 1978 as cited in Bourgeois, 1985). The suggested causal sequence is environment determining organization, which determines performance (Burns and Stalker, 1961; Lawrence & Lorsch, 1967) in Bourgeois (1985). The concept analogous to strategic management's match is Thompson's (1967) notion of co-alignment, according to which the key to effective management is an organization's continuous adaptation to external conditions (Venkatraman & Camillus, 1984).

### **1.1.1 The Concept of Co-alignment**

Co-alignment (also termed consistency, contingency, congruency or fit) is emerging as an important concept in organizational research including strategic management (Venkatraman, 1990, Venkatraman & Prescott, 1990). The relevance of this concept to strategic management research stems from a view that the strategy concept relates to the efficient alignment of organizational resources and capabilities with environmental opportunities and threats (Andrews, 1980; Bourgeois, 1980; Schendel & Hofer, 1979) as cited in Venkatraman (1990). Venkatraman (1990) provided a general definition of co-alignment as referring to the match between (or among) a set of theoretical dimensions. He observed that its role in the organizational theory literature is important from two different perspectives. First, is the descriptive perspective which specifies the existence of relationships among a set of theoretically-related variables without any explicit linkage to performance. Second, is the normative perspective which develops an explicit link between co-alignment and performance.

Co-alignment has its roots in the design and environmental schools of strategy and organization theory. The environmental school propounded by Mintzberg (1973), Hannan & Freeman (1977), and Miller et al. (1998) suggest that the environment is the central actor in the strategy making process. The organization must respond to its environments or else be selected out. The design school proposes a model of strategy making in which a match or fit is sought between internal capabilities and external possibilities. The two works that were influential in the development of this school include 'leadership and administration' by Selzenick (1957) and 'strategy and structure' by Chandler (1962). The former introduced the idea of distinctive competence and matching internal state with external expectations, while the latter introduced the notion that structure follows strategy. Organization theory contributed through its contingency theory, which is guided by general orienting hypothesis that organizations whose internal features match the demands of their environments achieve the best adaptation (Scott, 1998). This theory laid the foundation for the environmental school of strategy.

Strategic decision making is at the heart of the organization-environment co-alignment process as emphasized in both the business policy (BP) and organization theory (OT) literature. This co-alignment delineates the activities through which organizational leaders establish the social or economic mission of the organization, define its domain(s) of action, and determine how it will navigate or compete within its chosen domain(s) (Bourgeois, 1980).

Although BP and OT have both focused on this co-alignment, each has approached the subject from a different set of perspectives and a different set of variables. Business Policy's approach has been to view management as a proactive or

opportunistic agent and has centered much of its research on the strategy variable (Hatten et al., 1978; Mintzberg, 1972). On the other hand, OT has taken a more reactive stance by viewing the environment as a deterministic force to which organizations respond (Anderson & Paine, 1975; Duncan, 1972; Lawrence & Lorsch, 1967).

The concept of co-alignment appears to be relevant in strategic management from a variety of perspectives. However, the development of a scheme powerful enough to compare and contrast all the differing perspectives may be a difficult task. Nevertheless, Venkatraman & Camillus (1984) proposed a conceptual scheme for classifying major schools of thought. Two dimensions underlie the proposed scheme. These include the conceptualization and the domain of fit in strategic management. Conceptualization of fit is concerned with the different ways in which strategy can be conceptualized in which the fundamental distinction is on whether the focus should be on the content of strategy or on the process of strategy making. The domain of fit on the other hand relates to the diversity in concepts, terminology and methods of inquiry brought into strategic management by different researchers rooted in different disciplinary orientations. Thus, while exploring strategy concepts, it is essential to delineate clearly the domain of the elements considered by various streams which can be internal, external or integrated (Venkatraman & Camillus, 1984).

Following a conceptual integration of strategy and environment by Bourgeois (1980) and a conceptual exploration of the concept of fit in strategic management by Venkatraman & Camillus (1984), subsequent researchers and scholars in the field of strategy have extracted conceptual models based on the conceptualization and domain of fit in strategic management to explain organizational strategic behaviour. For



instance, Ansoff & Sullivan (1993) came up with a strategic success formula, which also complemented the design and the environmental schools in strategy and the contingency theory in organization theory. They advocated that great firm performance is assured when the responsiveness of its strategy matches the turbulence in the environment but also its capabilities should match the aggressiveness of its strategy.

Nearly a decade after Ansoff & Sullivan's (1993) model, Farjoun (2002) introduced the Organization-Environment-Strategy-Performance (OESP) integrative theoretical model which makes use of organic assumptions to advance a view of strategy as an adaptive coordination that helps better link the different sub processes and core concepts of strategic management. The research trend in strategic management also supports the concept of "fit" with the re-emergence of internal firm characteristics and the evident emphasis on competitive dynamics and boundary relationships between the firm and its environment (Forte et al. 2000).

At the core of this study is the environment-strategy-performance (E-S-P) paradigm which suggests that a company's performance is a function of differences in market conditions and the firm's strategic behaviour (Lenz 1981). In a sense there must be an appropriate alignment between strategy making behaviour and the nature of an environment to ensure effective selection of strategies (Miller & Friesen 1983). Empirical evidence for this viewpoint is provided by Jauch et al. (1980), Cooper and Schendel (1976), and Paine & Anderson (1977). The E-S-P paradigm is informed by the Bain-Mason (1939) Structure-Conduct-Performance (S-C-P) paradigm of the Industrial Organization (IO) economics, whose adoption in strategic management naturally shifted the research focus from the firm to market structure (Hoskisson et

al., 1999).

### **1.1.2 The Business Environment**

Business environment refers to the context in which organizations exist. Any business environment context consists of several dimensions including physical, historical, economic, political, legal, socio-cultural and technological dimensions (Kibera, 1996). The literature on organizational environments reflects two prominent perspectives (Tan & Litschert, 1994). The first perspective is that of information uncertainty, which suggests that the environment is the source of information (Duncan, 1972a; Lawrence and Lorsch, 1967; Tung, 1979). The key focus of research based on this perspective is emphasis on perceived uncertainty and the subjective rather than objective data generated by participants in organizations (Tan & Litschert, 1994). The second perspective is resource dependency which posits that the environment is a source of scarce resources which are sought after by competing organizations (March & Simon, 1958; Pfeffer & Salancik, 1978). As the environment becomes less munificent or more hostile, firms are subjected to greater uncertainty (Tan & Litschert, 1994). Management's ability to cope with these conditions by reducing the firm's dependence on or increase its control over these resources will affect organizational effectiveness (March & Simon, 1958) and Tan & Litschert (1994).

In addition to the information uncertainty and resource dependency perspectives advanced above, the environment has also been viewed as a multidimensional construct (Duncan, 1972a; Lawrence & Lorsch, 1967) in Tan & Litschert (1994). A review of both conceptual and empirical studies by Tan and Litschert (1994) identified some specific environmental dimensions, which include dynamism,

complexity, and hostility (Dess & Beard, 1984; Thompson, 1967; Child, 1972; Mintzberg, 1979; Tung, 1979; Miller & Friesen, 1978). Tan & Litschert (1994) observed that the environmental perspectives offer a better understanding of the impact of each environmental dimension on the formulation of a firm's strategy, hence determining organization performance. They further observed that these dimensions (complexity, dynamism, and munificence) affect top management's perception of uncertainty. This perception in turn influences such strategic decision characteristics as propensity for risk-taking, futurity, proactiveness and defensiveness (Miles & Snow, 1978 and Miller & Friesen, 1982 as cited in Tan and Litschert, 1994). According to Venkatraman & Prescott (1990), the fit between environmental dimensions and strategic orientation will lead to better organizational performance. Their study findings strongly supported the proposition of a positive performance impact of environment-strategy co-alignment.

Other environmental dimensions have also been proposed by Duncan (1972a) who made a distinction between the internal and external environments. The internal environment refers to all those internal forces operating within the organization itself, such as the company's objectives and goals, nature of the organization's products and/or services, communication processes and networks within the organization, and the educational background of employees. The external environment refers to all those factors outside the company, such as customers, competitors, suppliers, governments, and trade unions. This study draws from the views of business environment as described by various researchers and lays focus on environmental dimensions as opposed to specific environments.

### 1.1.3 Strategy

The concept of strategy has been defined variously by different scholars. Drucker (1954) defined strategy as analyzing the present situation and changing it if necessary. Incorporated in this view is finding out what one's resources are or what they should be. After Drucker, Chandler (1962) offered a definition of strategy which linked an organization's goals and the means of achieving these goals. He defined strategy as the determination of an organization's long-term goals, then adopting courses of action and allocating resources necessary to achieve the goals. This definition introduced the futuristic aspect in the definition of strategy. Ansoff (1965) offered a definition of strategy which linked the organization's offerings (goods and services) with the market (needs and wants) and as a means to achieve a competitive edge over competition. Ansoff (1965) defined strategy as a rule for making decisions determined by product/market scope, growth vector, competitive advantage, and synergy.

Several other authors, among them Andrews (1971), Mintzberg (1979), Schendel & Hofer (1979), Porter (1980), Hax & Majluf (1996) and Johnson & Scholes (2002) have offered various definitions of strategy. Their definitions draw upon the earlier writers of strategy but add into them different aspects and dimensions that accommodate their conceptual and contextual inclinations. The manifestation of the divergences in the various authors' definitions is bound to be reflected in the breadth of the concept of strategy, the components (if any) of strategy, and the inclusiveness of the strategy-formulation process.

The strategy concept has its main value, for both profit-seeking and non-profit organizations, in determining how an organization defines its relationship to its environment in the pursuit of its objectives (Bourgeois, 1980). Bourgeois (1980)

further argued that although this view would probably receive little dispute in the field, it is only implicit in most of the definitions found in the literature. However, he said that uniform treatment of the concept is not evident in these definitions, and this lack of uniformity led writers such as Hatten & Schendel (1976) to point out that it is still not clear what constitutes strategy. Bourgeois (1980) contends that even though this difficulty has hindered theoretical and empirical development of the concept, one can find among the many definitions that strategy has the two primary purposes of defining the segment of the environment in which the organization will operate and providing guidance for subsequent goal-directed activity within that niche. Therefore, strategy can be viewed as the configuration of an organization's thought process, actions, resources, and capabilities for charting its long-term direction and success within the context of changing external environment.

#### **1.1.4 Firm-Level Institutions**

North (1991) defines institutions as humanly devised constraints that structure political, economic and social interactions. North argues that institutions, both formal and informal, are created to reduce uncertainty about exchanges. As such, institutions can refer to both the governance structures that define the rules of the game and to the rules of the game themselves (Bhaumik and Divoma, 2011). The term 'institution' is broad and encompasses many different types of institutions. Nevertheless, Bhaumik and Divoma (2011) observe that efficient institutions clearly define the boundaries within which economic agents can act, thereby enabling transactions at low cost. The logical outcome of efficient institutions, therefore, is better economic performance. In this study, firm-level institutions are viewed as those firm-specific attributes in the firm's internal environment which define the context in which decisions are made and

implemented. The view taken in this study is that the firm-level institutions derive from both the resource-based view of the firm and the McKinsey 7-S framework.

The resource-based view with antecedent to Penrose (1959) but more commonly associated with the work of Wenerfelt (1984), Prahalad and Hamel (1990), Rumelt (1991), Barney (1991), Grant (1991), and Peteraf (1993), emphasizes the internal capabilities of the organization in formulating strategy to achieve a sustainable competitive advantage in its markets and industries. If an organization is seen as made up of resources and capabilities which can be configured (and reconfigured) to provide it with competitive advantage, then its perspective does indeed become inside-out. In other words, its internal capabilities determine the strategic choices it makes in competing in its external environment. From this view, the current study focuses on the resources and competencies as determinants of performance through their contribution to firm competitive advantage.

Accordingly, resources are viewed as inputs that enable an organization to carry out its activities. These resources can be classified as either tangible or intangible. Tangible resources refer to the physical assets that an organization possesses and can be categorized as physical resources, financial resources, and human resources. Physical resources include such things as the current state of buildings, machinery, materials, and productive capacity. To add value, these physical resources must be capable of responding to changes in the marketplace. Clearly, organizations with the most up to date technology and processes which possess the knowledge to exploit their potential will be at an advantage. The total workforce employed and their productivity, as measured by criteria such as profit or sales per employee, forms a

tangible human resource. In the knowledge-based economy the tacit knowledge and specialist skills of many employees form an intangible resource that it is difficult for competitors to imitate. Intangible resources comprise intellectual/technological resources and reputation. Technological resources include an organization's ability to innovate and the speed with which innovation occurs. Intellectual resources include patents and copyrights which themselves may derive from the organization's technological resources (Wernerfelt, 1984; Barney, 1991, 1996; Thompson and Strickland, 2003; Pearce and Robinson, 2005).

Whilst the existence of resources is important, resources per se do not confer any benefit on an organization. It is the efficient configuration of resources that provides an organization with competencies. Competencies are attributes that firms require in order to be able to compete in the marketplace. Therefore, competencies derive from the bundle of resources that a firm possesses. Prahalad and Hamel (1990) argue that the critical task of management is to create an organization capable of creating products which customer need but have not yet even imagined. In this way organizations' bundle of resources ought to be configured and reconfigured to be the firms' core and distinctive competencies. The core competencies or strategic capabilities are a cluster of attributes that an organization possesses which in turn allows it to achieve competitive advantage. Distinctive competencies are a cluster of attributes that an organization possesses which distinguishes it from others in the market. Kay (1993) argues that it is the distinctive capabilities of an organization's resources that are important in providing it with competitive advantage. They are only distinctive when they emanate from a characteristic which other firms do not have. Furthermore, Kay (1993) asserts that possessing a distinctive characteristic is a

necessary but not sufficient criterion for success; it must also be sustainable and appropriable.

The McKinsey 7-S framework is a qualitative framework which was developed at the McKinsey Consulting Company by Peters and Waterman to analyze seven different aspects of an organization to determine if it is functioning effectively or not. According to Peters and Waterman (1982), the model is based on the premise that an organization is not just structure, but consists of seven critical aspects of an organization which include strategy, structure, systems, style, skills, staff, and shared values ( the 7Ss). Accordingly, strategy is the central integrated concept of how to achieve the firm's objectives. The essence of strategy is choosing a set of core business activities to create value for the customers, and performing those business activities in the most optimal manner.

Structure denotes the ways in which people are organized, tasks are coordinated, and authority is distributed within an organization. Systems includes IT systems to support internal business processes, performance measurement and reward systems to manage human capital, knowledge management systems to disseminate best practices, and other planning, budgeting and resource allocation systems. Style refers to the leadership approach of top management and the organization's overall operating approach. It also refers to the way in which the organization's employees present themselves to the outside world, to suppliers and customers. Skills refer to what an organization does best and entail its distinctive capabilities and competencies that reside in it. Staff refers to the organization's human resources, how people are developed, trained, socialized, integrated, motivated, and how their carriers are



managed. Lastly, shared values are the guiding concepts and principles of the organization, that is, values and aspirations, often unwritten and that go beyond the conventional statements of corporate objectives (Peters and Waterman, 1982; Jeffrey, 1996; Vaidyanathan, 2005). The current study focuses on skills, staff, culture (shared values), and administrative systems which comprise of structure, systems, and management style.

### **1.1.5 Corporate Performance**

Broadly defined, corporate performance refers to efficiencies and effectiveness in terms of utilization of resources as well as the accomplishment of organizational goals (Steers, 1982). Organizational effectiveness is the measure of how successfully organizations achieve their missions through their core strategies. Efficiency is the cost per unit of output, describing the relationship between the goods and services produced by a program or activity (outputs) and the resources used to produce them (inputs) (Richard & Tomassi, 2001). Understanding organizational goals and strategies is the first step toward understanding organization effectiveness. Organizational effectiveness studies are concerned with the unique capabilities that organizations develop to assure that success (McCann, 2004).

Performance is a recurrent theme in strategic management research (Wang, 2005). It is important from three perspectives. Theoretically because effectiveness of strategies is tested by the level of performance they cause, empirically because there are many constructs that have been employed to capture performance, and managerially as a measure of quality of decisions that managers make on a day to day basis (Venkatraman & Ramanujam, 1986). Measurement of performance gives indication

as to the effectiveness of an organization. Whatever management decision is made within an organization is expected to have a relationship with its performance and hence its effectiveness. However, measuring firm performance has been a major challenge for scholars and practitioners as well.

There appears to be little agreement as to what constitutes performance of an organization and more critically the indicators of performance are not universally identified and defined (Venkatraman & Ramanujam 1986). Various measures have been proposed from a wide range of disciplines including accounting, economics, operations management, psychology, sociology and strategic management (Marr & Schiuma, 2003). The most objective and most commonly cited indicators of measurement are the financial data, which is mostly the firm's bottom line. However, Pearce & Robinson (2007) contend that financial indicators of performance give inadequate or in some cases, inaccurate perspective on the firm's status and its ability to keep improving.

Because of the inadequacy in financial indicators of performance, other performance indicators have been proposed. For example, at the core of the Profit Impact of Marketing Strategy (PIMS) principles are the more qualitative and strategic measures of performance. These include indicators such as market position, market growth, current strategy, costs, new products, product/service quality, market effectiveness, investment intensity, innovation, manufacturing value added, productivity, technological efficiency, and survival over time (longevity) (Hull and Rothenberg, 2008). Performance of companies listed in stock markets can be measured using stock market indicators. These include earnings per share, dividends per share, and average stock price (Richard et al., 2007). While financial performance indicators including

sales or turnover, profitability measures like return on investment (ROI), return on assets (ROA), return on equity (ROE), and earnings per share (EPS) could easily be collected from secondary sources especially so for the companies listed in the stock markets or centrally regulated, the non-financial qualitative performance indicators would be collectable through primary data collection methods.

### **1.1.6 An Overview of Kenya's Business Environment**

The study was carried out in Kenya hence an overview of Kenya's environmental outlook was critical in describing the research context. It is, in essence, a description of the environment in which publicly quoted companies operate. According to Kenya's Economic Survey (GoK, 2009), Kenya's business environment is described on the basis of parameters such as political stability, macro- and socio-economic performance, governance and public expenditure management, population dynamics, labour market, regulatory framework, infrastructure development, technology, and the natural environment among others. These parameters manifest critical dynamics which define the business environment in which Kenyan organizations operate. Drawing on the Kenya Economic Survey (GoK, 2009), the Kenyan business environment is described using the Political, Economic, Socio-Cultural, Technological, Ecological, and Legal (PESTEL) framework.

On the political dimension, the report observed that political stability is a necessary condition for productive investment. For a long time Kenya has enjoyed political stability which was fundamentally disturbed by the events following the disputed December 2007 elections whose effects to businesses and the economy at large were devastating (GoK, 2009). However, the situation witnessed some positive turnaround through the implementation of the Medium Term Plan (MTP) (2008-2012). The

reforms in the plan's first year included the interventions outlined in the Report of the National Accord Implementation Committee on National Reconciliation and Emergency Social and Economic Recovery Strategy, and in the one-year Economic and Social Recovery Plan. This provided a foundation for a new national development strategy linking national policies to specific programmes and projects to broadly-shared national political objectives.

On the economic environment, the Economic Survey (GoK, 2009) pointed out that there has been a remarkable improvement in Kenya's economic performance in the previous five years up to 2007. This was a result of successful implementation of the Economic Recovery Strategy for Wealth and Employment Creation (ERS 2003-2007). This saw a very big increase in per capita income of Kenyans in 2006/07 fiscal year with a remarkable growth rate of 7.1 percent in 2007. However, the year 2008 was affected by post election disruptions, unfavourable weather conditions, high cost of food, continued political bickering, high crude oil prices, and the global financial crisis among others. Consequently, real Gross Domestic Product (GDP) expanded by 1.7% in 2008 compared to a 7.1 % in 2007, the lowest growth rate since 2003.

Despite the ~~pos-election~~ disruption in early 2008, some sectors recorded positive growths such as construction (8.3%), education (5.8)%, wholesale and retail trade (11.5%), manufacturing (3.8%), transport and communication (3.1 %), and financial intermediation (3.1 %). Those sectors whose output contracted include hotels and restaurants (-36.1 %), and agriculture & forestry (-5.1 %). However, during the first five months of 2008, inflation increased to 31.5 per cent reversing the gains made in 2007 where inflation was 9.8 per cent after coming down from 14.5% in 2006. Overall, the country's ranking on political stability, regulatory quality and rule of law

dropped in 2008 and the situation has shown dismal improvement to date.

The Economic Survey (GoK, 2009) also made observations regarding Kenya's level of attraction of foreign direct investment. It was reported that Kenya has underperformed in attracting foreign direct investment (FDI). Indeed, it has not regained its regional leadership, which was lost in early 1990s. In the past, FDI has suffered from such factors as poor infrastructure (including roads, telecommunications and electricity), corruption, high cost of borrowing, crime and insecurity, poor economic performance and low investor confidence due to intermittent commitment to reforms. However, positive changes have since been witnessed due to ongoing implementation of the relevant flagship project as outlined in Kenya Vision 2030 through the first Medium Term Plan (2008-2012). The MTP also encompasses several other reforms in major sectors including infrastructure, energy, transport, governance, and other public sector reforms.

The NSE 20-share index, which is one of the measures of an economy's performance, recorded sharp drop (along with the rest of the world) of 1924 points (from 5455 to 3531) by end of December 2008. Despite the drop in NSE 20-share index, market capitalization rose marginally from KSh 851 billion in December 2007 to KSh 854 billion in December 2008 owing to Safaricom IPO. Total bond turnover rose by 12.4 per cent to KSh 95.4 billion in 2008 from KSh 84.9 billion in 2007 (GoK, 2009).

The Survey established that Kenya is still at the early stages of a demographic transition characterized by a large proportion of youths resulting in high dependency ratio, currently estimated at about 84 per cent. Demographic dynamics have important implications for public expenditure policy especially in relation to provision of

education, health and other services to a large cohort of children and youth dependent on a smaller proportion of tax-paying or working population. The Survey observed that failure to effectively provide for the population means failure to equip the next generation with the relevant skills and health necessary to meet future challenges in leadership, employment, entrepreneurship and parenthood (GoK, 2009). The social pillar in Kenya Vision 2030 and the Medium Term Plan 2008-2012 focuses on implementation of relevant strategies to achieve the Millennium Development Goals that touch on health and poverty eradication.

On the educational front, the survey pointed out that Kenya has a comparatively low education index, implying that a big proportion of the Kenyan labour force has not attained basic education and skills and/or requisite technical skills and knowledge necessary for improved labour productivity, competitiveness and innovation. The efficiency and flexibility of labour markets are critical for ensuring that labour is allocated to its most efficient use in the economy and that labour as a factor of production is rewarded appropriately. Global Competitiveness Surveys results show that Kenyan work force is well educated but the level and quality of production and technical training is very low. The highest level of education completed by majority of Kenyans (86.4%) is primary education, followed by secondary education (25.0%), pre-primary (9.5%), and university (1.2%). Countries such as South Africa and Mauritius have a higher education index reflective of relatively high overall gross enrolment rate (primary, secondary and tertiary) and adult literacy levels (GoK, 2009). However, this situation is having a positive turnaround due to the government's effort in introducing free primary and secondary education as well as spearheading reforms in tertiary and higher education sector (MTP 2008-2012).

On the technological front, the Survey reported that Kenya relies mostly on imported technology and, therefore, needs to engage in the process of learning and adapting these technologies to local conditions. Adopting modern technology and innovation improves the firms' competitiveness. The most commonly used indicators of domestic technological effort include the technology index (by the World Economic Forum), usage of information and communications technology (ICT) and expenditure on research and development. The technology index and ranking, as a key component of global competitiveness, shows that Kenya is far behind the Asian Tigers (GoK, 2009). The situation seems to have worsened in 2007 when Kenya's ranking on technological readiness declined meaning that there is little agility in adoption of the existing technology for enhancing productivity in the industries.

It was however observed that improvements in information and communication technology (ICT) have transformed international commerce, social interactions, political relations and development issues. A review of three broad indicators (main telephone lines, Internet and broadband subscribers and mobile cellular subscribers) of ICT performance shows that Kenya's communications sub-sector is characterized by dynamism and improvement in existing facilities. Kenya's expenditure on ICT is close to Africa's average. However, the country performs particularly poorly with respect to use of broadband relative to uptake levels in high performing Asian economies. While Kenya's enterprise broadband uptake was less than 1 per cent in 2007, the leading comparator countries have take-up rates of over 80 per cent (GoK, 2009).

Another factor that defines Kenya's business environment is the regulatory

environment. The way governments regulate business shapes the investment climate in many ways. Unnecessary barriers may distort competition; prevent required change, increase compliance costs and open avenues for corruption. Therefore, for many countries, there is scope to make regulatory regimes simpler, less rigid and predictable in application. The World Bank's Doing Business Indices and Investment Climate Assessment (ICA) surveys provide information across countries on the compliance cost for regulations. The indices include the number of procedures, time taken and cost. Procedures are recorded only where interaction is required with an external party. Cumbersome procedures are associated with more corruption, particularly in developing countries. Each procedure is a point of contact and creates an opportunity to extract a bribe. To have an effective and transparent institutional environment, the Kenyan government should ensure a level playing field and enhance business confidence, including an independent judiciary, a strong rule of law and an accountable public sector (GoK, 2009).

However, the regulatory reforms that were part of ERS 2003-2007 ensured that the cost of regulation is minimized, led to the review of all business-related regulations, covering 14 both legal and institutional aspects. The reforms saw the formulation of a strategy and action plan to address impediments caused by some business-related regulations. Further, part of ERS 2003-2007 was competition law reforms where competition was improved by enacting and enforcing relevant and appropriate laws supportive of competition; harmonizing competition law with sectoral regulatory laws; giving the commission more autonomy and making adequate budgetary provisions to build the human resource capacity of competition authority to enable it to regulate all sectors of the economy. The formulation and implementation of the



competition law took cognizance of the special regional and preferential interests of the country.

The Economic Survey further reported that Kenya is facing key environmental challenges that include deforestation, soil erosion, desertification, loss of biodiversity, water scarcity and degraded water quality, poaching and domestic and industrial pollution. An analysis of various natural resources including land, water, wildlife, forestry, fisheries, biodiversity and climate reveal different challenges. Land management faces various challenges, including high inequality in ownership, weak legal and administrative framework for resolution of land ownership disputes, long and cumbersome process of registration of land and transfer of ownership, and lack of a coherent land policy. Another critical aspect of the natural environment is the incidence of climate change whose effects are increasingly becoming apparent mainly in the form of recurring droughts and floods, increasing intensity of droughts, and changing weather patterns; all of which have different effects on the business environment (GoK, 2009).

#### **1.1.7 The Nairobi Stock Exchange and Publicly Quoted Companies in Kenya**

This study focuses on companies listed at the Nairobi Stock Exchange. The major role that the stock exchange has played, and continues to play in many economies is that it promotes a culture of thrift, or saving. The very fact that institutions exist where savers can safely invest their money and in addition earn a return is an incentive to people to consume less and save more (NSE Market Fact File, July 2008). With its history dating back to 1920s when it was a colonial outfit, the Nairobi Stock Exchange was constituted in 1954 as a voluntary association of stockbrokers registered under the Societies Act charged with the responsibility of developing the

stock market and regulating trading activities (Ngugi, 2003). In 1991, the NSE was registered as a limited company under the Companies' Act and with the 1994 CMA Act (Amendments), it became mandatory that a stock exchange approved by the CMA was to be a company limited by guarantee.

Publicly quoted in Kenya operate as public companies incorporated and registered under the Companies Act Cap 486, Laws of Kenya. Among the minimum requirements for listing that applies across all the companies is that the company must be limited by shares and registered under the Companies Act (Cap 486) as a limited company. The Companies Act (Cap 486) provides that companies must publish audited financial statements in compliance with international accounting standards for every accounting period.

The companies, which are both locally and foreign incorporated, carry out their businesses across the various sectors of the Kenyan economy. The companies are grouped under three market segments, namely: Main Investments Market Segment (MIMS), Alternative Investments Market Segment (AIMS), and Fixed Income Securities Market Segment (FISMS). For a company to be listed in any of the market segments, it must meet the specific minimum eligibility conditions and listing requirements as provided by NSE and Capital Markets Authority. Most companies operate under Main Investments Markets Segment which covers agriculture, commercial and services, finance and investment, and industrial and allied. Further, companies across all the market segments belong to different industries; hence they are subject to implications out of developments in both macro and industry-specific developments.

Through the listing of the various companies from different sectors, NSE provides a suitable representation of the Kenyan economy, hence the selection for the study. The choice of listed companies for the study is further justified by the requirements for listing. Further, there is availability of 'objective' and reliable economic/financial performance data about the companies as a result of their conformity to stock market and other requirements. Consistency in the reporting requirements for publicly traded firms offers the advantage of comparison across firms in the same sector and across different sectors. These criteria were used by Irungu (2007) in his study on the effect of top management teams on the performance of publicly quoted companies in Kenya.

## **1.2 Statement of the Problem**

The concepts of environment, strategy, and performance have been found to have a linkage that derives from the structure-conduct-performance (S-C-P) paradigm of the industrial organization economics. The central tenet of this linkage (E-S-P) is that the environment in which a firm operates (market structure) determines its strategy (conduct), which in turn determines its performance (profitability) (Hoskisson et al., 1999; Porter, 1981). Empirical tests of this linkage have validated the view that organizations which achieve external environment-strategy fit (or co-alignment) realize positive performance (Venkatraman, 1990; Venkatraman and Prescott, 1990; Tan and Litschert, 1994). Further, as firms seek this fit (also referred to as strategic fit), due consideration of their internal attributes is imperative because these attributes have a great bearing on the firms' efforts to gain and sustain competitive advantage (Wernerfelt, 1984; Prahalad and Hamel, 1990; Barney, 1991).

The environment in which Kenyan publicly quoted companies operate has been

fraught with various changes. The changes have been observed in both the remote and operating environmental factors including changes in industry structures. Continued existence of these firms necessitates that they continually align themselves with the environment by way of exhibiting appropriate strategic behaviours. How consistent their strategic behaviours are with environmental changes is expected to have implications in their performance. Further, their unique internal organizational factors are likely to influence the effect of environment-strategy co-alignment on performance.

There is empirical evidence of the impact of the external environment on organizations and their strategic behaviour (Kukalis, 1991). It is also evident that there are performance implications of environment-strategy alignment (Venkatraman & Prescott, 1990; Tan & Litschert, 1994; Luo & Park, 2001; and Bergeron et al., 2002). However, there exists knowledge gaps that this study sought to address. First, whereas there is evidence with regard to performance implications of environment strategy co-alignment, determining which level/degree of co-alignment results into optimum performance is still unresolved. While we might not have a universally accepted measure, it is important to provide partial understanding of how to determine which level/degree of co-alignment leads to optimum performance. Second, while it is evident that environmental changes influence organizational strategic behaviour, it is not clear how the resultant strategic behaviour impacts on corporate performance, yet it is the central concern for any organization.

Finally and most important, the studies (Venkatraman & Prescott, 1990; Tan & Litschert, 1994; Luo & Park, 2001; and Bergeron et al., 2002) have not provided evidence regarding the effect of firm-level institutions on the effect of environment

strategy co-alignment on performance. This study advances an argument that whereas organizations may strive to achieve an appropriate match between their strategic behaviours and external environments, achieving the match between the strategic behaviour and the internal organizational environment is equally important because it determines the effectiveness with which strategic decisions are implemented. The current study introduces firm level institutions as internal environment contextual factors and measuring their moderating effect on the relationship between environment-strategy co-alignment on corporate performance.

Further, it is evident that the conceptual and operational diversity evident in the studies explain how contextual differences greatly determine the final findings and conclusions. It is argued that contextual differences result in fundamental differences in organizations' strategic behaviours. While most of the studies have been undertaken in firms operating in different contexts such as China, Japan and U.S.A, the findings and conclusions may not apply to firms operating in the Kenyan context because of its unique manifestations. This study extends existing knowledge on performance implications of external environment-strategy co-alignment by varying the context of research to the Kenyan business environment.

Lastly, studies undertaken in the Kenyan context by Irungu (2007), Awino (2007), Kidombo (2007), Munyoki (2007), Waweru (2008) and Sifa (2009) have all treated corporate performance as a dependent variable. The findings of each of these studies indicate that corporate performance is a function of a combination of factors. Even though a study by K'Obonyo (1988) treated performance as an independent variable, the nature of performance (employee performance) was fundamentally different. This study adopts a fundamentally different operational frame of the independent and

moderating variables. The study addresses two main questions. First, what is the effect of external environment-strategy co-alignment on the performance of publicly quoted companies in Kenya? Second, is there any moderating effect of firm-level institutions on the relationship between external environment-strategy co-alignment on corporate performance?

### **1.3 Objectives of the Study**

The broad objective of the study was to determine the effect of external environment-strategy co- alignment on the performance of publicly quoted companies in Kenya.

Arising from this broad objective, the specific objectives were to:

- i. Determine the effect of external environment on the corporate performance of publicly quoted companies in Kenya.
- ii. Assess the effect of strategy on the corporate performance of publicly quoted companies in Kenya.
- iii. Establish the effect of external environment-strategy co-alignment on corporate performance of publicly quoted companies in Kenya.
- iv. Assess the moderating effect of firm-level institutions on the relationship between external environment-strategy co-alignment and corporate performance of publicly quoted companies in Kenya.

### **1.4 Justification for the Study**

The performance the Nairobi Stock Exchange in terms of volume of activity determines the share index which is one of the indicators of Kenya's economic performance. Therefore, the performance of the NSE listed companies is a pointer to Kenya's economic development and GDP growth. However, these companies don't operate in a closed economic system. They are always in constant interaction with the

environment and are therefore environment serving organizations (Ansoff & Sullivan, 1993). The study was intended to significantly shed light on the implication of this phenomenon given that developments in the business environment have an effect on the companies' strategic behaviour, and hence their performance. Effective and successful implementation of the strategies resulting from organizational strategic behaviour is also influenced by internal organizational environment, which is firm-specific. Therefore, corporate performance is both a function of how the companies' strategies match their external environments on the one hand, and how the companies' internal environments are conducive for the chosen strategies' effective implementation on the other.

While it is recognized that the performance of NSE listed companies is a key pointer of Kenya's economic performance, very little is known on the companies' performance implications of environment-strategy alignment with an extended focus on the moderating effect of the companies' internal variables, which are key for successful and effective strategy implementation. The environmental dimensions, strategic orientations, and internal organizational variables that were considered by the study were accorded deeper statistical analysis in order to assist corporate managers to make sound strategic choices and develop internal organizational capacity to effectively and successfully implement the chosen strategies within an ever-changing environment. This depiction is also intended to contribute significantly into the existing knowledge base in strategic management on the basis of which other researchers will make advancements in theory validation.

It can be observed that antecedent studies (Venkatraman & Prescott, 1990; Venkatraman, 1990; Tan & Litschert, 1994) have provided partial explanation on

performance implications of environment-strategy co-alignment. Further, the studies were conceptually replicative of one another but operationally different. Replicative studies have been found to play an important role in strategic management. Hubbard et al. (1998) stated that the principle of explicability plays a fundamental role in the research process: extensions help to protect against the uncritical assimilation of erroneous results into the literature, but more importantly go further by determining the scope and limits of initial findings by seeing if they can be generalized to other populations, time periods, organizations, geographical areas, measurement instruments, contexts, and so on. It was the researcher's argument that the Kenyan business environment presents a rather unique context which is expected to fundamentally influence the findings and conclusions of the study. Hence, this study was meant to extend and validate the findings of past studies. Specifically, the study extends the frontiers of knowledge by integrating institutional and resource based theories in assessing the moderating effect of firm-level institutions on the relationship between external environment-strategy co-alignment and corporate performance.

## **1.5 Outline of the Thesis**

The first chapter of this thesis provides the introduction of the study which covers both the conceptual as well as the contextual background against which the study is cast. It also covers the statement of the research problem, the study objectives and justification of the study. The second chapter presents review of both theoretical and empirical literature. It presents an overview of strategic management process and discusses the theoretical underpinning of the Environment-Strategy-Performance (E-S-P) paradigm on which this study is based. The chapter also presents selected



empirical studies to highlight the knowledge gaps and sets out the conceptual framework together with the conceptual hypotheses.

Chapter three presents the research methodology which covers the philosophical stance in social science research, the research design, population of study, and data collection methods. The chapter also addresses itself to the operationalization and measurement of the study variables as well as appropriate data analysis techniques and models that address the objectives of the study. Chapter four presents the findings and discussions on the nature of the Kenyan business environment and its effect on the performance of the companies studied (objective one). The corresponding Hypothesis H1 is tested and discussed in this chapter. The chapter also presents the profiles of the companies that were studied.

Chapter five focuses on the effect of organizational strategy on the performance the companies studied (objective two). The corresponding hypotheses H2, H3a and H3b are tested and discussed. Chapter six presents and discusses findings on the effect of environment-strategy co-alignment on the performance of the surveyed companies (objective three). In this chapter, hypotheses H4 and H5 are tested and discussed. Chapter seven focuses on the effect of firm-level institutions on the companies' performance as well as their moderating effect on the relationship between environment-strategy co-alignment and the companies' performance. Chapter eight presents the summary and conclusions of the study as well as implications, recommendations and limitations of the study.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

This chapter covers literature review on the environment-strategy-performance (E-S-P) paradigm. First, the broad concept of strategic management is presented on the basis of which the E-S-P paradigm is introduced and its components reviewed in detail. An empirical overview of the relationships among E-S-P variables is also presented together with a summary of empirical studies on E-S-P with a focus on their findings and inherent gaps to be addressed. The chapter concludes by presenting a conceptual framework on the basis of which a model is derived to schematically depict the relationships among the variables of study and the resultant hypotheses to be tested.

### 2.2 The Concept of Strategic Management

Strategic management refers to the managerial process of forming a strategic vision, setting objectives, crafting a strategy, implementing and executing the strategy, and then over time initiating whatever corrective adjustments in the vision, objectives, strategy, and execution that are appropriate. In crafting a strategy, management is saying, in effect, that among all the paths and actions that could have been chosen, they have decided to move in the chosen direction, focus on the chosen markets and customer needs, compete in the chosen fashion, allocate resources and energies in the chosen ways, and rely on some particular approaches to doing business. A strategy thus entails managerial choices among alternatives and signals organizational commitment to specific markets, competitive approaches, and ways of operating (Thompson & Strickland, 2003).

Strategic management is a process in the sense that strategies are the outcomes of careful objective analysis and planning (Lynch, 2000). It has been considered by Hofer (1980) as a process which deals with fundamental organizational renewal and growth with development of strategies, structures, and systems necessary to effectively manage the strategy formulation and implementation process. Harrison & St. Johns (1998) defined strategic management as a process through which organizations analyze and learn their internal and external environments, establish strategic direction, create strategies and execute these strategies.

As a process, strategic management consists of different phases which are sequential in nature (Kazmi, 2002). These phases include: establishing the hierarchy of strategic intent, formulation of strategies, implementation of strategies, and performing strategic evaluation and control. It should be noted here that the division of strategic management into different phases is for purposes of orderly study. In real life, the formulation and implementation processes are intertwined (Andrews, 1971).

Formal strategic planning has its roots in the USA in the 1950s. Remarkable contributors include Drucker (1954), Chandler (1962), Ansoff (1965), and Andrews (1971). Even though strategic planning fell out of fashion in the 1970s and 1980s due to its inability to deliver the promises it claimed majorly because of the changes in environment, the "re-thinking" and "recasting" that was recommended revived strategic planning (Porter, 1987). As an invaluable tool, it is still a dominating concern in strategic management and continues to be widely practiced to date.

The result of a strategic planning process is strategy, which is at the heart of strategic management for it helps an organization to formulate and implement various tasks in

its attempts to prosper (Hussey, 1998). Strategy is a link between an organization and its external environment and must be consistent with an organization's goals and values, with its resources and capabilities, with its organizational structure and systems (Ansoff, 1990). An organization's strategy defines its unique image and provides a central purpose and direction to its activities and to the people within and outside the organization. Proper strategies help to shape an organization's future (Grant, 1998).

## **2.3 The Environment-Strategy- Performance Paradigm**

The environment-strategy-performance (E-S-P) paradigm is informed by the Bain-Mason (1939) Structure-Conduct-Performance (SCP) paradigm of the Industrial Organization (IO) economics, whose adoption in strategic management naturally shifted the research focus from the firm to market structure (Hoskisson et al., 1999). The central tenet of this paradigm, as summarized by Porter (1981), is that a firm's performance is primarily a function of the industry environment in which it competes. Therefore, because structure determines conduct (or conduct is simply a reflection of the industry environment), which in turn determines performance; conduct can be ignored and performance can be explained by structure. However, the conceptualization of 'environment' that is adopted in this study transcends Porter's specific industry environment to include all environmental variables external to an organization including the industry environment.

### **2.3.1 Environment**

Within Business Policy (BP), the normative literature in policy has long stressed the need to scan and assess the environment for subsequent matching of opportunities with organizational capabilities and managerial desires (Bourgeois, 1980). However,

BP has not substantially utilized or extended the systematic research dealing with environmental characteristics and their effects, whether behavioural or physical (Bourgeois, 1980; Anderson & Paine, 1975). Bourgeois (1980) observed that strategy content and environment have been joined empirically, but there has not been much work that joins the strategy formulation process and environment. Bourgeois points out that only a few studies (Khandwalla, 1976; Miles & Snow, 1978; and Paine & Anderson, 1977) had attempted to do so. These studies established that when managers perceive the environments of their firms as rich in contingencies, as when they are dynamic and uncertain; their strategies are likely to be more comprehensive or multifaceted. The studies also indicated that strategic managers in more uncertain environments tend to be more proactive and innovative and they tend to assume a higher degree of risk (Bourgeois, 1980).

The relative lack of published research joining strategy formulation and environment was noted by Chandler (1962) when he suggested that the divorcement of environmental issues from administrative analysis was due, in part, to the fact that these tend to be dealt with separately by market economists and administrative theorists, respectively (Bourgeois, 1980). Attempts at redressing this omission are represented by two streams of BP research that Lenz (1978) characterized as the market structure and response field paradigms which correspond with content and process approaches to strategy research respectively.

While the market structure model relates to the objective structural characteristics of an industry to the conduct and performance of both firms and their industries, the response-field model views organizational environments as sources of events and changing trends which create opportunities and threats for individual firms (Lenz,

1978). In sum, most of the BP literature dealing with the environment concept has focused on trends, forces, ratios, or other aggregations. The contribution to be made from the Organization Theory (OT) literature is in identifying the sources of these gross movements (Bourgeois, 1980).

Within Organization Theory (OT), organizations have been conceptualized and researched as open systems engaging in transactions with their environments (Bourgeois, 1980). Although Barnard (1938) was among the first to recognize the system properties of organizations, Bourgeois (1980) argues that it was Dill's (1958) pioneering study that both defined the components of top management's task environment and suggested a causal relationship in which this task environment affected managerial autonomy. Much of the literature from the post-human-relations era concentrated on defining which organizational structures, management styles, and the like are most appropriate (effective) for different environmental or technological contingencies (Bourgeois, 1980).

In addition, the conceptual works (Emery & Trist, 1965; Terreberry, 1968; Thompson, 1967) cited in Bourgeois (1980) emphasized that organizations must adapt to external forces in order to maintain viability. The technology-based works of Woodward (1965) and Perrow (1967) extended the contingency idea to include a technological determinism, and Galbraith (1973) bridged environment and technology by focusing on the environmental information-processing needs of the organization (Bourgeois, 1980). Most of these works relied on field studies and correlational techniques to impute a causal link from environment to structure, but some experimental settings had been employed to suggest that internal organization states themselves influence perceptions of environmental uncertainty (Huber et al., 1975).

Bourgeois (1980) made reference to results of a field study by Osborn & Hunt (1976) which found that the interactions of external and internal variables were better predictors of performance than either acting alone, but noted that Jauch et al. (1977) were unable to replicate these results.

In advancing his conceptual argument, Bourgeois (1980) noted that part of the contradiction in the empirical results rests on an unresolved issue in the environment literature; that of objective versus perceived environment. This issue, according to Bourgeois (1980), centers on two questions: one philosophical and the other methodological. The philosophical question is basically: which perspective of the construct of "environment" is most relevant to an organization's behaviour - its managers' perceptions of environmental states, or some objective characteristics of its environment? Note that most of the literature cited does not distinguish between the environment as an objective set of components or state of affairs "outside" the organization and the environment as perceived by organizational actors. Bourgeois (1980) noted that this merely reflects the failure of the researchers cited to make the distinction explicit in their operational definitions. What emerges is a methodological issue that is critical if one wishes a uniform treatment of the environment construct, as one can find several presumed measures of an organization's "environment" that are in fact measures of individuals' perceptual characteristics (Bourgeois, 1980).

In general, the treatment of environment can be classified into three categories namely: objects, attributes, or perceptions (Bourgeois, 1980). In the first category, a distinction is made between general and task environments (Dill, 1958), the latter being composed of customers (distributors and users), suppliers (of material, labour, equipment, capital, and workspace), competitors (for both markets and resources),

and regulatory groups (government agencies, unions, and inter-firm associations).

Writers on the second category focused on two attributes of an organization's task environment: its complexity or heterogeneity, referring to the number and diversity of external factors facing the organization, and its turbulence, volatility, or dynamism, or the degree of change exhibited in those factors (Dill, 1958; Duncan, 1972a; Thompson, 1967). Bourgeois (1980) pointed out that this latter attribute most closely approximates the treatment of environment given in the BP literature.

The third category consists of definitions that treat environment in terms of managerial perceptions of environmental uncertainty. Bourgeois (1980) argues that there is nothing wrong with this as long as there is an explicit distinction between characteristics of the environment itself and the perception of that environment by human agents. However, in trying to measure organizations' environmental uncertainty, some studies (Duncan, 1972a; Lawrence and Lorsch, 1967), depended entirely on subjective data from managers, but treated the data as if they were characteristics of some objectively real environment. Such practices, according to Bourgeois (1980), raise grave problems of construct validity and concurred with Starbuck's (1976) comment that it would help if concept formulators adhered to the principle that measures based solely on subjective data provide information about the subject, not about his environment.

Based on the foregoing contention, Bourgeois (1980) provided a succinct distinction between the objective and perceived environment but first made the following observations regarding the concepts of general and task environments and their attributes of complexity and dynamism. First, the distinction between general and



task environment is relevant to primary and secondary strategy, because it is posited that the general environment is not "enacted" (citing Weick, 1969) by a strategist until domain modification decisions (resulting in primary strategy) are being considered. Second, the same distinction between general and task environment may help explain why empirical research has found that environmental dynamism tends to account for more variance in the dependent variable (usually uncertainty) than does environmental complexity (Duncan, 1972a). Finally, Bourgeois (1980) pointed to the usefulness of Dill's (1958) distinction of environmental aspects when considering the debate revolving around the relative importance of objective versus perceived environments when studying organizations.

Consequently, different environmental manifestations have different implications for the management of organizations. A number of these manifestations cannot be understood in a snapshot because present manifestations have antecedents in the past as well as implications for the future. Ansoff & Suvillan (1993) identified four environmental eras that have had great influence in the strategic behaviour of environment serving organizations (ESOs). These environmental eras have had different implications in the ways organizations operate. The environmental eras include the Industrial Revolution Era, the Mass Production Era, the Mass Marketing Era, and the Transition to Post-Industrial Era. From their description, Ansoff & Suvillan (1993) pointed out that during the twentieth century the environment of ESOs progressively increased in turbulence, which can be described by five major trends. These trends include growth in the novelty of change, growth in the intensity of the environment, increase in the unpredictability of the future, increase in the speed of environmental change, and growing complexity of the environment.

A critical look at Ansoff & Suvillan's (1993) overview reveals that the developments mostly describe the environmental context facing American organizations. This is no surprise given that formal strategic planning seems to have its beginnings in the United States of America (Aosa, 2000). Therefore, the overview might not be descriptive of environmental developments elsewhere, especially in Africa. It is during the post-industrial era that the planning school was a paramount paradigm that governed the structure and thinking behind the seminal text on business policy, authored chiefly by Andrews (1971). The text dealt with what the firm might do (market opportunities) and what the firm should do (social responsibility) and coupled these external issues to the internal ones of what the firm could do (corporate competence) and what the firm wants to do (ambition), hence suggesting a "fit" between environment and organization.

While literature on environment under Business Policy (BP) and Organizational Theory (OT) laid emphasis on trends, forces, ratios, or other aggregations and identifying the sources of these gross movements; other authors (Tan & Litschert, 1994) claimed that literature on organizational environments reflects two prominent perspectives. The first perspective is that of information uncertainty, which suggests that the environment is the source of information (Lawrence and Lorsch, 1967, Duncan, 1972a; Tung, 1979). According to Tan & Litschert (1994), a key focus of research based on this perspective is emphasis on perceived uncertainty and the subjective rather than objective data generated by participants in organizations. The second perspective is resource dependence which posits that the environment is a source of scarce resources which are sought after by competing organizations (March & Simon, 1958 and Pfeffer & Salancik, 1978 as cited in Tan & Litschert, 1994). In

making the distinction, Tan & Litschert (1994) pointed out that as the environment becomes less munificent or more hostile, firms are subjected to greater uncertainty. They observed that management's ability to cope with these conditions by reducing the firm's dependence on or increase its control over these resources will affect organizational effectiveness (March and Simon, 1958 as cited in Tan & Litschert, 1994). A similar observation was made by Wan & Yiu (2009) with regard to the effect of environmental munificence on organizational strategy choice (acquisition).

The emerging view is that is that organizational environment is a multidimensional construct (Lawrence and Lorsch, 1967, Duncan, 1972a, Tan & Litschert, 1994). Some researchers have treated the environment as an objective fact independent of firms while others have treated this construct as perceptually determined and enacted (Aldrich, 1979 and Weick, 1979 as cited in Tan & Litschert, 1994). This unresolved issue has been a source of ambivalent empirical results. However, Bourgeois (1980) concluded that the issue is not whether measures should be objective or perceptual. Rather, he suggested that both objective and perceived environments are real and relevant from a strategic management standpoint. Objective environments are relevant to primary strategy making (domain selection), while perceived environments are a prime input to secondary strategy making (domain navigation). It has also been argued that perceptual measures make sense since only factors that participants perceive can enter into their strategy formulation behaviour (Lawrence and Lorsch, 1967, Duncan, 1972a, Tan & Litschert, 1994)..

A further observation by Dess & Beard (1984) was that the range of dimensions of organizational task environments as documented by Starbuck's (1976) monumental review of the literature is wide indeed. However, Dess & Beard (1984) noted that

there is an emerging consensus among researchers on a few important dimensions. Aldrich (1979) as cited in Dess & Beard (1984), discussed six dimensions derived from an extensive review of the literature on population ecology theory and resource-dependence theory that refer to the nature and the distribution of resources in environments, with different values on each dimension implying differences in appropriate structures and activities. Dess & Beard (1984) clearly defined the dimensions and readily applied to the task environment as defined. However, one dimension, domain consensus-dissensus, was omitted from their study because of the difficulties in applying this dimension to profit-making organizations such as those included in their research (firms drawn from the producing sectors of the economy-USA).

Further, Tan & Litschert (1994) presented Aldrich's (1979) codification of environmental dimensions which is represented in a more parsimonious set as follows: Munificence (capacity); Dynamism (stability-instability, turbulence); and Complexity (homogeneity-heterogeneity, concentration- dispersion). The three dimensions, as noted by Tan and Litschert, are conceptually similar to those proposed by others (Jurkovich, 1974; Pfeffer & Salancik, 1978; Mintzberg, 1979; and Scott, 1987); and almost identical to the important environmental conditions identified by Child (1972a). These include illiberality, variability, and complexity.

Environmental munificence (capacity) is the extent to which the environment can support sustained growth. Therefore, organizations seek out environments that permit organizational growth and stability. Hence, environmental munificence can be viewed as the scarcity or abundance of critical resources needed by (one or more) firms operating within an environment (Castrogiovanni, 1991). The resources available

within an environment influence the survival and growth of firms sharing that environment; they also affect the abilities of new firms to enter this environment (Randolph & Dess, 1984).

With regard to environmental dynamism, much of the literature in organization theory and business policy theory has dealt with it and suggested that turnover, absence of pattern, and unpredictability are the best measures of environmental stability-instability (Dess & Beard, 1984). Miles et al. (1974) and Jurkovich (1974) have contended that it is important to distinguish between the rate of environmental change and the unpredictability of environmental change. In this respect, dynamism should be restricted to change that is hard to predict and that heightens uncertainty for key organizational members (Tan & Litschert, 1994).

Lastly, environmental complexity has been conceptualized as the heterogeneity of and range of an organization's activities (Child 1972b). Duncan (1972b) and Tung (1979) among others have contended that managers facing a more complex (i.e., heterogeneous) environment will perceive greater uncertainty and have greater information-processing requirements than managers facing a simple environment. Starbuck's (1976) argument that organizational density induces organizational interdependence suggested that Aldrich's (1979) concentration-dispersion dimension also underlies the environmental complexity construct.

Some other environmental dimensions have been proposed by Duncan (1972a) who made a distinction between the internal and external environments. The internal environment refers to all those internal forces operating within the organization itself, such as the company's objectives and goals, nature of the organization's products

and/or services, communication processes and networks within the organization, and the educational background of employees. The external environment refers to all those variables outside the company, such as customers, competitors, suppliers, governments, and trade unions.

It is evident and clear to our understanding that the role of environmental context within the genealogy of strategic management is both dominant and subtle (McKiernan, 2006). Of critical importance is organizational theorists' emphasis that organizations must adapt to their environment if they are to remain viable (Duncan, 1972a). A distinguishing characteristic of the strategic management discipline is the emphasis it places on the firm's competitive environment (e.g., Chandler, 1962; Child, 1972; D'Aveni, 1994; Porter, 1980). An organization must find a match or fit between the demands of its competitive environment and its internal management systems in order to survive and succeed (Venkatraman and Prescott, 1990). However, Duncan (1972b) pointed out that if a theory of organization-environment interaction is to be developed to facilitate empirical research, it is necessary that the components and dimensions of the environment be more clearly defined. A broader understanding of the environments in which organizations operate is vital for the development of appropriate and successful strategies.

### **2.3.2 Strategy**

The concept of strategy has origins in the military setting and according to Bracker (1980), the first writers to relate the concept of strategy to business were Von Neumann and Morgenstern (1947) with their theory of games. These first writers defined strategy as a series of actions by a firm that are decided on according to the particular situation (Bracker, 1980). Since then, the definition of strategy has had

different dimensions due to the surfacing of other numerous authors who have developed myriad perspectives of strategy. Therefore, the definition of strategy during the times of Von Neumann & Morgenstern (1947) is bound to be different from what it could be today due to changes in the environment. Some of these definitions are examined and areas of convergence and divergence pointed out.

Drucker (1954) viewed strategy as analyzing the present situation and changing it if necessary. Incorporated in this view is finding out what one's resources are or what they should be. This definition is in congruent with Von Neumann & Morgenstern's definition with respect to consideration of the situation but adds the aspect of resource endowment. After Drucker, Chandler (1962) defined strategy as the determination of the basic long-term goals of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals. Chandler's definition introduced the futuristic aspect in the definition of strategy. A few years later Ansoff (1965) offered a definition of strategy which linked the organization's offerings (goods and services) with the market (needs and wants) and as a means to achieve a competitive edge over competition. Ansoff (1965) defined strategy as a rule for making decisions determined by product/market scope, growth vector, competitive advantage, and synergy.

Several other authors, among them Andrews (1971); Schendel & Hatten (1972); Hofer (1975); Mintzberg (1979); Porter (1980); Hax & Majluf (1996); and Johnson and Scholes (2002), have offered various definitions of strategy. Their definitions draw upon the earlier writers of strategy but add into them different aspects and dimensions that accommodate their conceptual and contextual inclinations. The manifestation of the divergences in the various authors' definitions is bound to be

reflected in the breadth of the concept of strategy, the components (if any) of strategy, and the inclusiveness of the strategy-formulation process.

For instance, Mintzberg (1994) laid emphasis on instrumental character of strategy that is determined by organizational intentions and context. According to him, strategy can be a plan, ploy, pattern, position, and perspective. On their part, Johnson and Scholes (2002) laid emphasis on the futuristic aspect of strategy and as a means through which organizations grapple with the changing environment and fulfillment of stakeholders' expectations.

The numerous definitions accorded to the concept of strategy by different scholars reveal that strategy is a multi-dimensional concept. This view has been underscored by Hax & Majluf (1996) who argued that by the concept of strategy, we mean its content and substance. According to them, strategy embraces all the critical activities of the firm, providing it with a sense of unity, direction, and purposes, as well as facilitating the necessary changes induced by its environment. Consequently, Hax & Majluf (1996) provided a unified definition of the concept of strategy that underscores the holistic consideration of internal organizational aspects as well as external ones as a means of assuring organizations of sustainable competitive advantage.

From the abovementioned, Bracker (1980) observed that it could seem that the need for a concept of strategy related to business became greater after World War II when business moved from a relatively stable environment into a more rapidly changing and competitive environment. Ansoff (1969) as cited in Bracker (1980) attributed this change in environment to two significant factors. First is the marked acceleration in



the rate of change within firms, and second is the accelerated application of science and technology to the process of management. The accelerated rate of change put a premium on the ability to anticipate change, to take advantage of new opportunities, and to take timely action in avoiding threats to the firm. New technologies spurred interest in and acceptance of analytic and explicit approaches to decision making that increased management's ability to deal with the increasingly uncertain future (Bracker, 1980).

Bourgeois (1980) observed that despite lack of uniform treatment of the concept of strategy which has hindered its theoretical and empirical development, one can find among the many definitions that strategy has the two primary purposes of defining the segment of the environment in which the organization operates and providing guidance for subsequent goal-directed activity within that niche. These two purposes form the basis for specifying a hierarchical definition of strategy, that is, the domain definition of strategy as offered by Bourgeois (1980). According to Bourgeois (1980), domain definition of strategy refers to the organization's choice of domain or change of domain that occurs when, for example, a firm diversifies into or exits from particular products or markets. He points out Miles and Snow's (1978) "entrepreneurial problem" and Chandler's (1962) "strategic decisions" as being of this type. He also pointed out that Ansoff's (1965) entire focus was limited to this level while several other writers (Hofer, 1975; Hofer & Schendel, 1978; Lenz, 1978; Vancil 1976; Vancil and Lorange, 1975) referred to this level of strategy as "corporate" or "portfolio" strategy in contrast to "business" strategy.

Thus, Bourgeois (1980) contended that once a domain or competitive arena has been determined by primary strategy, the organization is subject to the environmental constraints to which the contingency theorists attribute primacy. This level, then, Bourgeois (1980) said includes Churchman's (1968) "missions", Ansoff's (1965) "administrative decisions", Chandler's (1962) "entrepreneurial decisions", Uytterhoeven's (1973) "competitive weapons", and Hofer's (1973) "distinctive competences".

Further still, different theories and perspectives explaining the concept of strategy have been proposed. Whittington (1993) offered an elaborate exploration into four generic theories/approaches/perspectives on strategy, with each perspective providing different answers for the two questions that were the title of his book - *What is Strategy- and Does it Matter?* The four perspectives are the classical, evolutionary, processual, and systemic. These four perspectives differ fundamentally along two dimensions: the outcomes of strategy and the process by which it is made.

Accordingly, classical and evolutionary approaches see profit maximization as the natural outcome of strategy-making; systemic and processual approaches are more pluralistic, envisioning other possible outcomes as well as just profit. The pairings are different with regard to processes in which evolutionary approaches side with processualists in seeing strategy as emerging from processes governed by chance, confusion, and conservatism. On the other hand, though differing over outcomes, classical and systemic theorists do agree that strategy can be deliberate. A summary of the four perspectives of strategy as offered by Whittington (1993) is presented (Table 2.1).

**Table 2.1: Four Perspectives of Strategy**

	<i>Classic</i>	<i>Processual</i>	<i>Evolutionary</i>	<i>Systemic</i>
<b>Strategy</b>	Formal	Crafted	Efficient	Embedded
<b>Rationale</b>	Profit maximization	Vague	Survival	Local
<b>Focus</b>	Internal (plans)	Internal (politics/cognitions)	External (markets)	External (societies)
<b>Processes</b>	Analytical	Bargaining/learning	Darwinian	Social
<b>Key influences</b>	Economics/military	Psychology	Economics/biology	Sociology
<b>Key authors</b>	Chandler Ansoff Porter	Cyert & March Mintzberg Pettigrew	Hannan Freeman & Williamson	Granovetter Marris
<b>Key period</b>	1960s	1970s	1980s	1990s

Source: Whittington R. (1993), *What is Strategy and Does it Matter?* Thomson Business Press

The four perspectives on strategy have so far addressed the process and outcome of strategy. Consequently, much of the subsequent works in the strategy field literature have been concerned with the process of strategy development and not much about content. In an effort to develop a body of concepts that define both the content and substance of strategy, some other theories/perspectives of/on strategy have been proposed by some seasoned scholars in the field of strategy. Key among these theories include Hofer's (1975) Contingency Theory; Jauch & Osborn's (1981) Integrated Theory; Porter's (1991) Dynamic Theory; and Farjoun's (2002) Organic Perspective. These theories advance different perspectives with respect to the content of strategy and process of strategy formulation, the role of both internal and external environment, and determinants of organizational long-term success.

### 2.3.3 Performance

Corporate or organizational performance relate to the efficiency and effectiveness of the firm. Understanding organizational goals and strategies is the first step toward understanding organization effectiveness. Organizational effectiveness is the measure

of how successfully organizations achieve their missions through their core strategies. Organizational effectiveness studies are concerned with the unique capabilities that organizations develop to assure that success (McCann, 2004). Efficiency is the cost per unit of output, describing the relationship between the goods and services produced by a program or activity (outputs) and the resources used to produce them (inputs). Put differently, an activity generating a given output can be said to be efficient if there is no alternative method of generating the output using less input (Richard & Tomassi, 2001).

Effectiveness is often used as a synonym for efficiency, but they are not the same. Effectiveness relates to achieving an expected objective while efficiency relates to the cost or effort to achieve that objective. So, in comparison to effectiveness, which is focused solely on outputs, efficiency is focused on both outputs and inputs. Thus, these two means to describe operations are not synonymous, as an activity could be done effectively, but not efficiently, or efficiently but not effectively. Sometimes efficiency leads to effectiveness but not always (Richard & Tomassi, 2001). In other organizations, efficiency and effectiveness are not related. When managers tie performance measurement to strategy execution, this can be a valuable tool for helping organizations reach their goals (Duque-Zuluaga & Schneider, 2008).

In proposing an evolutionary model of organizational performance, Barnett et al (1994) pose a question: why do some organizations perform better than others? They contend that this may be the defining question of the strategy field and in response, offered a two-pronged answer. Using the lens of industry analysis, they directed attention to a firm's position in competitive context. From this view, above-average performance results when a firm gains advantage from its location in the market, and

is sustained when various barriers give it refuge from rivals that would otherwise compete away this 'positional' advantage as referred to by Caves & Porter (1977).

At the same time, however, Barnett et al (1994) exuded evidence of organizations that outperform others in the same position and argued that such cases raise the possibility that superior performance is due to idiosyncratic properties of organizations-so-called 'distinctive competencies' as referred to by Selznick (1957). They attributed sustained performance differences to capabilities possessed by firms because they are, by definition, difficult to identify and imitate as characterized by Wernerfelt (1984) and Barney (1986). A conclusion drawn by Barnett et al (1994) was that there is a trade-off between these two sources of competitive advantage, a trade-off that is evident only when the role played by managers is explicitly considered. They argued that competitive forces spawn distinctive competencies, but that managers attempt to restrict these forces when they seek positional advantage. Consequently, what managers do to achieve positional advantage works against the development of distinctive competencies (Barnett et al 1994).

Business firms are compared in terms of profits, sales, market share, productivity, debt ratios, and stock prices among others (March & Sutton, 1997). March & Sutton (1997) observed that explaining variation in performance or effectiveness is also one of the more enduring themes in the study of organizations and it is manifested most distinctively in studies with a focus on "management" but extends to a wide range of research that seeks to understand competitive survival and to construct interpretations of organizational histories that emphasize the adaptation of organizations to feedback from their environments. They argued that organizational performance can, of course, be considered at a disaggregated level, as for example in studies of the direct costs of

producing a particular product using a specific technology or of efficiency in performing a particular task.

Most studies on organizational performance consider performance as a dependent variable and seek to identify variables that produce variations in performance. March and Sutton (1997) pointed out that researchers who study organizational performance in this way typically devote little attention to the complications of using such a formulation to characterize the causal structure of performance phenomena. These complications include the ways in which performance advantage is competitively unstable, the causal complexity surrounding performance, and the limitations of using data based on retrospective recall of informants. March and Sutton (1997) explained that since these complications are well-known and routinely taught, a pattern of acknowledging the difficulties but continuing the practice cannot be attributed exclusively to poor training, lack of intelligence, or low standards.

The important role of organizational performance in strategic management warrants close attention to the conceptualization and measurement of business performance (Venkatraman & Ramanujam (1986). Measuring firm performance has been a major challenge for scholars and practitioners as well (Simerly & Mingfang, 2000). Chakravathy (1986) observed that performance is a multidimensional construct and thus, any single index may not be able to provide a comprehensive understanding of the performance relationship relative to the constructs of interest and therefore, it is important to look at multiple indicators. A further observation by Simerly & Mingfang (2000) was that it is important to understand stable relations over time and hence, instead of using a short-term indicator of performance it is desirable to study how variables of interest will influence performance over a period of time.

It is evident that the indicators used to measure organizational performance are varied and largely dependent on the core business of the organization and the rationale for its existence. This is in line with March & Sutton's (1997) observation that organizations are commonly defined as instruments of purpose and that they are seen as coordinated by intentions and goals. March & Sutton (1997) further observed that such a formulation has often troubled students of organizations. Hence, they contended that it is not clear that organizational purpose can be portrayed as unitary or that the multiple purposes of an organization are reliably consistent, and that it is not clear that a single conception of purposes is shared among participants in an organization.

Consequently, March & Sutton (1997) were of the view that making comparisons on organizational performance across organizations in the same business become a basis for evaluating executives, for making decisions about allocation of human and other resources, for writing history, and for stimulating arrogance and shame. In all the various measurements of organizational performance that have been used by different researchers, the underlying implication is that organizational performance relates to the efficiency and effectiveness of the firm.

In a meta-analytic view of the determinants of financial performance, Capon et al. (1990) observed that much of what is known about the determinants of industry, firm and business financial performance is in the form of measures of individual relationships in models linking various hypothesized causal variables to various performance measures. The causal variables usually describe some combination of elements of environment, firm strategy and organizational characteristics (Capon et al., 1990).

## 2.4 Performance Implications of External Environment-Strategy Co-alignment

Since the late 1950s, many leading organizational theorists have advocated an open systems approach to the study of organizations and that this approach calls for an investigation of organization-environment interaction (Tung, 1979). The central tenet in strategic management is that a match between environmental conditions and organizational capabilities and resources is critical to performance, and that a strategist's job is to find or create this match (Bourgeois, 1985). Bourgeois (1981) had observed that strategic management scholars have refined industrial organization orientation by attempting to explain differences in performance of individual firms within industries. He pointed out that this orientation assumes that a set of company actions (strategies) can be matched to industry imperatives to achieve maximal performance.

One of the most widely shared and enduring assumptions in the strategy formulation literature is that the appropriateness of a firm's strategy can be defined in terms of its fit, match, or congruence with the environmental or organizational contingencies facing the firm (Andrews, 1971; Hofer & Schendel, 1978; Zajac et al., 2000). Strategic fit is a core concept in normative models of strategy formulation, and the pursuit of strategic fit has traditionally been viewed as having desirable performance implications (Ginsberg and Venkatraman, 1985; Zajac et al., 2000).

Scholars in the field of strategic management have conceptualized the environment as one of the key constructs for understanding organizational behaviour and performance (Hofer & Schendel, 1978). Basing their research on an extensive review of over 80 articles, Lenz & Engledow (1986) identified five approaches to modeling



environments. These include the industry structure model (Porter, 1980), the cognitive model (Weick, 1979), the organizational field model (Dill, 1958), the ecological and resource dependency model (Aldrich, 1979; Pfeffer & Salancik, 1978), and the era model (Naisbitt, 1982). All these approaches to modeling environments vary in terms of assumptions about environmental structures, assumptions about the process and causes of environmental change, and assumptions about how managers or researchers know and understand environments (Lenz & Engledow, 1986).

It has been observed that both a firm's business environment and its strategy have been hypothesized and empirically demonstrated to have significant effects on performance (Porter, 1980; Prescott, 1986). According to Prescott (1980), previous research (Hofer & Schendel, 1978; Pfeffer & Salancik, 1978) has considered strategy to be basically under the control of managers, but has viewed environments as constraints that in certain situations managers can proactively change. Based on this observation, Prescott stated that much of the strategic management literature has focused on the relationship between strategy and performance and considered environments as moderators of that relationship. However, in her study, Montgomery (1979) observed that corporate performance can be thought of as resulting from the interaction of two types of variables which are firm-specific and environmental variables.

In yet another study, Tan & Litschert (1994) observed that both conceptual and empirical studies (Thompson, 1967; Child, 1972; Miller & Friesen, 1978; Mintzberg, 1979; Tung, 1979; Dess & Beard, 1984) have identified specific environmental dimensions. These are dynamism, complexity, and hostility. Tan & Litschert pointed out that environmental complexity and dynamism have been closely linked to the

information uncertainty perspective (Lawrence & Lorsch, 1967; Thompson, 1967), while hostility has been tied to the resource dependence perspective (Aldrich, 1979; Pfeffer & Salancik, 1978). They noted that these perspectives offer a better understanding of the impact of each environmental dimension on the formulation of a firm's strategy. These dimensions affect top management's perception of uncertainty, which in turn influences such strategic decision characteristics as propensity for risk-taking, futurity, proactiveness and defensiveness (Miles & Snow, 1978; Miller & Friesen, 1983; Tan & Litschert, 1994).

On their part, Nadkarni & Barr (2008) developed and tested a mediated model in which environment is proposed to influence action through the cognitive frameworks held by top managers. Their findings have important implications for our understanding of the development of top managers' beliefs, the relationship between those beliefs and strategic action, and bring us closer to understanding the complex relationship between industry context, managerial cognition, and strategic action.

Regarding salient dimensions of industry environments, Dess & Beard (1984) integrated strategic management and organization theory literature and provided theoretical and empirical support for three dimensions. These include munificence (i.e., available resources with which the environment can support sustained growth and provide "organizational slack"), dynamism (i.e., extent of unpredictable change in environmental elements), and complexity (i.e., heterogeneity of and range of environmental activities). These dimensions, similar to those proposed by Child (1972), synthesize two approaches to conceptualizing environments (Aldrich & Mindlin, 1978), that is, as a source of information and as a stock of resources. It is posited that the fit between environmental dimensions and strategic orientation will

lead to better organizational performance (Venkatraman & Prescott, 1990).

Dess & Beard (1984) observed that Starbuck's (1976) concept of environmental munificence as the extent to which the environment can support sustained growth is quite similar to Aldrich's (1979) concept of environmental capacity. According to Dess & Beard, both Starbuck and Aldrich state that organizations seek out environments that permit organizational growth and stability. Such growth and stability may, for example, allow the organization to generate slack resources (Cyert & March, 1963 as cited in Dess & Beard, 1984). These resources can in turn provide a buffer for the organization during periods of relative scarcity (Dess & Beard, 1984). For example Dess & Beard (1984) cited Hirsch's (1975) study which established that organizations use complex, external social relationships to co-opt "institutional gate keepers" (e.g., physicians, for the pharmaceutical industry) in order to ensure a flow of resources and to obtain a more munificent environment. They also cited Staw & Swajkowski' (1975) study which established that organizations competing in less munificent environments were more likely to commit illegal acts.

Nadkarni & Barr (2008) examined differences in two forms of subjective representations that top managers develop about environments. They include attention focus (the aspects of the environment that are central to top managers' subjective representations of their environments) and environment-strategy causal logics (the order of the perceived causal relationship between the external environment and firm strategy). They found that industry velocity influences the structure of cognitive representations, which in turn influence the speed of response to environmental events.

In the business-policy literature, the industry or product-evolution cycle is the most

fundamental variable in determining an appropriate business strategy (Hofer, 1975; Dess & Beard, 1984). Dess & Beard (1984) held the view that the primary variable in this cycle is the rate of sales growth, which is the primary factor determining an environment's munificence. They also pointed out that several portfolio strategy models consider market growth to be an important contingency and a primary determinant in the long-term viability of a given business strategy. Examples are the General Electric's Business Screen and the Boston Consulting Group's Business Portfolio Matrix (Dess & Beard, 1984). Further, it is proposed that market growth permits member organizations to strengthen their competitive position in a given market or to expand their existing product-market scope (Ansoff, 1965; Dess & Beard, 1984). The predominant aspect inherent in literature is the influence of an organization's external environment on corporate strategy, hence performance. For instance, Dess & Beard (1984) observed that in several empirical studies (Beard & Dess, 1979, 1981; Lieberman & O'Connor, 1972), the level of profitability of the industry within which an organization competes has been found to be a significant predictor of corporate performance.

Ansoff & McDonnell (1990) suggested a strategic success formula that epitomizes an organization's strategic aggressiveness depending on the different environmental turbulence levels that an organization faces. The same propositions have been offered in Ansoff & Suvillan's (1993) view of the strategic behaviour of environment serving organizations (ESOs). According to Ansoff & McDonnell (1990), strategic aggressiveness is described by two characteristics. First is the degree of discontinuity from the past of the firm's new products/services, competitive environments, and marketing strategies. The scale of discontinuity ranges from no change to incremental

change, to change which is discontinuous for the firm but observable in the environment, to creative change which has not been observed previously. Second is timeliness of introduction of the firm's new products/services relative to new products/services which have appeared on the market. Timeliness ranges from reactive to anticipatory, to innovative, to creative.

Ansoff & McDonnell (1990) observed that the most important factor determining the competitiveness and profitability of organizations is the extent to which they match their strategies and capabilities to the environment in which they operate. They proposed a strategic success hypothesis which informs the nature of strategic diagnosis to be carried in 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 aggressiveness of the firm's strategic behaviour matches the turbulence of its environment; when responsiveness of the firm's capability matches the aggressiveness of its strategy; and when the components of the firm's capability must be supportive of one another. Consequently, for every level of turbulence, particular types of strategies and capabilities for success have been identified.

Level one is a stable and repetitive environment in which firms do not change their products and services unless forced by a threat to their survival. Firms operating at this level are hierarchical, highly structured and executives work according to precise job descriptions. Level two is characterized as an expanding environment which changes slowly and incrementally where firms succeed by adapting reactively to change. These firms make incremental moves based on experience and do not change

their products and services in the absence of threats from competition. The successful firms are production oriented with emphasis on internal efficiency and productivity. Little attention is paid to the market and customers since it is assumed that minimization of cost will automatically lead to success in the market place. Firms operating at this level are likely to achieve success by maximizing market share (Ansoff & McDonnell, 1990).

In level three environment which is characterized as a changing environment, the successful firms seek to progressively improve their products and services in anticipation of the evolving needs of the customers. The prescription to "stick to the strategic knitting" suggested by Peters and Waterman (1982) is appropriate for firms operating at this level. These firms are extroverted and market-driven. The focus is on servicing the future needs of existing customers using the existing strengths of the firms (Ansoff and McDonnell, 1990).

Level four environment is the discontinuous environment which is the most difficult level to manage and there is a radical difference between successful firms at level 3 and those at this level. The distinctive characteristic of a successful firm at this level is that it is ready to abandon its historical position. It is driven by its perception of the new opportunities that will exist in the environment. There is no attachment to particular customers, technologies or products. The firm is prepared to move to where it perceives the profits to be. This is rather different from firms at level 3 which concentrate on servicing the future needs of their existing customers using the historical strengths of the firms (Ansoff & McDonnell, 1990). Lastly, at level five is the surpriseful environment. The success formula at this level is to develop products and services with the cutting edge innovation and technology. The firms

seek to create their own environment. They are flexible and totally committed to creativity (Ansoff & McDonnell, 1990).

Therefore, Ansoff & McDonnell's (1990) and Ansoff & Sullivan's (1993) strategic success formula states that for optimum return on investment, both the aggressiveness of the firm's strategy and its capabilities must match the turbulence of the environment. Thus, capabilities that are appropriate for a high level of turbulence will be costly and wasteful for firms operating in a low level of turbulence. Capabilities that are adequate in a low turbulence environment will leave a firm badly positioned in a highly turbulent environment.

In stable environments, the firm's strategic planning is based on extrapolation of historical success strategies. The future can be forecast with a great degree of certainty and it is possible to prepare a fairly detailed long-range plan. In turbulent environments, the firms will be confronted with frequent shifts in strategic success factors. One of the major challenges of the management is continuously be on the alert for such shifts and to adapt to these shifts. In these environments, the output of strategic planning is direction rather than a detailed plan (Ansoff & Suvillan, 1993).

Ansoff & Suvillan (1993) advised that the company operating in a turbulent environment should have a compass rather than a detailed road map; for a road map with detailed instructions is of little use when the topography is unknown and fast changing. A compass will point to the right direction and management team, with ingenuity and teamwork, can overcome unforeseen obstacles and unanticipated opportunities that open the way to the destination.

Ansoff & McDonnell (1990) developed strategic diagnosis instruments to help a

company assess its turbulence level, and to check whether it has a strategic alignment problem. The diagnosis also identifies a combination of turbulence levels, strategic aggressiveness and organizational capability responsiveness that will produce optimum profitability. However, Ansoff & McDonnell (1990) never offered a means of measuring firm performance and/or an objective definition of indicators of optimum performance. The strategic success formula is illustrated (Table 2.2).

**Table 2.2: Matching Triplets-Aggressiveness with Responsiveness with Turbulence**

<b>ENVIRONMENTAL TURBULENCE</b>	<b>REPETITIVE</b> Repetitive	<b>EXPANDING</b> Slow Incremental	<b>CHANGING</b> Fast Incremental	<b>DISCONTINUOUS</b> Discontinuous Predictable	<b>SURPRISEFUL</b> Discontinuous Unpredictable
<b>STRATEGIC AGGRESSIVENESS</b>	<b>STABLE</b> Stable Based on Precedents	<b>REACTIVE</b> Incremental Based on Experience	<b>ANTICIPATORY</b> Incremental Based on Extrapolation	<b>ENTREPRENEURIAL</b> Discontinuous New Based on Observable Opportunities	<b>CREATIVE</b> Discontinuous Novel Based On Creativity
<b>ORGANISATIONAL RESPONSIVENESS</b>	<b>STABILITY SEEKING</b> Rejects Change	<b>EFFICIENCY DRIVEN</b> Adapts to Change	<b>MARKET DRIVEN</b> Seeks Familiar Change	<b>ENVIRONMENT DRIVEN</b> Seeks Related Change	<b>ENVIRONMENT CREATING</b> Seeks Novel Change

**LEVEL**                      **1**                      **2**                      **3**                      **4**                      **5**

**Source:** Ansoff and McDonnell (1990), *Implanting Strategic Management*, 2<sup>nd</sup> Ed., NY: Prentice Hall, Pp. 38.

It is, however, worthy noting that organizational adaptations to environmental changes are strongly influenced by the interpretations executives make of the environmental changes (Daft & Weick, 1984; Hambrick & Mason, 1984; Thomas, Clark, and Gioia, 1993 as cited in Chattopadhyay et al, 2001). Chattopadhyay et al (2001) also observed that because the effectiveness of organizations is influenced by the degree of fit between organizations and their environments (citing Doty et al., 1993; Miles & Snow, 1978), it is important that organizational adaptations be appropriate for the environmental changes. They further observed that because environmental changes are often ambiguous (citing Ford & Baucus, 1987; Pfeffer &



Salancik, 1978), interpretations of environmental changes play a large part in the future actions and the continuing effectiveness of an organization. Indeed, in his study on "Strategic Goals, Perceived Uncertainty, and Economic Performance in Volatile Environments", Bourgeois (1985) hypothesized that the greater the match between true environmental volatility and managers' perceived environmental uncertainty, the higher the economic performance of a firm; and the greater the homogeneity of perceived environmental uncertainty within a top management team, the greater the economic performance of a firm.

From the foregoing, it is evident that the various propositions on performance implications of environment-strategy relationship rest on the general notion of co-alignment, which is a central anchor for strategic management research (Venkatraman, 1990). For instance, Venkatraman and Prescott (1990) researched on performance impacts of environment-strategy co-alignment and developed a conceptualization of environment-strategy co-alignment as deviations in ideal patterns of strategic resource deployments. Their study provided strong empirical support for the general proposition of environment-strategy co-alignment and its impact on performance.

However, Venkatraman & Prescott (1990) warned that the use of co-alignment in theory construction is limited unless considerable attention is provided to link the articulation of the theoretical position with appropriate operationalization schemes. Specifically, Venkatraman & Prescott (1990) pointed out the emergence of two important issues. First are the problems surrounding the conceptualization and operationalization of environments and strategy; and second, is the development of an appropriate analytical scheme (given the specific conceptualizations of environment

and strategy) for systematically measuring the degree of co-alignment and its impact on performance. It is argued that issues of conceptualization and operationalization of the research variables are context dependent hence attracting a series of replicative studies, among them the current study.

A study by Venkatraman (1990) adopted a methodological orientation to examining a general proposition of the performance implications of strategic co-alignment among three generic strategy dimensions: marketing, manufacturing and administrative. The proposition was evaluated using three seemingly complementary perspectives of statistical modeling: interactionist; profile-derivation; and covariation. The results generally supported the proposition using two of three perspectives, thus raising critical methodological issues relating to multiple specifications of the statistical form of co-alignment.

In their study, Tan and Litschert (1994) replicated Venkatraman & Prescott's (1990) study of performance impacts of environment-strategy co-alignment within the context of a centrally planned economy in transition (China). The study established that managers' perceptions of increased environmental uncertainty were negatively related to proactive strategies and positively related to defensive strategies. Defensive strategies were also linked to higher performance.

Another study by Luo & Park (2001) on environment-strategy-performance relationship among foreign firms with a market-seeking mandate established that the analyzer orientation was best suited to the turbulent Chinese market, which had undergone an economic transition some years before the study. There was also a significant difference in financial performance among market-seeking MNCs

depending on strategic orientations, with the analyzer orientation producing the highest performance. These findings reiterated the importance of understanding environmental conditions and developing proper strategic configurations for organizations, especially in turbulent environments.

Based on a covariation perspective of fit, Bergeron et al. (2002) proposed an operational model of strategic alignment and empirically validated it through a mail survey of small firms. The study found that the co-alignment of business strategy, organizational structure, information technology strategy (IT), and information technology strategy (IT) structure was positively related to business performance.

Further still, a study by Davies & Walters (2004), established how insights from the resource dependence approach, dynamic fit, and strategic choice theories were used to explore the strategies adopted by Chinese enterprises, their settings, and the relationship between strategy, environment, and performance. The study established that firms operating under 'more marketized' institutional settings tend to locate themselves in more munificent environments and place greater emphasis on meeting customer needs. The researchers pointed out that firms in China do not trade off one strategic direction against another, and certain strategy/environment co-alignments have significant implications for performance. In particular, performance is better in more marketized and munificent environments and amongst firms which adopt an 'aggressive' strategic posture.

Empirical studies within the Kenyan context have treated corporate performance as a dependent variable but different independent variables. For instance, Irungu's (2007) study revealed that there exists a relationship between Top Management Team (TMT)

characteristics and various indicators of corporate performance but the results were mostly statistically insignificant. The study considered the operating environment as a moderating variable in the relationship between TMT characteristics and performance. Within the operating environment, the study focused on government control; competition; availability of resources, cost of resources, technology changes, interest rates, taxation; and political activity. This study focuses on different aspects of the operating environment such as customer profiles, supplier relationships, labour market, trade unions, and extends to industry environment as well as the macro environment.

The study by Awino (2007) on the effect of selected strategy variables on corporate performance established that the independent effects of the selected variables (core competencies, core capabilities, strategy, strategy implementation) on corporate performance is weaker compared to their joint effect. The current study operationalizes strategy as strategic orientations and strategy types as well as considering environment as a key independent variable. Kidombo's (2007) study on human resource strategic orientation, organizational commitment and firm performance established that soft and hard human resource strategic orientations have a strong and positive relationship with firm performance. While this study used the human resource strategic orientations, the current study considers the overall organizational strategic orientations during organizational strategic decision making process in the face of different environmental manifestations.

Munyoki' (2007) study on the effects of technology transfer on organizational performance established that technology transfer has a positive influence on organizational performance moderated by organizational demographics and practices.

The study's focus was limited to technology transfer without looking at the wider environmental aspects which influence organizational performance. It is argued that the context in which knowledge transfer takes place is important because it influences organizational decision making. The proposed study takes this wider perspective and uses firm-level institutions rather than organizational demographics and practices as moderating variables. Waweru's (2008) study on competitive strategy implementation and its effect on performance established that firms which use soft (leadership, communication, consensus building, culture, and capacity for overcoming resistance to change) and hard (structure, resources, and reward systems) implementation armaments together outperform those which exclusively use either soft or hard implementation armaments. The soft and hard implementation armaments used in the study are similar to the current's study's firm-level institutions which are considered as moderating variables. While Waweru's (2008) focused on specific strategy types (generic competitive strategies of low cost leadership and differentiation), the current study uses an organization's strategic orientations and considers grand strategies in addition to generic strategies as operationalization of strategy as one of the independent variables.

Sifa's (2009) study focused on the influence of core competencies on the relationship between co-alignment variables (strategy, structure, and environment) and corporate performance. The study established that there is a positive relationship between environment, strategy, structure, core competencies and performance and that core competencies moderated the relationship between co-alignment variables and firm performance. The study laid focus on the industry environment as depicted by Porter's (1980) competitive forces and the strategic behaviours of defenders, analyzers,

reactors, and prospectors as proposed by Miles and Snow (1984). The current study incorporates other environmental factors (macro- and micro-environmental factors) and operationalizes strategy as strategic orientations and strategy types.

## **2.5 Firm-Level Institutions and Corporate Performance**

Just being able to align external environment and organizational strategy is not enough. An organization's management must also be able to translate the chosen strategy into concrete steps that 'get things done' in order to achieve the optimum positive effect of environment-strategy co-alignment on organizational performance. This is the concern of strategy implementation (Thompson & Strickland, 2003). Effective strategy implementation calls for an appropriate match between the strategy and internal organizational variables, key among them the administrative systems, resources and organizational competencies.

Effective strategy implementation includes considerations of who will be responsible for strategy implementation; the most suitable organizational structure that should support the implementation of strategy (Pettigrew, 1988; Lynch, 2000); the need to adapt the systems used to manage the organization (Johnson and Scholes, 2002); the key tasks to be carried out and desirable changes in the resource mix of the organization as well as the mandate of each department in the organization and the information systems to be put in place to monitor progress and resource planning (Pearce & Robinson, 1997). Implementation may also take into account the need for retraining the workforce and management of change (Johnson & Scholes, 2002).

Thompson & Strickland (2003) state that strategy implementation challenge is to create a series of tight fits between strategy and the organization's competencies,

capabilities and structure; between strategy and budgetary allocation; between strategy and policy; between strategy and internal support systems; between strategy and reward structure; and between strategy and the corporate culture.

In as much as managers' approaches need to be tailor-made for the situation, Thompson & Strickland (2003) pointed out that there are certain bases that have to be covered no matter what the organization's circumstances. These include building an organization capable to carry out the strategy successfully, developing budgets to steer ample resources into those value chain activities critical to strategic success, establishing strategy supportive policies and procedures, instituting best practices and pushing for continuous improvement and how value chain activities are performed, and installing information, communication, e-commerce, and operating systems that enable company personnel to carry out their strategic roles successfully day in day out. Others include tying rewards and incentives to the achievement of performance objectives and good strategy execution, creating a strategy-supportive work environment and corporate culture, and exerting the internal leadership needed to drive implementation forward and keep improving on how the strategy is being executed.

Muthuiya (2004), pointed out that how organizations, whether for profit or non-profit, implement their strategies is important because it influences the achievement of their desired outcomes. This process requires organizations to have clear methods, procedures and systems to be able to implement their strategies effectively and efficiently. The process also requires organizations to have the capacity at the organizational level and the capabilities of the relevant staff as well as an enabling environment both internally and externally. The above aspects, he observed, mainly

touch on the skills of staff, resources, structures and systems. Others are leadership, culture, organizational policies, and performance and reward systems.

Over the last two decades, resource-based theory (RBT) has emerged as a very popular theoretical perspective for explaining performance (Newbert, 2007). Barney (1991) suggested that resources are leveraged to create competitive advantages, which in turn confer performance advantages. In a meta-analytic review of 125 studies of RBT that collectively encompassed over 29,000 organizations, Crook et al. (2008) observed that while RBT is still evolving as a theory, its empirical base offers strong support for the assertion that organizations' performance is enhanced to the extent that they possess strategic resources.

Overall, the fundamental view of fit propounded by strategic management researchers and organization theorists was that it is a dynamic search that seeks to align the organization with its environment and to arrange resources internally in support of that alignment (Miles and Snow, 1984). As strategy is the force that mediates between the firm and its environment, it is in practical terms the basic alignment mechanism, and the organizational structure must be well suited to it if a significant competitive advantage is to be created. Firms whose strategy and structure are aligned should be less vulnerable to external changes and internal inefficiencies, and should thus perform better because the structure provides the necessary systems and processes essential for successful strategy implementation (Habib & Victor, 1991). In order to highlight the research gaps that this study seeks to address, a summary of some empirical studies is provided (Table 2.3).



**Table 2.3: Summary of Empirical Studies and Inherent Gaps**

Researcher(s)	Focus	Research Variables	Findings	Remarks/Implied Gaps
Lawless & Finch (1989)	An empirical test of Hrebiniak and Joyce's (1985) framework on strategy-environment fit with emphasis laid on strategy choice as determined by particular environments.	<p><b>Environment:</b> Munificence, Dynamism, and Complexity.</p> <p><b>Strategy:</b> Differentiation, Cost leadership, Focus, and Asset parsimony.</p> <p><b>Performance (Implied):</b> accounting and market value performance variables (ROI, ROE, ROS, EPS etc).</p>	There was partial support for Hrebiniak and Joyce's environment typology and for their contingent strategies. Frequency of firm location among the environments were highly skewed, hence the strategy-environment fit may not be as critical as market-selection in the competitive success of firms. The relationships between performance and particular strategy types vary by environment.	The study limited itself to external fit and specific strategy choices. Its consideration of the environmental dimensions was also partial. Internal organizational context variables that influence strategy implementation were not considered. These variables are considered as moderating variables in the present study.
Venkatraman & Prescott (1990)	Performance impacts of environment-strategy co-alignment: <i>Does a business that aligns its strategic resource deployments to the specific requirements of its environmental context (i.e. achieve an acceptable level of environment-strategy co-alignment) perform significantly better than a business unit that</i>	<p><b>Environment:</b> Global exporting, Fragmented, Stable Auxiliary services, Emerging, Mature, Global importing, and Declining.</p> <p><b>Strategy:</b> Resource deployments to specific requirements of each of the environments e.g backward and forward integration, R&amp;D, marketing, investment etc.</p> <p><b>Performance:</b> Return on Investment (ROI)</p> <p><b>Co-alignment</b> is conceptualized in terms of the degree of adherence to an 'ideal' profile specified for a</p>	The researchers developed a conceptualization of environment-strategy co-alignment as deviations in ideal patterns of strategic resource deployments and provided strong empirical support for the general proposition of environment-strategy co-alignment and its impact on performance. There was a positive performance impact of environment-strategy co-alignment.	The study limited itself to 'external fit', that is, the formulation of strategy in alignment with the environmental context. Firm-specific contextual factors that affect strategy implementation were not considered. Strategic orientations exhibited in each of the environments were not considered. These gaps are addressed by the present study by introducing firm-specific contextual factors and strategic

	does not achieve the requisite match?	given environment.		orientations.
Venkatraman (1990)	Performance Implications of Strategic Co-alignment: A Methodological Perspective.	<b>Strategy:</b> marketing, administrative, and manufacturing dimensions. <b>Performance:</b> profitability	The analysis and results generally supported the proposition that strategic co-alignment among marketing, manufacturing, and administrative dimensions was positively and significantly related to performance.	Since effective strategic management involves both external fit (with environment) and internal fit, this study was limited. It would have been desirable to consider the differential effects of this co-alignment across different external contingencies. Also, the strategy dimensions reflect only a 'first-cut' at identifying an important and parsimonious representation of business strategy. This study fully addresses the first concern and considers strategic orientations, hence partially addressing the second one.
Tan & Litschert (1994)	Performance impacts of environment-strategy co-alignment: <i>the study explored the environment-strategy linkage and its performance implications in a centrally planned</i>	<b>Environment:</b> Dynamism, Complexity, and Hostility <b>Strategy:</b> Analysis, Defensiveness, Futurity, Riskiness, and Proactiveness. <b>Performance:</b> After-tax return on total assets, after-tax return on total sales, total sales growth, overall performance and success, and competitive positions.	Managers' perceptions of increased environmental uncertainty were found to be negatively related to proactive strategies and positively related to defensive strategies. Defensive strategies were also linked to higher performance.	The study limited itself to external fit and organizational context variables that influence strategy implementation were not considered. While the study's strategic orientations have been adopted in this study, internal organizational variables have been included

	<i>economy in transition</i>			as moderating variables and strategy types have been included in the strategy construct.
Kotha and Nair (1995).	Strategy and Environment as Determinants of Performance with emphasis on the roles played by the environment and realized strategies on firm- level performance.	<p><b>Strategy:</b> Cost efficiency, asset parsimony, differentiation, and scale/scope.</p> <p><b>Environment:</b> Munificence, competitive interdependence, technological change, and industry concentration.</p> <p><b>Performance:</b> Return on Sales (ROS) and growth in sales</p>	Both firm strategies and the environment play significant roles in influencing profitability and growth. Whereas both strategy and environmental variables are significantly related to firm profitability, only environmental variables are associated with firm growth.	The study never looked at the co-alignment impact of environment and strategy on performance. It instead measured individual effects of each on performance. The environmental dimensions adopted are industry specific hence locking out other key dimensions. In addition to industry specific environments, this study considers other aspects of the external environment (macro- and micro- environmental variables).
Luo and Park (2001)	Environment-Strategy-Performance relationship among foreign firms with a market-seeking mandate.	<p><b>Environment:</b> complexity, dynamism, and hostility.</p> <p><b>Strategy:</b> Prospector, Analyzer, Defender.</p> <p><b>Performance:</b> Return on assets, sales growth, and competitive position (e.g., market share).</p>	There is a significant difference in financial performance among market-seeking foreign firms depending on strategic orientations in a particular environment.	The study limited itself to external fit and considered only part of the environmental dimensions. Organizational context variables that influence strategy implementation were not fully considered. This is addressed in the present study through inclusion of firm-level

				institutions as moderating variables.
Bergeron, e. al. (2002).	Impact of strategic alignment on business performance.	<p><b>Strategy:</b> Business strategy (aggressiveness, defensiveness, futurity, proactiveness, and riskiness), IT strategy (systemic competencies).</p> <p><b>Structure:</b> Organizational structure (specialization, vertical differentiation, Professionalization, formalization, and centralization), IT structure (IT management processes and skills).</p> <p><b>Performance:</b> sales growth rate, market share gains, net profit, ROI, return on sales and financial liquidity relative to the competition.</p>	The co-alignment of business strategy, organizational structure, IT strategy, and IT structure is positively related to business performance.	The study limited itself to internal fit, focusing only on structure and IT competencies. It never considered other internal organizational variables. The external environment as a key variable in the E-S-P paradigm was not considered either. The current study introduces other firm-specific variables and considers external environment as a key independent variable.
Dayies & Walters (2004)	Emergent Patterns of Strategy, Environment and Performance in a transition economy	<p><b>Environment:</b> marketization, munificence</p> <p><b>Strategy:</b> commodity-to-specialty products, marketing intensity, emphasis of efficiency, and product line breadth.</p> <p><b>Performance:</b> economic performance and operational success.</p>	Firms operating under 'more marketized' institutional settings tend to locate themselves in more munificent environments and place greater emphasis on meeting customer needs. Certain strategy-environment co-alignments have significant implications for performance. Performance is better in more marketized and munificent environments and amongst firms which adopt an 'aggressive' strategic posture.	The study limited itself to only two dimensions of the external environment (marketization, and munificence). The current study addresses this gap by adopting the munificence dimension and considering other dimensions (complexity and dynamism). Further, the study introduces firm-level institutions as moderating variables in the relationship between environment-strategy co-alignment and performance.

Irungu (2007)	The Effect of Top Management Team on Firm Performance	<p><b>Independent:</b> TMT Demographics, TMT cognitive characteristics.</p> <p><b>Intervening:</b> Decision making process</p> <p><b>Moderating:</b> operating environment and organizational characteristics,</p> <p><b>Dependent:</b> Firm performance.</p>	At team analysis level, the study revealed statistically insignificant results for the effect of TMT characteristics on corporate performance. However, at individual member characteristics, statistically significant results were reported for the effect of TMT characteristics on corporate performance. Similarly, the study reported statistically significant results for the moderating effect of organizational and operating environment characteristics.	While the researcher conceptualized and operationalized the study along a number of independent, moderating, and intervening variables, the current study adopts a different conceptualization and operationalization of independent variables. For instance, while the study considered environment as a moderating variable, the current study treats environment as an independent variable.
Awino (2007)	The Effect of Selected Strategy Variables on Corporate Performance	<p><b>Independent:</b> Core competencies of employees, core capabilities, strategy and strategy implementation,</p> <p><b>Dependent:</b> Corporate performance</p>	The independent effects of the selected variables (core competencies, core capabilities, strategy, strategy implementation) on corporate performance is weaker compared to their joint effect.	The study's conceptualization and operationalization of the independent variables do not consider inclusion of external environment yet it influences an organization's strategy. The current study conceptualizes and operationalizes the independent variables to include the external environment.
Kidombo (2007)	Human Resource Strategic Orientation,	<p><b>Independent:</b> Soft and Hard HR strategic orientations</p> <p><b>Intervening:</b> Organizational</p>	Soft and hard human resource strategic orientations have a strong and positive	The study's conceptualization and operationalization of the

	Organizational Commitment and Firm Performance	commitment <b>Moderating:</b> Organizational characteristics <b>Dependent:</b> Firm performance	relationship with firm performance, effective commitments, continuous commitment, and overall organization commitment. Only firm size and firm ownership had a consistent and significant moderating effect on the relationship between human resource strategic orientations and organizational commitment and between organizational commitment and firm performance.	independent variables do not consider inclusion of external environment yet it influences an organization's strategy. The current study conceptualizes and operationalizes independent variables to include external environment.
Munyoki (2007)	The Effects of Technology Transfer on Organizational Performance	<b>Independent:</b> Sources of Technology, <b>Moderating:</b> Organizational Demographics and Practices, <b>Dependent:</b> Organizational Performance.	Technology transfer has a positive influence on organizational performance moderated by organizational demographics and practices.	The study's conceptualization and operationalization of the independent variables do not consider inclusion of environmental influences in knowledge transfer. The current study conceptualizes and operationalizes independent variables to include external environment.
Waweru (2008)	Competitive Strategy Implementation and its Effect on Performance	<b>Independent:</b> Soft and Hard implementation armaments, <b>Dependent:</b> Firm Performance	Firms which use soft (leadership, communication, consensus building, culture, and capacity for overcoming resistance to change) and hard (structure, resources, and reward systems) implementation armaments together outperform those which exclusively soft or hard implementation	The study's conceptualization and operationalization of independent variables do not consider inclusion of external environment yet it influences an organization's strategy. The current study conceptualizes and operationalizes

			armaments.	independent variables to include external environment.
Sifa (2009)	The Influence of Core Competencies in the Relationship between Co-alignment Variables and Performance	<p><b>Independent:</b> Co-alignment variables (environment, strategy, structure)</p> <p><b>Moderating:</b> Core competencies</p> <p><b>Dependent:</b> Corporate performance</p>	There is a positive relationship between environment, strategy, structure, core competencies and that core competencies moderated the relationship between co-alignment variables and firm performance.	The study's conceptualization and operationalization of environment is restricted to industry environment. The current study conceptualizes and operationalizes the environment to include macro- and micro- environmental factors.

Source: Literature Review Summary

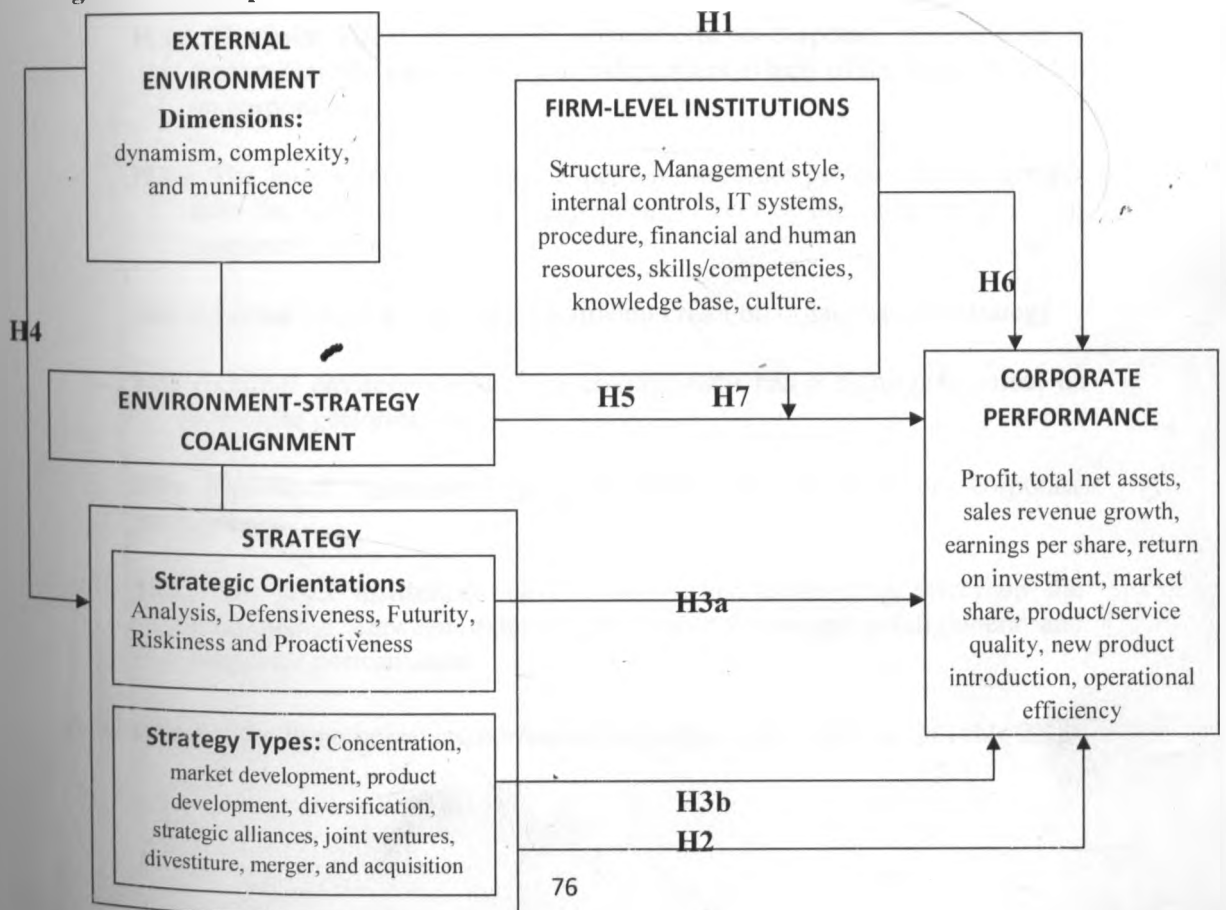
## 2.6 Conceptual Framework

From the foregoing review of literature, the conceptual framework which will guide the study has been thought out. The framework contains the conceptual model and research hypotheses.

### 2.6.1 Conceptual Model

The conceptual model schematically presents the researcher's thinking as far as the perceived relationships are concerned on the basis of which the research hypotheses are formulated for testing. The conceptual model (Figure 1) shows the various relationships among the variables in the E-S-P paradigm. The model demonstrates the important link between the external environment and organizational strategic behaviour and the link between environment-strategy co-alignment and corporate performance. More importantly, the model also demonstrates how firm-level institutions moderate the link between environment-strategy co-alignment and corporate performance.

Figure 1: Conceptual Model





According to the model, corporate performance is influenced independently by the environment, strategic orientations and strategy types, and firm-level institutions. But strategy as a whole also has an influence on corporate performance while firm-level institutions have a moderating effect on the influence of environment-strategy co-alignment performance

### 2.6.2 Research Hypotheses

From the relationships schematized in the conceptual model presented in Figure 1, different conceptual hypotheses have been formulated for testing. In total there are eight (8) hypotheses that are formulated on the basis of existing literature on the relationships presented in the model. These are stated as:

- H1:** External environment has a significant effect on corporate performance.
- H2:** Organizational strategy has a significant effect on corporate performance.
- H3a:** The joint effect of strategic orientations on corporate performance is greater than the sum total of the independent effects of the same variables on corporate performance.
- H3b:** The joint effect of strategy types on corporate performance is greater than the sum total of the independent effects of the same variables on corporate performance.
- H4:** External environment has a significant effect on organizational strategy
- H5:** External environment-strategy co-alignment has a significant effect on corporate performance.
- H6:** Firm-level institutions have a significant influence on corporate performance.
- H7:** Firm level institutions have a significant moderating effect on the relationship between external environment-strategy co-alignment and corporate performance.

A summary of the hypotheses and corresponding objectives is provided (Table 2.4).

**Table 2.4: Summary of the hypotheses and corresponding objectives**

#	Objective	Hypothesis
1	Determine the effect of external environment on the performance of publicly quoted companies in Kenya.	<i>H1: External environment has a significant effect on corporate performance</i>
2	Determine the effect of strategy on the performance of publicly quoted companies in Kenya.	<p><i>H2: Organizational strategy has a significant effect on corporate performance.</i></p> <p><i>H3a: The joint effect of strategic orientations on corporate performance is greater than the sum total of the independent effects of the same variables on corporate performance.</i></p> <p><i>H3b: The joint effect of strategy types on corporate performance is greater than the sum total of the independent effects of the same variables on corporate performance.</i></p>
3	Establish the effect of external environment-strategy co-alignment on the performance of publicly quoted companies in Kenya.	<p><i>H4: External environment has a significant effect on organizational strategy</i></p> <p><i>H5: External environment-strategy co-alignment has a significant effect on corporate performance.</i></p>
4	Ascertain the effect of firm-level institutions of organizational performance and assess their moderating effect on the impact of external environment-strategy co-alignment on the performance of publicly quoted companies in Kenya.	<p><i>H6: Firm-level institutions have a significant influence on corporate performance</i></p> <p><i>H7: Firm level institutions have a significant moderating effect on the effect of external environment-strategy co-alignment on corporate performance.</i></p>

## 2.7 Chapter Summary

In this chapter, both theoretical as well as empirical literature has been reviewed and synthesized. The literature focused on the main concepts of the study. First, the chapter has presented an overview of the strategic management orientation and its development as a field of study. This is followed by review of literature on the environment-strategy-performance paradigm where the theoretical contributions of

industrial organization economics, organizational theory, contingency theory, and business policy have been explored.

The chapter also explored literature on performance implications of environment-strategy co-alignment where both theoretical underpinnings as well as empirical tests were given emphasis. A critical component of this study is the firm internal environment. Consequently, both theoretical as well as empirical literature on firm-level institutions and their influence on firm performance has been reviewed and synthesized. Based on the reviewed literature, a summary of selective empirical studies was presented to highlight the knowledge gaps and how the current study addresses them. The chapter ends with the presentation of the conceptual framework and a conceptual model which schematized the relationships among the variables of study as well as the resultant hypotheses. This is then followed by a summary of the objectives of the study and corresponding hypotheses.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter discusses the research methodology that was adopted in carrying out the study. It discusses the research philosophy, the research design, the population of study, data collection methods, operationalization of research variables, measurement and data analysis techniques.

### **3.2 Research Philosophy**

The fundamental question in any field of study concerns what constitutes acceptable knowledge in that field. This is the focus of epistemology whose concern is how knowledge develops. Research philosophy relates to the development of knowledge and the nature of that knowledge, and contains important assumptions about the way in which researchers view the world (Saunders et al., 2007). There are two main research philosophies that underpin research in social sciences. These are positivism and phenomenology.

Positivism is a philosophy of science that seeks facts of social phenomena with little regard for the subjective status of individuals. Positivism is objective in nature and believes that the researcher is independent from that which is being researched. Positivists believe that only phenomena, which are observable and measurable, can be validly regarded as knowledge. They try to maintain an independent and objective stance and argue that reality is precisely determined through reductionist and deterministic measures without consideration of various differences such as cultural, social, ethnic, and economic (Hargrove, 2004).

According to Patton (2002), positivism is concerned with correspondence with the real world, the truth as an objective reality, impartiality, confirmability, consistency, dependability, and the explanation of regularities. Saunders et al. (2007) point out that positivism adopts a natural science stance where phenomena that can be objectively observed will lead to production of credible data. Consequently, existing theory is used to develop hypotheses which are then tested and confirmed, in whole or part, or refuted, leading to further development of theory which then may be tested by further research. Saunders et al. (2007) further observe that in the positivistic approach to research, the research is undertaken, as far as possible, in a value-free way with the assumption that the researcher is independent of and neither affects nor is affected by the subject of the research.

The other research philosophy is phenomenology which refers to the way in which we as humans make sense of the world around us. It is a philosophy of science that focuses on immediate experience, open and unstructured interviews, and introspective reports where the researcher is part and parcel of the phenomena (Saunders et al., 2007). Phenomenology is essentially the study of lived experience or the life world (van Manen, 1997). Its emphasis is on the world as lived by a person, not the world or reality as something separate from the person (Valle et al., 1989). Polkinghorne (1983) identified this focus as trying to understand or comprehend meanings of human experience as it is lived.

The 'life world' is understood as what we experience pre-reflectively, without resorting to categorization or conceptualization, and quite often includes what is taken for granted or those things that are common sense (Husserl, 1970). The study of these

phenomena intends to return and re-examine these taken for granted experiences and perhaps uncover new and/or forgotten meanings. Lavery (2003) emphasized that phenomenology is concerned with the study of experience from the perspective of the individual, 'bracketing' taken-for-granted assumptions and usual ways of perceiving. He argued that epistemologically, phenomenological approaches are based in a paradigm of personal knowledge and subjectivity, and emphasize the importance of personal perspective and interpretation.

Phenomenological research has overlaps with other essentially qualitative approaches including ethnography, hermeneutics and symbolic interactionism. Pure phenomenological research seeks essentially to describe rather than explain, and to start from a perspective free from hypotheses or preconceptions (Husserl, 1970).

In addition to the two research philosophies that underpin research in social sciences, there are equally two philosophers who have immensely contributed to our understanding of how knowledge develops: Karl Popper and Thomas Kuhn. Popper (1902-1994) believed that all science begins with a prejudice, or perhaps more politely, a theory or hypothesis. He argued that it is the duty of the scientist to extract from theory logical but unexpected predictions that, if they are shown by experiment not to be correct, will serve to render the theory invalid (Goodstein, 2000).

On his part, Kuhn (1922-1996) argued that the development of science cannot be understood simply as a process in which more accurate conceptions gradually replace less accurate ones under the impetus of experiment. He asserted that the transition from immature to mature science occurs when practitioners reach agreement over fundamental matters, perhaps even constituting thereby a new

discipline (Buchwald & Smith, 1997). This takes place in conjunction with the production of a coherent theory about, and instruments for the investigation of, the natural phenomena with which they are concerned, that is, a paradigm. Consequently, a scientific revolution brings about a paradigm shift, and science heads off in an entirely new direction (Goodstein, 2000).

The two research philosophies have greatly guided most social science research. The extent to which a research is guided by a particular research philosophy is a function of state of knowledge and theory development in a particular field and the researcher's view of the world. The current study was guided by the positivistic research philosophy because it involved objective testing of empirical hypotheses that were formulated as predictions of objectively observed phenomena. Hypothesis testing was undertaken with the intent of either rejecting or failing to reject the null hypotheses. Consequently, the approach allows for the operationalization of the various hypothetical concepts as well as generalization of the results.

### **3.3 Research Design**

According to the positivistic approach, a research design should provide confidence to the scientific community that the findings derived from following the design capture the reality and possess high levels of reliability and validity (Kerlinger, 2007). In view of the philosophical orientation adopted for this study, a cross-sectional survey was used in carrying out the study. This study is also descriptive because it is concerned with finding out what, when, and how much of phenomena (Cooper and Schindler, 2003). The researcher considered this design as appropriate because of the purpose of the study, topical scope, researcher involvement, time period over which the data were to be collected, nature of data that were to be collected and the type of analysis

to be performed (Cooper & Schindler, 2003). Olsen & George (2004) pointed out that in this type of research study, either the entire population or a subset thereof is selected, and from these individuals, data are collected to help answer research questions of interest. They clarified that it is called cross-sectional because the information about the subjects that is gathered represents what is going on at only one point in time.

The main purpose of this study was to explain how environment-strategy co-alignment produces changes in corporate performance and how firm-level institutions influence the changes produced. A cross-sectional survey offered the opportunity to collect data across different firms and test this relationship. The topical scope for this study was breadth rather than depth. Given this fact, a cross-sectional survey afforded the researcher the opportunity to capture a population's characteristics and test hypotheses quantitatively. Consequently, the researcher had no control of variables in the sense of being able to manipulate them. The researcher only reports what has already happened and cross-sectional survey guards against any bias. With respect to the time period over which data were to be collected, which was one point in time across the various firms, cross-sectional survey was appropriate for capturing data in a snapshot of one point in time. Further, it was appropriate because the researcher intended to collect descriptive data that were accorded statistical treatment to allow for hypothesis testing to come up with objective conclusions (Cooper and Schindler, 2003). This design was used by Irungu (2007), Munyoki (2007), Tan & Litschert (1994), and Aosa (1992) among other researchers and enabled them test hypotheses and draw plausible conclusions.



### **3.4 Population of Study**

The population of this study comprised both domestic and multinational organizations operating in Kenya which are publicly quoted in the Nairobi Stock Exchange (NSE). The total number of companies listed at the NSE as at 30<sup>th</sup> June 2010 was 53. All the 53 companies were contacted to participate in the study. These organizations represent key sectors of the Kenyan economy which include the agricultural, commercial and services, finance and investment, and industrial and allied sectors.

Out of the 53 companies that were listed at the time of the study, six companies were operating in the agricultural sector, twelve companies were in the commercial and services sector, sixteen companies were in the financial and investments sector while nineteen were in the industrial and allied sector (NSE Handbook, 2009).

### **3.5 Data Collection**

The study used both primary and secondary data. Primary data covered the environmental dimensions and types, strategic orientations and types, firm-level institutions, and any other unpublished data relating to organizational performance that were relevant for the study. Secondary data relate to corporate economic/financial performance taken as an average of five years' performance (2005-2009). The data included financial indicators and specifically the total net assets, profit/loss per year, share price, earnings per share, return on investment, and gross sales (revenue). Qualitative performance data included new product introductions, market share growth, product/service quality, and operational efficiency.

Primary data were collected using a semi-structured questionnaire. The questionnaire was divided into five parts. These parts comprised organizational background,

external environment, organizational strategy, firm-level institutions, and corporate performance. Organizational background part was designed to collect basic information about the target organizations. External environment section focused on the perceptions on environmental dimensions as manifested by the types of environments in which the organizations operate. The section on organizational strategy focused on the organizations' strategic orientations and resultant types of strategies adopted by the organizations. The fourth part focused on firm-level institutions that define internal organizational context (administrative systems, resources, and competencies) and the last part sought data on corporate performance.

The study required the collection of quantitative data that would facilitate hypothesis testing. Aosa (1992) observed that while there would be need to collect quantitative data, there is need to retain flexibility in the data collection process and help pickup unexpected information that would help in interpreting and clarifying the numeric data collected. Consequently, structured interviews were conducted where one respondent from targeted companies was interviewed to supplement data that were collected through the structured questionnaire. Aosa (1992) used this approach and applauded it because of its ability to maximize the benefit of standard and descriptive data that the interviews generate. To facilitate capturing of intended data, unstructured interviews were conducted either before or after personal administration of the questionnaire.

Target respondents were senior managers (chief executive officers/managing directors or corporate planning and marketing managers) in targeted organizations. At least one respondent was targeted in the targeted organizations to fill the questionnaire and answer interview questions. To enhance cooperation from the respondents, the

researcher presented a letter of introduction to each organization stipulating the intent of the study. After the initial contact was made, interview dates or follow-up dates were agreed upon with the respondents. To ensure reliability and validity, the data collection instrument was pilot-tested with ten senior managers of organizations not necessarily listed in the NSE. Secondary data were collected through review of published information in the companies' annual reports for the five year period of 2005 to 2009. Other published information regarding companies' economic/financial performance was obtained from the NSE annual Handbook (2009).

### **3.6 Operationalization of Research Variables**

The independent variables for this study consisted of external environment and strategy while the moderating variables consisted of firm-level institutions. The dependent variable for this study was corporate performance which consisted of both financial and non-financial indicators of performance. The study variables were operationalized and measured (Table 3.1).

**Table 3.1: Operationalization of Research Variables**

<b>Independent Variables</b>			
<b>Variable</b>	<b>Operationalization</b>	<b>Measure</b>	<b>Questionnaire Items</b>
External Environment	<p><b>Complexity:</b> range of environmental issues and their heterogeneity.</p> <p><b>Munificence:</b> favorability of the environment</p> <p><b>Dynamism:</b> degree of predictability and changeability/variability of the environment.</p>	<p>5-point Likert type scale</p> <p>5-point Likert type scale</p> <p>5-point Likert type scale</p>	11-19
Strategy	<p><b>Orientations:</b> Analysis, defensiveness, futurity, riskiness, and proactiveness exhibited in the strategic decision process</p> <p><b>Types:</b> concentration, market development, product development, diversification, strategic alliances, joint ventures, divestiture, merger, acquisition</p>	<p>5-point Likert type scale</p> <p>5-point Likert type scale</p>	20-21
<b>Moderating Variables</b>			
<b>Variable</b>	<b>Operationalization</b>	<b>Measure</b>	
Firm-level institutions	<p><b>Administrative systems:</b> Structure, Management style, Internal Controls, IT Systems, and Procedures.</p> <p><b>Resources and Competencies:</b> Financial resources, skills/competencies, knowledge base, culture, human resources.</p>	<p>5-point Likert type scale</p> <p>5-point Likert type scale</p>	22-23
<b>Dependent Variable</b>			
<b>Variable</b>	<b>Operationalization of the variables</b>	<b>Measure</b>	
Corporate Performance	Gross Profit, Total Organizational Assets, Revenue growth, Earnings per share, Return on Investment, New product introduction, Market Share, Product/Service quality, Operational efficiency.	5-point Likert type scale & Direct measure (Ratio)	24-25

Source: Author (2010)

The 5-point Likert type scale dominated the measurement of most variables in the study. Chimi and Russel (2009) noted that the Likert scale is everywhere in nearly all fields of scholarly and business research so much so that it is used in a wide variety of

circumstances, among them: when the value sought is a belief, opinion or affect; when the value sought cannot be asked or answered definitively and with precision; and when the value sought is considered to be of such a sensitive nature that respondents would not answer except categorically in large ranges. The data that were collected and measured in this study exhibited most of these features and the Likert type scale was largely appropriate.

However, despite their common usage, Chimi & Russel (2009) observed that Likert type scales have inherent limitations. They submitted that the responses elicited through use of the typical Likert items are not static but actually dynamic, quantitative, and continuous responses that are captured poorly by existing Likert items. Also researchers' ability to analyze, study and draw inferences from such data has been impeded by a limited number of discrete points available for analysis since instruments using Likert type items generate results of course granularity. Further, the Likert scales do not sufficiently address or account for cases of respondents who have sufficient knowledge about the subject of study, but who do not have a response toward it and those who are insufficiently knowledgeable about the subject of study to be able to form a response. Therefore, these limitations are expected to be inherent in the conclusions to be drawn out of this study.

### **3.6.1 Operationalization of Co-alignment**

The concept of co-alignment is generally understood in its metaphoric form, but the derivation of a precise conceptualization (with its operationalization) is rather complex (Venkatraman, 1990). According to Venkatraman (1990), this is largely because of the multiplicity of meanings and uses for the term co-alignment that can be

found in the strategy literature. Consequently, he adopted three perspectives of co-alignment namely: the interactionist perspective, the profile deviation perspective, and the covariation perspective.

The interactionist perspective takes a contingency orientation where a relationship between two variables predicts a third variable, that is, an interaction exists between the first two variables which then determines the third variable. The profile deviation perspective views co-alignment in terms of the degree of adherence to an externally-specified profile (an ideal profile). Adherence to this profile has positive impact on performance and deviation from the same has negative impact. Lastly, the covariation perspective views co-alignment as the pattern of covariation (or internal consistency) among the three dimensions (Venkatraman, 1990).

For purposes of this study, co-alignment was conceptualized and operationalized on the lines of interactionist perspective where the interaction between environment and strategy explains variations in corporate performance. This operationalization was adopted by Venkatraman & Prescott (1990) and Tan & Litschert (1994). Therefore, this study measured environment-strategy co-alignment by the strength of their correlations as depicted in a simple correlation matrix. A performance implication of environmental-strategy co-alignment was then measured by using correlated environmental and strategy variables in a regression operation.

### **3.7 Data Analysis**

Data have been analyzed through a combination of both descriptive and inferential statistics. Descriptive statistics were used to provide a profile of organizational

demographics. In this respect, fundamental statistical measures (averages, measures of dispersion) were used.

As Venkatraman & Prescott (1990) pointed out, previous research on the environment-strategy-performance paradigm can be categorized into either: the 'reductionistic' perspective; or the 'holistic' perspective. According to Tan & Litschert (1994), the former typically conceptualizes environment and/or strategy in terms of one or a few dimensions. It is based on the assumption that interaction between two constructs can be understood in terms of pair-wise correlation among the individual dimensions that represent the constructs. The problem with this approach is that complex systems cannot be understood by analytically decomposing the system into its individual parts in order to examine each part and in turn each relationship.

In contrast to the first approach Tan & Litschert (1994) observed that the holistic perspective retains the multidimensional nature of co-alignment between the environment and strategy. For this reason the present study employed the holistic perspective on the environment-strategy-performance paradigm.

Since the primary research question is to investigate to what extent one set of two or more variables (performance indicators) can be predicted or 'explained' by another set of two or more variables (environmental dimensions strategic orientations, and strategy types), multiple correlation analysis was used as the statistical tool to analyze the multivariate relationships between environment and strategy, between environment-strategy co-alignment and performance, and between firm-level institutions and performance. This analytical tool was used by Tan and Litschert (1994) in a similar study which involved multivariate relationships. However, in order

to predict performance implications of environment-strategy co-alignment, it was necessary to examine how environment and strategy variables impact a single dependent variable, that is, each indicator of corporate performance. Therefore, pairwise regression analysis was considered appropriate for this purpose. This approach allowed for regression models in which the choice of predictive variables was made by taking each pair of co-aligned environment-strategy variables and regressing them on each indicator of performance to generate a sequence of F-tests and t-tests. For each of the hypothesized relationships, the general forms of the resultant empirical models were developed (Table 3.2).



**Table 3.2: Hypotheses and Corresponding Analytical Statistical Models**

Objective	Hypothesis	Analytical model
Determine the effect of external environment on the performance of publicly quoted companies in Kenya.	H1: External environment has a significant effect on corporate performance	<p><b>Multivariate Regression Analysis:</b>            Corporate Performance = <math>f(\text{external environment})</math>  <math>P_n = \beta_{02} + \beta_{21}X_1 + \beta_{22}X_2 + \beta_{23}X_3 + \varepsilon_2</math>            Where <math>P_n</math> = Corporate performance  <math>\beta_{02}, \beta_{21}, \beta_{22}, \beta_{23}</math> are coefficients,  <math>X_1</math> = Environmental Complexity, <math>X_2</math> = Environmental Dynamism,  <math>X_3</math> = Environmental Munificence, <math>\varepsilon_2</math> = Error term</p>
Determine the effect of strategy on the performance of publicly quoted companies in Kenya.	H2: Organizational strategy has a significant effect on corporate performance.	<p><b>Multivariate Regression Analysis:</b>            Corporate Performance = <math>f(\text{organizational strategy})</math>  <math>P_n = \beta_{03} + \beta_{34}X_4 + \beta_{35}X_5 + \beta_{36}X_6 + \beta_{37}X_7 + \beta_{38}X_8 + \beta_{39}X_9 + \beta_{310}X_{10} + \beta_{311}X_{11} + \beta_{312}X_{12} + \beta_{313}X_{13} + \beta_{314}X_{14} + \beta_{315}X_{15} + \beta_{316}X_{16} + \beta_{317}X_{17} + \varepsilon_3</math>            Where <math>P_n</math> = Corporate performance  <math>\beta_{03}, \beta_{34}, \beta_{35}, \beta_{36} + \beta_{37} + \beta_{38} \dots \beta_{317}</math> are coefficients <math>X_4</math> = Analysis, <math>X_5</math> = Defensiveness, <math>X_6</math> = Futurity, <math>X_7</math> = Riskiness, <math>X_8</math> = Proactiveness, <math>X_9</math> = Concentration, <math>X_{10}</math> = market development, <math>X_{11}</math> = product development, <math>X_{12}</math> = diversification, <math>X_{13}</math> = strategic alliances, <math>X_{14}</math> = joint ventures, <math>X_{15}</math> = divestiture, <math>X_{16}</math> = merger, <math>X_{17}</math> = acquisition, <math>\varepsilon_3</math> = error term</p>
	H3a: The joint effect of strategic orientations on corporate performance is greater than the sum total of the independent effects of the same variables on corporate performance.	<p><b>Joint Effect: Multivariate Regression Analysis</b>            Corporate Performance = <math>f(\text{strategic orientations})</math>  <math>P_n = \beta_{04} + \beta_{44}X_4 + \beta_{45}X_5 + \beta_{46}X_6 + \beta_{47}X_7 + \beta_{48}X_8 + \varepsilon_4</math>            Where <math>P_n</math> = Corporate performance  <math>\beta_{04}, \beta_{44}, \beta_{45}, \beta_{46} + \beta_{47} + \beta_{48}</math> are coefficients</p>

		<p><math>X_4</math> = Analysis, <math>X_5</math> = Defensiveness, <math>X_6</math> = Futurity, <math>X_7</math> = Riskiness,  <math>X_8</math> = Proactiveness, <math>\varepsilon_4</math> = error term</p> <p><b>Independent Effect: Simple Regression Analysis</b> of each strategic orientation (<math>X_4</math>, <math>X_5</math>, <math>X_6</math>, <math>X_7</math>, <math>X_8</math>) on performance (<math>P_n</math>), then compare with results of joint effect.</p>
	<p>H3b: The joint effect of strategy types on corporate performance is greater than the sum total of the independent effects of the same variables on corporate performance.</p>	<p><b>Joint Effect: Multivariate Regression Analysis</b>  Performance = <math>f</math>(strategy types)  <math>P_n = \beta_{05} + \beta_{59}X_9 + \beta_{510}X_{10} + \beta_{511}X_{11} + \beta_{512}X_{12} + \beta_{513}X_{13} + \beta_{514}X_{14} + \beta_{515}X_{15} + \beta_{516}X_{16} + \beta_{517}X_{17} + \varepsilon_5</math>  Where <math>P_n</math> = Corporate performance  <math>\beta_{05}, \beta_{59}, \beta_{510}, \dots, \beta_{517}</math> are coefficients  <math>X_9</math> = Concentration, <math>X_{10}</math> = market development, <math>X_{11}</math> = product development,  <math>X_{12}</math> = diversification, <math>X_{13}</math> = strategic alliances, <math>X_{14}</math> = joint ventures,  <math>X_{15}</math> = divestiture, <math>X_{16}</math> = merger, <math>X_{17}</math> = acquisition, <math>\varepsilon_5</math> = error term</p> <p><b>Independent Effect: Simple Regression Analysis</b> of each strategy type (<math>X_9 - X_{17}</math>) on performance (<math>P_n</math>), then compare with results of joint effect</p>
<p>Establish the effect of external environment-strategy co-alignment on the performance of publicly quoted companies in Kenya.</p>	<p>H4: External environment has a significant effect on organizational strategy</p>	<p><b>Multiple Regression Analysis</b>  Organizational Strategy = <math>f</math>(external environment)  <math>S_n = \beta_{01} + \beta_{11}X_1 + \beta_{12}X_2 + \beta_{13}X_3 + \varepsilon_1</math>  Where <math>S_n</math> = Organizational Strategy  <math>\beta_{01}, \beta_{11}, \beta_{12}, \beta_{13}</math> are coefficients  <math>X_1</math> = Environmental Complexity, <math>X_2</math> = Environmental Dynamism,  <math>X_3</math> = Environmental Munificence, <math>\varepsilon_1</math> = Error term</p>
	<p>H5: External Environment-strategy co-alignment has a significant effect on corporate performance.</p>	<p><b>a) Correlation Analysis</b>  Co-alignment = Correlation between Environmental dimensions and Organizational Strategy variables (strategic orientations and</p>

strategy types)

$$\rho = \text{corr} X_1, X_2, X_3 \text{ and } X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, X_{11}, X_{12}, X_{13}, X_{14}, X_{15}, X_{16}, X_{17}$$

Where  $\rho$  = Co-alignment Coefficient;  $X_1$  = Environmental Complexity,  $X_2$  = Environmental Dynamism,  $X_3$  = Environmental Munificence;  $X_4$  = Analysis,  $X_5$  = Defensiveness,  $X_6$  = Futurity,  $X_7$  = Riskiness,  $X_8$  = Proactiveness,  $X_9$  = Concentration,  $X_{10}$  = market development,  $X_{11}$  = product development,  $X_{12}$  = diversification,  $X_{13}$  = strategic alliances,  $X_{14}$  = joint ventures,  $X_{15}$  = divestiture,  $X_{16}$  = merger,  $X_{17}$  = acquisition

**b) Pair-wise Regression Analysis**

Corporate Performance =  $f$ (Environment-Strategy Co-alignment)

$$P_n = \beta_{06} + \beta_{61} \rho_{E,S_1} + \beta_{62} \rho_{E,S_2} + \dots + \beta_{6n} \rho_{E,S_n} + \varepsilon_6$$

Where  $P_n$  = Corporate Performance

$\beta_{06}$  = constant

$\beta_{61}, \beta_{62}, \dots, \beta_{6n}$  = coefficients

$\rho_{E,S_1}, \rho_{E,S_2}, \dots, \rho_{E,S_n}$  = co-aligned environment-strategy variables

$\varepsilon_6$  = error term

Ascertain the effect of firm-level institutions of organizational performance and assess their moderating effect on the relationship

H6: Firm-level institutions have a significant influence on corporate performance

**Multivariate Regression Analysis**

Corporate Performance =  $f$ (Firm-level Institutions)

$$P_n = \beta_{07} + \beta_{71} Y_1 + \beta_{72} Y_2 + \beta_{73} Y_3 + \beta_{74} Y_4 + \beta_{75} Y_5 + \beta_{76} Y_6 + \beta_{77} Y_7 + \beta_{78} Y_8 + \beta_{79} Y_9 + \beta_{710} Y_{10} + \varepsilon_7$$

Where  $P_n$  = Corporate Performance

$\beta_{71}, \beta_{72}, \beta_{73}, \dots, \beta_{710}$  = coefficients

<p>between external environment-strategy co-alignment and the performance of publicly quoted companies in Kenya.</p>	<p>H7: Firm level institutions have a significant moderating effect on the relationship between external environment-strategy co-alignment and corporate performance.</p>	<p><math>Y_1</math>= Structure, <math>Y_2</math>= Management style, <math>Y_3</math>= Internal control, <math>Y_4</math>= IT systems, <math>Y_5</math>=Procedures , <math>Y_6</math>= Financial resources, <math>Y_7</math>=Skills, <math>Y_8</math>=Knowledge base , <math>Y_9</math>=Culture, <math>Y_{10}</math>=Human resources, <math>\varepsilon_7</math> = error term</p> <p><b>Multiple Regression Analysis</b>  Corporate Performance = <math>f</math> (Environment-Strategy Co-alignment + Firm-level Institutions)</p> $P_n = \beta_{08} + \beta_{81}\rho_{E,S_1} + \beta_{82}\rho_{E,S_2} + \dots + \beta_{8n}\rho_{E,S_n} + \beta_{71}Y_1 + \beta_{72}Y_2 + \beta_{73}Y_3 + \beta_{74}Y_4 + \beta_{75}Y_5 + \beta_{76}Y_6 + \beta_{77}Y_7 + \beta_{78}Y_8 + \beta_{79}Y_9 + \beta_{710}Y_{10} + \varepsilon_8$ <p>Where <math>P_n</math> = Corporate Performance  <math>\beta_{08}</math> = constant  <math>\beta_{81}, \beta_{82}, \dots, \beta_{8n}, \beta_{71} - \beta_{710}</math> = coefficients  <math>\rho_{E,S_1}, \rho_{E,S_2}, \dots, \rho_{E,S_n}</math> = co-aligned environment-strategy variables</p> <p><math>Y_1</math>= Structure, <math>Y_2</math>= Management style, <math>Y_3</math>= Internal control, <math>Y_4</math>= IT systems, <math>Y_5</math>=Procedures , <math>Y_6</math>= Financial resources, <math>Y_7</math>=Skills, <math>Y_8</math>=Knowledge base , <math>Y_9</math>=Culture, <math>Y_{10}</math>=Human resources;</p> <p><math>\varepsilon_8</math> = error term</p>
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**Table3.3: Hypothesis Testing and Interpretations**

Hypothesis	Test	Interpretations
H1: External environment has a significant effect on corporate performance	The effect of external environmental variables (complexity, dynamism and munificence) on corporate performance indicators (financial and non-financial) using hierarchical regression analysis	<b>F</b> - Significance of the overall model, <b>R</b> - Strength of the relationship between external environment and performance variables. <b>R<sup>2</sup></b> _ Extent to which variations in corporate performance indicators are explained by environmental dimensions
H2: Organizational strategy has a significant effect on corporate performance.	The effect of strategic orientations (analysis, proactiveness, riskiness, futurity, and defensives) and strategy types on corporate performance using regression analysis.	<b>F</b> - Significance of the overall model, <b>R</b> - Strength of the relationship between strategy and corporate performance variables. <b>R<sup>2</sup></b> _ Extent to which variations in corporate performance are explained by strategic orientations and strategy types.
H3a: The joint effect of strategic orientations on corporate performance is greater than the sum total of the independent effects of the same variables on corporate performance.	The joint effect of strategic orientations (analysis, proactiveness, futurity, riskiness, defensiveness) on corporate performance and the independent effects of each orientation on corporate performance using regression analysis, then compare the two.	<b>F</b> - Significance of the overall model, <b>R</b> - Strength of the relationship between strategy and corporate performance variables. <b>R<sup>2</sup></b> - Extent to which variations in corporate performance are explained by strategic orientations jointly and independently.
H3b: The joint effect of strategy types on corporate performance is greater than the sum total of the independent effects of the same variables on corporate performance.	The joint effect of strategy types on corporate performance and the independent effects of the same variables on corporate performance using regression analysis then compare the two.	<b>F</b> - Significance of the overall model, <b>R</b> - Strength of the relationship between strategy and corporate performance variables <b>R<sup>2</sup></b> -Extent to which variations in corporate performance are explained by strategy types jointly and independently.
H4: External environment has a significant effect on organizational strategy	The effect of external environmental variables (complexity, dynamism and munificence) on strategic orientations (analysis, proactiveness, riskiness, futurity, and defensives)	<b>F</b> - Significance of the overall model, <b>R</b> - Strength of the relationship between environment and strategy variables. <b>R<sup>2</sup></b> - Extent to which variations in strategic orientations are

	using hierarchical regression analysis	explained by environmental dimensions
H5: External environment-strategy co-alignment has a significant effect on corporate performance.	The effect of external environment-strategy co-alignment on corporate performance using correlation and hierarchical regression analysis	<b>F</b> - Significance of the overall model, <b>R</b> - Strength of the relationship between environment-strategy co-alignment and corporate performance variables. <b>R<sup>2</sup></b> - Extent to which variations in corporate performance are explained by environment-strategy co-alignment
H6: Firm-level institutions have a significant influence on corporate performance	The effect of firm-level institutions (structure, Management style, Internal controls, Systems, Procedures, Financial resources, Skills, Knowledge base, Culture, and Human resources) on corporate performance indicators (financial and non-financial) using regression analysis	<b>F</b> - Significance of the overall model, <b>R</b> - Strength of the relationship between firm-level institutions and performance variables. <b>R<sup>2</sup></b> -Extent to which variations in corporate performance indicators are explained by firm-level institutions
H7: Firm level institutions have a significant moderating effect on the relationship between external environment-strategy co-alignment and corporate performance.	The moderating effect of firm-level institutions on the relationship between external environment-strategy co-alignment on corporate performance using hierarchical regression analysis.	<b>F</b> - Significance of the overall model, <b>R</b> - Strength of the relationship between firm-level institutions and the effect on the relationship between external environment-strategy co-alignment and corporate performance variables. <b>R<sup>2</sup></b> -Extent to which variations in the relationship between external environment-strategy co-alignment and corporate performance is explained by moderating effect of firm-level institutions.

Source: Author (2010).

### 3.8 Chapter Summary

This chapter focused on describing the methodology that was adopted in carrying out the study. The chapter first reviews and presents the two main philosophical orientations that guide research in social sciences: positivism and phenomenology. A choice of the philosophical orientation that guided this is then made and justified, that is, the positivistic orientation. In addition to the presentation of the two research philosophies, the chapter also makes mention of the two equally important philosophers who have immensely contributed to our understanding of how knowledge develops: Karl Popper and Thomas Kuhn.

The research design that was adopted, that is, the cross-sectional descriptive design has been presented and justified in the chapter. This is followed by the description of the population of study, the data collection methods and instruments that were employed as well as the description of the respondents. The chapter also presents an elaborate operationalization of the research variables, the measurement and the corresponding questions in the research instrument. Further, the data analysis techniques and analytical models that were used in the study are presented and supported with evidence. Lastly, the chapter ends by presenting a summary of how hypothesis testing was done and the interpretations thereof.

## **CHAPTER FOUR**

# **THE EFFECT OF EXTERNAL ENVIRONMENT ON CORPORATE PERFORMANCE**

### **4.1 Introduction**

The broad objective of this study was to determine effect of Environment-Strategy Co- alignment on Corporate Performance of Publicly Quoted Companies in Kenya. The findings of this study will be presented in four chapters in line with the specific objectives as outlined in Chapter One. This chapter presents the findings and discussions on the nature of the Kenyan business environment and its effect on the performance of the companies studied (objective one). The corresponding Hypothesis H1 will be tested and discussed in this chapter. The chapter also presents the profiles of the companies that were studied.

### **4.2 Response Rate**

The data analyzed were obtained from 23 (43.3%) out of the targeted 53 companies, hence becoming an effective sample size. The response rate compares well with similar studies on performance implications of environment-strategy co-alignment (Tan & Litschert, 1994; Venkatraman, 1990). Tan & Litschert (1994) achieved a response rate of 40.2% while Venkatraman (1990) achieved a response rate of 30%. Another similar study by Venkatraman and Prescott (1990) used secondary data obtained from the PIMS data base, hence issues of response rate could not arise.

The response rate in the current study is justifiable given that the researcher was conducting personal interviews and administering questionnaires. Effort was made to contact all targeted companies but majority of them declined to participate in the study citing company policy constraints while in others, targeted respondents could



not return back the questionnaires even after effort was made to follow up. From each of the respondent organizations, one top manager was targeted to fill the questionnaire. This was preceded or followed by an interview with the same manager. Consequently, 23 managers provided the primary data that were required to test the various hypotheses and achieve the study objectives.

### 4.3 Reliability Test

The Likert-type scale was predominantly used in measuring the various variables during data collection. Consequently, a reliability test is necessary to check on the internal consistency and stability of the questionnaire items. According to Zumbo (1999), one of the most commonly used internal consistency coefficients is Cronbach's coefficient alpha. Gliem & Gliem (2003) asserted that when using Likert-type scales it is imperative to calculate and report Cronbach's alpha coefficient for internal consistency reliability for any scales or subscales one may be using. Following this assertion, we tested the reliability for the various groups of items that were used in the study (Table 4.1).

**Table 4.1: Reliability Test**

Variable	Number of Items	Cronbach's Alpha
Environment	15	0.869
Strategy	22	0.851
Firm-level institutions	21	0.898
Performance	4	0.723

Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. Nunnally (1978) as cited in Aosa (1992) pointed out that if the value of this coefficient is too low, either too few items were used or the items had very little

in common. Churchill & Peter (1984) as cited in Aosa (1992) indicated that a value of alpha below 0.6 is undesirable and that which is above 0.6 is generally acceptable. Tan & Litschert (1994) also cite Nunnally (1978) who recommended a value of around 0.7 as adequate to conclude internal consistency. The guidelines by both Nunnally (1978) and Churchill & Peter (1984) were met in this study.

#### **4.4 Company Profiles**

Different aspects to describe targeted companies were used. These include age (indicated by the year of incorporation), country of incorporation, sector (as classified by the NSE), ownership structure, scope of operation and the nature of market offering (tangible or intangible products). Each of these aspects has implications on the way the organizations conduct their business. For instance, age indicates an organization's stage of development and experience, the sector in which an organization operates defines its immediate operating environment, while ownership structure and country of incorporation have implications on the power and control as well as the political context in which decision making takes place.

The results show that majority of the organizations (43.5%) were in the financial and investment sector. Those in the commercial and services sector as well as the industrial and allied sector were 26.1% each. The agricultural sector was represented by only one organization at 4.3% (Table 4.2). The proportions of organizations with the different aspects of the profiles are shown (Table 4.2, last column).

The results also show that majority of the organizations (91.3%) were more than two decades old having been incorporated between 1896 and 1978. The rest (8.7%) were

slightly more than a decade old having been incorporated between 1997 and 1998. The results also show that majority of the organizations (95.7%) were incorporated in Kenya while one organization (4.3%) was incorporated in another country. With regard to the organizations' ownership, the organizations were found to exhibit two main forms of ownership arrangements. These include fully local ownership at 34.8% and joint ownership at 65.2%. It was further established among organizations exhibiting joint ownership; the foreign and/or local ownership is mainly in shareholding through the NSE.

**Table 4.2: Company Profiles**

		Sector/Segment				Total 23 (100%)
		Agriculture 1 (4.3%)	Commercial & Services 6 (26.1%)	Financial & Investment 10 (43.5%)	Industrial & Allied 6 (26.1%)	
Age (year of incorporation)	1896-1978	1	5	10	5	21 (91.3%)
	1997-1998	0	1	0	1	2 (8.7%)
Country of incorporation	Kenya	1	6	9	6	22 (95.7%)
	Another country	0	0	1	0	1 (4.3%)
Ownership structure	Fully Locally owned	0	3	3	2	8 (34.8%)
	Both locally and foreign owned	1	3	7	4	15 (65.2%)
Scope of operation	National (within Kenya)	0	2	4	2	8 (34.8%)
	Regional (within East Africa)	0	3	2	3	8 (34.8%)
	Continental (within Africa)	0	0	2	1	3 (13.0%)
	Global (within Africa and beyond)	1	1	2	0	4 (17.4%)
Size of organization (number of employees)	Below 200	0	1	2	0	3 (13.0%)
	Between 201-400	0	0	1	1	2 (8.7%)
	Between 402-600	0	2	2	1	5 (21.7%)
	601 and above	1	3	5	4	13 (56.6%)

Source: Research Data

With regard to the organizations' scope of operation, the results show that equal proportions of the respondent companies (34.8% each) operated within Kenya and

another within the East African region. 17.4% and 13.0% of the organizations had global and continental operations respectively. Further results show that majority of the organizations (56.5%) were very large with over 601 employees, 21.7% were large while 13% were fairly large. Cross-tabulated results show that different proportions of organizations exhibit different demographic characteristics are distributed across the four sectors.

Lastly, with regard to the organizations' market offering, respondents were asked to write down the names (types) and/or nature of products/services traded in. The answers were then classified as either tangible or intangible market offerings. The results show that majority of the companies surveyed are service organizations (56.5%) while 17.4% of them are manufacturing organizations. 26.1% of the companies are both service and manufacturing organizations (Table 4.3).

**Table 4.3: Market Offering**

<b>Market Offering</b>	<b>Frequency</b>	<b>Percent</b>
Tangible	4	17.4
Intangible	13	56.5
Both tangible and intangible	6	26.1
Total	23	100.0

Source: Research Data

## 4.5 Preliminary Findings

This section presents a description of the preliminary findings. First, we present results on the nature of the Kenyan business environment. These are then followed by the results on the individual effect of external environmental dimensions on the performance of the surveyed companies. The results on the nature of the Kenyan business environment are presented using mean scores and t-values. The t-values were derived from one sample t-tests. One sample t-test was appropriate because the responses were obtained from one sample which was assumed to be homogeneous.

This test was done to assess whether there were any significant differences within the sample regarding the ranking of the various environmental aspects. Since a 5-point likert scale was used in the study, the tests were carried out at a test-value of 3 with 95% confidence ( $p=0.05$ ). This is because the value 3 is the average of the values in the 5-point likert scale assuming normal distribution.

The results on the individual effect of external environmental dimensions on the performance are presented using standardized Beta coefficients and t-values. The Beta coefficients and t-values were derived from hierarchical regression analysis. This analysis involved regressing the environmental dimensions on the indicators of performance, one at a time. The Beta coefficients indicate the weighting of the effect of each environmental dimension on a particular indicator of performance while the t-values show the significance of the effect.

#### **4.5.1 The Nature of Kenyan Business Environment**

The key component of this study was the external environment in which organizations operate. This environment determines the opportunities and/or threats facing an organization. For the purpose of this study, the external environment was operationalized along two main categorizations. First is the composition of organizational environments, which refers to the factors and components that comprise the focal organization's environment; and second is the environmental characteristics or dimensions, which refer to the attributes of the environment confronting the focal organization (Tung, 1979). To assess the nature of the Kenyan business environment, both categorizations were used. Fifteen external environmental aspects were considered and three dimensions (complexity, dynamism, and munificence) were used to describe the environment as manifested by the aspects.

### 4.5.1.1 Environmental Complexity

Environmental complexity was assessed through the number of issues the organizations need to deal with in the various environmental aspects and whether the issues are similar to or different from each other. The results on the number of issues and whether they are similar or different in each environmental aspect are presented for the whole sample as well as for each sector of the economy as per the NSE classification. The sectors include the agricultural, commercial and services (C&S), finance and investment (F&I), and industrial and allied (I&A) sectors. For purposes of sector-wise analysis the agricultural sector was excluded because there was only one respondent company in this sector. The results on the whole sample are presented (Tables 4.4a).

**Table 4.4a: Number of Issues in each environmental aspect (whole sample)**

<b>External Environmental Factors</b>	<b>N</b>	<b>Mean</b>	<b>Sample test (t-value)</b>	<b>Significance (2-tailed)</b>
Political factors	23	2.9565	-0.225	0.824
<b>Economic factors</b>	<b>23</b>	<b>3.9565</b>	<b>5.564</b>	<b>0.000</b>
<b>Technological factors</b>	<b>23</b>	<b>3.6522</b>	<b>2.714</b>	<b>0.013</b>
Socio-Cultural factors	23	2.8696	-0.826	0.418
<b>Regulatory factors</b>	<b>23</b>	<b>3.5652</b>	<b>2.510</b>	<b>0.020</b>
<b>Ecological factors</b>	<b>23</b>	<b>2.5217</b>	<b>-2.554</b>	<b>0.018</b>
Creditors' actions	23	2.6087	-1.899	0.071
<b>Market factors (e.g. customer behavior)</b>	<b>23</b>	<b>3.6957</b>	<b>3.138</b>	<b>0.005</b>
Labour market dynamics	23	2.6957	-1.775	0.090
<b>Trade unions' activities</b>	<b>23</b>	<b>2.3913</b>	<b>-4.447</b>	<b>0.000</b>
Threat of new entrants	23	3.2174	0.926	0.365
Bargaining power of suppliers	23	2.6957	-1.432	0.166
Threat of substitute products/services	23	3.0870	0.385	0.704
Bargaining power of buyers	23	3.0870	0.492	0.628
<b>Competitive Rivalry</b>	<b>23</b>	<b>3.8261</b>	<b>3.694</b>	<b>0.001</b>

Source: Research Data

NB: Ranking was on a 5-point scale: 1-None at all; 2-Very few; 3-Moderate number; 4-Many; 5-Very many

The results in Table 4.4a show that the various environmental aspects were ranked differently on the number of issues organizations need to deal with. Economic factors and competitive rivalry received high ranking (mean scores = 3.96 and 3.83

respectively) and therefore present many issues that organizations need to deal with. On the other hand, ecological factors and trade unions' activities received low ranking (mean scores= 2.52 and 2.39 respectively) and therefore present few issues that organizations need to deal with.

However, there were statistically significant differences across the respondent organizations on the number of issues they need deal with in some of the environmental aspects. Statistically significant differences are reported for economic factors (t-value =5.56,  $p<0.05$ ), competitive rivalry (t-value=3.69,  $p<0.05$ ), market factors (t-value 3.14,  $p<0.05$ ), technological factors (t-value=2.71,  $p<0.05$ ), regulatory factors (t-value=2.51,  $p<0.05$ ), trade union activities (t-value=-4.45,  $p<0.05$ ), and ecological factors (t-value=-2.55,  $p<0.05$ ). This means that even though these environmental aspects had high or low rankings, there is disparity across the organizations on the number of issues they need to deal with in these environmental aspects. Tables 4.4b presents sector-wise results on the number of issues organizations have to deal with in each environmental aspect.

The results (Table 4.4b) show that the various environmental aspects rank differently across the three sectors of the economy on the number of issues that organizations need to deal with. In the commercial and services sector, market factors and competitive rivalry received high ranking (mean scores=4.00 and 3.83 respectively). In the Finance and Investment sector, economic factors, competitive rivalry, and technological factors were highly ranked (mean scores=4.00, 4.00, and 3.90 respectively). In the Industrial and Allied sector, economic factors, regulatory factors,

and competitive rivalry were highly ranked (mean scores= 4.17, 4.17, and 3.67 respectively).

**Table 4.4b: Number of Issues in each environmental aspect (sector-wise)**

External Environmental Factors	Mean			t-value			Significance (2-tailed)		
	C&S n=6	F&I n=10	I&A n=6	C&S	F&I	I&A	C&S	F&I	I&A
Political factors	3.00	2.80	3.00	.000	-.612	.000	1.000	.555	1.000
Economic factors	<b>3.67</b>	<b>4.00</b>	<b>4.17</b>	2.000	<b>3.354</b>	<b>3.796</b>	.102	<b>.008</b>	<b>.013</b>
Technological factors	3.00	<b>3.90</b>	3.83	.000	<b>3.250</b>	1.387	1.000	<b>.010</b>	.224
Socio-Cultural factors	2.50	3.10	2.83	-1.17	.429	-1.00	.296	.678	.363
Regulatory factors	3.17	3.50	<b>4.17</b>	.349	1.464	<b>2.907</b>	.741	.177	<b>.034</b>
Ecological factors	2.50	2.20	3.00	-2.24	<b>-4.00</b>	.000	.076	<b>.003</b>	1.000
Creditors' actions	2.83	2.60	2.33	-.542	-1.08	-1.58	.611	.309	.175
Market factors (customer behavior)	<b>4.00</b>	3.60	3.67	1.936	1.616	2.000	.111	.140	.102
Labour market dynamics	2.83	2.80	2.33	-.542	-.802	-1.58	.611	.443	.175
Trade unions' activities	2.50	2.30	2.33	-2.24	<b>-3.28</b>	-2.00	.076	<b>.010</b>	.102
Threat of new entrants	3.50	3.00	3.33	.745	.000	.674	.490	1.000	.530
Bargaining power of suppliers	3.00	2.30	3.00	.000	<b>-2.33</b>	.000	1.000	<b>.045</b>	1.000
Threat of substitute products/services	3.50	3.00	2.83	.889	.000	-.277	.415	1.000	.793
Bargaining power of buyers	3.00	3.20	3.00	.000	1.000	.000	1.000	.343	1.000
Competitive Rivalry	<b>3.83</b>	<b>4.00</b>	3.67	1.536	<b>3.000</b>	1.581	.185	<b>.015</b>	.175

Source: Research Data

NB: Ranking was on a 5-point scale: 1-None at all; 2-Very few; 3-Moderate number; 4-Many; 5-Very many

The results show that there were no statistically significant differences across organizations in the commercial and services sector on the number of issues they need to deal with in all aspects of the environment (low t-values,  $p > 0.05$ ). However, statistically significant differences are shown across organizations in the finance and investment sector on the number of issues they need to deal with in economic factors (t-value=3.35,  $p < 0.05$ ), technological factors (t-value=3.25,  $p < 0.05$ ), ecological factors (t-value=-4.00,  $p < 0.05$ ), trade unions' activities (t-value=-3.28,  $p < 0.05$ ), bargaining power of suppliers (t-value=-2.33,  $p < 0.05$ ), and competitive rivalry (t-value=3.00,  $p < 0.05$ ). In the industrial and allied sector, statistically significant



differences are across organizations in the economic and regulatory factors (t-values=3.80 and 2.91 respectively,  $p < 0.05$ ). This means that there even organizations in the same sector show disparity on the number of issues they need to deal with in some environmental aspects.

Further insight was sought to establish whether the issues which organizations needed to deal with in each environmental aspect are similar to or different from each other (Table 4.5a).

**Table 4.5a: Similarity/Dissimilarity of the Issues (whole sample)**

External Environmental Factors	N	Mean	Sample test (t-value)	Significance (2-tailed)
Political factors	23	<b>2.6957</b>	-1.232	.231
Economic factors	23	<b>3.0435</b>	.165	.870
Technological factors	23	<b>3.3478</b>	1.447	.162
Socio-Cultural factors	23	<b>2.5652</b>	-1.738	.096
Regulatory factors	23	<b>3.1304</b>	.485	.633
Ecological factors	23	<b>2.7391</b>	-1.187	.248
Creditors' actions	23	<b>2.6957</b>	-1.071	.296
Market factors (customer behavior)	23	<b>3.2609</b>	.947	.354
Labour market dynamics	23	<b>2.8696</b>	-.680	.503
Trade unions' activities	23	2.3043	<b>-3.810</b>	<b>.001</b>
Threat of new entrants	23	<b>2.5652</b>	-1.480	.153
Bargaining power of suppliers	23	2.4348	<b>-2.335</b>	<b>.029</b>
Threat of substitute products/services	23	2.4783	-1.963	.062
Bargaining power of buyers	23	2.3043	<b>-3.019</b>	<b>.006</b>
Competitive Rivalry	23	<b>2.7826</b>	-.654	.520

**Source:** Research Data

**NB:** Ranking was on a 5-point scale: 1-Similar; 2-Somewhat Similar; 3-Neither Similar nor different; 4-Somewhat Different; 5-Different

The results in Table 4.5a show that the issues organizations need to deal with in most environmental aspects are neither similar nor different (mean scores range from 2.57 for creditors' actions and threat of new entrants to 3.35 for technological factors). Organizations deal with somewhat similar issues in trade unions' activities, bargaining power of suppliers and buyers, and threat of substitutes (mean scores < 2.48). However, statistically significant differences are reported for trade union activities (t-value=-3.81,  $p < 0.05$ ) and bargaining power of suppliers and buyers (t-

values -2.34 and -3.02 respectively,  $p < 0.05$ ). This means that there was variance across organizations on the extent to which the issues in these environmental aspects are somewhat similar to each other.

The results of sector-wise analysis on the similarity/dissimilarity of the issues organizations deal with in each environmental aspect are presented (Table 4.5b).

**Table 4.5b: Similarity/Dissimilarity of the Issues (sector-wise)**

External Environmental Factors	Means			t-values			Significance (2-tailed)		
	C&S n=6	F&I n=10	I% n=6	C&S	F&I	I% A	C&S	F&I	I&A
Political factors	2.67	2.70	2.67	-.67	-.64	-1.00	.530	.541	.363
Economic factors	3.17	3.10	2.83	.24	.26	-.35	.822	.798	.741
Technological factors	3.17	3.40	3.50	.26	1.18	1.17	.809	.269	.296
Socio-Cultural factors	2.83	3.00	1.50	-.31	.00	<b>-6.71</b>	.771	1.00	<b>.001</b>
Regulatory factors	3.17	3.10	3.17	.42	.23	.24	.695	.823	.822
Ecological factors	2.83	2.70	2.67	-.31	-.90	-.79	.771	.394	.465
Creditors' actions	2.67	2.60	2.83	-.60	-.77	-.35	.576	.462	.741
Market factors (customer behavior)	3.00	3.60	3.00	.00	1.50	.00	1.000	.168	1.000
Labour market dynamics	2.50	3.20	2.67	-1.2	.61	-1.58	.296	.555	.175
Trade unions' activities	1.83	2.50	2.33	<b>-3.80</b>	-1.46	<b>-3.16</b>	<b>.013</b>	.177	<b>.025</b>
Threat of new entrants	2.83	2.60	2.50	-.31	-.80	-.89	.771	.443	.415
Bargaining power of suppliers	2.50	2.30	2.83	-.89	-1.91	-.42	.415	.089	.695
Threat of substitute products/services	2.83	2.20	2.83	-.28	-1.92	-.42	.793	.087	.695
Bargaining power of buyers	2.67	2.00	2.67	-.67	<b>-3.00</b>	-.79	.530	<b>.015</b>	.465
Competitive Rivalry	3.00	2.60	3.17	.00	-.74	.31	1.000	.479	.771

Source: Research Data

NB: Ranking was on a 5-point scale: 1-Similar; 2-Somewhat Similar; 3-Neither Similar nor different; 4-Somewhat Different; 5-Different

The results show that the various environmental aspects rank differently across the three sectors of the economy on the similarity/dissimilarity of the issues that organizations need to deal with. In the commercial and services sector, organizations deal with issues that are neither similar nor different in most environmental aspects present (mean scores range from 2.50 for labour market dynamics and bargaining power of suppliers to 3.17 for economic, technological, and regulatory factors). In this sector, organizations deal with somewhat similar issues in only trade union's activities

(mean score=1.83). However, there was disparity across organizations in the sector regarding the extent to which the issues they deal with are somewhat similar in trade unions (t-value=-3.80,  $p<0.05$ ).

The results for the finance and investment sector show that organizations deal with issues that are neither similar nor different in most environmental aspects (mean scores range from 2.50 for trade unions' activities to 3.40 for technological factors). However, organizations in this sector deal with somewhat similar issues in threat of substitutes and bargaining power of suppliers and buyers (mean scores=2.20, 2.30, and 2.00 respectively). Statistically significant differences are reported for bargaining power of buyers (t-value=-3.00,  $p<0.05$ ), hence reflecting a disparity across sector organizations with regard to similarity and/or dissimilarity of the issues they need to deal with.

Similarly, results show that organizations in the industrial and allied sector deal with issues that are neither similar nor different in most environmental aspects (mean scores range from 2.50 for threat of new entrants and 3.50 for technological factors). However, the organizations deal with somewhat similar issues in socio-cultural factors and trade unions' activities (mean scores=1.50 and 2.33 respectively). Statistically significant results are also reported for socio-cultural factors and trade unions' activities (t-values = -6.71 and -3.16 respectively,  $p<0.05$ ). This implies lack of unanimity among organizations in the sector on the extent to which the issues in these environmental aspects are somewhat similar.

### 4.5.1.2 Environmental Dynamism

Environmental dynamism was assessed through predictability and changeability in the various environmental aspects. Respondents were asked to indicate on a 5-point likert scale the extent to which developments in each the environmental aspects have become more predictable. They were also asked to indicate how much change they have observed in each environmental aspect for the last five years (2005-2009). The study results on predictability of developments in the various environmental factors for the whole sample are presented (Table 4.6a).

**Table 4.6a: Predictability of Developments in the Environment (whole sample)**

<b>External Environmental Factors</b>	<b>N</b>	<b>Mean</b>	<b>Sample test (t-value)</b>	<b>Significance (2-tailed)</b>
Political factors	23	3.0435	.165	.870
Economic factors	23	3.1739	.940	.357
<b>Technological factors</b>	23	<b>3.8261</b>	<b>4.229</b>	<b>.000</b>
Socio-Cultural factors	23	3.1739	.940	.357
Regulatory factors	23	3.3913	1.899	.071
Ecological factors	23	3.2174	1.155	.260
Creditors' actions	23	3.3043	1.274	.216
<b>Market factors (e.g. customer behavior)</b>	23	<b>3.6087</b>	<b>3.730</b>	<b>.001</b>
Labour market dynamics	23	3.1739	.778	.445
Trade unions' activities	23	3.0000	.000	1.000
Threat of new entrants	23	3.2174	1.096	.285
Bargaining power of suppliers	23	2.9565	-.204	.840
Threat of substitute products/services	23	3.2174	1.045	.308
Bargaining power of buyers	23	3.3043	1.499	.148
<b>Competitive Rivalry</b>	23	<b>3.6957</b>	<b>3.019</b>	<b>.006</b>

Source: Research Data

NB: Ranking was on a 5-point scale: 1-Not at all; 2-Less Extent; 3-Moderate extent; 4-Large extent; 5-Very large extent

The results in Table 4.6a show that technological factors, competitive rivalry, and market factors were highly ranked (mean scores= 3.83, 3.70, and 3.61 respectively).

This means that developments in these environmental aspects had become more predictable. However, statistically significant differences are reported across organizations on the extent to which the developments in the highly ranked environmental aspects had become more predictable (t-values = 4.23, 3.73, and 3.02 respectively for technological factors, market factors, and competitive rivalry,

$p < 0.05$ ). The results show that developments in the rest of the environmental aspects were predictable to a moderate extent (mean scores range from 2.96 for bargaining power of suppliers to 3.39 for regulatory factors). The results also report no statistically significant differences across organizations on the extent to which the developments in these environmental aspects are moderately predictable (low  $t$ -values,  $p > 0.05$ ). Table 4.6b presents sector-wise results on predictability of developments in the various environmental factors.

**Table 4.6b: Predictability of Developments in the Environment (sector-wise)**

External Environmental Factors	Means			t-values			Significance (2-tailed)		
	C&S n=6	F&I n=10	I% n=6	C&S	F&I	I% n=6	C&S	F&I	I% n=6
Political factors	<b>3.50</b>	3.30	2.33	1.000	.758	-1.35	.363	.468	.235
Economic factors	3.17	<b>3.50</b>	2.83	.542	<b>2.236</b>	-.349	.611	<b>.052</b>	.741
Technological factors	<b>3.50</b>	<b>4.20</b>	3.33	2.236	<b>4.811</b>	.674	.076	<b>.001</b>	.530
Socio-Cultural factors	<b>3.67</b>	3.20	2.67	2.000	.802	-.791	.102	.443	.465
Regulatory factors	2.83	<b>3.90</b>	3.17	-1.00	<b>3.857</b>	.277	.363	<b>.004</b>	.793
Ecological factors	3.17	3.10	<b>3.50</b>	.415	.318	1.464	.695	.758	.203
Creditors' actions	<b>3.50</b>	3.20	3.33	1.000	.557	.598	.363	.591	.576
Market factors (customer behavior)	<b>3.50</b>	<b>3.60</b>	<b>3.83</b>	1.464	<b>2.250</b>	<b>2.712</b>	.203	<b>.051</b>	<b>.042</b>
Labour market dynamics	<b>3.50</b>	3.10	3.00	1.464	.318	.000	.203	.758	1.00
Trade unions' activities	3.17	3.10	2.67	.349	.264	-.598	.741	.798	.576
Threat of new entrants	3.00	3.30	3.33	.000	1.000	.674	1.000	.343	.530
Bargaining power of suppliers	2.83	2.90	3.17	-.415	-.287	.349	.695	.780	.741
Threat of substitute products/services	2.83	3.40	3.33	-.415	1.500	.598	.695	.168	.576
Bargaining power of buyers	3.33	3.20	<b>3.50</b>	1.581	.612	.889	.175	.555	.415
Competitive Rivalry	<b>3.83</b>	<b>3.60</b>	<b>3.83</b>	<b>2.712</b>	1.616	1.387	<b>.042</b>	.140	.224

Source: Research Data

NB: Ranking was on a 5-point scale: 1-Not at all; 2-Less Extent; 3-Moderate extent; 4-Large extent; 5-Very large extent

The various environmental aspects rank differently across the three sectors of the economy on the extent to which developments therein have become more predictable. In the Commercial and Services sector, high ranking is reported for competitive rivalry (mean score=3.83), socio-cultural factors (mean score=3.67), political factors (mean score=3.50), technological factors (mean score=3.50), creditors' actions (mean score=3.50), market factors (mean score=3.50), and labour market dynamics (mean

score=3.50). However, statistically significant differences are reported for competitive rivalry across organizations in the sector (t-value = 2.71,  $p < 0.05$ ). This means that there was unanimity among organizations in the sector on the extent to which developments in most highly ranked environmental aspects had become more predictable.

In the finance and investment sector, high ranking is reported for technological factors (mean score=4.20), regulatory factors (mean score=3.90), market factors (mean score=3.60), competitive rivalry (mean score=3.60), and economic factors (mean score=3.50). Among these aspects, statistically significant differences across organizations in the sector are reported for technological, regulatory, market, and economic factors (t-values = 4.81, 3.86, 2.25, and 2.24 respectively,  $p < 0.05$ ). This means that there was variation among organizations in the sector on the extent to which developments in these environmental aspects had become more predictable.

In the industrial and allied sector, high ranking is reported for market factors (mean score=3.83), competitive rivalry (mean score=3.83), ecological factors (mean score=3.50), and bargaining power of suppliers (mean score=3.50). However, statistically significant differences are reported for market factors across organizations in the sector (t-value= 2.71,  $p < 0.05$ ). This implies that there was unanimity among organizations in the sector on the extent to which developments in the most highly ranked environmental aspects had become more predictable.

Another measure for dynamism was how much change organizations have observed in each environmental aspect for the last five years (2005-2009). Table 4.7a presents the study findings for the whole sample. The results show high ranking for

competitive rivalry (mean score=4.04), technological factors (mean score=4.00), economic factors (mean score=3.96), market factors (mean score=3.78), political factors (mean score=3.74), regulatory factors (mean score=3.61), and threat of new entrants (mean score=3.57). However, statistically significance differences are reported across organizations on how much change they have observed for the last five years (2005-2009) in the highly ranked environmental aspects (t-values range from 2.61 for threat of new entrants to 6.50 for economic factors,  $p < 0.05$ ). This implies that there was great disparity across organizations on how much great change they have observed in these environmental aspects for the last five years.

**Table 4.7a: Changeability in the Environment (whole sample)**

External Environmental Factors	N	Mean	Sample test (t-value)	Significance (2-tailed)
Political factors	23	3.7391	4.715	.000
Economic factors	23	3.9565	6.500	.000
Technological factors	23	4.0000	4.592	.000
Socio-Cultural factors	23	2.7826	-1.311	.203
Regulatory factors	23	3.6087	4.041	.001
Ecological factors	23	3.0000	.000	1.000
Creditors' actions	23	2.6087	-1.521	.142
Market factors (customer behavior)	23	3.7826	4.159	.000
Labour market dynamics	23	2.6957	-1.432	.166
Trade unions' activities	23	2.5217	-2.307	.031
Threat of new entrants	23	3.5652	2.614	.016
Bargaining power of suppliers	23	2.8261	-.848	.406
Threat of substitute products/services	23	3.1739	.848	.406
Bargaining power of buyers	23	2.8696	-.617	.544
Competitive Rivalry	23	4.0435	5.700	.000

Source: Research Data

NB: Ranking was on a 5-point scale: 1-No change at all; 2-Little change; 3-Moderate change; 4-Great change; 5-Dramatic change

The results in Table 4.7a also show that little to moderate change was observed in the rest of the environmental aspects. However, significant differences across organizations were reported on how much little change was observed in trade unions' activities (t-value= -2.31).

Table 4.7b presents sector-wise results on how much change organizations have observed in each environmental aspect for the last five years (2005-2009). The various environmental aspects rank differently across the three sectors of the economy on how much change organizations have observed in the last five years.

**Table 4.7b: Changeability of the Environment (sector-wise)**

External Environmental Factors	Means			t-values			Significance (2-tailed)		
	C&S n=6	F&I n=10	I% n=6	C&S	F&I	I% A	C&S	F&I	I&A
Political factors	3.67	3.90	3.67	3.162	3.857	1.581	.025	.004	.175
Economic factors	3.67	4.50	3.50	3.162	9.000	2.236	.025	.000	.076
Technological factors	4.33	4.20	3.33	4.000	3.674	.674	.010	.005	.530
Socio-Cultural factors	2.33	2.80	3.17	-2.00	-.802	.542	.102	.443	.611
Regulatory factors	3.17	3.80	3.83	.542	6.000	2.076	.611	.000	.093
Ecological factors	3.17	2.90	3.00	.349	-.287	.000	.741	.780	1.000
Creditors' actions	3.17	2.30	2.50	.349	-1.56	-1.17	.741	.153	.296
Market factors (customer behavior)	4.17	3.70	3.67	3.796	1.909	3.162	.013	.089	.025
Labour market dynamics	2.67	2.90	2.33	-1.00	-.287	-1.35	.363	.780	.235
Trade unions' activities	2.50	2.50	2.50	-1.46	-1.63	-.889	.203	.138	.415
Threat of new entrants	4.00	3.50	3.33	2.236	1.627	.674	.076	.138	.530
Bargaining power of suppliers	3.17	2.50	3.00	.542	-1.46	.000	.611	.177	1.000
Threat of substitute products/services	3.50	3.20	2.83	1.168	.688	-.349	.296	.509	.741
Bargaining power of buyers	3.00	2.60	3.17	.000	-1.31	.307	1.000	.223	.771
Competitive Rivalry	4.33	4.00	4.00	4.000	3.873	2.236	.010	.004	.076

Source: Research Data

NB: Ranking was on a 5-point scale: 1-No change at all; 2-Little change; 3-Moderate change; 4-Great change; 5-Dramatic change

In the commercial and services sector, high ranking is reported for technological factors (mean score=4.33), competitive rivalry (mean score=4.33), market factors (mean score=4.17), threat of new entrants (mean score=4.00), political factors (mean score=3.67), economic factors (mean score=3.67), and threat of substitutes (mean score=3.50). However, statistically significant differences for these aspects are reported across organizations in the sector (t-values = 4.00, 4.00, 3.80, 3.16, and 3.16 respectively for technological factors, competitive rivalry, market factors, political, and economic factors,  $p < 0.05$ ). This indicates lack of unanimity on how much great



change the organizations have observed in the highly ranked environmental aspects for the last five years. There was unanimity across the organizations on how much moderate change was observed in the rest of the environmental aspects (low t-values,  $p>0.05$ ).

In the finance and investment sector, high ranking is reported for economic factors (mean score=4.50), technological factors (mean score=4.20), competitive rivalry (mean score=4.00), political factors (mean score=3.90), regulatory factors (mean score=3.80), market factors (mean score=3.70), and threat of new entrants (mean score=3.50). Statistically significant differences the organizations are reported for economic factors, regulatory factors, political factors, competitive rivalry, and technological factors (t-values = 9.00, 6.00, 3.87, 3.86, and 3.67 respectively,  $p<0.05$ ). This implies that for these environmental aspects, there were variations across organizations in the sectors on how much great change was observed for the last five years. There was no variation across the organizations on how much little or moderate change was observed in the rest of the environmental aspects (low t-values,  $p>0.05$ ).

In the industrial and allied sector, high ranking is reported for competitive rivalry (mean score=4.00), regulatory factors (mean score=3.83), political factors (mean score=3.67), market factors (mean score=3.67), and economic factors (mean score=3.50). Statistically significant differences are reported for market factors across organizations in the sector (t-value = 3.16,  $p<0.05$ ). This means that there was no disparity across organizations in the sector on how much great change was observed in most of the environmental aspects that were highly ranked as well as those which were moderately ranked (low t-values,  $p>0.05$ ).

### 4.5.1.3 Environmental Munificence

Lastly, environmental munificence was assessed by how favourable the developments in each environmental aspect have been to the organizations. This favorability determines the abundance or otherwise of the resources required by the organizations and their costs. On a 5-point likert scale, respondents were required to indicate the extent to which developments in each environmental aspect have been favourable to their organizations during the last five years (2005-2009). The results of the study for the whole sample are presented (Table 4.8a).

**Table 4.8a: Favorability of the Environment (whole sample)**

External Environmental Factors	N	Mean	Sample test (t-value)	Significance (2-tailed)
Political factors	23	3.0870	.371	.714
Economic factors	23	<b>3.6087</b>	<b>2.522</b>	<b>.019</b>
Technological factors	23	<b>3.9130</b>	<b>4.396</b>	<b>.000</b>
Socio-Cultural factors	23	2.8696	-.569	.575
Regulatory factors	23	<b>3.4783</b>	<b>2.208</b>	<b>.038</b>
Ecological factors	23	2.7826	-1.045	.308
Creditors' actions	23	3.3913	1.401	.175
Market factors (e.g. customer behavior)	23	<b>3.7391</b>	<b>4.715</b>	<b>.000</b>
Labour market dynamics	23	3.2174	.926	.365
Trade unions' activities	23	2.7826	-1.045	.308
Threat of new entrants	23	2.5652	<b>-2.206</b>	<b>.038</b>
Bargaining power of suppliers	23	2.6087	-1.817	.083
Threat of substitute products/services	23	2.8696	-.617	.544
Bargaining power of buyers	23	3.0435	.182	.857
Competitive Rivalry	23	2.9130	-.419	.680

Source: Research Data

NB: Ranking was on a 5-point scale: 1-Not at all; 2-Less Extent; 3-Moderate extent; 4-Large extent; 5-Very large extent

The results in Table 4.8a show high ranking for technological factors (mean score=3.91), market factors (mean score=3.74), economic factors (mean score=3.61), and regulatory factors (mean score=3.49). However, statistically significant differences are reported for these environmental aspects (t-values = 4.72, 4.40, 2.52, and 2.21 respectively for market, technological, economic, and regulatory factors,  $p < 0.05$ ). This implies that even though the four environmental aspects were highly

ranked as being favourable to a larger extent, there were variations across organization on the extent to which they were largely favourable.

Similar results are reported for the threat of new entrants (t-value = -2.21), meaning that there was lack of unanimity across organizations on the extent to which the threat of new entrants has been less favourable. In spite of this, there was unanimity across organizations that most of the environmental aspects were favourable to a moderate extent (low t-values,  $p > 0.05$ ). Table 4.8b presents sector-wise results on how favourable the developments in each environmental aspect have been to the organizations during the last five years (2005-2009).

**Table 4.8b: Favorability of the Environment (sector-wise)**

	Means			t-values			Significance (2-tailed)		
	C&S n=6	F&I n=10	I% n=6	C&S	F&I	I% n=6	C&S	F&I	I&A
<b>External Environmental Factors</b>									
Political factors	<b>3.83</b>	3.20	2.33	<b>2.712</b>	.557	-1.58	<b>.042</b>	.591	.175
Economic factors	<b>3.67</b>	<b>4.00</b>	3.17	2.000	<b>3.000</b>	.277	.102	<b>.015</b>	.793
Technological factors	<b>3.83</b>	<b>4.10</b>	<b>3.50</b>	1.746	<b>6.128</b>	.889	.141	<b>.000</b>	.415
Socio-Cultural factors	2.83	3.10	2.67	-.307	.287	-.791	.771	.780	.465
Regulatory factors	3.33	<b>4.10</b>	2.67	1.000	<b>3.973</b>	-.791	.363	<b>.003</b>	.465
Ecological factors	2.83	2.90	2.50	-.542	-.264	-1.17	.611	.798	.296
Creditors' actions	<b>3.67</b>	3.20	<b>3.50</b>	1.085	.452	.889	.328	.662	.415
Market factors (e.g. customer behavior)	<b>3.83</b>	<b>3.90</b>	<b>3.50</b>	<b>2.712</b>	<b>3.250</b>	2.236	<b>.042</b>	<b>.010</b>	.076
Labour market dynamics	<b>3.50</b>	3.40	2.67	1.168	1.000	-.791	.296	.343	.465
Trade unions' activities	3.17	2.70	2.50	.542	-.758	-1.46	.611	.468	.203
Threat of new entrants	2.33	2.70	2.50	-1.58	-.896	-1.46	.175	.394	.203
Bargaining power of suppliers	2.83	2.50	2.50	-.277	-1.86	-1.17	.793	.096	.296
Threat of substitute products/services	2.67	3.10	2.67	-.674	.318	-.791	.530	.758	.465
Bargaining power of buyers	3.00	3.10	3.00	.000	.264	.000	1.000	.798	1.000
Competitive Rivalry	2.67	3.10	3.00	-.791	.287	.000	.465	.780	1.000

Source: Research Data

NB: Ranking was on a 5-point scale: 1-Not at all; 2-Less Extent; 3-Moderate extent; 4-Large extent; 5-Very large extent

The results in Table 4.8b show that various environmental aspects rank differently across the three sectors of the economy regarding their favourability during the last five years. In the commercial and services sector, high ranking is reported for political

factors (mean score = 3.83), technological factors (mean score=3.83), market factors (mean score=3.83), economic factors (mean score=3.67), creditors' actions (mean score=3.67), and labour market dynamics (mean score=3.50). However, statistically significant differences are reported for political and market factors (t-values = 2.71 each,  $p < 0.05$ ). This means there were disparities across organizations on the extent to which these factors were favourable to a large extent. Conversely, there was unanimity across organizations on the extent to which the rest of the environmental aspects were favourable to a moderate extent and large extent (low t-values,  $p > 0.05$ ).

In the finance and investment sector, high ranking is reported for technological, regulatory, economic and market factors (mean scores = 4.10, 4.10, 4.00, and 3.90 respectively). However, statistically significant differences are reported for these environmental aspects (t-values = 6.13, 3.97, 3.25, and 3.00 respectively for technological, regulatory, market, and economic factors,  $p < 0.05$ ). This shows great disparity across organizations in the sector on the extent to which these environmental aspects were favourable to a large extent during the last five years. However, there was congruence across the organizations on the extent to which the rest of the environmental were favourable to a moderate extent (low t-values,  $p > 0.05$ ).

In the industrial and allied sector, technological factors, creditors' actions, and market factors received high rankings (mean scores= 3.50 for each). There was unanimity across organizations in the sector on the extent to which these aspects were favourable to a large extent (low t-values,  $p > 0.05$ ). Similar results are reported for the rest of the environmental aspects on the extent to which they were favourable to less and moderate extents (low t-values,  $p > 0.05$ ).

#### 4.5.2 Influence of Environment on Strategic Decision Making

In addition to determining the nature of the Kenyan business environment, further insight was sought on the influence of the various environmental factors on strategic decision making among the corporate organizations. Prescott (1986) observed that regardless of how environments are modeled, research findings suggest that their characteristics influence decision making through managerial perceptions and objective dimensions of industries' structures. Bourgeois (1980) suggested that both the perceived and the objective environments are real and relevant to an organization's strategy. The current study's results on the extent to which the various environmental aspects influence decision making are presented (Table 4.9a). The results are largely descriptive of the perceived influence across the surveyed companies.

**Table 4.9a: Influence of Environment on Decision Making (whole sample)**

External Environmental Factors	N	Mean	Sample test (t-value)	Significance (2-tailed)
Political factors	23	<b>3.9130</b>	<b>5.524</b>	<b>.000</b>
Economic factors	23	<b>4.7391</b>	<b>18.577</b>	<b>.000</b>
Technological factors	23	<b>4.2174</b>	<b>5.850</b>	<b>.000</b>
Socio-Cultural factors	23	3.3913	1.994	.059
Regulatory factors	23	<b>4.4783</b>	<b>8.971</b>	<b>.000</b>
Ecological factors	23	3.3043	1.775	.090
Creditors' actions	23	3.4348	1.638	.116
Market factors (customer behavior)	23	<b>4.6957</b>	<b>17.285</b>	<b>.000</b>
Labour market dynamics	23	<b>3.6087</b>	<b>3.480</b>	<b>.002</b>
Trade unions' activities	23	3.1304	.646	.525
Threat of new entrants	23	<b>3.6522</b>	<b>2.714</b>	<b>.013</b>
Bargaining power of suppliers	23	2.9565	-.204	.840
Threat of substitute products/services	23	3.1739	.778	.445
Bargaining power of buyers	23	3.2174	.816	.423
Competitive Rivalry	23	<b>4.3478</b>	<b>9.052</b>	<b>.000</b>

Source: Research Data

NB: Ranking was on a 5-point scale: 1-Not at all; 2-Less Extent; 3-Moderate extent; 4-Large extent; 5-Very large extent

The results in Table 4.9a show high ranking for economic factors, market factors, regulatory factors, competitive rivalry, technological factors, political factors, threat of new entrants, and labour market dynamics (mean score range from 3.61 for labour

market dynamics to 4.74 for economic factors). However, statistically significant differences across organizations are reported for these aspects with regard to their influence strategic decision making (t-values range from 2.71 for threat of new entrants to 18.58 for economic factors,  $p < 0.05$ ).

The results imply that even though the aforementioned environmental aspects have great influence on decision making, there were differing degrees across organizations on the perceived influence. Conversely, unanimity across organizations is reported for the moderate influence on decision making by the rest of the external environmental aspects (low t-values,  $p > 0.05$ ). Sector-wise results on the influence of each environmental aspect on decision making are presented (Table 4.9b).

**Table 4.9b: Influence of Environment on Decision Making (sector-wise)**

	Means			t-values			Significance (2-tailed)		
	C&S n=6	F&I n=10	I% n=6	C&S	F&I	I% A	C&S	F&I	I&A
<b>External Environmental Factors</b>									
Political factors	4.00	3.70	4.00	2.739	3.280	2.739	.041	.010	.041
Economic factors	4.67	4.60	5.00	7.906	9.798	-	.001	.000	-
Technological factors	3.83	4.50	4.00	2.076	9.000	1.581	.093	.000	.175
Socio-Cultural factors	3.50	3.40	3.17	1.168	1.177	.542	.296	.269	.611
Regulatory factors	3.83	4.80	4.83	2.076	13.500	11.00	.093	.000	.000
Ecological factors	3.00	3.30	3.67	.000	1.000	2.000	1.00	.343	.102
Creditors' actions	4.00	3.20	3.33	1.936	.480	.598	.111	.642	.576
Market factors (customer behavior)	4.67	4.70	4.67	7.906	11.129	7.906	.001	.000	.001
Labour market dynamics	3.33	3.70	3.50	1.000	3.280	1.168	.363	.010	.296
Trade unions' activities	3.17	3.20	2.83	.349	.612	-.542	.741	.555	.611
Threat of new entrants	3.67	3.30	4.33	1.581	.758	3.162	.175	.468	.025
Bargaining power of suppliers	3.17	2.40	3.67	.277	-2.714	3.162	.793	.024	.025
Threat of substitute products/services	3.00	3.40	3.00	.000	1.177	.000	1.00	.269	1.000
Bargaining power of buyers	3.50	3.10	3.17	.889	.287	.237	.415	.780	.822
Competitive Rivalry	4.17	4.30	4.83	3.796	6.091	11.00	.013	.000	.000

**Source:** Research Data

**NB:** Ranking was on a 5-point scale: 1-Not at all; 2-Less Extent; 3-Moderate extent; 4-Large extent; 5-Very large extent

The results in Table 4.9b show that the various environmental aspects rank differently across the three sectors of the economy on their influence in decision making. In the

commercial and services sector, high ranking is reported for most of the environmental aspects (as highlighted) with mean scores ranging from 3.50 for socio-cultural factors and bargaining power of buyers to 4.67 for economic factors and competitive rivalry. However, statistically significant differences across organizations in the sector are reported for economic factors, market factors, competitive rivalry, and political factors (t-values = 7.91, 7.91, 3.80, and 2.80 respectively,  $p < 0.05$ ). Moderate influence is reported for the rest of the environmental aspects with unanimity across organizations on the influence (low t-values,  $p > 0.05$ )

In the finance and investment sector, high ranking is reported for the highlighted environmental aspects in Table 4.9b with mean scores ranging from 3.70 for political factors and labour market dynamics to 4.80 for regulatory factors. Statistically significant differences are however reported for regulatory factors, market factors, economic factors, technological factors, competitive rivalry, political factors, and labour market dynamics (t-values range from 3.28 for political and labour market dynamics to 13.5 for regulatory factors,  $p < 0.05$ ). This shows disparity across organizations in the sector on the influence of the environmental aspects on decision making.

In the industrial and allied sector, high ranking is reported for most of the environmental aspects (as highlighted) with mean scores ranging from 3.50 for labour market dynamics to 5.00 for economic factors. However, statistically significant differences across organizations in the sector are reported for most of these highly ranked environmental aspects (t-values range from 2.74 for political factors to 11.00 for regulatory factors and competitive rivalry. This disparity is however not reported

for the rest of the highly ranked environmental aspects as well as those that were moderately ranked.

#### **4.5.3 External Environmental Scanning**

The fact that all organizations are environment serving calls for regular gathering of information on the firm's external environment to inform appropriate strategic decision making. Lenz and Engledow (1986) argued that for organizations to make informed and appropriate strategic decision amid increased environmental changes, they should build internal capability for environmental analysis. The previous sections of the chapter have reported different levels of environmental complexity, dynamism and munificence that characterize the Kenyan business environment. In the same pursuit, the respondents were asked to indicate whether or not the organizations regularly collect information on the external environment, how it is done and whose responsibility it is.

Out of the 23 companies that were surveyed, 22 (95.7%) indicated that they regularly collect information on their external environment while 1 (4.3%) said it doesn't. However, there were varying explanations on how this exercise is done and the responsibility thereof. Whereas others indicated that the exercise is part and parcel of the continuous reviews done regularly by all line managers, others indicated that the exercise is outsourced under the coordination of the marketing managers or their equivalents. Other organizations indicated that they make use of published information from various sources. Others said that by virtue of their membership in industry associations, they obtain most of the information they need regarding their industry and wider macro-environmental issues.



All the studied organizations indicated that they practice formal strategic planning and by necessity undertake a thorough environmental scanning to inform their strategic planning process. As a corporate strategy manager of an organization in the industrial and allied sector pointed,

“We practice formal strategic planning and therefore external environmental analysis is imperatively necessary. This helps in understanding what happens in other sectors and the wider environment because our business is dependent on and/or affected by developments in other sectors”, Corporate Strategy Manager, D5.

Another senior manager of a multi-divisional company in the commercial and services sector said:

“The collection of information on the external environment is carried out on a daily basis by designated managers at divisional level because each division’s products are serving different markets. This information is then presented to a corporate-level sub-committee where it is analyzed and shared to inform decision making. Some other managers are designated to monitor trends and gather information on specific sectors of the environment and prepare reports that feed into our strategic planning process.”  
Human Resource and Corporate Strategy Manager, B3.

In all the interviewed companies, there was a general indication that no company had an internal dedicated unit responsible for environmental scanning. As one senior manager of a company in the financial sector noted,

“External environmental analysis is done by the various departments. Each department knows which information is important and will therefore look for that information. The information is then organized and forwarded to the strategy and business development division for further analysis in order to be used for planning.”  
Corporate Strategy Manager, C10.

As already reported, the different environmental aspects exhibited different levels of complexity, dynamism and munificence. These results are supported by the observations made by most of the interviewed managers. They described the Kenyan

business environment as dynamic and competitive and that the various environmental factors affect the organizations in different ways. As one senior manager of a company in the commercial and services sector put it,

“All factors in the external environment affect the company in different ways: the political factors affect our customers’ buying decision ‘develop a wait and see attitude’, the economic factors affect our source markets and pricing, some of our products are highly technical and therefore require intense training of our employees on the latest technology while developments in labour laws have brought in new requirements which the company should comply with”

Marketing Manager, B2.

Further observations were made by another senior manager of an organization in the finance and investment sector, who observed,

“The appointment of the Chief Executive of this organization is influenced by political interests and this has some effect to the organization. The international relations due to perceived local political stability affect our business because we operate on a global scale. The economic growth rate affects our business as well as foreign exchange rate fluctuations, and competition both locally and internationally is very stiff.”

Corporate Strategy Manager, C10.

A corporate strategy manager of an organization in the industrial and allied sector also put it clearly,

“The external environment has influence on our decision making because these decisions relate to customer satisfaction, operational efficiency in order to be competitive, public policy direction, pricing, compliance to various regulations and laws, management of corporate image, acquisition and development of both skilled and unskilled manpower, and how to deal with competition.”

Corporate Strategy Manager, D5.

This study reports that the Kenyan business environment has experienced changes in the last five years most of which have been in the competition, technological front, economic arena, market factors, political factors, regulatory factors, threat of new

entrants, and threat of substitute products/services. Despite the change that the results portray, most respondents observed that there has been overall relative stability. One observation that did not come out strongly in the statistical findings is the erratic weather conditions that most interviewees said affected their productivity because of the cost of energy caused by 2008/09 drought. The post-election violence that engulfed the country in early 2008 was pointed out as an “outlier” by most interviewees who described the development as episodic. It, however, affected most sectors of the economy because of the interconnected nature of the consequences. As one senior manager of an organization in the commercial and services sector observed,

“Post-election violence took our business five years back. We are in an industry that is very sensitive to political instability and insecurity and therefore we experienced one of the darkest moments in many years in business during the post-election violence.”

Corporate Strategy Manager, B5.

Others observed that the post-election violence boosted their business. A sharp contrast of the earlier observation was made by a senior manager of an organization in the financial services sector, who said,

“No other time in my tenure in this organization we ever reported increased volume of business and surpassed targets than during the post-election violence”,

Marketing Manager, C7

However, the latter manager’s observation was so made because of the upsurge in demand of a particular service that the organization offers. The company is also in a sector of the economy which was not directly and significantly affected by the post-election violence.

Overall, the study results pointed out that the external environment influences decision making among the corporate organizations. All respondents felt that it is important to understand the developments in the business environment and their implications because the organizations' strategic success is determined by the extent to which organizations align their strategies with those developments. As one senior manager of an organization in the Industrial and Allied sector said,

“We are an environment-serving organization and any development in the external environment affects the way we do business. We exist to serve the market and other interests, so doing business oblivious of the developments in the wider business environment is rather unrealistic”, Corporate Strategy Manager, D5.

A corporate strategy manager of a manufacturing organization also observed,

“Failure to understand the external environment and inform your decision making is as good as opening an avenue of losing your competitiveness and definitely signing yourself out of business”, Corporate Strategy Manager, D4.

Another senior manager of a service organization in the commercial and services sector said,

“The consequence of disregarding the external environment more especially the market dynamics during decision-making is tantamount to sacking yourself out of business because there will always be an alternative to the customers if you don't provide what they need”, Marketing Manager, B5.

The above observations are supportive of the study results that most external environment aspects influence organizations' decision making as evidenced by the high rankings (Table 4.14a, mean scores ranging from 2.96 for bargaining power of suppliers to 4.74 for economic factors).

#### 4.5.4 External Environment and Corporate Performance

This study was based on the premise that the external environment influences organizational strategy which then influences corporate performance (E-S-P paradigm), but external environment can have an independent effect on corporate performance. As indicated earlier on, the study focused on three environmental dimensions (complexity, dynamism and munificence) that are a description of fifteen external environmental aspects/factors. To determine the effect of external environment on corporate performance, indices for the environmental dimensions were calculated and used in the regression analysis on the indicators of corporate performance.

The indices for the environmental dimensions were calculated from the various responses on the fifteen environmental aspects/factors that were used in the study. The index for complexity was calculated from the responses on the number of issues organizations need to deal with and the similarity to or dissimilarity from each other. The index for dynamism was calculated from the responses on predictability and changeability of the environmental aspects/factors. Lastly, the index for munificence was calculated from responses on favourability of the environmental aspects/factors. For this study, corporate performance was taken as 5-year averages of profit before tax, total net assets, sales revenue growth rate, earnings per share and return on investment. Performance was also qualitatively measured as new product introduction, product/service quality, market share growth, and operational efficiency.

Through hierarchical multiple regression analysis at 95% confidence ( $p=0.05$ ), the nature of the independent effect (positive or negative) of each environmental dimension on the various indicators of corporate performance will be determined and

illustrated. This analysis generates a constant, the standardized beta coefficients ( $\beta$ ) for the independent variables, t-values, and significance levels among other outputs. The beta coefficient ( $\beta$ ) shows the contribution of the independent variable towards a unit change in the dependent variable while t-values show the significance of the independent effect of the independent variable on the dependent variable. This significance is confirmed by comparing the resultant significance level with  $p=0.05$  (the test confidence level).

In making the interpretations, use is made of absolute figures for beta coefficients and t-values. The higher the beta coefficient, the higher the weighting of the independent variable in the model and therefore the greater its effect on the dependent variable but the significance of the effect is determined by the t-value. The greater the t-value, the higher the significance of the independent variable's effect on the dependent variable, and the lower the p-value ( $p<0.05$ ).

#### 4.5.4.1 External Environment and Profit

The study reports statistically not significant results for the independent effects of environmental dimensions on profit before tax (PBT) (low t-values,  $p>0.05$ ). However, positive effect is reported for complexity and dynamism while negative effect is reported for munificence. Further, environmental complexity is reported to have a relatively high positive impact on PBT ( $\beta=0.426$ ) while environmental munificence has a relatively high negative impact ( $\beta=-0.179$ ) (Table 4.10a).

**Table 4.10a: Significance for the effect of Environmental Dimensions on PBT**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-value	Sig.
	B	Std. Error			
(Constant)	-1354610.540	1973142.889		-0.687	0.501
Complexity	1059338.450	712909.603	0.426	1.486	0.154
Dynamism	293925.892	1058461.980	0.104	0.278	0.784
Munificence	-393975.015	669775.161	-0.179	-0.588	0.563

Source: Research Data

#### 4.5.4.2 External Environment and Total Net Assets

The study reports positive effect of complexity and dynamism on total net assets but negative effect of munificence on the same. Relatively high positive impact is reported for environmental dynamism ( $\beta=0.290$ ) while a high negative impact is reported for munificence ( $\beta=-0.172$ ). Overall, the study reports statistically not significant results for the independent effect environmental dimensions on total net assets (low t-values,  $p>0.05$ ) (Table 4.10b)

**Table 4.10b: Significance for the effect of environmental dimensions on TNAs**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	-22446037.579	22959276.471		-0.978	0.341
Complexity	5529999.397	8295338.758	0.198	0.667	0.513
Dynamism	9200776.498	12316148.705	0.290	0.747	0.464
Munificence	-4268522.326	7793431.071	-0.172	-0.548	0.590

Source: Research Data

#### 4.5.4.3 External Environment and Sales Revenue

The study reports statistically not significant results for the independent effect of environmental dimensions on sales revenue (low t-values,  $p>0.05$ ). However, positive effect is reported for complexity and dynamism while negative effect is reported for munificence. Relatively high positive effect is reported for environmental complexity ( $\beta=0.237$ ) on sales revenue (Table 4.10c).

**Table 4.10c: Significance for the effect of environmental dimensions on Sales Revenue**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	-6.293	12.653		-0.497	0.625
Complexity	3.607	4.572	0.237	0.789	0.440
Dynamism	2.889	6.788	0.167	0.426	0.675
Munificence	-9.09	4.295	-0.067	-0.212	0.835

Source: Research Data

#### 4.5.4.4 External Environment and Earnings Per Share

The study reports statistically not significant results for the independent effect of environmental dimensions on EPS (low t-values,  $p > 0.05$ ). However, positive effect is reported for complexity while negative effect is reported for dynamism and munificence. Further, relatively high positive impact is reported for environmental complexity ( $\beta = 0.446$ ) while a high negative impact is reported for dynamism ( $\beta = -0.115$ ) (Table 4.10d).

**Table 4.10d: Significance for the effect of environmental dimensions on EPS**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	479	7.684		0.062	0.951
Complexity	4.161	2.776	0.446	1.499	0.150
Dynamism	-1.223	4.122	-0.115	-0.297	0.770
Munificence	-.893	2.608	-0.108	-0.342	0.736

Source: Research Data

#### 4.5.4.5 External Environment and Return on Investment

The study reports positive effect for complexity and munificence while negative effect is reported for dynamism. Relatively high positive impact is reported for environmental complexity ( $\beta = 0.322$ ) while a high negative impact is reported for dynamism ( $\beta = -0.380$ ). Overall, statistically not significant findings are reported for the independent effect of environmental dimensions on ROI (low t-values,  $p > 0.05$ ) (Table 4.10e).

**Table 4.10e: Significance for the effect of environmental dimensions on ROI**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	17.075	15.710		1.087	0.291
Complexity	5.931	5.676	0.322	1.045	0.309
Dynamism	-7.980	8.428	-0.380	-0.947	0.356
Munificence	3.132	5.333	0.192	0.587	0.564

Source: Research Data



#### 4.5.4.6 External Environment and New Product Introduction

The study reports statistically not significant results for the independent effect of environmental dimensions on new product introduction (low t-values,  $p > 0.05$ ). However, positive effect is reported for munificence while negative effect is reported for complexity and dynamism. A relatively high positive impact is reported for environmental munificence ( $\beta = 0.488$ ) while a high negative impact is reported for dynamism ( $\beta = -0.542$ ) (Table 4.10f).

**Table 4.10f: Significance for the effect of environmental dimensions on New Product Introduction**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	1.083	.315		3.433	0.003
Complexity	-.004	.114	-0.010	-0.033	0.974
Dynamism	-.239	.169	-0.542	-1.414	0.173
Munificence	.168	.107	0.488	1.570	0.133

Source: Research Data

#### 4.5.4.7 External Environment and Market Share

The study reports statistically not significant results for the independent effect of environmental dimensions on market share (low t-values,  $p > 0.05$ ) with positive effect being reported for complexity and munificence while negative effect is reported for dynamism. Further, a relatively high positive impact is reported for environmental munificence on market share ( $\beta = 0.348$ ) while environmental dynamism has a relatively high negative impact ( $\beta = -0.681$ ) (Table 4.10g).

**Table 4.10g: Significance for the effect of Environmental Dimensions on Market Share**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	.909	.264		3.444	0.003
Complexity	.107	.095	0.330	1.120	0.277
Dynamism	-.250	.142	-0.681	-1.768	0.093
Munificence	.100	.090	0.348	1.115	0.279

Source: Research Data

#### 4.5.4.8 External Environment and Product/Service Quality

The study reports statistically not significant results for the independent effect of environmental dimensions on product/service quality (low t-values,  $p > 0.05$ ). However, positive effect is reported for munificence while negative effect is reported for complexity and dynamism. Relatively high negative impact is reported for environmental dynamism ( $\beta = -0.482$ ) (Table 4.10h).

**Table 4.10h: Significance for the effect of Environmental Dimensions on Product/Service Quality**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	1.076	.193		5.585	0.000
Complexity	-.014	.070	-0.059	-0.201	0.843
Dynamism	-.130	.103	-0.482	-1.257	0.224
Munificence	.053	.065	0.251	0.806	0.430

Source: Research Data

#### 4.5.4.9 External Environment and Operational Efficiency

The study reports positive effect for complexity and munificence while negative effect is reported for dynamism. A relatively high positive impact is reported for environmental munificence ( $\beta = 0.437$ ) while a high negative impact is reported for dynamism ( $\beta = -0.321$ ). The results for the independent effect of environmental dimensions on operational efficiency are however not statistically significant (low t-values,  $p > 0.05$ ) (Table 4.10i).

**Table 4.10i: Significance for the effect of environmental dimensions on Operational Efficiency**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	0.610	0.201		3.033	0.007
Complexity	0.050	0.073	0.205	0.687	0.500
Dynamism	-0.089	0.108	-0.321	-0.825	0.420
Munificence	0.094	0.068	0.437	1.381	0.183

Source: Research Data

The preliminary findings presented so far show statistically not significant results for the independent effect of environmental dimensions on the various indicators of corporate performance. However, the results demonstrate that each environmental dimension has a weighted effect on the indicators of performance. For each performance indicator, at least one environmental dimension has relatively high positive or negative effect. Therefore, the findings demonstrate that developments in the Kenyan business environment have multifaceted effects on corporate performance.

#### **4.6 Results of the Tests of Hypotheses**

So far, the preliminary findings presented in sub-section 4.5.4 focused on the independent effect of external environmental dimensions on the various measures of corporate performance. Further multiple linear regression analysis was done to test the combined effect of the environmental dimensions on the various measures of performance, hence a test of hypothesis H1 stated as: External environment has a significant effect on corporate performance. This hypothesis corresponds to objective I of the study which was the focus of this chapter, that is, to determine the effect of external environment on the performance of publicly quoted companies in Kenya.

The output of the multiple linear regression analysis was the multiple  $r$ ,  $R^2$ , and F-ratio values. The significance level values were also generated. The multiple  $r$  value shows the strength of the relationship between the environmental dimensions (combined) and each measure/indicator of performance. The  $R^2$  value shows the proportion of the performance indicator that is accounted for by the combined effect of external environmental dimensions. The F-value demonstrates the overall statistical

significance of the model which predicts the effect of external environment on corporate performance at 95% confidence level ( $p=0.05$ ). The decision to confirm the hypothesis was made at values of F-value where  $p<0.05$  (Table 4.10j).

**Table 4.10j: Summary of effect of external environment on corporate performance**

Model	Multiple r	R <sup>2</sup>	F-Value	Sig.
Profit before tax=f(complexity, dynamism, munificence)	0.44	0.19	1.48	0.252
Average total assets =f(complexity, dynamism, munificence)	0.36	0.13	0.93	0.444
Sales Revenue =f(complexity, dynamism, munificence)	0.34	0.11	0.80	0.510
Earnings per share =f(complexity, dynamism, munificence)	0.36	0.13	0.93	0.447
Return on Investment=f(complexity, dynamism, munificence)	0.26	0.07	0.44	0.725
New Product Introduction =f(complexity, dynamism, munificence)	0.39	0.15	1.11	0.369
Market share =f(complexity, dynamism, munificence)	0.38	0.14	1.05	0.395
Product/service quality =f(complexity, dynamism, munificence)	0.32	0.15	0.74	0.539
Operational efficiency=f(complexity, dynamism, munificence)	0.35	0.12	0.87	0.473

Source: Research Data

The results of the tests of hypothesis H1 show that there is a relationship between the external environment (measured by complexity, dynamism, and munificence) and the various indicators of corporate performance (multiple r ranges from 0.26 for ROI to 0.44 for PBT). These results also indicate that different variations in corporate performance indicators are accounted for by the external environment (R<sup>2</sup> ranges from 7% for ROI to 19% for PBT). The corresponding F-values for the various models range from 0.44 for ROI to 1.48 for PBT).

Further, the results show that the corresponding p-values are more than the test level of 0.05 ( $p>0.05$ ) for all the indicators of performance. This means that the study results for the effect of external environment of corporate performance are statistically not significant. Consequently, the results do not confirm hypothesis H1. The results imply that even though the external environment explains variations in corporate performance of the publicly quoted companies in Kenya, these variations are not

statistically significant. Therefore, despite existence of a relationship between the external environment and corporate performance, the external environment does not appear to have a significant effect on the performance of publicly quoted companies in Kenya.

#### **4.7 Discussion**

Despite statistically not significant results for the effect of external environment on the performance of publicly quoted companies in Kenya, the companies cannot ignore its reported effect. The results show that there is correlation between the external environment and the various indicators of performance. The results indicate that the higher the correlation (multiple  $r$ ) between the external environment and corporate performance, the larger the proportion of variability ( $R^2$ ) in corporate performance that is accounted for by the external environment.

Among the nine indicators of performance that were used in the study, the companies' profit before tax appears to be the most affected by the external environment ( $R^2=19\%$ ). This proportion is attributable to the positive effect reported for environmental complexity and dynamism as well as the negative effect reported for environmental munificence. This implies that as environmental complexity and dynamism increase, profit also increases. Similarly, it also means that as the external environment become less munificent (unfavourable), there is a decrease in profit. As earlier reported, the external environment presents managers with moderate and somewhat similar issues to deal with during decision making. High to moderate predictability of most of the external environment factors was also reported as well as less to moderate favourability. Therefore, ease of predictability most likely neutralizes effects of

increased dynamism and complexity; hence a positive effect on profitability but negative effect results due to a less favourable environment.

The results show that return on investment is the least affected by the external environment ( $R^2 = 7\%$ ). This variability is accounted for by the positive effect of environmental complexity and negative effect of environmental dynamism and munificence. This contradicts our expectations because the investment intensity is dependent on the favourability of the environment but also on the profitability of the companies over time. It appears that most organizations have had fixed investments over time and therefore the variability is largely on returns.

For the rest of the performance indicators, the results show that the external environment accounts for the variation in corporate performance which ranges from 11% for sales revenue to 15% for new product introduction and product/service quality. The positive effect of environmental complexity and dynamism as well as negative effect of munificence account for 11% variability in the companies' sales revenue. A 12% variation of the companies' earnings per share is accounted for by positive effect of environmental complexity and negative effect of dynamism and munificence while 13% of changes in total net assets is explained by the positive effect of environmental complexity and dynamism, and the negative effect of munificence. A further 13% variation in the companies' operational efficiency is accounted for by the positive effect of environmental complexity and munificence as well as negative effect of dynamism. Lastly, 15 % of new product introduction and product/service quality of the surveyed companies are attributable to negative effects of complexity and dynamism, and positive effect of munificence. It is clear that even though the results are statistically not significant, the different levels of complexity,

dynamism, and munificence that characterize Kenya's business environment explain fairly significant variations in the various indicators of corporate performance to differing degrees.

Our results are fairly comparable to other empirical studies that have considered external environment as part of the study variables in relation to corporate performance. An empirical study by Kotha & Nair (1995) examined the roles played by the environment and realized strategies on firm-level performance in the Japanese Machine Tool Industry. They established that both firm strategies and the environment play significant roles in influencing profitability and growth. More specifically, whereas both strategy and environmental variables were significantly related to firm profitability, only environmental variables were associated with firm growth. Our study results offer partial support to Kotha & Nair's (1995) study on the explanatory power of the external environment on profitability.

Another related study by Simerly & Mingfang (2000) established that competitive environments moderate the relationship between capital structure and economic performance and that the match between environmental dynamism and capital structure is associated with superior economic performance. However, the current study laid focus on testing the direct effect of the external environment on corporate performance. Overall, the study reports statistically not significant results and therefore fails to confirm hypothesis H1. The results could stand on their own merit because most studies have not directly tested environment-performance relationship. However, a study by Marlin et al (1994) provides empirical support on how different environmental situations determine choice of strategy, which then determines performance.

The results compare well with Ansoff and Suvillan's (1993) assertion that organizations are environment serving and are therefore in constant interaction with the environments in which they operate. Consequently, their behaviour is influenced by the environment, which indirectly affects their performance. The results therefore partially support the open systems theory as well as contingency theory. With regard to the open systems theory, the findings have demonstrated that organizations operate as open systems and hence are in continuous interaction with the environment in which they operate (Ludwig, 1973). Their performance as open systems is largely determined by the effectiveness with which they are able to manage the interfaces with the environment. Contingency theory is supported by the fact that decision making as well as performance are contingent upon the prevailing environmental developments.

#### **4.8. Chapter Summary**

The study results presented and discussed in this chapter reveal that external environment appears to be among the factors that affect corporate performance albeit not statistically significant. Changes in the external environment in which organizations operate can either bring forth opportunities and/or threats. A thorough understanding of the implications of these changes is important for strategic decision making. In this chapter, we argued that although the results were statistically not significant, they offer insight on the multifaceted nature of the effects of the external environment on the various indicators of performance. Consequently, how a particular organization initiates its strategic behaviour in response to these effects is likely to have performance implications.



The results offer partial support to most extensive studies on relationships between environment and organizational performance within the field of industrial organization economics. Lenz (1981) observed that within this discipline the environment is referenced with respect to the market or industry in which a firm competes. The focus of empirical research is on the idea that the structure of a market influences the conduct of firms within it and their conduct, in turn, affects performance (Mason, 1939; and Caves, 1977 as cited in Lenz, 1981). In essence, the results offer some support for the propositions of open systems and contingency theories that organizations as open systems (Ludwig, 1973) are in continuous interaction with the environment in which they operate. Decision making as well as performance are also contingent upon the prevailing environmental developments.

## CHAPTER FIVE ORGANIZATIONAL STRATEGY AND CORPORATE PERFORMANCE

### 5.1 Introduction

In the last chapter, we laid focus on the nature of Kenya's business environment and its effect on the performance of companies listed in the Nairobi Stock Exchange. In this chapter, we focus on strategic orientations that most characterize decision making in these companies as well as the pursued strategy types. We also examine the effect of the strategic orientations and strategy types on the companies' performance. The strategic orientations that were considered in the study are analysis, defensiveness, futurity, riskiness, and proactiveness and the strategy types are concentration, market development, product development, diversification, strategic alliances, joint ventures, divestiture, mergers, and acquisitions. Further, we lay emphasis on comparing the joint effect of the strategy variables (orientations and types) on performance with the sum total of the independent effects of the same variables.

First, we present a discussion on the strategic orientations that most characterize decision making in the studied organizations as well the most pursued strategy types. This is followed by examining the nature and significance of the independent effects of the strategic orientations and strategy types on the various indicators of corporate performance. The results of tests of hypotheses H2, H3a and H3b will then be presented and discussed within the context of other empirical studies as well as theory.

## 5.2 Organizational Strategy

Studies that have considered strategy as one of the constructs in their conceptualizations are many and varied. Similarly, the operational indicators that have been used are also many and varied depending on whether emphasis is placed on the strategy content or the strategy process. Both strategy content and process combine to describe an organization's strategic behaviour. The central tenet of an organization's strategic behaviour is to link the organization to the ever-changing and complex business environment. As Farjoun (2002) observed, an organization's strategy aligns it with the environment by building on and modifying the firm's internal attributes and forces to respond to, and influence, environmental conditions and developments.

However, there is no universality in the way organizations view what constitutes strategy. Hence, strategy has been viewed as a multi-dimensional concept (Hax & Majluf, 1996) and to partly address this multi-dimensionality, we operationalized strategy along the two main perspectives namely, strategic orientations and strategy types. This is because no one perspective can comprehensively capture an organization's strategic behaviour.

### 5.2.1 Strategic Orientations

The respondents were presented with statements descriptive of the five strategic orientations of analysis, defensiveness, futurity, riskiness, and proactiveness. We wanted to establish the strategic orientations that most characterize decision making in the surveyed companies. In a 5-point Likert type scale, the respondents were required to indicate the extent to which the presented statements describe decision making in their organizations. A one sample t-test was done at 95% confidence level ( $p=0.05$ ) and test value of 3 (average and mid-point of the 5-point scale). This test

generated the mean scores and t-values. Mean scores show the ranking of the strategic orientations that most characterize decision making while the t-values show whether there were any significant differences across the surveyed companies on the extent to which the strategic orientations describe decision making in the surveyed organizations (Table 5.1a).

**Table 5.1a: Strategic Orientations that Most Characterize Decision Making**

Strategic Orientation	N	Mean	Sample test (t-value)	Significance (2-tailed)
Analysis	23	4.11	7.060	.000
Defensiveness	23	4.04	8.147	.000
Futurity	23	4.27	12.006	.000
Riskiness	23	3.28	1.715	.100
Proactiveness	23	3.91	5.163	.000

Source: Research Data

NB: Ranking was on a 5-point scale: 1-Not at all; 2-Less Extent; 3-Moderate extent; 4-Large extent; 5-Very large extent

The results in Table 5.1a show high ranking for futurity, analysis, defensiveness, and proactiveness (mean scores= 4.27, 4.11, 4.04, and 3.91 respectively). These strategic orientations characterize decision making in the organizations to a large extent. However, there were statistically significant differences across the surveyed organizations on the extent to which these strategic orientations most characterize decision making (t-values = 12.01, 8.15, 7.06, and 5.16 respectively for futurity, defensiveness, analysis, and proactiveness,  $p < 0.05$ ). The results show unanimity across the organizations that riskiness characterize decision making to a moderate extent (t-value = 1.715,  $p > 0.05$ ).

### 5.2.2 Strategy Types

Organizations also exhibit strategic behavior through particular strategy choices. Respondents were presented with nine strategy types on a 5-point Likert type scale and were required to indicate the extent to which their organizations have pursued the strategies in the last five years. The intention was to establish the most dominant

strategies pursued by the surveyed companies over the five years' period (2005-2009) and whether there were any statistically significant differences across the organizations on the extent of pursuit. Therefore a one sample t-test was carried out at 95% confidence level and test value of 3 (average and mid-point of the 5-point scale). The resultant mean scores show the ranking of strategy types across the organizations while the t-values show whether there were any statistically significant differences on the rankings across the organizations (Table 5.1b).

**Table 5.1b: Pursuit of Strategy Types**

Strategy Type	N	Mean	Sample test (t-value)	Significance (2-tailed)
Concentration	23	3.26	1.100	.283
Market development	23	4.22	8.698	.000
Product development	23	4.17	7.240	.000
Diversification	23	3.65	2.626	.015
Strategic Alliances	23	2.91	-.358	.724
Joint Ventures	23	2.52	-1.800	.086
Divestiture	23	2.30	-2.816	.010
Mergers	23	1.65	-5.811	.000
Acquisition	23	2.04	-3.075	.006

Source: Research Data

NB: Ranking was on a 5-point scale: 1-Not at all; 2-Less Extent; 3-Moderate extent; 4-Large extent; 5-Very large extent

The results in Table 5.1b show high ranking for market development, product development, and diversification strategies (mean scores = 4.22, 4.17 and 3.65 respectively). This means that in the last five years, the companies pursued these strategies to a large extent. However, statistically significant differences were reported across the organizations on the extent to which the highly ranked strategies were dominantly pursued (t-values = 8.70, 7.24, and 2.63 respectively for market development, product development, and diversification,  $p < 0.05$ ). The strategies that were least pursued include mergers, acquisitions, and divestitures (mean scores = 1.65, 2.04, and 2.30 respectively). Similarly, there were statistically significant differences on the extent to which these strategies were least pursued (t-values = -5.81, -3.08, and -2.82 respectively for mergers, acquisitions, and divestiture,  $p < 0.05$ ).

The rest of the strategy types (concentration, strategic alliances, and joint ventures) were pursued to a moderate extent with unanimity across the organizations (low t-values,  $p > 0.05$ ).

### 5.3 Strategy and Performance

As mentioned earlier on, this study was based on the premise that the external environment influences organizational strategy which then influences corporate performance (the E-S-P paradigm), but organizational strategy can have an independent effect on corporate performance. We also indicated that organizational strategy was operationalized as five strategic orientations and nine strategy types. Similarly, further mention has been made that corporate performance was captured as 5-year averages of five quantitative (financial) measures as well as through four qualitative measures.

In this section, we present the preliminary results which were generated through hierarchical regression analysis. In carrying out this analysis, the organizational strategy variables (strategic orientations and strategy types) were regressed on each indicator of performance at 95% confidence level ( $p = 0.05$ ). Through this analysis the nature of the independent effect (positive or negative) of each strategy variable on the various indicators of corporate performance will be determined and illustrated. The analysis generates a constant, the standardized beta coefficients ( $\beta$ ) for the independent variables, t-values, and significance levels among other outputs. The beta coefficient ( $\beta$ ) shows the contribution of each strategy variable towards a unit change in the performance indicator while t-values show the significance of the independent effect of the strategy variables on the performance indicator. This significance is confirmed by comparing the resultant significance level with the test level ( $p = 0.05$ ).

### 5.3.1 Strategy and Profit

The organizational strategy variables were regressed on the companies' profit before tax and were found to have either positive or negative effect on profit. Positive effect is reported for analysis, defensiveness, concentration, product development, diversification, joint ventures, divestiture, and acquisition while negative effect is reported for futurity, riskiness, proactiveness, market development, strategic alliances and mergers. Relatively high positive impact is reported for analysis ( $\beta=1.185$ ) while a high negative impact is reported for proactiveness ( $\beta=-1.102$ ). Overall, the study reports statistically not significant results for the independent effect of strategy variables on profit before tax (low t-values,  $p>0.05$ ) (Table 5.2a).

**Table 5.2a: Significance for the effect of organizational strategy variables on PBT**

	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	-500748.960	4718269.380		-.106	.918
Analysis	2500562.431	1378924.424	1.185	1.813	.107
Defensiveness	1315217.142	1378779.443	.509	.954	.368
Futurity	-1197183.514	1281516.175	-.384	-.934	.378
Riskiness	-830689.872	854661.264	-.415	-.972	.360
Proactiveness	-2064602.645	1143503.640	-1.102	-1.806	.109
Concentration	90377.409	409554.341	.065	.221	.831
Market development	-257912.614	749566.077	-.109	-.344	.740
Product development	819139.546	967870.377	.401	.846	.422
Diversification	532845.369	496896.484	.399	1.072	.315
Strategic Alliances	-737904.647	549999.286	-.541	-1.342	.217
Joint Ventures	53688.933	423637.435	.043	.127	.902
Divestiture	31437.736	458175.990	.023	.069	.947
Mergers	-295358.819	719857.665	-.207	-.410	.692
Acquisition	110055.241	542818.101	.103	.203	.844

Source: Research Data

### 5.3.2 Strategy and Total Net Assets

When the strategy variables were regressed on the companies' total net assets, the results show positive effect for analysis, defensives, concentration, product development, diversification, joint ventures, divestiture, and acquisition. Negative effect is reported for futurity, riskiness, proactiveness, market development, strategic alliances, and mergers. Relatively high positive impact is reported for analysis

( $\beta=1.328$ ) while a high negative impact is reported for proactiveness ( $\beta=-1.279$ ).

Overall, the results are statistically not significant for the independent effect of strategy variables on Total Net Assets (low t-values,  $p>0.05$ ) (Table 5.2b).

**Table 5.2b: Significance for the effect of organizational strategy variables on Total Net Assets**

	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	34343379.474	47304403.223		.726	.489
Analysis	31436493.942	13824814.081	1.328	2.274	.053
Defensiveness	1633964.912	13823360.533	.056	.118	.909
Futurity	-8786278.778	12848218.916	-.251	-.684	.513
Riskiness	-9831761.957	8568658.932	-.438	-1.147	.284
Proactiveness	-26885058.362	11464533.480	-1.279	-2.345	.047
Concentration	4553512.466	4106108.007	.290	1.109	.300
Market development	-16462789.464	7514996.094	-.620	-2.191	.060
Product development	9698457.480	9703670.329	.423	.999	.347
Diversification	9515793.302	4981782.464	.636	1.910	.093
Strategic Alliances	-2408912.924	5514180.284	-.157	-.437	.674
Joint Ventures	5324003.197	4247302.226	.381	1.254	.245
Divestiture	198244.957	4593578.712	.013	.043	.967
Mergers	-11234221.563	7217145.635	-.701	-1.557	.158
Acquisition	3342845.172	5442183.191	.280	.614	.556

Source: Research Data

### 5.3.3 Strategy and Sales Revenue

The multiple linear regression of strategy variables on sales revenue growth rate resulted into positive effect for analysis, futurity, proactiveness, concentration, market development, and mergers. However, negative effect is reported for defensiveness, riskiness, product development, diversification, strategic alliances, divestiture, and acquisition. The study reports relatively high positive impact for futurity ( $\beta=0.812$ ) and a relatively high negative impact for acquisition ( $\beta=-0.723$ ). As the results indicate, statistically significant positive effect is reported for futurity (t-value = 3.701,  $p<0.05$ ) while statistically not significant effect is reported for the rest of the strategy variables (Table 5.2c).



**Table 5.2c: Significance for the effect of organizational strategy variables on Sales Revenue**

	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	-42.434	15.420		-2.752	.025
Analysis	.216	4.507	.017	.048	.963
Defensiveness	-3.356	4.506	-.212	-.745	.478
Futurity	15.502	4.188	.812	3.701	.006
Riskiness	-.536	2.793	-.044	-.192	.853
Proactiveness	6.602	3.737	.575	1.767	.115
Concentration	1.505	1.339	.176	1.124	.294
Market development	3.177	2.450	.219	1.297	.231
Product development	-5.615	3.163	-.449	-1.775	.114
Diversification	-.012	1.624	-.001	-.007	.994
Strategic Alliances	-2.378	1.798	-.284	-1.323	.222
Joint Ventures	-.648	1.385	-.085	-.468	.652
Divestiture	-3.791	1.497	-.461	-2.532	.035
Mergers	4.841	2.353	.553	2.058	.074
Acquisition	-4.719	1.774	-.723	-2.660	.029

Source: Research Data

### 5.3.4 Strategy and Earnings Per Share

As depicted in Table 5.2d, statistically significant positive effect is reported for market development and joint ventures (t-values = 3.95 and 2.32 respectively,  $p < 0.05$ ) while a statistically significant negative effect is reported for divestiture (t-value = -4.12,  $p < 0.05$ ). Statistically not significant are reported results for the independent effect of other strategy variables on earnings per share (low t-values,  $p > 0.05$ ).

**Table 5.2d: Significance for the effect of organizational strategy variables on EPS**

	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	-24.292	9.634		-2.521	.036
Analysis	2.502	2.816	.316	.889	.400
Defensiveness	4.740	2.815	.489	1.684	.131
Futurity	3.148	2.617	.269	1.203	.263
Riskiness	-.087	1.745	-.012	-.050	.961
Proactiveness	-2.154	2.335	-.306	-.922	.383
Concentration	.938	.836	.179	1.122	.294
Market development	6.049	1.531	.681	3.952	.004
Product development	-2.477	1.976	-.323	-1.253	.245
Diversification	-2.238	1.015	-.447	-2.206	.058
Strategic Alliances	-2.211	1.123	-.432	-1.969	.085
Joint Ventures	2.004	.865	.428	2.317	.049
Divestiture	-3.852	.936	-.765	-4.118	.003
Mergers	-.811	1.470	-.151	-.552	.596
Acquisition	-1.116	1.108	-.279	-1.006	.344

Source: Research Data

The results in Table 5.2d further show positive effect for analysis, defensiveness, futurity, concentration, and joint ventures. On the other hand, negative effect is reported for riskiness, proactiveness, product development, diversification, strategic alliances, mergers, and acquisition. Relatively high positive impact is reported for market development ( $\beta=0.681$ ) while a high negative impact is reported for Divestiture ( $\beta=-0.765$ ).

### 5.3.5 Strategy and Return on Investment

The study results for the independent effect of strategy variables on return on investment are statistically not significant (low t-values,  $p>0.05$ ). Positive effect is reported for analysis, defensiveness, market development, mergers, and acquisition. Negative effect is reported for futurity, riskiness, proactiveness, concentration, product development, diversification, strategic alliances, joint ventures, and divestiture. The study reports relatively high positive impact for Analysis ( $\beta=0.577$ ) and a relatively high negative impact for Joint Venture strategy ( $\beta=-0.513$ ) (Table 5.2e).

**Table 5.2e: Significance for the effect of organizational strategy variables on ROI**

	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	14.132	30.758		.459	.658
Analysis	9.027	8.989	.577	1.004	.345
Defensiveness	8.939	8.988	.466	.995	.349
Futurity	-7.508	8.354	-.325	-.899	.395
Riskiness	-.147	5.571	-.010	-.026	.980
Proactiveness	-.803	7.454	-.058	-.108	.917
Concentration	-1.031	2.670	-.099	-.386	.709
Market development	2.914	4.886	.166	.596	.567
Product development	-3.508	6.309	-.231	-.556	.593
Diversification	-.139	3.239	-.014	-.043	.967
Strategic Alliances	-4.816	3.585	-.476	-1.343	.216
Joint Ventures	-4.741	2.762	-.513	-1.717	.124
Divestiture	-2.502	2.987	-.251	-.838	.427
Mergers	.030	4.693	.003	.006	.995
Acquisition	2.339	3.539	.296	.661	.527

Source: Research Data

### 5.3.6 Strategy and New Product Introduction

The study results for the independent effect of strategy variables on new product introduction are statistically not significant (low t-values,  $p > 0.05$ ). Positive effect is reported for analysis, defensiveness, proactiveness, market development, product development, diversification, strategic alliances, and mergers. On the other hand, negative effect is reported for defensiveness, futurity, riskiness, concentration, joint ventures, divestiture and acquisition. Relatively high positive impact is reported for Product development ( $\beta = 0.496$ ) (Table 5.2f).

**Table 5.2f: Significance for the effect of organizational strategy variables on New Product Introduction**

	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	.037	.665		.055	.957
Analysis	.042	.194	.129	.218	.833
Defensiveness	-.070	.194	-.173	-.359	.729
Futurity	-.020	.181	-.042	-.113	.913
Riskiness	-.064	.120	-.205	-.533	.609
Proactiveness	.048	.161	.165	.299	.773
Concentration	-.034	.058	-.156	-.588	.573
Market development	.089	.106	.241	.842	.424
Product development	.158	.136	.496	1.160	.279
Diversification	.007	.070	.032	.095	.926
Strategic Alliances	.041	.078	.193	.529	.611
Joint Ventures	-.032	.060	-.165	-.539	.605
Divestiture	-.020	.065	-.098	-.317	.760
Mergers	.069	.101	.311	.682	.514
Acquisition	-.028	.077	-.169	-.368	.722

Source: Research Data

### 5.3.7 Strategy and Market Share

Overall, the study reports statistically not significant results for the independent effect of strategy variables on market share (low t-values,  $p > 0.05$ ). The study reports positive effect for analysis, riskiness, proactiveness, concentration, market development, product development, diversification, joint ventures, mergers and acquisition. Negative effect is reported for defensiveness, futurity, strategic alliances, and divestiture. Relatively high positive impact is reported for merger strategy

( $\beta=0.569$ ) while a high negative impact is reported for defensiveness ( $\beta=-0.796$ ) (Table 5.2g).

**Table 5.2g: Significance for the effect of organizational strategy variables on Market Share**

	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	.560	.440		1.272	.239
Analysis	.008	.129	.030	.064	.950
Defensiveness	-.267	.129	-.796	-2.078	.071
Futurity	-.039	.120	-.096	-.324	.754
Riskiness	.025	.080	.095	.311	.763
Proactiveness	.074	.107	.303	.692	.509
Concentration	.034	.038	.187	.890	.399
Market development	.074	.070	.240	1.055	.322
Product development	.094	.090	.354	1.041	.328
Diversification	.007	.046	.039	.145	.889
Strategic Alliances	-.038	.051	-.214	-.741	.480
Joint Ventures	.049	.040	.304	1.244	.249
Divestiture	-.022	.043	-.124	-.507	.626
Mergers	.106	.067	.569	1.574	.154
Acquisition	.013	.051	.097	.264	.799

Source: Research Data

### 5.3.8 Strategy and Product/Service Quality

The study reports statistically not significant results for the independent effect of strategy variables on product/service quality (low t-values,  $p>0.05$ ). However, positive effect is reported for analysis, futurity, riskiness, market development, strategic alliances, and mergers. On the other hand, negative effect is reported for defensiveness, proactiveness, concentration, product development, joint ventures, divestiture, and acquisition. The study reports relatively high positive impact for riskiness ( $\beta=0.448$ ) while a high negative impact is reported for divestiture ( $\beta=-0.494$ ) (Table 5.2h).

**Table 5.2h: Significance for the effect of organizational strategy variables on Product/Service Quality**

	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	.400	.448		.893	.398
Analysis	.018	.131	.088	.135	.896
Defensiveness	-.053	.131	-.213	-.402	.698
Futurity	.076	.122	.256	.625	.550
Riskiness	.085	.081	.448	1.053	.323
Proactiveness	-.004	.109	-.024	-.040	.969
Concentration	-.004	.039	-.032	-.110	.915
Market development	.072	.071	.318	1.010	.342
Product development	-.048	.092	-.247	-.523	.615
Diversification	-.002	.047	-.017	-.046	.965
Strategic Alliances	.007	.052	.057	.141	.891
Joint Ventures	-.022	.040	-.182	-.537	.606
Divestiture	-.063	.043	-.494	-1.452	.185
Mergers	.058	.068	.428	.853	.418
Acquisition	-.036	.052	-.351	-.691	.509

Source: Research Data

### 5.3.9 Strategy and Operational Efficiency

Lastly, Table 5.2i presents the study results on the independent effect of strategy variables on corporate performance measured by operational efficiency.

**Table 5.2i: Significance for the effect of organizational strategy variables on Operational Efficiency**

	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	.271	.350		.773	.462
Analysis	.238	.102	1.154	2.328	.048
Defensiveness	.041	.102	.161	.397	.702
Futurity	-.011	.095	-.036	-.115	.911
Riskiness	-.037	.063	-.189	-.585	.575
Proactiveness	-.066	.085	-.360	-.779	.459
Concentration	.051	.030	.376	1.691	.129
Market development	-.008	.056	-.036	-.149	.885
Product development	-.059	.072	-.296	-.823	.434
Diversification	.065	.037	.499	1.766	.115
Strategic Alliances	-.060	.041	-.446	-1.461	.182
Joint Ventures	-.023	.031	-.192	-.745	.477
Divestiture	-.066	.034	-.501	-1.933	.089
Mergers	.065	.053	.467	1.221	.257
Acquisition	-.034	.040	-.321	-.832	.430

Source: Research Data

Table 5.2i shows statistically significant results for the effect of analysis on operational efficiency (t-value = 2.328,  $p < 0.05$ ). However, statistically not significant results are reported for the independent effect of the rest of the strategy variables on operational efficiency (low t-values,  $p > 0.05$ ). Nonetheless, results indicated positive effect for analysis, defensiveness, concentration, diversification, and mergers. Negative effect is reported for futurity, riskiness, proactiveness, market development, strategic alliances, joint ventures, divestiture and acquisition. Relatively high positive impact is reported for Analysis ( $\beta = 1.154$ ) while a high negative impact is reported for divestiture ( $\beta = -0.501$ ).

#### 5.4 Results of Tests of Hypotheses

The preliminary results presented in section 5.4 of this chapter focused on testing the individual effects of strategy variables on the various indicators of performance. The findings demonstrated statistically not significant independent effects for most of the strategy variables on the various indicators of corporate performance. In this section, we focus on presenting results of tests of hypotheses H2, H3a and H3b stated as follows:

- H2: Organizational strategy has a significant effect on corporate performance;
- H3a: The joint effect of strategic orientations on corporate performance is greater than the sum total of the independent effects of the same variables on corporate performance; and
- H3b: The joint effect of strategy types on corporate performance is greater than sum total of independent effects of the same variables on corporate performance.

These hypotheses correspond to objective 2 of the study which this chapter focused on, that is, to determine the effect of organizational strategy on the performance of

publicly quoted companies in Kenya. To test hypothesis H2, emphasis is placed on the combined effect (as opposed to the independent effect) of the strategy variables on the various corporate performance indicators. Tests for hypotheses 3a and 3b focus on comparing the independent effects with combined effects of the strategy variables on various indicators of corporate performance.

Part of the output of the multiple linear regression analysis was the multiple  $r$ ,  $R^2$ , and F-ratio values as well as the significance level values. The Multiple  $r$  value shows the strength of the relationship between the strategy variables (combined) and each measure/indicator of performance. The  $R^2$  value shows the proportion of the performance indicator that is accounted for by the combined effect of strategy variables. The F-value demonstrates the overall statistical significance of the model which predicts the effect of organizational strategy on corporate performance at 95% confidence level ( $p=0.05$ ). The decision to confirm hypothesis H2 was made at values of F-ratio where  $p<0.05$ . A summary of the test results for hypothesis H2 is presented (Table 5.3a).

**Table 5.3a: Summary of the Effect of Organizational Strategy on Corporate Performance**

Model	N	Multiple r	R <sup>2</sup>	F-Value	Sig.
Profit Before Tax= f(organizational strategy)	32	0.743	0.553	0.706	0.728
Total Net Assets= f(organizational strategy)	32	0.802	0.643	1.029	0.505
Sales Revenue = f(organizational strategy)	32	0.934	0.873	3.917	0.029
Earnings per share = f(organizational strategy)	32	0.931	0.868	3.745	0.033
Return on Investment=f(organizational strategy)	32	0.809	0.654	1.081	0.475
New Product Introduction = f(organizational strategy)	32	0.797	0.635	0.994	0.526
Market Share= f(organizational strategy)	32	0.877	0.769	1.906	0.181
Product/Service Quality = f(organizational strategy)	32	0.746	0.556	0.716	0.721
Operational Efficiency = f(organizational strategy)	32	0.862	0.743	1.649	0.241
<b>Organizational Strategy:-</b>					
<ul style="list-style-type: none"> <li>• <b>Strategic orientations:</b> Analysis, Defensiveness, Futurity, Riskiness, Proactiveness</li> <li>• <b>Strategy types:</b> Acquisition, Diversification, Concentration, Joint Ventures, Market development, Divestiture, Strategic Alliances, Mergers, Product development.</li> </ul>					

Source: Research Data

The results of the tests of hypothesis H2 show that there is a relationship between organizational strategy (measured by strategic orientations and strategy types) and the various indicators of corporate performance (multiple r ranges from 0.74 for PBT to 0.93 for sales revenue). This means that there is a very strong relationship between organizational strategy and corporate performance. These results also indicate that different variations in corporate performance indicators are accounted for by organizational strategy ( $R^2$  ranges from 55.3% for PBT to 87.3 % for sales revenue). This implies that more than 50% variation in corporate performance is explained by organizational strategy.

The corresponding F-values for the various models range from 0.72 for product/service quality to 3.92 for sales revenue). Similarly, the corresponding p-values are more than the test level of 0.05 ( $p > 0.05$ ) for most of the indicators of performance except for sales revenue and earnings per share. This means that the study results for the effect of organizational strategy on sales revenue and earnings per share are statistically significant (F-values = 3.92 and 3.75 respectively,  $p < 0.05$ ). However, the results for the rest of the performance indicators are statistically not significant (low F-values,  $p > 0.05$ ).

Consequently, even though the study reports statistically significant results for the effect of organizational strategy on two indicators of performance, the overall results do not confirm hypothesis H2. The results imply that even though organizational strategy explains more than 50% variation in most indicators of performance of the publicly quoted companies in Kenya, this variation is not statistically significant. Therefore, despite existence of a very strong relationship between organizational strategy and corporate performance, organizational strategy does not appear to have a



statistically significant effect on the performance of publicly quoted companies in Kenya.

Further, a series of multiple linear regressions were carried out to determine whether there is a difference between the joint effect of organizational strategy variables on corporate performance and the sum total of the independent effects of the same variables on corporate performance. First, testing of the difference involved strategic orientations (Hypothesis 3a) and second, testing involved strategy types (Hypothesis 3b). In testing the difference between joint and independent effects, focus was laid on comparing the magnitudes of the explanatory power ( $R^2$ ) of the joint effect of the strategic orientations on each measure of corporate performance with that of the sum of the independent effect of the same variables on the measure (Table 5.3b).

**Table 5.3b: Joint and sum total of independent effect of strategic orientations on corporate performance**

Performance Indicator	$R^2$ for Joint Effect	Sum Total of $R^2$ for Independent Effects
Profit Before Tax	0.14	0.12
Total Net Assets	0.09	0.03
Sales Revenue	0.54	0.42
Earnings Per Share	0.05	0.03
Return on Investment	0.24	0.17
<b>New Product Introduction</b>	<b>0.36</b>	<b>0.57</b>
<b>Market Share</b>	<b>0.42</b>	<b>0.54</b>
Product/Service Quality	0.31	0.26
<b>Operational Efficiency</b>	<b>0.34</b>	<b>0.45</b>
<b>Strategic Orientations:</b> analysis, defensiveness, futurity, riskiness, proactiveness		

Source: Research Data

The results in Table 5.3b show that the joint effect of strategic orientations on corporate performance is higher than the sum total of the independent effects of the same variables for most measures of corporate performance. According to the results, 14% of profit before tax is explained for by the joint effect as compared to 12% explained for by the sum total of independent effect of the same variables. Similarly, 9% of total net assets is explained for jointly compared to 3% explained for by sum total, 54% of sales revenue is jointly explained as compared to 42%. Similar results

are reported for earnings per share, return on investment and product/service quality. However, higher explanatory power is reported for the sum total of independent effects of strategic orientations on three performance indicators (new product introduction, market share, and operational efficiency) than the joint effect. These results fail to confirm hypothesis 3a.

Similar statistical operation was carried to test hypothesis 3b. Table 5.3c summarizes the comparison the magnitudes of the explanatory power ( $R^2$ ) of the joint effect of strategy types on each measure of corporate performance with that of the sum of the independent effect of the same variables on the measure.

**Table 5.3c: Joint and sum total of independent effect of strategy types on corporate performance**

Performance Indicator	$R^2$ for Joint Effect	Sum Total of $R^2$ for Independent Effects
Profit Before Tax	0.33	0.36
<b>Total Net Assets</b>	<b>0.31</b>	<b>0.22</b>
Sales Revenue	0.31	0.42
<b>Earnings Per Share</b>	<b>0.71</b>	<b>0.57</b>
Return on Investment	0.56	0.72
New Product Introduction	0.52	0.71
Market Share	0.56	0.68
Product/Service Quality	0.26	0.31
Operational Efficiency	0.33	0.37

**Strategy types:** concentration, market development, product development, diversification, strategic alliances, joint ventures, divestiture, mergers, acquisition.

Source: Research Data

The study results in Table 5.3c indicate that the joint effect of strategy types on corporate performance is lower than the sum total of the independent effects of the same variables for most measures of performance. According to results, 36% of profit before tax is explained for by the sum total of independent effects of strategy types as compared to 33% explained for by the joint effect of the same variables. Similarly, 42% of Sales Revenue is explained for by the sum total of independent effects of strategy types as compared to 31% explained for by the joint effect of the same variables; 72% of ROI is explained for by the sum total of independent effects of

strategy types as compared to 56% explained for by the joint effect of the same variables. Similar results are reported for new product introduction, market share, and operational efficiency. However, higher explanatory power is reported for the joint effect of strategy types on two performance indicators (total net assets and earnings per share) than the sum total of independent effects of same variables. Consequently, these results fail to confirm hypothesis 3b.

## 5.5 Discussion

The study hypothesized that organizational strategy has significant effect on corporate performance. Statistical tests for this hypothesis revealed overall statistically not significant results for the effect of organizational strategy on most indicators of performance. The results were statistically significant for Sales Revenue (F-value = 3.92,  $p < 0.05$ ) and Earnings Per Share (F-value = 3.75,  $p < 0.05$ ) and statistically not significant for other measures of performance. Despite overall statistically not significant results, organizational strategy was found to be highly correlated with each measure of corporate performance (multiple  $r > 0.70$ ) and that organizational strategy explains more than 50% variation in corporate performance ( $R^2 > 55\%$  for all measures of corporate performance). The results also revealed that the higher the degree of correlation, the greater is the variation in performance indicators that is explained for by organizational strategy variables.

These results provide a strong support for the argument that organizational strategy is among the factors that play a key role in determining corporate performance. Among the nine indicators of performance that were considered in the study, the companies' sales revenue appears to be the most influenced by organizational strategy ( $R^2 = 87.3\%$ ). This proportion is mainly attributable to both positive and negative effects

reported for the various organizational strategy variables on sales revenue. The positive effect was reported for the strategic orientations of analysis, defensiveness, futurity, and proactiveness while the negative effect was reported for riskiness. This means that the companies' sales revenue increases as the level of analysis increases, as the companies become more defensive, and as the companies become more future-oriented. On the other hand, risk avoidance leads to decrease in sales revenue growth. Regarding strategy choices made by the companies, positive effect is reported for concentration, market development, and merger strategy while negative effect is reported for product development, diversification, strategic alliances, joint ventures, divestiture and acquisition. This means that adoption of a combination of certain strategies and not others leads to increase in the companies' sales revenue.

Organizational strategy also accounts for 86.8% and 76.9% of the companies' earnings per share and market share respectively. The 86.8% variation of earnings per share is accounted for by the positive effect of the strategic orientations of analysis, defensiveness, and futurity, as well as the negative effect of riskiness and proactiveness. This means that the companies create more wealth for the shareholder when they increase their level of analysis, defensiveness, and when they are future-oriented in their decision making. However, taking low risks and being less proactive reduces the amount of profits attributable to shareholders. The variation is also explained by the negative effect of the strategy types of concentration, market development, and joint ventures as well as the negative effect of product development, diversification, strategic alliances, divestiture, mergers, and acquisitions. This implies that adopting a combination of some strategies enhances shareholders' value creation while adoption of others erodes this value.

The positive effect of the strategic orientations of analysis, riskiness, and proactiveness as well as the negative effect of defensiveness and futurity account for 76.9% of changes in the companies' market share. Therefore, the companies' market share improves when they step up their analysis, take risks, and when they are more proactive than reactive. The positive as well as the negative effects of the strategies adopted also explain the 76.9% of the companies' market share. The strategies with positive effect include concentration, market development, product development, diversification, joint ventures, mergers, and acquisition while the ones with negative effect include strategic alliances and divestiture. This means that most of the companies' strategy choices are geared towards increasing their market share.

For the rest of the performance indicators, organizational strategy accounts for variation which ranges from 55.3% for Profit Before Tax to 74.3% for operational efficiency. Similar to the discussions above, these proportions are attributable to the positive as well as the negative effects of the various organizational strategy variables. It was noted that the strategic orientation of analysis positively influences all the indicators of performance. This confirms our findings in Chapter 4 where all but one organization indicated that they undertake environmental analysis as one of the tasks during the strategic planning process. The study results have revealed that certain combinations of strategic orientations and strategy types have positive effects on performance while others have negative effects. These results offer partial support for Segev's (1987) findings that certain combinations of strategy types and strategy-making modes are more conducive to enhancing organizational performance than others. Segev also established that when non-optimal strategies are adopted they result in lower levels of performance.

An important observation that emerges from the study is that the joint effect of strategic orientations on corporate performance is greater than the sum total of the independent effect of the same variables ( $R^2$  for joint effect > Sum of  $R^2$  of independent effects for most measures of corporate performance). These findings provide a strong pointer that organizational strategic behaviour is effective when organizations exhibit a combination of behaviours at the same time than one at different times. However, the findings revealed contrary results regarding joint effect of strategy types and the sum total of independent effects of the same variables on corporate performance ( $R^2$  for joint effect < Sum of  $R^2$  of independent effects for most measures of corporate performance). These findings are supportive of Porter's (1980) assertion that an organization cannot be everything to everybody; hence it cannot pursue multiple strategies at the same time lest it will be stuck in the middle.

A study by Luo (1995) examined the influence of business strategy and market structure variables on the performance of international joint ventures (IJV) operating in China and established that particular strategy choices significantly determine performance. Even though the strategies that Luo considered were different, the findings are supported by the results of our study which revealed that particular strategic orientations and strategy types have positive effects on the various indicators of performance.

An earlier study by Parker & Helms (1992) examined the effect of three strategic perspectives on the performance of U.K. and U.S. textile mill product firms. Their results indicated that in a declining industry, firms in the two countries pursue similar strategies and that superior performance is associated with mixed and reactive as well as single generic strategies. Our study's results support Parker

& Helms (1992) study that corporate performance is a function of a mix of different strategic orientations and strategy types.

## 5.6 Chapter Summary

Studies directly linking strategy and performance are few and tend to use diverse operationalizations of the strategy construct. Theorists who segment the strategy construct implicitly agree that the study of strategy includes both the actions taken, or the content of strategy, and the processes by which actions are decided and implemented (Chaffee, 1985). Despite the diverse operationalizations, there exists evidence on performance implications of organizational strategy. In this study, we operationalized strategy as strategic orientations and particular strategy types and established that they explain more than 50% variation in corporate performance.

In this chapter, we have observed that variations in different indicators of performance are accounted for by the positive as well as the negative independent effect of the various strategy variables. Despite the overall statistically not significant results for the effect of organizational strategy on most indicators of performance, it was evident that there is a strong relationship between organizational strategy and corporate performance. Further, we noted that sales revenue and earnings per share reported the highest response rate due to the effect of organizational strategy. Consequently, statistically significant results were reported for these performance indicators.

Lastly, contradictory results are reported for the joint and independent effects of strategic orientations and strategy types on corporate performance. The joint effect of strategic orientations on corporate performance is higher than the sum total of the

independent effects of the same variables for most measures of performance. On the contrary, the joint effect of strategy types on corporate performance is lower than the sum total of the independent effects of the same variables for most measures of performance.



## **CHAPTER SIX**

### **PERFORMANCE IMPLICATIONS OF EXTERNAL ENVIRONMENT-STRATEGY CO-ALIGNMENT**

#### **6.1 Introduction**

In chapter four, we laid focus on describing the nature of the external environment and its effect on the performance of publicly quoted companies in Kenya. In chapter five, we examined the effect of organizational strategy on the companies' performance. In this chapter, we focus on examining the effect of environment-strategy co-alignment on the performance of the surveyed companies. As pointed out in chapters one and two, co-alignment portends a match or fit between a firm's strategic behaviour and the changes in its external environment.

In this chapter, we first examine the effect of external environment on organizational strategy. In this regard, preliminary findings will focus on describing the nature and significance of the independent effects of external environmental dimensions (complexity, dynamism, and munificence) on each strategy variable. Second, the effect of environment-strategy co-alignment on each of the indicators of performance will be examined. In this regard, preliminary findings will focus on describing the strength of co-alignment between environment and strategy variables. Tests for hypotheses H4 and H5 will then be presented and discussed within the context of other empirical studies as well as theory.

#### **6.2 External Environment and Strategy**

This study was conceived on the premise that today's organizations are faced with rapidly changing, complex and fast-paced competitive environments. Dess et al. (1997) observed that such environmental conditions place intense demands on

organizations to actively interpret opportunities and threats when making key strategic decisions. In this section, we focus on the effect of external environmental dimensions (which are a description of the various external environment factors) on the companies' strategic orientations and strategy types.

### **6.2.1 External Environment and Strategic Orientations**

To determine the nature and significance of the independent effects, hierarchical regression analysis was carried out between external environmental dimensions and the strategic orientations at 95% confidence level ( $p=0.05$ ). Through this analysis, the nature of the independent effect (positive or negative) of each environmental dimension on the various strategic orientations will be established and illustrated.

The resultant standardized beta coefficients ( $\beta$ ) show the contribution of each environmental dimension towards a unit change in the strategic orientation while t-values show the significance of the independent effect of the environmental dimensions on the strategic orientation. This significance is confirmed by comparing the resultant significance level with  $p=0.05$  (the test confidence level). In interpreting the results, use is made of absolute figures for beta coefficients and t-values.

#### **6.2.1.1 External Environment and Analysis**

The study reports statistically not significant results for the independent effect of environmental dimensions on analysis (low t-values,  $p>0.05$ ). However, positive effect is reported for complexity and munificence while negative effect is reported for dynamism. Relatively high positive weighting is reported for environmental complexity ( $\beta=0.379$ ) (Table 6.1a).

**Table 6.1a: Significance for the effect of environmental dimensions on Analysis**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	3.103	.956		3.246	.004
Complexity	.447	.345	.379	1.295	.211
Dynamism	-.461	.513	-.344	-.898	.380
Munificence	.373	.325	.357	1.150	.265

Source: Research Data

### 6.2.1.2 External Environment and Defensiveness

The study reports relatively high positive impact for environmental complexity ( $\beta=0.463$ ). Statistically not significant results for the independent effect of environmental dimensions on defensiveness is reported (low t-values,  $p>0.05$ ). Positive effect is reported for complexity and munificence, and negative effect is reported for dynamism (Table 6.1b).

**Table 6.1b: Significance for the effect of environmental dimensions on Defensiveness**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	2.939	.741		3.965	.001
Complexity	.446	.268	.463	1.664	.112
Dynamism	-.414	.398	-.379	-1.042	.311
Munificence	.358	.252	.419	1.422	.171

Source: Research Data

### 6.2.1.3 External Environment and Futurity

The results for the independent effect of environmental dimensions on futurity are presented (Table 6.1c).

**Table 6.1c: Significance for the effect of environmental dimensions on Futurity**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	2.870	.611		4.699	.000
Complexity	.199	.221	.250	.902	.378
Dynamism	.083	.328	.092	.255	.802
Munificence	.169	.207	.239	.814	.425

Source: Research Data

Table 6.1c shows statistically not significant results for the independent effect of environmental dimensions on futurity (low t-values,  $p > 0.05$ ) with positive effect being reported for all the dimensions of complexity, dynamism, and munificence. A relatively high positive impact is reported for environmental complexity ( $\beta = 0.902$ ).

#### 6.2.1.4 External Environment and Riskiness

The study reports statistically not significant results for the independent effect of environmental dimensions on riskiness (low t-values,  $p > 0.05$ ). However, positive effect is reported for complexity and munificence while negative effect is reported for dynamism. Environmental dynamism has a relatively high negative impact on riskiness ( $\beta = -0.325$ ) (Table 6.1d).

**Table 6.1d: Significance for the effect of environmental dimensions on Riskiness**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	2.585	1.041		2.482	.023
Complexity	.398	.376	.320	1.058	.303
Dynamism	-.459	.559	-.325	-.822	.421
Munificence	.321	.353	.292	.910	.374

Source: Research Data

#### 6.2.1.5 External Environment and Proactiveness

The results for the independent effect of environmental dimensions on proactiveness are summarized and presented (Table 6.1e).

**Table 6.1e: Significance for the effect of environmental dimensions on Proactiveness**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	2.639	1.113		2.370	.029
Complexity	-.017	.402	-.013	-.043	.966
Dynamism	.116	.597	.077	.194	.848
Munificence	.298	.378	.253	.788	.440

Source: Research Data

Table 6.1e shows statistically not significant results for the independent effect of environmental dimensions on proactiveness (low t-values,  $p > 0.05$ ). Relatively high positive impact is reported for environmental munificence. Positive effect is reported for dynamism and munificence, and negative effect is reported for complexity.

### **6.2.2 External Environment and Strategy Types**

Through hierarchical regression analysis, the nature of the independent effect (positive or negative) of each environmental dimension on the various strategy types will be determined and illustrated. The resultant standardized beta coefficients ( $\beta$ ) show the contribution of each environmental dimension towards a unit change in the strategy type while t-values show the significance of the independent effect of the environmental dimensions on the strategy types. This significance is confirmed by comparing the resultant significance level with  $p = 0.05$  (the test confidence level).

In interpreting the results, use is made of absolute figures for beta coefficients and t-values. The higher the beta coefficient, the higher the weighting of the environmental dimension in the model and therefore the greater will be its effect on the strategy type but the significance of the effect is determined by the t-value. The greater the t-value, the higher the significance of the environmental dimension's effect on the strategy type, and the lower the p-value ( $p < 0.05$ ).

#### **6.2.2.1 External Environment and Concentration**

The study reports positive effect for complexity and munificence while negative effect is reported for dynamism. The study also reports statistically not significant results for the independent effect of environmental complexity and dynamism on

concentration (low t-values,  $p > 0.05$ ) but statistically significant results for the effect of environmental munificence (t-value = 2.65,  $p < 0.05$ ) (Table 6.2a).

**Table 6.2a: Significance for the effect of environmental dimensions on Concentration**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	2.366	1.310		1.806	.087
Complexity	.609	.473	.342	1.286	.214
Dynamism	-1.417	.703	-.700	-2.016	.058
Munificence	1.178	.445	.747	2.650	.016

Source: Research Data

### 6.2.2.2 External Environment and Market Development

The results for the independent effect of environmental dimensions on market development are summarized and presented in Table 6.2b.

**Table 6.2b: Significance for the effect of environmental dimensions on Market Development**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	3.488	.860		4.057	.001
Complexity	.368	.311	.350	1.183	.251
Dynamism	-.455	.461	-.381	-.986	.336
Munificence	.355	.292	.381	1.218	.238

Source: Research Data

Table 6.2b shows statistically not significant results for the independent effect of environmental dimensions on market development (low t-values,  $p > 0.05$ ). Positive effect is reported for complexity and munificence, and negative effect is reported for dynamism. Relatively high positive effect is reported for environmental munificence ( $\beta = 0.381$ ).

### 6.2.2.3 External Environment and Product Development

The study reports positive effect for complexity and munificence while negative effect is reported for dynamism. Statistically not significant results are reported for the independent effect of environmental dimensions on product development.

Relatively high positive impact is reported for environmental complexity ( $\beta=0.174$ ). The statistical analyses are summarized in Table 6.2c.

**Table 6.2c: Significance for the effect of environmental dimensions on Product Development**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	3.273	1.041		3.143	.005
Complexity	.212	.376	.174	.564	.580
Dynamism	-.098	.559	-.071	-.175	.863
Munificence	.185	.353	.172	.524	.606

Source: Research Data

#### 6.2.2.4 External Environment and Diversification

The independent effect of environmental dimensions on diversification strategy is presented (Table 6.2d).

**Table 6.2d: Significance for the effect of environmental dimensions on Diversification**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	1.386	1.500		.924	.367
Complexity	-.286	.542	-.153	-.528	.604
Dynamism	.504	.805	.238	.626	.539
Munificence	.462	.509	.279	.907	.376

Source: Research Data

As illustrated in Table 6.2d, the study reports statistically not significant results for the independent effect of environmental dimensions on diversification (low t-values,  $p>0.05$ ). However, positive effect is reported for dynamism and munificence while negative effect is reported for complexity. Further, relatively high impact is reported for environmental munificence ( $\beta=0.279$ ).

#### 6.2.2.5 External Environment and Strategic Alliances

The study reports statistically significant results for the effect of environmental munificence on strategic alliances (t-value = 3.24,  $p<0.05$ ). It also has a high positive impact on strategic alliances ( $\beta=0.863$ ). However, statistically not significant results

are reported for the independent effect of complexity and dynamism (low t-values,  $p > 0.05$ ). Positive effect is reported for complexity and negative effect is reported for dynamism (Table 6.2e).

**Table 6.2e: Significance for the effect of environmental dimensions on Strategic Alliances**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	1.510	1.267		1.191	.248
Complexity	.333	.458	.183	.727	.476
Dynamism	-1.220	.680	-.589	-1.795	.089
Munificence	1.395	.430	.863	3.242	.004

Source: Research Data

### 6.2.2.6 External Environment and Joint Venture Strategy

The results for the independent effect of environmental dimensions on joint venture strategy are presented (Table 6.2f).

**Table 6.2f: Significance for the effect of environmental dimensions on Joint Ventures**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	1.816	1.733		1.048	.308
Complexity	.413	.626	.207	.660	.517
Dynamism	-.154	.930	-.068	-.166	.870
Munificence	-.007	.588	-.004	-.012	.990

Source: Research Data

As shown in Table 6.2f, the study reports statistically not significant results for the independent effect of environmental dimensions on joint ventures (low t-values,  $p > 0.05$ ). Positive effect is reported for complexity and negative effect is reported for dynamism and munificence. Relatively high positive impact is reported for environmental complexity.

### 6.2.2.7 External Environment and Divestiture

The study reports statistically not significant findings for the independent effect of environmental dimensions on divestiture (low t-values,  $p > 0.05$ ). However, positive



effect is reported for complexity and munificence while negative effect is reported for dynamism. Relatively high positive impact is reported for environmental complexity ( $\beta=0.312$ ) (Table 6.2g).

**Table 6.2g: Significance for the effect of environmental dimensions on Divestiture**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	1.784	1.590		1.122	.276
Complexity	.579	.575	.312	1.007	.326
Dynamism	-.387	.853	-.184	-.454	.655
Munificence	.019	.540	.012	.036	.972

Source: Research Data

### 6.2.2.8 External Environment and Merger Strategy

The study reports statistically significant negative effect of environmental dynamism on merger strategy (t-value= -2.096,  $p=0.05$ ). Statistically not significant positive effects are reported for environmental complexity and munificence (low t-values,  $p>0.05$ ). Relatively high negative impact is reported for environmental dynamism (Table 6.2h).

**Table 6.2h: Significance for the effect of environmental dimensions on Merger Strategy**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	1.419	1.341		1.058	.303
Complexity	.821	.484	.472	1.695	.106
Dynamism	-1.507	.719	-.761	-2.096	.050
Munificence	.863	.455	.559	1.896	.073

Source: Research Data

### 6.2.2.8 External Environment and Acquisition Strategy

The study reports a statistically significant positive effect for environmental munificence (t-value = 2.326,  $p< 0.05$ ). However, statistically not significant results are reported for the effect of complexity and dynamism on acquisition strategy (low t-

values,  $p > 0.05$ ). Positive effect is reported for complexity and negative effect for dynamism (Table 6.2i).

**Table 6.2i: Significance for the effect of environmental dimensions on Acquisition**

Environmental Dimensions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	1.087	1.795		.605	.552
Complexity	.578	.649	.247	.891	.384
Dynamism	-1.601	.963	-.603	-1.662	.113
Munificence	1.418	.609	.685	2.326	.031

Source: Research Data

### 6.3 External Environment-Strategy Co-alignment

At the core of this study was the determination of performance implications of environment-strategy co-alignment. This is based on the premise that developments in the external environment, by and large, inform organizational strategy and for organizations to remain relevant their strategic behaviour must match changes in the external environment. In the previous section we laid focus on the independent effect of external environmental dimensions on organizational strategy. In this section we put emphasis in examining and measuring the degree of environment-strategy co-alignment.

To determine the degree of environment-strategy co-alignment, correlation analysis was carried out between external environmental dimensions (complexity, dynamism and munificence) and organizational strategy variables (strategic orientations and strategy types). The resultant Pearson Correlation coefficients (denoted  $\rho$ ) were used as measures of the strength/degree of environment-strategy co-alignment.

The correlation coefficient ( $\rho$ ) measures the strength of a linear relationship between two variables. The closer the coefficient is to  $\pm 1$ , the closer to a perfect linear relationship and therefore a high degree of co-alignment. In this study, the

correlations between environmental dimensions and organizational strategy variables were interpreted based on Cohen's (1988) guidelines as follows:

Coefficient ( $\rho$ )	Interpretation	Strength/Degree of Co-alignment
$\rho = -1$	Perfect negative correlation	Very strong degree of co-alignment
$-1 < \rho < -0.8$	Strong negative correlation	Strong degree of co-alignment
$-0.8 < \rho < -0.5$	Fair negative correlation	Moderate degree of co-alignment
$-0.5 < \rho < 0$	Weak negative correlation	Weak degree of co-alignment
$\rho = 0$	No correlation	No Co-alignment
$0 < \rho < 0.5$	Weak positive correlation	Weak degree of co-alignment
$0.5 \rho < 0.8$	Fair positive correlation	Moderate degree of co-alignment
$0.8 \rho < 1$	Strong positive correlation	Strong degree of co-alignment
$\rho = 1$	Perfect positive correlation	Very strong degree of co-alignment

Source: Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. (2<sup>nd</sup> edition) Lawrence Erlbaum Associates, Hillsdale

The results of the correlation analysis at  $p=0.05$  are presented (Table 6.3).

Table 6.3: External Environment-Strategy Co-alignment

External Environment	Strategy													
	Analysis	Defensiveness	Futurity	Riskiness	Proactiveness	Concentration	Market development	Product development	Diversification	Strategic Alliances	Joint ventures	Divestiture	Mergers	Acquisitions
Complexity	.304	.391	.421*	.228	.154	.196	.259	.203	.136	.166	.158	.191	.199	.141
Dynamism	.178	.247	.438*	.109	.252	.080	.139	.175	.336	.167	.072	.040	-.028	.067
Munificence	.277	.352	.418*	.199	.303	.390	.261	.199	.383	.516*	.040	.019	.216	.357

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

The results show positive correlations between external environmental dimensions and organizational strategy variables except for environmental dynamism and mergers, which show a negative association. Majority of the correlations indicate weak and moderate degrees of environment-strategy co-alignment. Moderate degree of co-alignment is reported between environmental complexity and analysis, defensiveness, and futurity; environmental dynamism and futurity, diversification; and between environmental munificence and defensiveness, futurity, proactiveness,

concentration, diversification, strategic alliances, and acquisitions. Weak degree of co-alignment is shown for the rest of the associations between the external environmental dimensions and organizational strategy variables.

Further, the results show the following statistically significant co-alignments between the three environmental dimensions and organizational strategy variables: complexity and futurity ( $\rho=0.421$ ,  $p<0.05$ ), dynamism and futurity ( $\rho=0.438$ ,  $p<0.05$ ), munificence and futurity ( $\rho=0.418$ ,  $p<0.05$ ), and munificence and strategic alliances ( $\rho=0.516$ ,  $p<0.05$ ).

#### **6.4 Results of Tests of Hypotheses**

Preliminary findings presented earlier in this chapter focused on testing the independent effect of external environmental dimensions on organizational strategy variables (strategic orientations and strategy types). In most cases, results of the tests demonstrated statistically not significant independent effects of external environmental dimensions on the various organizational strategy variables. There was also attempt to describe the degree of environment-strategy co-alignment. Further statistical tests were carried out on hypotheses H4 and H5 which were stated as follows:

H4: External environment has a significant effect on organizational strategy

H5: Environment-strategy co-alignment has a significant effect on corporate performance.

These hypotheses correspond to objective 3 of the study that was the focus of this chapter, that is, to establish the effect of environment-strategy co-alignment on the performance of publicly quoted companies in Kenya. Multiple linear regression

analysis was used to test the hypotheses. The analyses generated correlation coefficients (multiple r), coefficients of determination ( $R^2$ ), and F-ratios.

To test hypothesis 4 (H4), the three environmental dimensions were regressed on each organizational strategy variable. Therefore, the resultant Multiple r values indicate the strength of the relationship between the environment (measured by complexity, dynamism and munificence) and each of the organizational strategy variables. The  $R^2$  value shows the proportion of change in the organizational strategy variable that is explained by the external environment. The F-value demonstrates the overall statistical significance of the model which predicts the effect of external environment on organizational strategy at 95% confidence level ( $p=0.05$ ). The decision to confirm hypothesis H4 was made at values of F-ratio where  $p<0.05$ .

**Table 6.4: Model summaries for the effect of external environment on organizational strategy**

Model	N	r	$R^2$	F-Value	Sig.
Analysis=f(external environment)	32	0.391	0.153	1.143	0.357
Defensiveness=f(external environment)	32	0.485	0.235	1.951	0.156
Futurity=f(external environment)	32	0.495	0.245	2.056	0.140
Riskiness=f(external environment)	32	0.309	0.096	0.671	0.580
Proactiveness=f(external environment)	32	0.307	0.094	0.658	0.588
Concentration=f(external environment)	32	0.550	0.302	2.741	0.072
Market development=f(external environment)	32	0.371	0.138	1.010	0.410
Product development=f(external environment)	32	0.239	0.057	0.384	0.766
Diversification=f(external environment)	32	0.407	0.166	1.260	0.316
Strategic Alliances=f(external environment)	32	0.614	0.377	3.837	0.026
Joint Ventures=f(external environment)	32	0.167	0.028	0.181	0.908
Divestiture=f(external environment)	32	0.229	0.052	0.351	0.789
Mergers=f(external environment)	32	0.486	0.236	1.959	0.154
Acquisition=f(external environment)	32	0.488	0.238	1.982	0.151

External environment: complexity, dynamism, munificence

Source: Research Data

The results of the tests of hypothesis H4 (Table 6.4) show that there is a relationship between the external environment (measured by complexity, dynamism, and munificence) and the various organizational strategy variables (multiple r ranges from 0.23 for divestiture to 0.61 for strategic alliances). These results also indicate that

different variations in organizational strategy variables are accounted for by the external environment ( $R^2$  varies from 5.20% for divestiture to 37.7% for strategic alliances). The corresponding F-values for the various models range from 0.18 for joint ventures to 3.83 for strategic alliances).

Further, the results show that the corresponding p-values are more than the test level of 0.05 ( $p > 0.05$ ) for all the strategy variables except for strategic alliances. This means that the study results for the effect of external environment on all organizational strategy are statistically not significant (low F-values,  $p > 0.05$ ) except for strategic alliances which reports statistically significant results (F-value = 3.84,  $p < 0.05$ ). Consequently, the results do not confirm hypothesis H4. The results imply that even though the external environment explains variations in the strategy of publicly quoted companies in Kenya, most of these variations are not statistically significant. Therefore, despite existence of a relationship between the external environment and organizational strategy, the external environment does not appear to have a significant effect on the strategy of publicly quoted companies in Kenya.

The correlation matrix presented in Table 6.3 provided a pointer on the strength of co-alignment between environment and strategy variables as indicated by the correlation coefficients ( $\rho$ ). Hypothesis 5 (H5) on the effect of environment-strategy co-alignment on corporate performance was tested by taking each pair of the co-aligned environment-strategy variables and regressing them on each measure of performance. In this case, the resultant multiple r value indicates the strength of the relationship between the co-aligned environment-strategy variables and each measure of performance. The  $R^2$  value shows the variation in the performance indicator that is explained by the co-aligned environment-strategy variables. The F-value

demonstrates the overall statistical significance of the model which predicts the effect of environment-strategy co-alignment on corporate performance at 95% confidence level ( $p=0.05$ ). The decision to confirm hypothesis H5 was made at F-values where  $p<0.05$ .

Results for the changes in profit before tax (PBT) resulting from environmental complexity-strategy co-alignment are presented (Table 6.5a).

**Table 6.5a: Effect of complexity-strategy co-alignment on PBT**

PBT=f(complexity + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Complexity	Analysis	0.304	.429	.184	2.257	.131
Complexity	Defensiveness	0.391	.417	.174	2.106	.148
Complexity	Futurity	0.421*	.417	.174	2.110	.147
Complexity	Riskiness	0.228	.418	.175	2.119	.146
Complexity	Proactiveness	0.154	.421	.177	2.148	.143
Complexity	Concentration	0.196	.448	.201	2.512	.106
Complexity	Market development	0.259	.433	.188	2.313	.125
Complexity	Product development	0.203	.528	.279	3.867	.038
Complexity	Diversification	0.136	.446	.199	2.486	.109
Complexity	Strategic Alliances	0.166	.532	.283	3.954	.036
Complexity	Joint Ventures	0.158	.422	.178	2.168	.141
Complexity	Divestiture	0.191	.418	.175	2.118	.146
Complexity	Mergers	0.199	.423	.179	2.174	.140
Complexity	Acquisition	0.141	.417	.174	2.109	.148

Source: Research Data

The results (Table 6.5a) show that there is relationship between different levels of environmental complexity-strategy co-alignment ( $\rho$ ) and PBT (multiple r ranges from 0.42 to 0.53). The results also show the variation in PBT that is explained by environmental complexity-strategy co-alignment (R<sup>2</sup> ranges from 17.4% to 27.9%). Statistically significant results are reported for the effect of environmental complexity co-alignment on PBT for complexity-market development co-alignment as well as complexity-strategic alliances co-alignment (F-values = 3.867 and 3.954 respectively,  $p<0.05$ ). Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental complexity (low F-values,  $p>0.05$ ).

The results also indicate lack of relationship between the strength of environmental complexity-strategy co-alignment and the effect on PBT. This is evident where a weak degree of co-alignment could explain significant changes in PBT and vice versa (weaker complexity-strategic alliances co-alignment,  $\rho=0.17$  explains significant change in PBT while stronger complexity-futurity co-alignment,  $\rho=0.42$  explains not significant change in PBT). Therefore, these results fail to confirm hypothesis H5.

Results for the changes in profit before tax (PBT) resulting from environmental dynamism-strategy co-alignment are presented (Table 6.5b).

**Table 6.5b: Effect of dynamism-strategy co-alignment on Profit Before Tax (PBT)**

PBT=f(dynamism + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Dynamism	Analysis	0.178	.321	.103	1.149	.337
Dynamism	Defensiveness	0.247	.285	.081	.882	.430
Dynamism	Futurity	0.438*	.271	.074	.796	.465
Dynamism	Riskiness	0.109	.284	.081	.877	.431
Dynamism	Proactiveness	0.252	.273	.075	.808	.460
Dynamism	Concentration	0.080	.286	.082	.888	.427
Dynamism	Market development	0.139	.326	.106	1.189	.325
Dynamism	Product development	0.175	.449	.201	2.523	.105
Dynamism	Diversification	0.336	.298	.089	.974	.395
Dynamism	Strategic Alliances	0.167	.406	.165	1.975	.165
Dynamism	Joint Ventures	0.072	.268	.072	.772	.475
Dynamism	Divestiture	0.040	.284	.081	.879	.431
Dynamism	Mergers	-0.028	.310	.096	1.063	.364
Dynamism	Acquisition	0.067	.269	.072	.777	.473

Source: Research Data

The results (Table 6.5a) show that there is relationship between different levels of environmental dynamism-strategy co-alignment ( $\rho$ ) and PBT (multiple r ranges from 0.27 to 0.45). The results also show the variation in PBT that is explained by environmental dynamism-strategy co-alignment (R<sup>2</sup> ranges from 7.2% to 20.1%). Statistically not significant results are reported for the effect of environmental dynamism-strategy co-alignment on PBT for all levels dynamism-strategy co-alignment (low F-values,  $p>0.05$ ). The results show lack of relationship between the



strength of environmental dynamism-strategy co-alignment and the effect on PBT. These results do not confirm hypothesis H5.

The results for the changes in profit before tax (PBT) resulting from environmental munificence-strategy co-alignment are presented (Table 6.5c).

**Table 6.5c: Effect of munificence-strategy co-alignment on Profit Before Tax (PBT)**

PBT=f(munificence + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Munificence	Analysis	<b>0.277</b>	0.225	0.050	0.531	0.596
Munificence	Defensiveness	<b>0.352</b>	0.165	0.027	0.279	0.760
Munificence	Futurity	<b>0.418*</b>	0.162	0.026	0.270	0.766
Munificence	Riskiness	<b>0.199</b>	0.141	0.020	0.202	0.819
Munificence	Proactiveness	<b>0.303</b>	0.091	0.008	0.083	0.921
Munificence	Concentration	<b>0.390</b>	0.152	0.023	0.237	0.791
Munificence	Market development	<b>0.261</b>	0.224	0.050	0.530	0.597
Munificence	Product development	<b>0.199</b>	0.402	0.162	1.927	0.172
Munificence	Diversification	<b>0.383</b>	0.214	0.046	0.480	0.626
Munificence	Strategic Alliances	<b>0.516*</b>	0.365	0.133	1.534	0.240
Munificence	Joint Ventures	<b>0.040</b>	0.089	0.008	0.080	0.923
Munificence	Divestiture	<b>0.019</b>	0.139	0.019	0.196	0.824
Munificence	Mergers	<b>0.216</b>	0.160	0.026	0.264	0.771
Munificence	Acquisition	<b>0.357</b>	0.090	0.008	0.082	0.922

Source: Research Data

The results (Table 6.5c) show that there is relationship between different levels of environmental munificence-strategy co-alignment ( $\rho$ ) and PBT (multiple r range s from 0.09 to 0.40). The results also show that there are variations in PBT that are accounted for by environmental munificence-strategy co-alignment (R<sup>2</sup> ranges from 1.0% to 16.2%). Statistically not significant results are reported for the effect of environmental munificence-strategy co-alignment on PBT for all levels munificence-strategy co-alignment (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental munificence-strategy co-alignment and the effect on PBT. These results do not confirm hypothesis H5.

The effect of environment-strategy co-alignment on other indicators of performance was tested with the same levels of environment-strategy co-alignment as those in Tables 6.5a-c above. The strongest and weakest links also remain the same. Results for the changes in total net assets (TNAs) resulting from environmental complexity-strategy co-alignment are presented (Table 6.6a).

**Table 6.6a: Effect of complexity-strategy co-alignment on Total Net Assets (TNAs)**

TNAs=f(complexity + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Complexity	Analysis	0.304	.320	.103	1.144	.339
Complexity	Defensiveness	0.391	.324	.105	1.175	.329
Complexity	Futurity	0.421*	.320	.103	1.145	.338
Complexity	Riskiness	0.228	.342	.117	1.328	.287
Complexity	Proactiveness	0.154	.330	.109	1.220	.316
Complexity	Concentration	0.196	.341	.116	1.318	.290
Complexity	Market development	0.259	.448	.200	2.506	.107
Complexity	Product development	0.203	.324	.105	1.172	.330
Complexity	Diversification	0.136	.347	.120	1.370	.277
Complexity	Strategic Alliances	0.166	.320	.103	1.145	.338
Complexity	Joint Ventures	0.158	.391	.153	1.805	.190
Complexity	Divestiture	0.191	.323	.104	1.162	.333
Complexity	Mergers	0.199	.358	.128	1.468	.254
Complexity	Acquisition	0.141	.330	.109	1.226	.315

Source: Research Data

The results (Table 6.6a) show that there is a relationship between environmental complexity-strategy co-alignment and the companies' TNAs (multiple r ranges from 0.32 to 0.45). The results also show the variation in TNAs that is explained by environmental complexity-strategy co-alignment (R<sup>2</sup> ranges from 10.3% to 20.0%). Statistically not significant results are reported for the effect of environmental complexity-strategy co-alignment on TNAs for all levels complexity-strategy co-alignment (low F-values, p>0.05).

The study reports no relationship between the strength of complexity-strategy co-alignment and the resultant effect on TNAs. For example the high explanatory power (R<sup>2</sup>=20%) reported is not necessarily associated to the highest level of environmental complexity-strategy co-alignment (complexity-futurity co-alignment,  $\rho$ =0.42). On the

other hand, the low explanatory power ( $R^2=10.3\%$ ) is not necessarily linked to the lowest level of environmental complexity-strategy co-alignment (complexity-diversification co-alignment). These results fail to confirm hypothesis H5.

Changes in total net assets (TNAs) resulting from environmental dynamism-strategy co-alignment are presented (Table 6.6b).

**Table 6.6.b: Effect of dynamism-strategy co-alignment on Total Net Assets (TNAs)**

TNAs=f(dynamism +strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	$R^2$	F-Value	Sig.
Dynamism	Analysis	<b>0.178</b>	.303	.092	1.008	.383
Dynamism	Defensiveness	<b>0.247</b>	.301	.090	.994	.388
Dynamism	Futurity	<b>0.438*</b>	.301	.090	.995	.387
Dynamism	Riskiness	<b>0.109</b>	.311	.096	1.068	.363
Dynamism	Proactiveness	<b>0.252</b>	.319	.102	1.136	.341
Dynamism	Concentration	<b>0.080</b>	.338	.114	1.291	.297
Dynamism	Market development	<b>0.139</b>	.400	.160	1.900	.176
Dynamism	Product development	<b>0.175</b>	.307	.094	1.039	.372
Dynamism	Diversification	<b>0.336</b>	.311	.097	1.071	.361
Dynamism	Strategic Alliances	<b>0.167</b>	.301	.091	.997	.387
Dynamism	Joint Ventures	<b>0.072</b>	.392	.154	1.815	.189
Dynamism	Divestiture	<b>0.040</b>	.313	.098	1.089	.356
Dynamism	Mergers	<b>-0.028</b>	.312	.097	1.080	.359
Dynamism	Acquisition	<b>0.067</b>	.306	.094	1.032	.375

Source: Research Data

The results (Table 6.6b) show that there is relationship between different levels of environmental dynamism-strategy co-alignment ( $\rho$ ) and TNAs (multiple r ranges from 0.30 to 0.40). The results also show that there are variations in TNAs that are accounted for by environmental dynamism-strategy co-alignment ( $R^2$  ranges from 9.0% to 16.0%). Statistically not significant results are reported for the effect of environmental dynamism-strategy co-alignment on TNAs for all levels dynamism-strategy co-alignment (low F-values,  $p>0.05$ ). There is no relationship between the strength of environmental dynamism-strategy co-alignment and the effect on TNAs. These results do not confirm hypothesis H5.

Changes in total net assets (TNAs) resulting from environmental munificence-strategy co-alignment are presented (Table 6.6c).

**Table 6.6c: Effect of munificence-strategy co-alignment on Total Net Assets (TNAs)**

TNAs=f(munificence +strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Munificence	Analysis	<b>0.277</b>	.139	.019	.198	.822
Munificence	Defensiveness	<b>0.352</b>	.133	.018	.180	.837
Munificence	Futurity	<b>0.418*</b>	.149	.022	.227	.799
Munificence	Riskiness	<b>0.199</b>	.147	.022	.221	.803
Munificence	Proactiveness	<b>0.303</b>	.146	.021	.219	.805
Munificence	Concentration	<b>0.390</b>	.190	.036	.373	.693
Munificence	Market development	<b>0.261</b>	.291	.085	.928	.412
Munificence	Product development	<b>0.199</b>	.156	.024	.250	.781
Munificence	Diversification	<b>0.383</b>	.188	.035	.367	.697
Munificence	Strategic Alliances	<b>0.516*</b>	.128	.016	.167	.847
Munificence	Joint Ventures	<b>0.040</b>	.297	.088	.965	.398
Munificence	Divestiture	<b>0.019</b>	.161	.026	.268	.768
Munificence	Mergers	<b>0.216</b>	.178	.032	.327	.725
Munificence	Acquisition	<b>0.357</b>	.155	.024	.247	.784

Source: Research Data

The results (Table 6.6c) show that there is relationship between different levels of environmental munificence-strategy co-alignment ( $\rho$ ) and TNAs (multiple r ranges from 0.13 to 0.30). The results also show that there are variations in TNAs that are accounted for by environmental munificence-strategy co-alignment (R<sup>2</sup> ranges from 1.6% to 8.8%). Statistically not significant results are reported for the effect of environmental munificence-strategy co-alignment on TNAs for all levels munificence-strategy co-alignment (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental munificence-strategy co-alignment and the effect on TNAs. These results do not confirm hypothesis H5.

Changes in sales revenue resulting from environmental complexity-strategy co-alignment are presented (Table 6.7a).

**Table 6.7a: Effect of complexity-strategy co-alignment on Sales Revenue**

Sales Revenue=f(complexity + strategy variables)

Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Complexity	Analysis	0.304	.405	.164	1.960	.167
Complexity	Defensiveness	0.391	.557	.310	4.498	.024
Complexity	Futurity	0.421*	.435	.189	2.332	.123
Complexity	Riskiness	0.228	.337	.114	1.284	.299
Complexity	Proactiveness	0.154	.381	.145	1.695	.209
Complexity	Concentration	0.196	.340	.116	1.308	.293
Complexity	Market development	0.259	.335	.112	1.261	.305
Complexity	Product development	0.203	.330	.109	1.222	.316
Complexity	Diversification	0.136	.324	.105	1.175	.329
Complexity	Strategic Alliances	0.166	.527	.278	3.855	.038
Complexity	Joint Ventures	0.158	.487	.237	3.108	.067
Complexity	Divestiture	0.191	.521	.271	3.721	.042
Complexity	Mergers	0.199	.349	.122	1.387	.273
Complexity	Acquisition	0.141	.385	.148	1.739	.201

Source: Research Data

The results (Table 6.6a) show that there is a relationship between environmental complexity-strategy co-alignment and the companies' Sales Revenue (multiple r ranges from 0.33 to 0.56). The results also show the variation in sales revenue that is explained by environmental complexity-strategy co-alignment (R<sup>2</sup> ranges from 10.9% to 31.0%). Statistically significant results are reported for the effect of environmental complexity co-alignment on sales revenue for complexity-analysis co-alignment, complexity-strategic alliances co-alignment, and complexity-divestiture co-alignment (F-values = 4.498, 3.855, and 3.721 respectively,  $p < 0.05$ ). Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental complexity (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental complexity-strategy co-alignment and the effect on sales revenue.

These results do not confirm hypothesis H5.

Changes in sales revenue resulting from environmental dynamism-strategy co-alignment are presented (Table 6.7b).

**Table 6.7b: Effect of dynamism-strategy co-alignment on Sales Revenue**

Sales Revenue=f(dynamism + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Dynamism	Analysis	0.178	.401	.161	1.919	.173
Dynamism	Defensiveness	0.247	.467	.219	2.796	.085
Dynamism	Futurity	0.438*	.418	.174	2.113	.147
Dynamism	Riskiness	0.109	.287	.082	.895	.424
Dynamism	Proactiveness	0.252	.337	.114	1.282	.299
Dynamism	Concentration	0.080	.289	.084	.912	.418
Dynamism	Market development	0.139	.312	.097	1.078	.359
Dynamism	Product development	0.175	.295	.087	.954	.402
Dynamism	Diversification	0.336	.298	.089	.974	.395
Dynamism	Strategic Alliances	0.167	.498	.248	3.305	.058
Dynamism	Joint Ventures	0.072	.434	.189	2.325	.124
Dynamism	Divestiture	0.040	.451	.203	2.548	.103
Dynamism	Mergers	-0.028	.287	.083	.901	.422
Dynamism	Acquisition	0.067	.336	.113	1.270	.303

Source: Research Data

The results (Table 6.7b) show that there is relationship between different levels of environmental dynamism-strategy co-alignment ( $\rho$ ) and sales revenue (multiple r ranges from 0.29 to 0.50). The results also show that there are variations in sales revenue that are accounted for by environmental dynamism-strategy co-alignment (R<sup>2</sup> ranges from 8.2% to 24.8%). Statistically not significant results are reported for the effect of environmental dynamism-strategy co-alignment on sales revenue for all levels dynamism-strategy co-alignment (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental dynamism-strategy co-alignment and the effect on sales revenue. These results do not confirm hypothesis H5.

Changes in sales revenue resulting from environmental munificence-strategy co-alignment are presented (Table 6.7c).

**Table 6.7c: Effect of munificence-strategy co-alignment on Sales Revenue**

Sales Revenue=f(munificence + strategy variables)

Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Munificence	Analysis	0.277	.340	.115	1.306	.293
Munificence	Defensiveness	0.352	.407	.165	1.982	.164
Munificence	Futurity	0.418*	.401	.161	1.917	.173
Munificence	Riskiness	0.199	.172	.030	.304	.741
Munificence	Proactiveness	0.303	.267	.071	.765	.478
Munificence	Concentration	0.390	.200	.040	.416	.665
Munificence	Market development	0.261	.211	.045	.466	.634
Munificence	Product development	0.199	.194	.038	.393	.680
Munificence	Diversification	0.383	.174	.030	.313	.735
Munificence	Strategic Alliances	0.516*	.541	.292	4.133	.031
Munificence	Joint Ventures	0.040	.356	.126	1.447	.259
Munificence	Divestiture	0.019	.380	.144	1.685	.211
Munificence	Mergers	0.216	.193	.037	.388	.683
Munificence	Acquisition	0.357	.287	.082	.898	.423

Source: Research Data

The results (Table 6.7c) show that there is relationship between different levels of environmental munificence-strategy co-alignment ( $\rho$ ) and sales revenue (multiple r ranges from 0.17 to 0.54). The results also show that there are variations in sales revenue that are accounted for by environmental munificence-strategy co-alignment (R<sup>2</sup> ranges from 3.0% to 29.2%). Statistically not significant results are reported for the effect of environmental munificence-strategy co-alignment on sales revenue for most levels munificence-strategy co-alignment (low F-values,  $p > 0.05$ ). Statistically significant results are reported for the effect of environmental munificence-strategic alliances co-alignment on sales revenue (F-value = 4.133,  $p < 0.05$ ). There is no relationship between the strength of environmental munificence-strategy co-alignment and the effect on sales revenue. These results do not confirm hypothesis H5.

Changes in earnings per share (EPS) resulting from environmental complexity-strategy co-alignment are presented (Table 6.8a).

**Table 6.8a: Effect of complexity-strategy co-alignment on Earnings Per Share**

EPS=f(complexity + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Complexity	Analysis	<b>0.304</b>	.321	.103	1.148	.337
Complexity	Defensiveness	<b>0.391</b>	.401	.161	1.919	.173
Complexity	Futurity	<b>0.421*</b>	.326	.106	1.189	.325
Complexity	Riskiness	<b>0.228</b>	.319	.102	1.131	.343
Complexity	Proactiveness	<b>0.154</b>	.340	.115	1.304	.294
Complexity	Concentration	<b>0.196</b>	.318	.101	1.123	.345
Complexity	Market development	<b>0.259</b>	.359	.129	1.478	.252
Complexity	Product development	<b>0.203</b>	.318	.101	1.123	.345
Complexity	Diversification	<b>0.136</b>	.479	.230	2.985	.073
Complexity	Strategic Alliances	<b>0.166</b>	.507	.257	3.467	.051
Complexity	Joint Ventures	<b>0.158</b>	.330	.109	1.222	.316
Complexity	Divestiture	<b>0.191</b>	.632	.399	6.649	.006
Complexity	Mergers	<b>0.199</b>	.409	.167	2.003	.161
Complexity	Acquisition	<b>0.141</b>	.378	.143	1.669	.214

Source: Research Data

The results (Table 6.8a) show that there is a relationship between environmental complexity-strategy co-alignment and the companies' EPS (multiple r ranges from 0.32 to 0.51). The results also show the variation in EPS that is explained by environmental complexity-strategy co-alignment (R<sup>2</sup> ranges from 10.1% to 39.9%). Statistically significant results are reported for the effect of environmental complexity-strategy co-alignment on EPS for complexity-analysis co-alignment, complexity-strategic alliances co-alignment, and complexity-divestiture co-alignment (F-values = 3.467, and 6.649 respectively,  $p < 0.05$ ). Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental complexity (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental complexity-strategy co-alignment and the effect on EPS. These results do not confirm hypothesis H5.

Changes in EPS resulting from environmental dynamism-strategy co-alignment are presented (Table 6.8b).



**Table 6.8b: Effect of dynamism-strategy co-alignment on Earnings Per Share**

EPS=f(dynamism + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Dynamism	Analysis	<b>0.178</b>	.118	.014	.142	.868
Dynamism	Defensiveness	<b>0.247</b>	.175	.031	.316	.733
Dynamism	Futurity	<b>0.438*</b>	.115	.013	.134	.875
Dynamism	Riskiness	<b>0.109</b>	.142	.020	.205	.816
Dynamism	Proactiveness	<b>0.252</b>	.152	.023	.237	.791
Dynamism	Concentration	<b>0.080</b>	.125	.016	.158	.855
Dynamism	Market development	<b>0.139</b>	.256	.066	.704	.506
Dynamism	Product development	<b>0.175</b>	.122	.015	.151	.861
Dynamism	Diversification	<b>0.336</b>	.389	.151	1.783	.194
Dynamism	Strategic Alliances	<b>0.167</b>	.379	.143	1.675	.213
Dynamism	Joint Ventures	<b>0.072</b>	.122	.015	.152	.860
Dynamism	Divestiture	<b>0.040</b>	.494	.244	3.222	.061
Dynamism	Mergers	<b>-0.028</b>	.217	.047	.495	.617
Dynamism	Acquisition	<b>0.067</b>	.201	.041	.423	.661

Source: Research Data

The results (Table 6.8b) show that there is relationship between different levels of environmental dynamism-strategy co-alignment ( $\rho$ ) and EPS (multiple r ranges from 0.12 to 0.49). The results also show that there are variations in EPS that are accounted for by environmental dynamism-strategy co-alignment (R<sup>2</sup> ranges from 1.5% to 24.4%). Statistically not significant results are reported for the effect of environmental dynamism-strategy co-alignment on EPS for all levels dynamism-strategy co-alignment (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental dynamism-strategy co-alignment and the effect on EPS. These results do not confirm hypothesis H5.

Changes in EPS resulting from environmental munificence-strategy co-alignment are presented (Table 6.8c). According to the study findings, there is no relationship between the strength of environmental munificence-strategy co-alignment and the effect on EPS.

**Table 6.8c: Effect of munificence-strategy co-alignment on Earnings Per Share**

EPS=f(munificence + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Munificence	Analysis	<b>0.277</b>	.054	.003	.029	.971
Munificence	Defensiveness	<b>0.352</b>	.112	.012	.126	.882
Munificence	Futurity	<b>0.418*</b>	.071	.005	.050	.951
Munificence	Riskiness	<b>0.199</b>	.097	.009	.096	.909
Munificence	Proactiveness	<b>0.303</b>	.077	.006	.059	.943
Munificence	Concentration	<b>0.390</b>	.063	.004	.040	.961
Munificence	Market development	<b>0.261</b>	.250	.063	.667	.524
Munificence	Product development	<b>0.199</b>	.064	.004	.041	.960
Munificence	Diversification	<b>0.383</b>	.342	.117	1.326	.288
Munificence	Strategic Alliances	<b>0.516*</b>	.399	.159	1.898	.176
Munificence	Joint Ventures	<b>0.040</b>	.039	.002	.015	.98
Munificence	Divestiture	<b>0.019</b>	.476	.226	2.927	.077
Munificence	Mergers	<b>0.216</b>	.195	.038	.396	.678
Munificence	Acquisition	<b>0.357</b>	.173	.030	.309	.737

Source: Research Data

The results (Table 6.8c) show that there is relationship between different levels of environmental munificence-strategy co-alignment ( $\rho$ ) and EPS (multiple r ranges from 0.39 to 0.476). The results also show that there are variations in EPS that are accounted for by environmental munificence-strategy co-alignment (R<sup>2</sup> ranges from 0.2% to 22.6%). Statistically not significant results are reported for the effect of environmental munificence-strategy co-alignment on EPS for all levels munificence-strategy co-alignment (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental munificence-strategy co-alignment and the effect on EPS. These results fail to confirm hypothesis H5.

Changes in return on investment (ROI) resulting from environmental complexity-strategy co-alignment are presented (Table 6.9a).

**Table 6.9a: Effect of complexity-strategy co-alignment on Return on Investment**

ROI=f(complexity + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Complexity	Analysis	<b>0.304</b>	.305	.093	1.026	.377
Complexity	Defensiveness	<b>0.391</b>	.264	.070	.748	.486
Complexity	Futurity	<b>0.421*</b>	.168	.028	.291	.751
Complexity	Riskiness	<b>0.228</b>	.180	.032	.336	.719
Complexity	Proactiveness	<b>0.154</b>	.227	.051	.541	.590
Complexity	Concentration	<b>0.196</b>	.353	.125	1.426	.264
Complexity	Market development	<b>0.259</b>	.234	.055	.578	.570
Complexity	Product development	<b>0.203</b>	.264	.069	.747	.487
Complexity	Diversification	<b>0.136</b>	.222	.049	.519	.603
Complexity	Strategic Alliances	<b>0.166</b>	.459	.211	2.670	.094
Complexity	Joint Ventures	<b>0.158</b>	.513	.264	3.580	.047
Complexity	Divestiture	<b>0.191</b>	.404	.163	1.947	.169
Complexity	Mergers	<b>0.199</b>	.147	.022	.221	.804
Complexity	Acquisition	<b>0.141</b>	.169	.029	.295	.748

Source: Research Data

The results (Table 6.9a) show that there is a relationship between environmental complexity-strategy co-alignment and the companies' ROI (multiple r ranges from 0.15 to 0.51). The results also show the variation in ROI that is explained by environmental complexity-strategy co-alignment (R<sup>2</sup> ranges from 2.2% to 26.4%). Statistically significant results are reported for the effect of environmental complexity-strategy co-alignment on ROI for complexity-joint ventures co-alignment, (F-value = 3.580,  $p < 0.05$ ). Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental complexity (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental complexity-strategy co-alignment and the effect on ROI. These results fail to confirm hypothesis H5.

Changes in ROI resulting from environmental dynamism-strategy co-alignment are presented (Table 6.9b).

**Table 6.9b: Effect of dynamism-strategy co-alignment on Return on Investment**

ROI=f(dynamism + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Dynamism	Analysis	<b>0.178</b>	.308	.095	1.051	.368
Dynamism	Defensiveness	<b>0.247</b>	.146	.021	.219	.805
Dynamism	Futurity	<b>0.438*</b>	.020	.000	.004	.996
Dynamism	Riskiness	<b>0.109</b>	.141	.020	.201	.819
Dynamism	Proactiveness	<b>0.252</b>	.206	.043	.444	.648
Dynamism	Concentration	<b>0.080</b>	.287	.082	.898	.423
Dynamism	Market development	<b>0.139</b>	.220	.048	.507	.610
Dynamism	Product development	<b>0.175</b>	.253	.064	.681	.517
Dynamism	Diversification	<b>0.336</b>	.150	.022	.229	.797
Dynamism	Strategic Alliances	<b>0.167</b>	.408	.167	1.998	.162
Dynamism	Joint Ventures	<b>0.072</b>	.463	.215	2.732	.089
Dynamism	Divestiture	<b>0.040</b>	.342	.117	1.322	.289
Dynamism	Mergers	<b>-0.028</b>	.051	.003	.026	.974
Dynamism	Acquisition	<b>0.067</b>	.109	.012	.120	.888

Source: Research Data

The results (Table 6.9b) show that there is relationship between different levels of environmental dynamism-strategy co-alignment ( $\rho$ ) and ROI (multiple r ranges from 0.02 to 0.46). The results also show that there are variations in ROI that are accounted for by environmental dynamism-strategy co-alignment (R<sup>2</sup> ranges from 0.0% to 21.5%). Statistically not significant results are reported for the effect of environmental dynamism-strategy co-alignment on ROI for all levels dynamism-strategy co-alignment (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental dynamism-strategy co-alignment and the effect on ROI. These results do not confirm hypothesis H5.

Changes in ROI resulting from environmental munificence-strategy co-alignment are presented (Table 6.9c).

**Table 6.9c: Effect of munificence-strategy co-alignment on Return on Investment**

ROI=f(munificence + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Munificence	Analysis	<b>0.277</b>	0.301	0.090	0.993	0.388
Munificence	Defensiveness	<b>0.352</b>	0.187	0.035	0.362	0.700
Munificence	Futurity	<b>0.418*</b>	0.073	0.005	0.054	0.948
Munificence	Riskiness	<b>0.199</b>	0.140	0.020	0.200	0.820
Munificence	Proactiveness	<b>0.303</b>	0.194	0.038	0.391	0.682
Munificence	Concentration	<b>0.390</b>	0.342	0.117	1.323	0.289
Munificence	Market development	<b>0.261</b>	0.214	0.046	0.481	0.625
Munificence	Product development	<b>0.199</b>	0.245	0.060	0.638	0.539
Munificence	Diversification	<b>0.383</b>	0.192	0.037	0.383	0.686
Munificence	Strategic Alliances	<b>0.516*</b>	0.512	0.262	3.549	0.048
Munificence	Joint Ventures	<b>0.040</b>	0.469	0.220	2.826	0.083
Munificence	Divestiture	<b>0.019</b>	0.348	0.121	1.377	0.275
Munificence	Mergers	<b>0.216</b>	0.069	0.005	0.048	0.953
Munificence	Acquisition	<b>0.357</b>	0.108	0.012	0.118	0.889

Source: Research Data

The results (Table 6.9c) show that there is a relationship between different levels of environmental munificence-strategy co-alignment ( $\rho$ ) and ROI (multiple r ranges from 0.07 to 0.51). The results also show that there are variations in EPS that are accounted for by environmental munificence-strategy co-alignment (R<sup>2</sup> ranges from 0.01% to 26.2%). Statistically significant results are reported for the effect of environmental munificence-strategy co-alignment on ROI for munificence-strategic alliance co-alignment (F-value = 3.549,  $p < 0.05$ ). Statistically not significant results are reported for the effect of environmental munificence-strategy co-alignment for all other strategy variables on ROI (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental munificence-strategy co-alignment and the resultant effect on ROI. These results fail to confirm hypothesis H5.

Changes in new product introduction resulting from environmental complexity-strategy co-alignment are presented (Table 6.10a).

**Table 6.10a: Effect of complexity-strategy co-alignment on New Product Introduction**

New Product Introduction=f(complexity + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Complexity	Analysis	<b>0.304</b>	.575	.331	4.949	.018
Complexity	Defensiveness	<b>0.391</b>	.238	.057	.603	.557
Complexity	Futurity	<b>0.421*</b>	.251	.063	.671	.522
Complexity	Riskiness	<b>0.228</b>	.164	.027	.277	.761
Complexity	Proactiveness	<b>0.154</b>	.623	.389	6.357	.007
Complexity	Concentration	<b>0.196</b>	.200	.040	.418	.664
Complexity	Market development	<b>0.259</b>	.553	.306	4.400	.026
Complexity	Product development	<b>0.203</b>	.663	.440	7.857	.003
Complexity	Diversification	<b>0.136</b>	.335	.112	1.264	.304
Complexity	Strategic Alliances	<b>0.166</b>	.176	.031	.318	.731
Complexity	Joint Ventures	<b>0.158</b>	.222	.049	.516	.604
Complexity	Divestiture	<b>0.191</b>	.183	.033	.345	.712
Complexity	Mergers	<b>0.199</b>	.173	.030	.308	.739
Complexity	Acquisition	<b>0.141</b>	.170	.029	.296	.747

Source: Research Data

The results (Table 6.10a) show that there is relationship between different levels of environmental complexity-strategy co-alignment ( $\rho$ ) and new product introduction (multiple r ranges from 0.16 to 0.66). The results also show the variation in new product introduction that is explained by environmental complexity-strategy co-alignment (R<sup>2</sup> ranges from 2.7% to 44.0%). Statistically significant results are reported for the effect of environmental complexity-strategy co-alignment on new product introduction for complexity-analysis, complexity-proactiveness, complexity-market development, and complexity-product development co-alignments (F-values = 4.949, 6.357, 4.400, and 7.857 respectively,  $p < 0.05$ ). Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental complexity (low F-values,  $p > 0.05$ ). However, there is no relationship between the strength of environmental complexity-strategy co-alignment and the resultant effect on new product introduction. These results do not confirm hypothesis H5.

Changes in new product introduction resulting from environmental dynamism-strategy co-alignment are presented (Table 6.10b).

**Table 6.10b: Effect of dynamism-strategy co-alignment on New Product Introduction**

New Product Introduction=f(dynamism + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Dynamism	Analysis	<b>0.178</b>	.553	.306	4.414	.026
Dynamism	Defensiveness	<b>0.247</b>	.243	.059	.627	.544
Dynamism	Futurity	<b>0.438*</b>	.285	.081	.882	.430
Dynamism	Riskiness	<b>0.109</b>	.195	.038	.396	.678
Dynamism	Proactiveness	<b>0.252</b>	.667	.445	8.015	.003
Dynamism	Concentration	<b>0.080</b>	.233	.054	.573	.573
Dynamism	Market development	<b>0.139</b>	.535	.286	4.012	.034
Dynamism	Product development	<b>0.175</b>	.668	.447	8.069	.003
Dynamism	Diversification	<b>0.336</b>	.402	.161	1.925	.172
Dynamism	Strategic Alliances	<b>0.167</b>	.205	.042	.438	.651
Dynamism	Joint Ventures	<b>0.072</b>	.251	.063	.670	.523
Dynamism	Divestiture	<b>0.040</b>	.219	.048	.503	.612
Dynamism	Mergers	<b>-0.028</b>	.193	.037	.388	.683
Dynamism	Acquisition	<b>0.067</b>	.196	.038	.398	.677

Source: Research Data

The results (Table 6.10b) show that there is a relationship between different levels of environmental dynamism-strategy co-alignment ( $\rho$ ) and new product introduction (multiple r ranges from 0.19 to 0.67). The results also show that there are variations in new product introduction that are accounted for by environmental dynamism-strategy co-alignment (R<sup>2</sup> ranges from 3.7% to 44.7%). Statistically significant results are reported for the effect of environmental dynamism-strategy co-alignment on new product introduction for dynamism-analysis, dynamism-proactiveness, dynamism-market development, and dynamism-product development co-alignments (F-values = 4.414, 8.015, 4.012 and 8.069 respectively,  $p < 0.05$ ).

Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental dynamism (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental dynamism-strategy co-alignment and the resultant effect on new product introduction. These results fail to confirm hypothesis H5.

Changes in new product introduction resulting from environmental munificence-strategy co-alignment are presented (Table 6.10c).

**Table 6.10c: Effect of munificence-strategy co-alignment on New Product Introduction**

New Product Introduction=f(munificence + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Munificence	Analysis	0.277	.478	.229	2.966	.074
Munificence	Defensiveness	0.352	.112	.013	.128	.880
Munificence	Futurity	0.418*	.115	.013	.135	.875
Munificence	Riskiness	0.199	.114	.013	.133	.876
Munificence	Proactiveness	0.303	.576	.332	4.970	.018
Munificence	Concentration	0.390	.215	.046	.484	.623
Munificence	Market development	0.261	.469	.220	2.821	.083
Munificence	Product development	0.199	.597	.357	5.543	.012
Munificence	Diversification	0.383	.268	.072	.774	.474
Munificence	Strategic Alliances	0.516*	.089	.008	.080	.923
Munificence	Joint Ventures	0.040	.198	.039	.409	.669
Munificence	Divestiture	0.019	.144	.021	.211	.811
Munificence	Mergers	0.216	.089	.008	.079	.924
Munificence	Acquisition	0.357	.089	.008	.080	.923

Source: Research Data

The results (Table 6.10c) show that there is a relationship between different levels of environmental munificence-strategy co-alignment ( $\rho$ ) and new product introduction (multiple r ranges from 0.09 to 0.60). The results also show that there are variations in new product introduction that are accounted for by environmental munificence-strategy co-alignment (R<sup>2</sup> ranges from 0.08% to 35.7%). Statistically significant results are reported for the effect of environmental munificence-strategy co-alignment on new product introduction for munificence-proactiveness and munificence-product development co-alignments (F-values = 4.970 and 5.543 respectively,  $p < 0.05$ ). Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental munificence (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental munificence-strategy co-alignment and the resultant effect on new product introduction. These results fail to confirm hypothesis H5.



Changes in product/service quality resulting from environmental complexity-strategy co-alignment are presented (Table 6.11a)

**Table 6.11a: Effect of complexity-strategy co-alignment on Product/Service Quality**

Product/Service Quality=f(complexity + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Complexity	Analysis	0.304	.397	.158	1.873	.180
Complexity	Defensiveness	0.391	.282	.080	.864	.436
Complexity	Futurity	0.421*	.496	.246	3.263	.059
Complexity	Riskiness	0.228	.520	.271	3.713	.043
Complexity	Proactiveness	0.154	.282	.080	.866	.436
Complexity	Concentration	0.196	.279	.078	.841	.446
Complexity	Market development	0.259	.424	.180	2.197	.137
Complexity	Product development	0.203	.295	.087	.956	.401
Complexity	Diversification	0.136	.279	.078	.842	.445
Complexity	Strategic Alliances	0.166	.329	.108	1.216	.317
Complexity	Joint Ventures	0.158	.382	.146	1.714	.206
Complexity	Divestiture	0.191	.348	.121	1.376	.276
Complexity	Mergers	0.199	.354	.126	1.436	.261
Complexity	Acquisition	0.141	.306	.093	1.030	.375

Source: Research Data

The results (Table 6.11a) show that there is a relationship between the different levels of environmental complexity-strategy co-alignment ( $\rho$ ) and product/service quality (multiple r ranges from 0.28 to 0.52). The results also show the variation in product/service quality that is explained by environmental complexity-strategy co-alignment (R<sup>2</sup> ranges from 7.8% to 27.1%). Statistically significant results are reported for the effect of environmental complexity-strategy co-alignment on product/service quality for complexity-riskiness co-alignment (F-values = 3.713,  $p < 0.05$ ). Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental complexity (low F-values,  $p > 0.05$ ). However, there is no relationship between the strength of environmental complexity-strategy co-alignment and the resultant effect on product/service quality. These results fail to confirm hypothesis H5.

Changes in product/service quality resulting from environmental dynamism-strategy co-alignment are presented (Table 6.11b).

**Table 6.11b: Effect of dynamism-strategy co-alignment on Product/ Service Quality**

Product/Service Quality=f(dynamism + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Dynamism	Analysis	<b>0.178</b>	.422	.178	2.167	.141
Dynamism	Defensiveness	<b>0.247</b>	.347	.120	1.368	.277
Dynamism	Futurity	<b>0.438*</b>	.564	.318	4.660	.022
Dynamism	Riskiness	<b>0.109</b>	.528	.279	3.865	.038
Dynamism	Proactiveness	<b>0.252</b>	.340	.116	1.307	.293
Dynamism	Concentration	<b>0.080</b>	.342	.117	1.324	.288
Dynamism	Market development	<b>0.139</b>	.445	.198	2.469	.110
Dynamism	Product development	<b>0.175</b>	.355	.126	1.439	.261
Dynamism	Diversification	<b>0.336</b>	.346	.120	1.361	.279
Dynamism	Strategic Alliances	<b>0.167</b>	.378	.143	1.667	.214
Dynamism	Joint Ventures	<b>0.072</b>	.440	.194	2.401	.116
Dynamism	Divestiture	<b>0.040</b>	.419	.175	2.125	.146
Dynamism	Mergers	<b>-0.028</b>	.372	.138	1.602	.226
Dynamism	Acquisition	<b>0.067</b>	.357	.127	1.460	.256

Source: Research Data

The results (Table 6.11b) show that there is a relationship between the different levels of environmental dynamism-strategy co-alignment ( $\rho$ ) and product/service quality (multiple r ranges from 0.34 to 0.56). The results also show the variation in product/service quality that is explained by environmental dynamism -strategy co-alignment (R<sup>2</sup> ranges from 11.6% to 31.8%). Statistically significant results are reported for the effect of environmental dynamism-strategy co-alignment on product/service quality for dynamism-futurity and dynamism-riskiness co-alignments (F-values = 4.660 and 3.865 respectively,  $p < 0.05$ ). Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental dynamism (low F-values,  $p > 0.05$ ). However, there is no relationship between the strength of environmental dynamism-strategy co-alignment and the resultant effect on product/service quality. These results do not confirm hypothesis H5.

Changes in product/service quality resulting from environmental munificence-strategy co-alignment are presented (Table 6.11c).

**Table 6.11c: Effect of munificence-strategy co-alignment on Product/Service Quality**

Product/Service Quality=f{munificence + strategy variables}						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Munificence	Analysis	<b>0.277</b>	.263	.069	.742	.489
Munificence	Defensiveness	<b>0.352</b>	.171	.029	.300	.744
Munificence	Futurity	<b>0.418*</b>	.363	.132	1.518	.243
Munificence	Riskiness	<b>0.199</b>	.418	.175	2.116	.147
Munificence	Proactiveness	<b>0.303</b>	.138	.019	.195	.825
Munificence	Concentration	<b>0.390</b>	.128	.017	.168	.847
Munificence	Market development	<b>0.261</b>	.308	.095	1.048	.369
Munificence	Product development	<b>0.199</b>	.144	.021	.212	.811
Munificence	Diversification	<b>0.383</b>	.128	.016	.165	.849
Munificence	Strategic Alliances	<b>0.516*</b>	.220	.049	.510	.608
Munificence	Joint Ventures	<b>0.040</b>	.324	.105	1.176	.329
Munificence	Divestiture	<b>0.019</b>	.286	.082	.888	.427
Munificence	Mergers	<b>0.216</b>	.230	.053	.560	.580
Munificence	Acquisition	<b>0.357</b>	.190	.036	.373	.693

Source: Research Data

The results (Table 6.11c) show that there is a relationship between the different levels of environmental munificence-strategy co-alignment ( $\rho$ ) and product/service quality (multiple r ranges from 0.13 to 0.42). The results also show that there are variations in product/service quality that are accounted for by environmental munificence-strategy co-alignment (R<sup>2</sup> ranges from 1.6% to 17.5%). Statistically not significant results are reported for the effect of environmental munificence-strategy co-alignment on product/service quality for all levels of munificence-strategy co-alignment (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental munificence-strategy co-alignment and the resultant effect on product/service quality. These results fail to confirm hypothesis H5.

Changes in market share resulting from environmental complexity-strategy co-alignment are presented (Table 6.12a).

**Table 6.12a: Effect of complexity-strategy co-alignment on Market Share**

Market Share=f(complexity + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Complexity	Analysis	<b>0.304</b>	.576	.331	4.957	.018
Complexity	Defensiveness	<b>0.391</b>	.184	.034	.352	.707
Complexity	Futurity	<b>0.421*</b>	.293	.086	.941	.407
Complexity	Riskiness	<b>0.228</b>	.169	.029	.294	.749
Complexity	Proactiveness	<b>0.154</b>	.324	.105	1.174	.330
Complexity	Concentration	<b>0.196</b>	.021	.000	.004	.996
Complexity	Market development	<b>0.259</b>	.468	.219	2.799	.085
Complexity	Product development	<b>0.203</b>	.318	.101	1.128	.344
Complexity	Diversification	<b>0.136</b>	.035	.001	.012	.988
Complexity	Strategic Alliances	<b>0.166</b>	.187	.035	.363	.700
Complexity	Joint Ventures	<b>0.158</b>	.059	.004	.035	.965
Complexity	Divestiture	<b>0.191</b>	.065	.004	.042	.959
Complexity	Mergers	<b>0.199</b>	.395	.156	1.850	.183
Complexity	Acquisition	<b>0.141</b>	.427	.182	2.224	.134

Source: Research Data

The results (Table 6.12a) show that there is a relationship between the different levels of environmental complexity-strategy co-alignment ( $\rho$ ) and market share (multiple r ranges from 0.02 to 0.47). The results also show the variation in market share that is explained by environmental complexity-strategy co-alignment (R<sup>2</sup> ranges from 0.0% to 21.9%). Statistically significant results are reported for the effect of environmental complexity-strategy co-alignment on market share for complexity-analysis co-alignment (F-values = 4.957,  $p < 0.05$ ). Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental complexity (low F-values,  $p > 0.05$ ). However, there is no relationship between the strength of environmental complexity-strategy co-alignment and the resultant effect on market share. These results fail to confirm hypothesis H5.

Changes in market share resulting from environmental dynamism-strategy co-alignment are presented (Table 6.12b).

**Table 6.12b: Effect of dynamism-strategy co-alignment on Market Share**

Market Share=f(dynamism + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Dynamism	Analysis	<b>0.178</b>	.631	.398	6.617	.006
Dynamism	Defensiveness	<b>0.247</b>	.230	.053	.561	.579
Dynamism	Futurity	<b>0.438*</b>	.448	.200	2.505	.107
Dynamism	Riskiness	<b>0.109</b>	.275	.076	.821	.454
Dynamism	Proactiveness	<b>0.252</b>	.434	.188	2.315	.125
Dynamism	Concentration	<b>0.080</b>	.201	.040	.422	.662
Dynamism	Market development	<b>0.139</b>	.527	.278	3.851	.038
Dynamism	Product development	<b>0.175</b>	.407	.166	1.986	.163
Dynamism	Diversification	<b>0.336</b>	.225	.051	.533	.595
Dynamism	Strategic Alliances	<b>0.167</b>	.249	.062	.661	.527
Dynamism	Joint Ventures	<b>0.072</b>	.212	.045	.470	.632
Dynamism	Divestiture	<b>0.040</b>	.212	.045	.470	.632
Dynamism	Mergers	<b>-0.028</b>	.433	.188	2.312	.125
Dynamism	Acquisition	<b>0.067</b>	.482	.232	3.024	.071

Source: Research Data

The results (Table 6.12b) show that there is a relationship between the different levels of environmental dynamism-strategy co-alignment ( $\rho$ ) and market share (multiple r ranges from 0.20 to 0.63). The results also show the variation in market share that is explained by environmental dynamism -strategy co-alignment (R<sup>2</sup> ranges from 4.0% to 39.8%). Statistically significant results are reported for the effect of environmental dynamism-strategy co-alignment on market share for dynamism-analysis and dynamism-market development co-alignments (F-values = 6.617 and 3.851 respectively,  $p < 0.05$ ). Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental dynamism (low F-values,  $p > 0.05$ ). However, there is no relationship between the strength of environmental dynamism-strategy co-alignment and the resultant effect on Market Share. These results fail to confirm hypothesis H5.

Changes in market share resulting from environmental munificence-strategy co-alignment are presented (Table 6.12c).

**Table 6.12c: Effect of munificence-strategy co-alignment on Market Share**

Market Share=f(munificence + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Munificence	Analysis	<b>0.277</b>	.576	.332	4.970	.018
Munificence	Defensiveness	<b>0.352</b>	.173	.030	.309	.738
Munificence	Futurity	<b>0.418*</b>	.300	.090	.992	.388
Munificence	Riskiness	<b>0.199</b>	.171	.029	.301	.743
Munificence	Proactiveness	<b>0.303</b>	.338	.114	1.292	.297
Munificence	Concentration	<b>0.390</b>	.014	.000	.002	.998
Munificence	Market development	<b>0.261</b>	.472	.223	2.870	.080
Munificence	Product development	<b>0.199</b>	.321	.103	1.150	.337
Munificence	Diversification	<b>0.383</b>	.035	.001	.012	.988
Munificence	Strategic Alliances	<b>0.516*</b>	.211	.045	.468	.633
Munificence	Joint Ventures	<b>0.040</b>	.059	.003	.034	.966
Munificence	Divestiture	<b>0.019</b>	.065	.004	.042	.959
Munificence	Mergers	<b>0.216</b>	.400	.160	1.902	.175
Munificence	Acquisition	<b>0.357</b>	.454	.206	2.598	.099

Source: Research Data

The results (Table 6.10c) show that there is a relationship between the different levels of environmental munificence-strategy co-alignment ( $\rho$ ) and Market Share (multiple r ranges from 0.01 to 0.58). The results also show that there are variations in market share that are accounted for by environmental munificence-strategy co-alignment (R<sup>2</sup> ranges from 0.0% to 33.2%). Statistically significant results are reported for the effect of environmental munificence-strategy co-alignment on market share for munificence-analysis co-alignment (F-value = 4.970,  $p < 0.05$ ). Statistically not significant results are reported for the rest of the strategy variables co-aligned with environmental munificence (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental munificence-strategy co-alignment and the resultant effect on market share. These results fail to confirm hypothesis H5.

Changes in operational efficiency resulting from environmental complexity-strategy co-alignment are presented (Table 6.13a).

**Table 6.13a: Effect of complexity-strategy co-alignment on Operational Efficiency**

Operational Efficiency=f(complexity + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Complexity	Analysis	<b>0.304</b>	.500	.250	3.339	.056
Complexity	Defensiveness	<b>0.391</b>	.243	.059	.626	.545
Complexity	Futurity	<b>0.421*</b>	.358	.128	1.466	.255
Complexity	Riskiness	<b>0.228</b>	.216	.047	.490	.620
Complexity	Proactiveness	<b>0.154</b>	.263	.069	.744	.488
Complexity	Concentration	<b>0.196</b>	.181	.033	.339	.716
Complexity	Market development	<b>0.259</b>	.277	.077	.831	.450
Complexity	Product development	<b>0.203</b>	.305	.093	1.027	.376
Complexity	Diversification	<b>0.136</b>	.208	.043	.454	.642
Complexity	Strategic Alliances	<b>0.166</b>	.310	.096	1.060	.365
Complexity	Joint Ventures	<b>0.158</b>	.314	.099	1.094	.354
Complexity	Divestiture	<b>0.191</b>	.288	.083	.908	.419
Complexity	Mergers	<b>0.199</b>	.277	.077	.832	.450
Complexity	Acquisition	<b>0.141</b>	.206	.042	.444	.648

Source: Research Data

The results (Table 6.13a) show that there is a relationship between the different levels of environmental complexity-strategy co-alignment ( $\rho$ ) and operational efficiency (multiple r ranges from 0.21 to 0.50). The results also show that there are variations in Operational Efficiency that are accounted for by environmental complexity-strategy co-alignment (R<sup>2</sup> ranges from 4.2% to 25.0%). Statistically not significant results are reported for the effect of environmental complexity-strategy co-alignment on operational efficiency for all levels of munificence-strategy co-alignment (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental complexity-strategy co-alignment and the resultant effect on operational efficiency. These results fail to confirm hypothesis H5.

Changes in operational efficiency resulting from environmental dynamism-strategy co-alignment are presented (Table 6.13b).

**Table 6.13b: Effect of dynamism-strategy co-alignment on Operational Efficiency**

Operational Efficiency=f(dynamism + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Dynamism	Analysis	<b>0.178</b>	.502	.252	3.368	.055
Dynamism	Defensiveness	<b>0.247</b>	.181	.033	.339	.716
Dynamism	Futurity	<b>0.438*</b>	.357	.127	1.456	.257
Dynamism	Riskiness	<b>0.109</b>	.199	.040	.412	.668
Dynamism	Proactiveness	<b>0.252</b>	.234	.055	.578	.570
Dynamism	Concentration	<b>0.080</b>	.145	.021	.214	.809
Dynamism	Market development	<b>0.139</b>	.271	.073	.792	.467
Dynamism	Product development	<b>0.175</b>	.292	.085	.935	.409
Dynamism	Diversification	<b>0.336</b>	.163	.027	.274	.763
Dynamism	Strategic Alliances	<b>0.167</b>	.281	.079	.859	.439
Dynamism	Joint Ventures	<b>0.072</b>	.273	.075	.808	.460
Dynamism	Divestiture	<b>0.040</b>	.237	.056	.595	.561
Dynamism	Mergers	<b>-0.028</b>	.282	.080	.867	.435
Dynamism	Acquisition	<b>0.067</b>	.180	.032	.335	.719

Source: Research Data

The results (Table 6.13b) show that there is a relationship between the different levels of environmental dynamism-strategy co-alignment ( $\rho$ ) and operational efficiency (multiple r ranges from 0.15 to 0.50). The results also show that there are variations in Operational Efficiency that are accounted for by environmental dynamism-strategy co-alignment (R<sup>2</sup> ranges from 2.1% to 25.2%). Statistically not significant results are reported for the effect of environmental dynamism-strategy co-alignment on operational efficiency for all levels of dynamism-strategy co-alignment (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental dynamism-strategy co-alignment and the resultant effect on operational efficiency. These results fail to confirm hypothesis H5.

Changes in operational efficiency resulting from environmental munificence-strategy co-alignment are presented (Table 6.13c).



**Table 6.13c: Effect of munificence-strategy co-alignment on Operational Efficiency**

Operational Efficiency=f(munificence + strategy variables)						
Environment	Strategy	Co-alignment ( $\rho$ )	Multiple r	R <sup>2</sup>	F-Value	Sig.
Munificence	Analysis	<b>0.277</b>	.525	.276	.353	.125
Munificence	Defensiveness	<b>0.352</b>	.353	.125	1.427	.263
Munificence	Futurity	<b>0.418*</b>	.390	.152	1.798	.191
Munificence	Riskiness	<b>0.199</b>	.311	.097	1.073	.361
Munificence	Proactiveness	<b>0.303</b>	.324	.105	1.170	.331
Munificence	Concentration	<b>0.390</b>	.302	.091	1.003	.384
Munificence	Market development	<b>0.261</b>	.345	.119	1.349	.282
Munificence	Product development	<b>0.199</b>	.370	.137	1.585	.230
Munificence	Diversification	<b>0.383</b>	.295	.087	.953	.402
Munificence	Strategic Alliances	<b>0.516*</b>	.523	.273	3.764	.041
Munificence	Joint Ventures	<b>0.040</b>	.378	.143	1.668	.214
Munificence	Divestiture	<b>0.019</b>	.352	.124	1.411	.267
Munificence	Mergers	<b>0.216</b>	.347	.120	1.366	.278
Munificence	Acquisition	<b>0.357</b>	.295	.087	.955	.402

Source: Research Data

The results (Table 6.13c) show that there is a relationship between different levels of environmental munificence-strategy co-alignment ( $\rho$ ) and operational efficiency (multiple r ranges from 0.30 to 0.52). The results also show that there are variations in Operational Efficiency that are accounted for by environmental munificence-strategy co-alignment (R<sup>2</sup> ranges from 8.7% to 27.6%). Statistically significant results are reported for the effect of environmental munificence-strategy co-alignment on operational efficiency for munificence-strategic alliances co-alignment (F-value = 3.764,  $p < 0.05$ ). Statistically not significant results are reported for the rest of strategy variables co-aligned with environmental munificence (low F-values,  $p > 0.05$ ). There is no relationship between the strength of environmental munificence-strategy co-alignment and the resultant effect on operational efficiency. These results fail to confirm hypothesis H5.

## 6.5 Discussion

The changes in the external environment affect organizations in many different ways. We hypothesized that external environment has significant effect on organizational strategy. Statistical tests for this hypothesis revealed overall statistically not

significant results for the effect of external environment on most organizational strategy variables. Statistically significant results were only reported for the effect of external environment on strategic alliances (F-value = 3.84,  $p < 0.05$ ) while statistically not significant results were reported for other strategy variables. Even though overall results were statistically not significant, the study results showed that there is a relationship between the external environment and the companies' strategic behaviour (multiple  $r$  ranges from 0.17 to 0.61) and that the external environment accounts for relative variations in organizational strategy ( $R^2$  varies from 5.2% to 37.7%).

Though not statistically significant, our findings indicate that all organizations are environment dependent and that to manage the organization-environment interface, there is need for an appropriate strategy. Tailor (1995) observed that in turbulent environments, strategy is the simple business logic which management uses to explain to all stakeholders how they see the environment changing and how their organizations will survive and grow. The three environmental dimensions of complexity, dynamism, and munificence influence the various organizational strategy variables (strategic orientations and strategy types) either positively or negatively. In chapter 4 we observed that the external environment influences corporate performance. This influence is largely indirect because performance is largely a function of a firm's strategy.

Environmental complexity appeared to have a positive effect on most organizational strategy variables except for the strategic orientation of proactiveness and the strategy type of diversification. The same was the case with environmental munificence except for the joint venture strategy type. Conversely, negative effect was reported for environmental dynamism on most strategy variables except for the strategic

orientations of futurity and proactiveness, and the strategy type of diversification. These results imply that managers of the companies surveyed seemed to understand the issues in the various environmental factors and perceive them as largely homogeneous; hence boosting their strategic aggressiveness. Secondly, the favourability of the environment appeared to provide fertile ground for the companies to adopt most of the strategic orientations and pursue most of the strategy types. However, the perceived changeability and unpredictability of the various environmental factors pose challenges that impair effective adoption/pursuit of most strategic orientations and strategy types.

Futurity appeared to be the only strategic orientation that was positively influenced by the three environmental orientations. This indicates that in all the companies that were surveyed, management's preoccupation was how to favorably position the organizations for the future. This quest makes organizations to grapple with increased environmental complexity, dynamism and munificence resulting into double-loop organizational learning that positively enhances the companies' strategic agility and aggressiveness.

Being environment-dependent subsumed a match or an alignment between the companies' strategic behavior and the external environment. An important observation that emerged from the study is that the environmental dimensions were positively correlated with all organizational strategy variables except for the correlation between environmental dynamism and merger strategy. However, even though the correlations were positive, most of them were statistically insignificant at  $p=0.05$ . Statistically significant correlations were reported between all the three environmental dimensions and futurity, and between environmental munificence and

strategic alliances. These results underscore the major preoccupation of the companies' strategic motivation. It also means that among the surveyed companies the wisdom of merger strategy is compromised by environmental dynamism. A further implication is that the companies increase their search for collaborative arrangements during times of environmental abundance.

The study advanced a proposition that the match between environment and strategy is likely to have a significant effect on corporate performance. Instead of considering only the environment-strategy co-aligned variables that had statistically significant correlations, we tested the effect of each co-aligned pair of the strategy-environment variables on the various indicators of performance through hierarchical regression analysis. The study reported statistically not significant results for the effect of each pair of the co-aligned environment-strategy variables on most indicators of performance.

Our results were mixed and also contradictory. The results revealed a weak to moderate fit between environment and strategy variables, a fairly low explanatory power of environment-strategy co-alignment over various measures of corporate performance and statistically not significant results for the hypothesized relationships. Further still, there was no relationship between the strength/degree of co-alignment (size of  $\rho$ ) and the resultant effect of the co-aligned environment-strategy variables on the various indicators of performance.

The results of this study largely contradict those of similar studies. For instance, Tan and Litschert (1994) and Luo & Park (2001) established that firms with appropriate environment-strategy co-alignment achieved positive performance than those which

are without. However, the results partially support Venkatraman's (1990) findings which were largely inconsistent with Tan & Litschert (1994) and Luo & Park (2001) studies. These contradictions and differences in the research findings are largely due to contextual, methodological and operationalization differences which are not universal as was observed by Venkatraman and Prescott (1990).

## **6.6 Chapter Summary**

Strategic co-alignment, viewed in terms of internal consistency among key strategic decisions or the alignment between strategic choices and critical contingencies posed by either environmental or organizational contexts, is an important theoretical perspective in strategic management (Venkatraman, 1990). Venkatraman & Prescott (1990) also argued that the positive performance impact of co-alignment between the environment and strategy of a business is an important theoretical proposition in strategic management. This argument is the basis on which the current study was conceived. Several other studies have been pegged on this argument (Bourgeois III, 1985, Tan & Litschert, 1994; Luo & Park, 2001; Bergeron, 2002; Madapusi, 2007). The findings of this study could not however offer convincing support to positive performance implications of environment-strategy co-alignment as other empirical studies have. It however offers partial support and basis for further investigation and research.

In spite of the contradictions, the study results revealed that the external environment is a critical component that organizations cannot wish away during decision making. In this chapter, we offered some evidence on how the external environment influences firm strategic behaviour. Variations in different organizational strategy variables are accounted for by the positive as well as the negative effects of the external

environment. This revelation is underscored by the fact that all but one organizational strategy variables were positively correlated with external environmental dimensions.

Despite the overall statistical insignificance of the study results for the effect of environment-strategy co-alignment on most indicators of performance, it was evident that there is a fairly strong relationship between environment-strategy co-alignment and corporate performance. However, we observed that the strength/degree of environment-strategy co-alignment does not guarantee significant positive change in corporate performance.

## CHAPTER SEVEN

# THE EFFECT OF FIRM-LEVEL INSTITUTIONS ON CORPORATE PERFORMANCE

### 7.1 Introduction

So far, the main focus of the last three chapters was on the effect the external environment on the performance of publicly quoted companies in Kenya (chapter four), the effect of organizational strategy on these companies' performance (chapter five), and the effect of environment-strategy co-alignment on their performance (chapter six). The effect of external environment on organizational strategy was also examined in chapter six. It is clear that the last three chapters laid emphasis upon the influence of the external environment on organizational strategy and corporate performance without concern for the companies' internal environment. This chapter focuses on the internal environment of the surveyed companies. This is against the premise that the internal environment of an organization defines the context in which strategic decisions are implemented.

In this study, we advanced a proposition that the internal environment (conceptualized as firm-level institutions) has two important conceptual linkages which subsume the underlying effects. First, it has a direct linkage with corporate performance and therefore has a direct effect on performance. Second, it has moderating linkage between environment-strategy co-alignment and performance, and therefore has a moderating effect on the relationship between environment-strategy co-alignment and corporate performance. Preliminary findings are presented on the extent of manifestation of the firm-level institutions in the surveyed companies. The nature and significance of their independent effects on the various indicators of performance will

also be presented. Results of tests of hypotheses H6 and H7 will then be presented and discussed within the context of other empirical studies as well as theory.

## **7.2 Firm-Level Institutions**

As earlier observed, firm-level institutions constitute the internal organizational environment which define the context in which strategic decisions are implemented. It is argued that effective and successful strategy implementation requires that an organization's internal environmental variables be in congruence with the strategy. These variables include the structure, organizational culture, resources (physical, financial, and human), skills and competencies, management style, systems, procedures, policies, and knowledge base among others. In this study, the internal organizational variables were captured under two main dimensions: administrative systems, and resources and competencies.

The firm-level institutions that were considered in the study that are descriptive of the administrative systems include organizational structure, management style, internal controls, systems, and procedures. Those that are descriptive of resources and competencies include financial resources, skills and competencies, knowledge base, culture, and human resources. To capture data on each descriptive, a 5-point likert type scale was used. Respondents were required to indicate extent to which the various aspects manifest in their organizations.

A description of the findings provides an understanding of the nature of the internal environment of the surveyed companies. First, we present a summary of the extent to which the various firm-level institutions were manifest in the organizations to facilitate implementation of strategic decisions. We then examine whether there are



statistically significant differences across the organizations on the manifestation of firm-level institutions. In this regard mean scores and t-values were generated through a one-sample t-test at 95% confidence level and test value 3 (average and mid-point of 5-point likert scale). Lastly, we will present results on the nature and significance of the independent effect of firm-level institutions on each indicator of performance. The results were out of hierarchical regression analysis, which generated the constants, standardized beta coefficients, t-values and corresponding p-values. The extent to which the organizations manifest the various firm-level institutions is presented (Table 7.1).

**Table 7.1 Manifestation of Firm-Level Institutions**

<b>Firm-Level Institutions</b>	<b>N</b>	<b>Mean</b>	<b>Sample test (t-value)</b>	<b>Significance (2-tailed)</b>
Structure	23	<b>4.35</b>	<b>12.159</b>	<b>.000</b>
Management Style	23	<b>3.52</b>	<b>2.912</b>	<b>.008</b>
Internal controls	23	<b>3.78</b>	<b>5.591</b>	<b>.000</b>
Systems	23	3.13	.972	.342
Procedures	23	<b>3.96</b>	<b>6.096</b>	<b>.000</b>
Financial resources	23	<b>4.04</b>	<b>7.091</b>	<b>.000</b>
Skills and Competences	23	<b>3.93</b>	<b>8.364</b>	<b>.000</b>
Knowledge base	23	<b>3.96</b>	<b>6.500</b>	<b>.000</b>
Culture	23	3.48	<b>2.902</b>	<b>.008</b>
Human resources	23	<b>4.05</b>	<b>9.195</b>	<b>.000</b>

**Source:** Research Data

**NB:** Ranking was on a 5-point scale: 1-Not at all; 2-Less Extent; 3-Moderate extent; 4-Large extent; 5-Very large extent

The results (Table 7.1) show high ranking for most firm-level institutions (mean score range from 3.52 for management style to 4.35 for organizational structure). This means that these aspects are manifested by the organizations to a large extent. The aspects influence effective and successful implementation of strategic decisions in the surveyed companies. The aspects that are manifested to a moderate extent include systems and organizational culture (mean scores=3.13 and 3.48 respectively).

However, there are statistically significant differences across the surveyed organizations on the extent to which they manifested the highly and moderately

ranked firm-level institutions (t-values range from 2.90,  $p < 0.05$  for organizational culture to 12.16,  $p < 0.05$  for organizational structure). This means that there is high disparity across the organizations on the manifestation of these firm-level institutions as well as their importance in the implementation of strategic decisions. There is no significant differences across the companies on the manifestation of organizational IT systems in the implementation of strategic decisions (t-value = 0.972,  $p > 0.05$ ).

### 7.3 Firm-Level Institutions and Performance

We present the nature and significance of the independent effect of firm-level institutions on the various indicators of performance.

#### 7.3.1 Firm-Level Institutions and Profit

The study results indicate that none of the firm-level institutions had statistically significant individual effect on profit before tax (low t-values,  $p > 0.05$ ). Nonetheless, results indicated positive effect for structure, internal controls, systems, culture and human resources. Negative effects are reported for other firm-level institutions. A relatively high impact is reported for human resources ( $\beta = 0.531$ ) (Table 7.2a).

**Table 7.2a: Significance for the effect of firm-level institutions on PBT**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	-3184339.507	5497408.508		-.579	.573
Structure	1485005.236	1098112.411	.497	1.352	.201
Management Style	-605220.530	610058.390	-.327	-.992	.341
Internal controls	45140.621	797715.822	.019	.057	.956
Systems	1226685.672	664060.161	.497	1.847	.090
Procedures	-298548.670	709779.988	-.141	-.421	.681
Financial resources	-916205.023	802535.778	-.407	-1.142	.276
Skills and Competences	-912331.507	1650480.360	-.308	-.553	.591
Knowledge base	-862299.167	1145753.932	-.383	-.753	.466
Culture	582390.796	876523.605	.290	.664	.519
Human resources	1541911.922	1261572.641	.531	1.222	.245

Source: Research Data

### 7.3.2 Firm-Level Institutions and Total Net Assets

Despite overall statistically not significant results for the effect of firm-level institutions on total net assets (low t-values,  $p > 0.05$ ), statistically significant results for the individual positive effect are reported structure (t-value = 2.491,  $p < 0.05$ ) and for individual negative effect of Financial resources (t-value = -2.265,  $p < 0.05$ ). Statistically not significant negative effects are reported for internal controls, procedures, skills and competencies, and knowledge base. Similarly, statistically not significant positive effects are reported for management style, systems, culture, and human resources. A relatively high impact is reported for organizational structure ( $\beta = 0.707$ ) (Table 7.2b).

**Table 7.2b: Significance for the effect of firm-level institutions on TNAs**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t-Value	Sig.
	B	Std. Error			
(Constant)	160189.821	47688525.487		.003	.997
Structure	23727624.013	9525826.873	.707	2.491	.028
Management Style	793209.298	5292090.815	.038	.150	.883
Internal controls	-6476919.404	6919968.065	-.244	-.936	.368
Systems	8707352.474	5760541.515	.314	1.512	.157
Procedures	-8336352.973	6157148.593	-.352	-1.354	.201
Financial resources	-15769865.423	6961779.873	-.624	-2.265	.043
Skills and Competences	-17733897.616	14317468.785	-.533	-1.239	.239
Knowledge base	-1420725.742	9939104.130	-.056	-.143	.889
Culture	14817727.639	7603604.175	.657	1.949	.075
Human resources	5573451.201	10943799.962	.171	.509	.620

Source: Research Data

### 7.3.3 Firm-Level Institutions and Sales Revenue

The study results indicate that none of the firm-level institutions had individual statistically significant effect on sales revenue (low t-values,  $p > 0.05$ ). Nonetheless, results indicated positive effect for structure, internal controls, procedures, financial resources, culture, and human resources. Negative effects are reported for other firm-level institutions. Relatively high impact is reported for internal controls ( $\beta = 0.443$ ) (Table 7.2c).

**Table 7.2c: Significance for the effect of firm-level institutions on Sales Revenue**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	-52.321	32.322		-1.619	.131
Structure	7.518	6.456	.410	1.164	.267
Management Style	-3.044	3.587	-.269	-.849	.413
Internal controls	6.421	4.690	.443	1.369	.196
Systems	-.749	3.904	-.049	-.192	.851
Procedures	.707	4.173	.055	.169	.868
Financial resources	4.283	4.718	.310	.908	.382
Skills and Competences	-5.997	9.704	-.330	-.618	.548
Knowledge base	-4.650	6.736	-.337	-.690	.503
Culture	3.087	5.153	.251	.599	.560
Human resources	7.576	7.417	.426	1.021	.327

Source: Research Data

### 7.3.4 Firm-Level Institutions and Earnings Per Share

The study reports statistically not significant results for the effect of individual firm-level institutions on earnings per share (low t-values,  $p > 0.05$ ). However, positive effect is reported for systems, procedures, knowledge base, and culture while negative effect is reported for the other firm-level institutions. Relatively high impact is reported for organizational culture ( $\beta = 0.774$ ) (Table 7.2d).

**Table 7.2d: Significance for the effect of firm-level institutions on EPS**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	27.513	22.703		1.212	.249
Structure	-.453	4.535	-.040	-.100	.922
Management Style	-1.574	2.519	-.227	-.625	.544
Internal controls	-2.810	3.294	-.316	-.853	.410
Systems	1.464	2.742	.158	.534	.603
Procedures	4.066	2.931	.513	1.387	.191
Financial resources	-2.221	3.314	-.263	-.670	.515
Skills and Competences	-5.081	6.816	-.456	-.745	.470
Knowledge base	1.610	4.732	.190	.340	.740
Culture	5.845	3.620	.774	1.615	.132
Human resources	-5.359	5.210	-.492	-1.029	.324

Source: Research Data

### 7.3.5 Firm-Level Institutions and Return on Investment

Despite overall statistically not significant results for the effect of firm-level institutions on return on investment (low t-values,  $p > 0.05$ ), the study reports statistically significant positive for systems (t-value = 2.285,  $p < 0.05$ ). Statistically not

significant positive effects are reported for internal controls, procedures, and human resources. Statistically not significant negative effects are reported for the other firm-level institutions (Table 7.2e).

**Table 7.2e: Significance for the effect of firm-level institutions on ROI**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	-23.592	35.044		-.673	.514
Structure	-2.580	7.000	-.116	-.369	.719
Management Style	-6.491	3.889	-.473	-1.669	.121
Internal controls	6.463	5.085	.368	1.271	.228
Systems	9.671	4.233	.528	2.285	.041
Procedures	7.108	4.525	.454	1.571	.142
Financial resources	-2.676	5.116	-.160	-.523	.610
Skills and Competences	-11.565	10.521	-.526	-1.099	.293
Knowledge base	-3.051	7.304	-.183	-.418	.684
Culture	-.657	5.588	-.044	-.118	.908
Human resources	15.808	8.042	.734	1.966	.073

Source: Research Data

### 7.3.6 Firm-Level Institutions and New Product Introduction

The study results indicate that none of the firm-level institutions had statistically significant individual effect on new product introduction (low t-values,  $p > 0.05$ ). Nevertheless, results indicated positive effect for structure, internal controls, procedures, skills and competencies, knowledge base, and human resources. Negative effects were reported for other firm-level institutions. Relatively high impact is reported for organizational culture ( $\beta = -0.732$ ) (Table 7.2f).

**Table 7.2f: Significance for the effect of firm-level institutions on New Product Introduction**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	-.367	.893		-.411	.688
Structure	.026	.178	.056	.148	.885
Management Style	-.003	.099	-.010	-.029	.977
Internal controls	.102	.130	.276	.788	.446
Systems	-.018	.108	-.047	-.170	.868
Procedures	.093	.115	.284	.810	.434
Financial resources	-.048	.130	-.138	-.371	.717
Skills and Competences	.124	.268	.267	.461	.653
Knowledge base	.025	.186	.072	.137	.894
Culture	-.230	.142	-.732	-1.614	.133
Human resources	.195	.205	.430	.950	.361

Source: Research Data

### 7.3.7 Firm-Level Institutions and Market Share

The study reports statistically not significant results for the effect of individual firm-level institutions on market share (low t-values,  $p > 0.05$ ). However, positive effect is reported for management style, internal controls, systems, procedures, skills and competencies, and human resources; while negative effect is reported for the other firm-level institutions. Relatively high impact is reported for procedures ( $\beta = 0.405$ ) (Table 7.2g).

**Table 7.2g: Significance for the effect of firm-level institutions on Market Share**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	.032	.704		.046	.964
Structure	-.157	.141	-.404	-1.118	.286
Management Style	.086	.078	.359	1.104	.291
Internal controls	.004	.102	.013	.039	.970
Systems	.125	.085	.388	1.464	.169
Procedures	.111	.091	.405	1.224	.244
Financial resources	-.034	.103	-.115	-.326	.750
Skills and Competences	.087	.211	.225	.411	.689
Knowledge base	-.018	.147	-.063	-.126	.902
Culture	-.035	.112	-.132	-.308	.763
Human resources	.052	.162	.138	.323	.752

Source: Research Data

### 7.3.8 Firm-Level Institutions and Product/Service Quality

The study results indicate that none of the firm-level institutions had statistically significant individual effect on product/service quality (low t-values,  $p > 0.05$ ). Nonetheless, results indicated positive effect for internal controls, financial resources, skills and competencies, knowledge base, and human resources. Negative effects are reported for the other firm-level institutions. However, relatively high impact is reported for knowledge base ( $\beta = 0.551$ ) (Table 7.2h).

**Table 7.2h: Significance for the effect of firm-level institutions on Product/Service Quality**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	.308	.552		.557	.588
Structure	-.112	.110	-.394	-1.017	.329
Management Style	-.032	.061	-.184	-.529	.607
Internal controls	.113	.080	.502	1.412	.183
Systems	-.009	.067	-.039	-.136	.894
Procedures	-.034	.071	-.167	-.472	.646
Financial resources	.017	.081	.077	.206	.840
Skills and Competences	.092	.166	.326	.556	.589
Knowledge base	.118	.115	.551	1.027	.324
Culture	-.049	.088	-.257	-.558	.587
Human resources	.019	.127	.067	.147	.886

Source: Research Data

### 7.3.9 Firm-Level Institutions and Operational Efficiency

The study reports statistically not significant results for the individual effect of firm-level institutions on operational efficiency (low t-values,  $p > 0.05$ ). However, positive effect is reported for structure, internal controls, knowledge base, culture, and human resources; while negative effect is reported for the other firm-level institutions. Relatively high impact is reported for organizational structure ( $\beta = 0.521$ ) (Table 7.2i).

**Table 7.2i: Significance for the effect of firm-level institutions on Operational Efficiency**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value	Sig.
	B	Std. Error			
(Constant)	-.200	.541		-.369	.719
Structure	.152	.108	.521	1.410	.184
Management Style	-.068	.060	-.373	-1.125	.282
Internal controls	.106	.079	.456	1.344	.204
Systems	-.008	.065	-.032	-.119	.907
Procedures	-.022	.070	-.105	-.311	.761
Financial resources	-.019	.079	-.085	-.237	.817
Skills and Competences	-.083	.163	-.285	-.509	.620
Knowledge base	.040	.113	.181	.353	.730
Culture	.007	.086	.037	.085	.934
Human resources	.116	.124	.407	.932	.370

Source: Research Data

## 7.4 Results of Tests of Hypotheses

The preliminary findings presented in this chapter focused on testing the extent to which firm-level institutions are manifested by the organizations and whether

significant differences exist across the studied organizations on the extent of their manifestation. We also laid focus on testing the statistical significance of the individual effect of firm-level institutions on the various indicators of performance. In most cases, the findings demonstrated statistically not significant independent effects of firm-level institutions on the various indicators of corporate performance. In this section we present results of tests of hypotheses H6 and H7 which were stated as follows:

H6: Firm-level institutions have a significant influence on corporate performance;

H7: Firm level institutions have a significant moderating effect on the relationship between environment-strategy co-alignment and corporate performance.

These hypotheses correspond to objective 4 of the study that was the focus of this chapter; that is, to ascertain the effect of firm-level institutions on corporate performance and assess their moderating effect on the relationship between environment-strategy co-alignment and performance of publicly quoted companies in Kenya.

Through multiple linear regression analysis, hypothesis H6 was tested by regressing the firm-level institutions on each measure of corporate performance. This operation generated the multiple  $r$ ,  $R^2$ , F-ratio values and corresponding p-values. The multiple  $r$  value shows the strength of the relationship between firm-level institutions and each measure/indicator of performance. The  $R^2$  value shows the proportion of change in the performance indicator that is explained by the combined effect of firm-level institutions. The F-value demonstrates the overall statistical significance of the model which predicts the effect of firm-level institutions on corporate performance at 95%



confidence level ( $p=0.05$ ). The decision to confirm the hypothesis was made at values of F-ratio where  $p<0.05$ . Relevant results with respect to hypotheses tests for H6 are summarized (Table 7.3).

**Table 7.3: Model Summaries for the effect of firm-level institutions on corporate performance**

Model	Multiple r	R <sup>2</sup>	F-Value	Sig.
Profit Before Tax=f(Firm-Level Institutions)	0.651	0.424	0.885	0.571
Total Nets Assets=f(Firm-Level Institutions)	0.810	0.656	2.288	0.088
Sales Revenue=f(Firm-Level Institutions)	0.685	0.470	1.064	0.453
Earnings Per Share=f(Firm-Level Institutions)	0.551	0.303	0.522	0.844
Return on Investment=f(Firm-Level Institutions)	0.758	0.575	1.620	0.212
New Product introduction=f(Firm-Level Institutions)	0.613	0.376	0.723	0.692
Product/service Quality=f(Firm-Level Institutions)	0.600	0.360	0.675	0.729
Market Share=f(Firm-Level Institutions)	0.664	0.441	0.948	0.527
Operational efficiency=f(Firm-Level Institutions)	0.646	0.417	0.859	0.590
<b>Firm-Level Institutions:</b> Human resources, Systems, Management Style, Procedures, Structure, Internal controls, Culture, Financial resources, Knowledge base, Skills and Competences				

Source: Research Data

The results (Table 7.3) show a strong relationship between firm-level institutions and the different measures of corporate performance (multiple r ranges from 0.55 for earnings per share (ESP) to 0.81 for total net assets (TNAs)). The results also indicate a fairly high explanatory power for firm-level institutions on various measures of performance (R<sup>2</sup> ranges from 30.3 % for ESP to 65.6% for TNAs). However, the study reports statistically not significant results for the effect of firm-level institutions on corporate performance (low F-values,  $p>0.05$ ). As such, the study results fail to confirm hypothesis H6.

It was further hypothesized that firm-level institutions have a significant moderating effect on the relationship between environment-strategy co-alignment and corporate performance. To test for this effect, the firm-level institutions were regressed together with each of the co-aligned environment-strategy variables on each measure of corporate performance; and the results were then compared with those that were

obtained in hypothesis 5. Focus was laid on the change in the explanatory power ( $R^2$ ) due to the moderating effect of firm-level institutions which should also be statistically significant (high F-value at  $p < 0.05$ ) on the basis of which the decision to confirm or not confirm hypothesis 7 was made.

The study results revealed that firm-level institutions have a moderating effect on the relationship between environment-strategy co-alignment and corporate performance. However, the significance of this effect has to be qualified on whether it is on the basis of the change in the explanatory power brought about by the moderating effect of firm-level institutions (change in the value of  $R^2$ ) or change in the overall significance of the model due to the same effect (change in the F-value). Summaries of the comparisons between the effect of environment-strategy co-alignment on the various measures of corporate performance without moderating variables (firm-level institutions) and with moderating variables are presented in Appendices iv to xxx.

Appendices iv-vi provide a summary of the comparison between the effect of environment-strategy co-alignment on profit before tax (PBT) without and with moderating variables. The results indicated that firm-level institutions enhance the relationship (multiple  $R^2$ ) between the co-aligned environment-strategy variables and PBT as well as the explanatory power ( $R^2$ ) of the co-aligned variables over PBT. However, change in the explanatory power is not statistically significant (low F-values,  $p > 0.05$ ). On the contrary, firm-level institutions change the results from statistically significant to statistically not significant ( $p < 0.05$  to  $p > 0.05$ ) for the effect of environmental complexity co-aligned with product development and diversification strategies on PBT. These results do not confirm hypothesis H7.

A summary of the comparison between the effect of environment-strategy co-alignment on total net assets (TNAs) without and with moderating variables is presented in Appendices vii-ix. The results revealed that the moderating effect of firm-level institutions increases the relationship (multiple  $r$ ) between the co-aligned environment-strategy variables and TNAs as well as their explanatory power ( $R^2$ ). However, changes in  $R^2$  are not statistically significant (low F-values  $p > 0.05$ ). These results do not confirm hypothesis H7.

Appendices x-xii show a summary of the comparison between the effect of environment-strategy co-alignment on sales revenue without and with moderating variables. The results indicated that the moderating effect of firm-level institutions increases the relationship (multiple  $r$ ) between the co-aligned environment-strategy variables and sales revenue as well as their explanatory power ( $R^2$ ). However, change in the explanatory power is not statistically significant (low F-values,  $p > 0.05$ ). On the contrary, firm-level institutions change the results from significance to insignificance ( $p < 0.05$  to  $p > 0.05$ ) for the effect of environmental complexity co-aligned with defensiveness, strategic alliances, and divestiture on sales revenue. The same is also reported for environmental munificence co-aligned with strategic alliances. These results fail to confirm hypothesis H7.

A summary of the comparison between the effect of environment-strategy co-alignment on earnings per share (EPS) without and with moderating variables is presented in Appendices xiii-xv. The results revealed that the moderating effect of firm-level institutions increases the relationship (multiple  $r$ ) between the co-aligned environment-strategy variables and EPS as well as the explanatory power ( $R^2$ ) of the co-aligned variables over EPS. However, change in the explanatory power is not

statistically significant (low F-values,  $p > 0.05$ ). On the contrary, firm-level institutions change the results from significance to insignificance ( $p < 0.05$  to  $p > 0.05$ ) for the effect of environmental complexity co-aligned with strategic alliances and divestiture on EPS. The results do not provide support for hypothesis 7.

Appendices xvi-xviii summarize the comparison between the effect of environment-strategy co-alignment on return on investment (ROI) without and with moderating variables. The results indicated that firm-level institutions enhance the relationship (multiple  $r$ ) between the co-aligned environment-strategy variables and ROI as well as the explanatory power ( $R^2$ ) of the co-aligned variables over ROI. However, change in the explanatory power is not statistically significant (low F-values,  $p > 0.05$ ). Instead, firm-level institutions change the results from significance to non-significance (high F-values,  $p < 0.05$  to low F-values,  $p > 0.05$ ) for the effect of environmental complexity co-aligned with joint venture strategy as well as environmental munificence co-aligned with strategic alliances on ROI. The results fail to support hypothesis H7.

A further comparison between the effect of environment-strategy co-alignment on new product introduction without and with moderating variables is summarized in Appendices xix-xxi. The study findings show that the moderating effect of firm-level institutions increases the relationship (multiple  $r$ ) between the co-aligned environment-strategy variables and new product introduction as well as their explanatory power ( $R^2$ ). However, change in the explanatory power is not statistically significant (low F-values,  $p > 0.05$ ). On the contrary, firm-level institutions change the results from significance to insignificance ( $p < 0.05$  to  $p > 0.05$ ) for the effect of environmental complexity co-aligned with analysis, proactiveness, market development and product development on new product introduction. The same is also

reported for environmental dynamism co-aligned with analysis, proactiveness, market development and product development as well as for environmental munificence co-aligned with proactiveness. These results do not provide support for hypothesis 7.

A summary of the comparison between the effect of environment-strategy co-alignment on product/service quality without and with moderating variables is presented in Appendices xxii-xxiv. The results revealed that firm-level institutions improve the relationship (multiple  $r$ ) between the co-aligned environment-strategy variables and product/service quality as well as their explanatory power ( $R^2$ ). Nevertheless, change in the explanatory power is statistically not significant (low  $F$ -values,  $p > 0.05$ ). Instead, firm-level institutions change the results from significance to not significance ( $p < 0.05$  to  $p > 0.05$ ) for the effect of environmental complexity co-aligned with riskiness as well as the effect of environmental dynamism co-aligned with futurity and riskiness on product/service quality. The results fail to support the stated hypothesis.

Appendices xxv-xxvii provide a summary of the comparison between the effect of environment-strategy co-alignment on market share without and with moderating variables. The results indicated that firm-level institutions enhance the relationship (multiple  $r$ ) between the co-aligned environment-strategy variables and market share as well as their explanatory power ( $R^2$ ). However, change in the explanatory power is statistically insignificant (low  $F$ -values,  $p > 0.05$ ). On the contrary, firm-level institutions make the results not significant ( $p < 0.05$  to  $p > 0.05$ ) for the effect of environmental complexity co-aligned with analysis as well that of environmental dynamism co-aligned with analysis and market development on market share. These results do not support hypothesis 7.

Lastly, a comparison between the effect of environment-strategy co-alignment on operational efficiency without and with moderating variables is summarized in Appendices xxviii-xxx. The study findings show that firm-level institutions improve the relationship (multiple  $r$ ) between the co-aligned environment-strategy variables and operational efficiency as well as their explanatory power ( $R^2$ ). Just as in the previous cases, change in the explanatory power is statistically not significant (low  $F$ -values,  $p > 0.05$ ). Instead, firm-level institutions make results not significant ( $p < 0.05$  to  $p > 0.05$ ) for the effect of environmental munificence co-aligned with strategic alliances on operational efficiency. These results do not confirm hypothesis H7.

## **7.5 Discussion**

The fundamental view of fit propounded by strategic management researchers and organization theorists was that it is a dynamic search that seeks to align the organization with its environment and to arrange resources internally in support of that alignment (Miles & Snow, 1984). As such, we hypothesized that firm-level institutions play two critical roles. First, they have a direct effect on corporate performance and second, they moderate the relationship between environment-strategy co-alignment and corporate performance.

Firm-level institutions in the current study were descriptive of the internal organizational environment in which strategy implementation takes place. Vinzant & Vinzant (1996) argue that organizations must develop internal capability in order to deliver on their strategies and achieve positive performance. This study tested the hypothesized proposition that firm-level institutions have a significant effect on corporate performance. The results revealed that there is a strong relationship between

firm-level institutions and corporate performance (multiple  $r$  values  $>0.50$ ) and that firm-level institutions explain a fairly large proportion of change in the various measures of corporate performance ( $R^2$  ranges from 30.30% for PBT to 65.60% for TNAs).

Despite overall statistically not significant results (low  $F$ -values,  $p>0.05$ ), statistically significant effect for individual firm-level institutions on some measures of corporate performance is reported (high  $t$ -values,  $p<0.05$ ). These results are reported for the effect of organizational structure and financial resources on the companies' total net assets and that of organizational systems on the companies' ROI. The study also reports positive and negative effect for firm-level institutions on the various measures of performance. Human resources appeared to have a positive effect on most indicators of performance while financial resources appeared to have a negative effect.

Though the study results fail to support hypothesis H6, the findings are partially supportive of similar studies on the basis of the explanatory power of firm-level institutions over corporate performance. In their study on the relationships between intangible organizational elements and organizational performance, Carmeli & Tishler (2004) established that organizational performance can be well explained by intangible organizational elements among them managerial capabilities, human capital, internal auditing, labor relations, organizational culture, and perceived organizational reputation; and the interactions among them. Our results partially conform to attributions leveled for the role that firm-level institutions play in gaining and sustaining firm competitive advantage, hence safeguarding corporate performance (Wernerfelt, 1984; Barney, 1991; Foss & Knudsen, 2003; Wang et al, 2009).

The other hypothesized proposition (hypothesis H7) was that firm-level institutions moderate the relationship between environment-strategy co-alignment and corporate performance. The stated hypothesis that firm-level institutions have a significant moderating effect on the relationship between environment-strategy co-alignment and corporate performance was statistically tested. The basis for the confirmation of hypothesis H7 was the statistically significant change in the explanatory power ( $R^2$ ) of environment-strategy co-alignment brought about by the moderating effect of firm-level institutions.

For all the indicators of performance that were considered, the study results reported increase in the values of  $R^2$  upon the introduction of firm-level institutions in the regression analysis of the effect of co-aligned environment-strategy variables on various measures of corporate performance. However, the increase (change) in the explanatory power ( $R^2$ ) as a result of the moderating effect of firm-level institutions was statistically not significant (low F-value > 0.05) for all the performance indicators. On the contrary, firm-level institutions made some results statistically not significant. Consequently, the results failed to offer support for hypothesis 7.

While most studies have included some firm-level institutions as part of the co-alignment variables (Lim & Kim, 1988; Habib & Victor, 1991; Simerly & Mingfang, 2000; Madapusi, 2007; Sifa, 2009), this study considered a wider array of internal organizational variables and tested their direct effect on corporate performance as well as their moderating effect on the relationship between environment-strategy co-alignment and corporate performance. Given these differences in conceptualization, the current's study's findings partially concur with findings of past studies.



Despite failure to support the stated hypothesis, the results offer partial support to the contingency theory whose basic assertion is that the environment in which an organization operates determines the best way of managing (Betts, 1994). We established that developments in the various environmental aspects influence decision making in the surveyed organizations to a large extent (Table 4.14a). The results also offer partial support to resource based theory of the firm which emphasizes the firm's internal characteristics in order to explain why firms make different strategic choices that lead to different outcomes (performance) and how they use the resources and capabilities to enhance their ability to adapt to changing competitive environment (Pérez and Castillejo, 2008). The results show that the surveyed organizations manifest the various firm-level institutions to a very large extent (Table 7.1) and that some the firm-level institutions have statistically significant independent effect on some indicators of performance (Table 7.2b).

## **7.6 Chapter Summary**

The co-alignment literature posits that firms that only marginally resemble the ideal types (used to represent a holistic configuration of environment-strategy-organizational capability factors) would be less effective than firms that closely resemble them (Madapusi, 2007). The model developed in this study attempted to examine whether organizational capabilities (firm-level institutions) moderate the effect of environment-strategy co-alignment on corporate performance.

In this chapter we focused on testing the direct effect of firm-level institutions on corporate performance as well as their moderating effect on the relationship between environment-strategy co-alignment and corporate performance. We observed that a

very strong relationship exists between firm-level institutions and various indicators of corporate performance. This strong relationship was found to correspond to high explanatory power of the firm-level institutions over the various measures of corporate performance. Despite the high correlations and explanatory powers, the results were statistically insignificant at  $p=0.05$ , hence could not support the stated hypothesis.

Regarding the moderating effect of firm-level institutions, we established that firm-level institutions enhance the relationship between the environment-strategy co-alignment and corporate performance as well as the explanatory power of the co-aligned variables over the various indicators of corporate performance. However, the change in the explanatory power due to firm-level institutions was not statistically significant at  $p=0.05$ . On the contrary, their moderating effect made statistically significant results to be statistically not significant in some cases. Though not statistically significant, the results partially concurred with past empirical studies and offered partial support for theory.

# **CHAPTER EIGHT**

## **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **8.1 Introduction**

This final chapter presents a summary of the findings of this research as well as conclusions drawn from them. It also gives suggestions for further research and limitations of the study.

### **8.2 Summary**

Our main objective of this study was to determine the effect of environment-strategy co-alignment on the performance of publicly quoted companies in Kenya. This objective gave rise to four specific objectives: (i) to determine the effect of the external environment on corporate performance, (ii) to determine the effect of strategy on the corporate performance, (iii) to establish the effect of environment-strategy co-alignment on corporate performance, and (iv) to ascertain the effect of firm-level institutions on corporate performance and assess their moderating effect on the relationship between environment-strategy co-alignment and corporate performance. Out of these four objectives, seven hypotheses were stated for statistical testing. A summary of the findings will be presented based on each objective and corresponding hypotheses.

#### **8.2.1 The Effect of External Environment on Corporate Performance**

Broadly, the external environment can manifest as either complex, dynamic and/or munificent (Dess & Beard, 1984). We measured complexity as the number of issues organizations need to deal with in each of the fifteen aspects of the external environment that were used in the study and their similarity and/or dissimilarity. The

results of this study revealed that the various aspects of the external environment that are descriptive of the Kenyan business environment manifest complexity, dynamism and munificence to varying degrees.

In describing environmental complexity, economic factors and competitive rivalry received high ranking (mean scores = 3.96 and 3.83 respectively) and therefore present many issues that organizations need to deal with. On the other hand, ecological factors and trade unions' activities received low ranking (mean scores= 2.52 and 2.39 respectively) and therefore present few issues that organizations need to deal with. However, there was disparity across organizations on the number of issues they need to deal with in the various aspects of the external environment (statistically significant differences across the organizations on their rankings, Table 4.9a).

Environmental complexity was also described by the similarity and/or dissimilarity of the issues organizations need to deal with. The study established that the issues organizations need to deal in most environmental aspects are neither similar nor different (mean scores range from 2.57 for creditors' actions and threat of new entrants to 3.35 for technological factors). Somewhat similar issues were reported for trade unions' activities, bargaining power of suppliers and buyers, and threat of substitutes (mean scores < 2.48). However, there was variance across organizations on the extent to which the issues in these environmental aspects are somewhat similar to each other (statistically significant differences across the organizations on their rankings, Table 4.10a).

On the dynamism front, two issues were investigated namely predictability and changeability of the external environment. The study established that developments in

technological factors, competitive rivalry, and market factors had become more predictable. These were highly ranked (mean scores= 3.83, 3.70, and 3.61 respectively). However, there was lack of unanimity across organizations on the extent to which the developments in these environmental aspects had become more predictable (statistically significant differences were reported, Table4.11a). With regard to changeability, high ranking was reported for competitive rivalry, technological factors, economic factors, market factors, political factors, regulatory factors, and threat of new entrants (mean score range from 3.57 for threat of new entrants to 4.04 for competitive rivalry, Table4.12a). However, there was great disparity across organizations on how much great change they have observed in these environmental aspects for the last five years (2005-2009) (statistically significant differences were reported, Table4.12a).

Regarding environmental munificence, high ranking was reported for technological factors, market factors, economic factors, and regulatory factors (mean score range from 3.49 for regulatory factors to 3.91 for technological factors, Table 4.13a). However, there were variations across organization on the extent to which they were largely favourable (statistically significant differences were reported, Table4.13a).

The survey results also revealed that all the aspects of the external environment considered influence decision making in the sample companies. High ranking was reported for economic factors, market factors, regulatory factors, competitive rivalry, technological factors, political factors, threat of new entrants, and labour market dynamics (mean score range from 3.61 for labour market dynamics to 4.74 for economic factors). However, there were differing degrees across organizations on the perceived influence (statistically significant differences were reported, Table4.14a).

The rest of the aspects of the external environment influence decision making to a moderate extent. Consequently, all but one companies surveyed indicated that they regularly collect information on their external environment.

Further, the results revealed that each of the three environmental dimensions has statistically not significant positive effect on some indicators of performance as well as negative effect on others ( $p > 0.05$ ). We present a summary of the nature of individual effects as well hypothesis test results for the effect of external environment on corporate performance (Table 8.1).

**Table 8.1: Effect of External Environment on Performance**

	PBT	TNAs	Sales Revenue	EPS	ROI	New Product	Market Share	P/S Quality	Operational Efficiency
<b>Complexity</b>	+	+	+	+	+	-	+	-	+
<b>Dynamism</b>	+	+	+	-	-	-	-	-	-
<b>Munificence</b>	-	-	-	-	+	+	-	+	+
<b>Multiple r</b>	0.44	0.36	0.34	0.36	0.26	0.39	0.38	0.32	0.35
<b>R<sup>2</sup></b>	19%	13%	11%	13%	7%	15%	14%	11%	12%
<b>F-value</b>	1.48	0.93	0.80	0.93	0.44	1.11	1.05	0.74	0.87

**Source:** Research Data

The summary results (Table 8.1) show that there is a relationship between external environment and corporate performance (multiple r ranges from 0.26 for Return on Investment to 0.44 for Profit before Tax). The results also show that the external environment account for some proportion of change in corporate performance ( $R^2$  ranges from 7% for Return on Investment to 19% for Profit before Tax). However, the results were statistically not significant (low F-values,  $p > 0.05$ ) and therefore could not confirm hypothesis 1 (H1). It therefore means that the external environment in which Kenyan publicly quoted companies operate does not have a statistically significant effect on their performance. The results partially concur with past studies (Marlin et al, 1994; Kotha & Nair, 1995; Simerly & Mingfang, 2000) regarding the relationship

between external environment and performance as well its explanatory power over some indicators of performance.

Overall, it can be concluded that aspects of an organization's external environment manifest and affect it in different ways and to varying degrees. For the publicly quoted companies in Kenya, varying degrees of complexity, dynamism, and munificence tend to mostly manifest in economic factors, competitive rivalry, market factors, technological factors, regulatory factors as well as threat of new entrants. Consequently, these factors appear to have great influence in the companies' decision making. However, we fail to draw conclusive conclusions regarding the effect of their manifestation on the companies' performance because of the limitation of no-response by most organizations that were targeted.

### **8.2.2 The Effect of Organizational Strategy on Corporate Performance**

Two main perspectives of looking at organizational strategy pervade strategic management literature. First is the strategy process perspective and second is the strategy content perspective. However, no one perspective can offer a full and comprehensive description of a firm's strategic behavior. In this study, we operationalized organizational strategy as strategic orientations and strategy types. The results revealed that there is a very strong relationship between organizational strategy and corporate performance (multiple  $r > 0.70$ ), and that more than 50% variation in corporate performance is explained by organizational strategy (Table, 5.3a). The study also established that the companies leaned towards the strategic orientations of futurity, analysis, defensiveness, and proactiveness to a large extent during decision making. However, these strategic orientations characterized decision making to varying degrees across the studied organizations. It was further established

that the companies pursued market development, product development, and diversification strategy types to a large extent. Similarly, each of these strategy types was pursued to varying degrees across the surveyed companies.

The results revealed that most organizational strategy variables have statistically not significant positive effects on some indicators of performance as well as negative effect on others (low t-values,  $p > 0.05$ ). Statistically significant results were however reported for the individual positive effect of analysis on operational efficiency, futurity on sales revenue, market development on EPS, and joint ventures on EPS. On the other hand statistically significant results were reported for the individual negative effect of proactiveness on TNAs and divestiture on EPS (Table 8.2).

**Table 8.2: Effect of Organizational Strategy on Performance**

	PBT	TNAs	Sales Revenue	EPS	ROI	New Product	Market Share	P/S Quality	Operational Efficiency
Analysis	+	+	+	+	+	+	+	+	+**
Defensiveness	+	+	+	+	+	-	-	-	+
Futurity	-	-	+**	+	-	-	-	+	-
Riskiness	-	-	-	-	-	-	+	+	-
Proactiveness	-	-**	+	-	-	+	+	-	-
Concentration	+	+	+	+	-	+	+	-	+
Market development	-	-	-	+**	+	+	+	+	-
Product development	+	+	-	-	-	+	+	-	-
Diversification	+	-	-	-	-	+	+	-	+
Strategic alliances	-	-	-	-	-	+	-	+	-
Joint Ventures	+	-	-	+**	-	-	+	-	-
Divestiture	+	+	-	-**	-	-	-	-	-
Mergers	-	-	+	-	+	+	+	+	+
Acquisition	+	+	-	-	+	-	+	-	-
Multiple r	0.74	0.80	0.93	0.93	0.81	0.80	0.88	0.75	0.86
R <sup>2</sup>	55.3%	64.3%	87.3%	86.8%	65.4%	63.5%	76.9%	55.6%	74.3%
F-value	0.706	1.029	3.917**	3.745**	1.081	0.994	1.906	0.716	1.649
** : statistically significant results ( $p < 0.05$ )									



The summary results (Table 8.2) show statistical significance for the effect of organizational strategy on Sales Revenue and Earnings Per Share (F-values= 3.917 and 3.745 respectively,  $p < 0.05$ ). In spite of these results, results for the effect of strategy variables on most measures of performance were statistically not significant and therefore do not confirm hypothesis 2 (H2). These results point out that not all strategic orientations and/or strategy types that an organization adopts and/or pursues will have significant effect on its performance. Our results partially concur with Segev's (1987) findings that certain combinations of strategy types and strategy-making modes are more conducive to enhancing organizational performance than others.

From the results, a significant proportion of corporate performance that is explained by an organization's strategy clearly underscores the importance of strategy. However, the strategy's positive and significant effect on performance can be enhanced if an organization's strategic behaviour is an amalgam of appropriate strategy choices (Parker & Helms, 1992). For the publicly quoted companies in Kenya, a blend of different strategic orientations and strategy types seem to have varying effects on the various indicators of performance.

The results offer a further revelation that the joint effect of strategic orientations on corporate performance is greater than the sum total of the independent effect of the same variables. These findings provide a strong support that organizational strategic behaviour is effective when organizations exhibit some combinations at the same time than one at different times. Contrasting results were reported for the joint effect of strategy types and the sum total of independent effects of the same variables on corporate performance. To some extent, these results concur with those of Luo (1995)

that particular strategy choices significantly determine performance than others. The results also offer support to Porter's (1980) assertion that an organization cannot be everything to everybody; hence it cannot pursue multiple strategies at the same time and succeed.

### **8.2.3 The Effect of External Environment on Organizational Strategy**

All organizations are environment dependent and to manage this organization-environment interface, there is need for appropriate strategy choice. As observed by Tailor (1995), strategy links organizations with the external environment so much so that it enables managers to manage changes in the environment, hence enhancing organizational survival and growth. The survey results revealed that the three dimensions of the external environment (complexity, dynamism, and munificence) have statistically not significant independent positive effects on some organizational strategy variables as well as negative effects on others (low t-values,  $p > 0.05$ ).

However, statistically significant results were reported for the individual positive effect of environmental munificence on concentration, strategic alliances, and acquisition strategies (high t-values,  $p < 0.05$ ). On the other hand, statistically significant results were reported for the individual negative effect of environmental dynamism on merger strategy (Table 8.3).

**Table 8.3: Effect of External Environment on Organizational Strategy**

	Analysis	Defensiveness	Futurity	Riskiness	Proactiveness	Concentration	Market development	Product development	Diversification	Strategic alliances	Joint Ventures	Divestiture	Mergers	Acquisition
Complexity	+	+	+	+	-	+	+	+	-	+	+	+	+	+
Dynamism	-	-	-	-	-	-	-	-	-	-	-	-	**	-
Munificence	+	+	+	+	+	***	+	+	+	***	-	+	+	***
Multiple r	0.39	0.49	0.50	0.31	0.31	0.55	0.37	0.24	0.41	0.61	0.17	0.23	0.49	0.49
R <sup>2</sup> (%)	15.3	23.5	24.5	9.6	9.4	30.2	13.8	5.7	16.6	37.7	2.8	5.2	23.6	23.8
F-value	1.14	1.95	2.06	0.67	0.66	2.74	1.01	0.38	1.26	3.84**	0.18	0.35	1.96	1.98

\*\* : statistically significant results (p<0.05)

The results summary (Table 8.3) show that there is a relationship between external environment and organizational strategy (multiple r ranges from 0.23 for divestiture to 0.55 for concentration). The results also show that the external environment accounts for some proportion of change in corporate performance (R<sup>2</sup> ranges from 2.8% for joint ventures to 37.7 % for strategic alliances). Statistically significant results were reported for the effect of external environment on strategic alliances (F-value = 3.84, p<0.05). However, statistically not significant results were reported for all other strategy variables and could not confirm hypothesis 4 (H4). The results grossly contradicted our expectations that the external environment significantly influences organizational strategy.

#### 8.2.4 The Effect of External Environment-Strategy Co-alignment on Corporate Performance

The results of this study show the nature and degree of external environment-strategy co-alignment and resultant performance implications. The results show positive correlations between environment and strategy variables except for the correlation between environmental dynamism and merger strategy. Even though the correlations

were positive, most of them were statistically not significant at  $p=0.05$ . The results on performance implications of environment-strategy co-alignment were mixed and contradictory. The results revealed a weak to moderate fit between environment and strategy, and a fairly low explanatory power of environment-strategy co-alignment over various measures of corporate performance and statistically not significant results.

Further, there was no relationship between the strength/degree of co-alignment and the resultant effect of the co-aligned environment-strategy variables on the various indicators of performance. Our results do not concur with those of similar studies (Tan and Litschert (1994) and Luo & Park (2001) but partially support Venkatraman's (1990) findings which were largely inconsistent with Tan & Litschert (1994) and Luo & Park's (2001) studies. Even though the results grossly contradict our expectations of high and positive performance implications of environment-strategy co-alignment, we have provided evidence that a relationship exists between environment-strategy co-alignment and corporate performance.

### **8.2.5 The Effect of Firm-Level Institutions on Corporate Performance**

The results revealed that organizations manifest all the firm-level institutions that were considered in the study to varying degrees (mean scores range from 3.13 for systems to 4.35 for organizational structure, Table 7.1). However, the manifestation of the firm-level institutions is not uniform across the organizations (statistical differences reported, Table 7.1). These results mean that each organization manifests each of the firm-level institutions to varying degrees.

Further, the results show that most of the firm-level institutions have statistically not significant individual positive effects on some indicators of performance as well as negative effects on others ( $p>0.05$ ). However, statistically significant results are reported for the individual positive effect of systems on ROI and organizational culture on TNAs. On the other hand statistically not significant results are reported for the individual negative effect of financial resources on TNAs (Table 8.4).

**Table 8.4: Effect of Firm-Level Institutions on Corporate Performance**

	PBT	TNAs	Sales Revenue	EPS	ROI	New Product	Market Share	P/S Quality	Operational Efficiency
Structure	+	+	+	-	-	+	-	-	+
Management style	-	+	-	-	-	-	+	-	-
Internal Controls		-	+	-	-	+	+	+	+
Systems	+	+	-	+	***	-	+	-	-
Procedures	-	-	+	+	+	+	+	-	-
Financial Resources	-	**	-	-	-	-	-	+	-
Skills and Competencies	-	-	-	-	-	+	+	+	-
Knowledge base	-	-	-		-	+	-	+	+
Culture	+	***	+	+	-	-	-	-	+
Human Resources	+	+	+	-	+	+	+	+	+
Multiple r	0.65	0.81	0.69	0.55	0.76	0.61	0.60	0.66	0.65
R <sup>2</sup>	42.4%	65.6%	47.0%	30.3%	57.5%	37.6%	36.0%	44.1%	41.7%
F-value	0.885	2.288	1.064	0.522	1.620	0.723	0.675	0.948	0.859
** : statistically significant results ( $p<0.05$ )									

The summary results (Table 8.4) show that there is a strong relationship between firm-level institutions and the different measures of corporate performance (multiple r ranges from 0.55 for EPS to 0.81 for TNAs). The results also show that firm-level institutions account for some proportion of change in corporate performance (R<sup>2</sup> ranges from 30.3% for EPS to 65.6% for TNAs). However, the study reports

statistically not significant results for the effect of firm-level institutions on corporate performance (low F-values,  $p > 0.05$ ), hence could not support hypothesis 6 (H6).

Despite failure to confirm hypothesis 6 (H6), the results concur to some extent with Carmeli & Tishler's (2004) study on the basis of the variations in corporate performance that are accounted for by firm-level institutions. Carmeli and Tishler (2004) established that corporate performance can be well explained by intangible organizational elements among them managerial capabilities, human capital, internal auditing, labor relations, organizational culture, and perceived organizational reputation; and the interactions among them. The results also partially conform to further evidence on the role of firm-level institutions in sustaining corporate performance (Wernerfelt, 1984; Barney, 1991; Foss & Knudsen, 2003; Wang et al, 2007). Therefore, while organizations seek to align their strategy with developments in the external environment in order to be effective, there is also need to ensure that the internal organizational environment is conducive for the implementation of strategic decisions.

#### **8.2.6 The Moderating Effect of Firm-Level Institutions on the Relationship between External Environment-Strategy Co-alignment and Corporate Performance**

Over and above the direct effect that firm-level institutions have on corporate performance, they can also moderate the relationship between external environment-strategy co-alignment and performance. Then results reveal that there is positive change in the explanatory power ( $R^2$ ) upon the introduction of firm-level institutions in the regression analysis of the co-aligned environment-strategy variables and each measure of corporate performance. However, the positive change in the explanatory

power ( $R^2$ ) as a result of the moderating effect of firm-level institutions is statistically not significant (low F-values,  $p > 0.05$ ) for all the performance indicators. Contrary to our expectations, the moderating effect of firm-level institutions changes statistically significant results to statistically not significant. Consequently, the results fail to confirm hypothesis 7 (H7).

Though statistically not significant, our results provide partial support for most studies which have included some firm-level institutions (e.g. structure, IT systems) as part of the co-alignment variables (Lim & Kim, 1988; Habib & Victor, 1991; Simerly & Mingfang, 2000; Madapusi, 2007; Sifa, 2009). Areas of contradiction lie in the extent of inclusiveness of the internal organizational variables and the tests employed. This study also offers partial support to contingency and resource based theories. For contingency theory, the results show that developments in the various environmental aspects influence decision making in the surveyed organizations to a large extent. For the resource based theory the results show that the surveyed organizations manifest the various firm-level institutions to a very large extent and that some the firm-level institutions have statistically significant independent effect on some indicators of performance.

### **8.3 Conclusions**

This study's main objective was to determine the effect of environment-strategy co-alignment on the performance of publicly quoted companies in Kenya. To achieve this objective, we first tested the effect of external environment on the companies' performance. Second, we determined the effect of organizational strategy on the performance of the companies. We then tested the effect of external environment on

organizational strategy and measured the strength of environment-strategy co-alignment. We tested the effect of this co-alignment on the companies' performance. Further, we tested the moderating effect of firm-level institutions on the relationship between environment-strategy co-alignment and the companies' performance.

It was established that the effect of external environment of the companies' performance was statistically not significant. However, the study provided an indication of the nature of the independent effect of the external environmental dimensions (complexity, dynamism, munificence) on the various indicators of performance. Further, the study offered indication of the nature of the relationship between the external environment and the companies' performance as well as the variation in performance that is accounted for by the external environment.

It was also established that there was a strong relationship between organizational strategy and the companies' performance. Further, the study reported that more than 50% variation in the companies' performance was explained by organizational strategy. Statistically significant results were reported for the effect of organizational strategy on the companies' sales revenue and earnings per share. However, statistically not significant results were reported for the effect of organizational strategy on other measures of performance.

The overall effect of external environment on organizational strategy was not statistically significant. However, it was established that the external environment accounts for some variation in corporate performance. The strength of environment-strategy co-alignment was generally weak. The effect of this co-alignment on the



companies' performance was statistically not significant. Further, there was no relationship between the strength of co-alignment and the resultant effect of the co-aligned environment-strategy variables on the various indicators of performance. These results contradicted those of similar studies. This is largely explained by differences in operationalization across the studies and more importantly, low statistical power of this study's results due to low response rate.

Lastly, it was established that the moderating effect of firm-level institutions on the relationship between environment-strategy co-alignment and performance was statistically not significant. On the contrary, the firm-level institutions changed some statistically significant results to statistically not significant. However, the study provided evidence that there was a very strong relationship between firm-level institutions and the companies' performance.

## **8.4 Implications**

Out of the results of tests of hypotheses of the study and ensuing discussions, there are implications that have emerged. These implications could touch on the theory, methodology, and management practice.

### **8.4.1 Theoretical Implications**

Any study which is guided by empirically testable hypotheses serves the twin purpose of theory validation and/or theory falsification. However, this is possible when the results of a study have statistical power to address the relationships under study and pave way for definite conclusions on major theoretical propositions.

Despite reporting varying degrees of relationships amongst the variables of study, the current study's overall results for all the hypothesized relationships are statistically

not significant. Therefore, we could not be emphatic in terms of theory implications because of deficient statistical power inherent in the study due to high rate of non-response. However, the results lead to observations that are indicative of theoretical implications.

It was established that organizational strategy explains more than 50% of corporate performance. Even though the results exhibited statistical significance for some measures of corporate performance and not significant for others, the findings of this study imply that strategy is a critical component in determining corporate performance. The findings contribute to the general body of knowledge as well as providing basis for further development of theory and research particularly on particular strategic orientations and strategy choices by organizations.

The study reported low to moderate explanatory power of external environment on organizational strategy. These findings provide evidence that there could be other important determinants of organizational strategy other than the external environment. The study, therefore, provides a basis for advancing the frontiers of knowledge in the exploration of other possible determinants of organizational strategy other than the external environment.

This study had proposed for the direct effect of firm-level institutions on corporate performance as well as their moderating effect on the relationship between environment-strategy co-alignment and corporate performance. The results indicate that firm-level institutions account for relatively high variation in corporate performance and that their moderating effect enhances the explanatory power of environment-strategy co-alignment over corporate performance. The study provides

evidence of the pivotal role that the internal environment of an organization plays in determining corporate performance. It therefore provides some support for the resource based theory whose major emphasis is on how possession of strategic resources and capabilities enables organizations to gain and sustain competitive advantage.

#### **8.4.2 Methodological Implications**

The fact that the results of this study have not provided statistically significant support for all the hypothesized relationships serves as a basis for methodological implications. The principal focus of this study, as that of much research was post hoc explanations of statistical relationships. As proposed by Lenz (1981), there is need to explore the processes which cause these relationships. This therefore implies that methodological choices should go beyond the choice of statistical models to explore and test interactions among the various variables that are under study.

The choice of regression and correlation analysis as statistical approaches had great bearing of the post hoc statistical relationships reported in this study. Given that the focus of the study was predominantly testing the statistical significance of the effect of the independent variables on the dependent variable, the choice of the prop-value has implications for the statistical significance of the results. Therefore, statistically not significant results may turn out to be statistically significant if the prop-value changes.

#### **8.4.3 Managerial Implications**

The study findings indicated that the Kenyan business environment demonstrate different degrees of complexity, dynamism, and munificence. This implies that the

organizations should scale up their external environment scanning in order to put in place appropriate strategic behavior.

The study had hypothesized that the joint effect of strategic orientations and strategy types on corporate performance is greater than the sum total of the independent effect of the same variables on corporate performance. The findings reported mixed results. This has critical managerial implications in terms of assessing the synergistic advantages of adopting particular combinations of strategic orientations and choice of particular strategies.

The study also reported positive effects of the various firm-level instructions on some indicators of corporate performance as well as negative effects on others. Positive effect implies that the more and/or adequate a particular internal organizational aspect is, the higher the contribution to a particular performance indicator. The reverse is true for the negative effect. This puts management on the alert to ensure that internal obstacles to effective implementation of decisions are identified and minimized. Therefore, the study implies that managers' focus should not only be in building organizational capacity to scan and understand the implications of the developments in the external environment but also on building both general management and organizations' functional capability (Ansoff and McDonnell, 1990) because of their enormous influence in the efficiency and effectiveness with which strategies are translated into action and action into results, results that are also acceptable.

### **8.5 Limitations of the Study**

The findings of this study should be interpreted and understood within the confines of inherent limitations. First, this study did not achieve 100% response rate. This is

because of high rate of non-response occasioned by most target companies' restrictive policies and reluctance of the targeted respondents to return back the questionnaires and accept to be interviewed. Coupled with limited time and resources, efforts of obtaining more responses were greatly hampered. Therefore the results could have improved if more data were obtained for analysis. This explains why there is lack of statistical power in the results that can inform convincing conclusions.

Second, the study used the Likert scale as a predominant measurement scale. Whereas Likert type scales are the most commonly used in social sciences and business/management, they have inherent limitations as pointed out in chapter three. In as much as care was taken to minimize the effects of those limitations by way of triangulation, we submit that some of the limitations are expected to be inherent in the conclusions drawn out of this study.

Third, the study predominantly utilized regression and correlation analysis in testing the various relationships between and among various variables. This choice was made with assumption that the relationships were linear. There is a possibility that the relationships between and among the variables is non-linear and therefore testing their relationships using non-linear regression models is likely to lead to different results.

Fourth, the sampling frame was limited to publicly quoted companies in the Nairobi Stock Exchange. This means that there are many categories of organizations that were not covered by this study. Given that majority of the targeted companies did not participate in the study, there is limitation on the extent to which these results could be generalized across all the publicly quoted companies in Kenya. Therefore, the

findings and conclusions drawn here might not apply to all the publicly quoted companies in Kenya as well as those in other categories that were not covered.

Lastly, the study adopted a cross-sectional research design in which averages for corporate performance data for a five year period (2005-2009) were used. The results of this study are therefore limited to cross-sectional data without the possibility of unearthing the effect of the time period between which strategic decisions were made and their effect on companies' performance. The design did not also provide for in-depth investigation probes to unearth the unique underlying issues on a case by case basis. In spite of these limitations, the study did not detract from the overall research robustness, authenticity, quality of data and value.

## **8.6 Suggestions for Further Research**

Arising from some of the implications and limitations of the study, some recommendations for further research are posited. The study predominantly relied on regression and correlation analysis to test the hypothesized relationships which were assumed to be linear. Although these approaches were best suited for testing the assumed relationships under study, the results of the tests were statistically not significant. While this does not invalidate the results of the study, more research is required that will utilize non-linear regression models as well as different operationalization of the variables that will also allow for use of other analytical techniques to test the hypothesized relationships for this study.

The study had the limitation of the sampling frame from which the surveyed companies were picked from. Given the limitation, a similar study is necessary in

other types of organizations (e.g. Wholly State Owned Enterprises, NGOs, SMEs, etc) in order to validate and/or enhance this study's findings.

This study was purely cross-sectional in nature whose inherent limitations have been pointed out. Therefore, a similar study that will adopt either a longitudinal or case study research design is recommended in order to provide for a longer time frame for studying the organizations on the various variables and the relationships among them as well as provide for in-depth detailed probes to unearth other underlying issues/factors.

Finally, this study provided evidence for inconsistencies regarding the effect of external environment, organizational strategy, environment-strategy co-alignment, and firm-level institutions on corporate performance as well as the moderating effect of firm-level institutions on the relationship between environment-strategy co-alignment and performance. This supports the possibility that important complexities may have been overlooked (Venkatraman & Prescott, 1990) more especially regarding conceptualization and measurement and that such omissions create opportunities for further research.

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# APPENDICES

## Appendix I: Research Questionnaire

This questionnaire is designed to collect data from listed companies in the Nairobi Stock Exchange on environment-strategy co-alignment and organizational 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.

### Part I: Organizational and Respondent Profile

1. Year of incorporation \_\_\_\_\_
2. Country of incorporation \_\_\_\_\_
3. Industry/Sector \_\_\_\_\_
4. Scope of operation (Tick as appropriate)
  - i. National (within Kenya)
  - ii. Regional (within East Africa)
  - iii. Continental (within Africa)
  - iv. Global (within Africa and beyond)
5. Ownership structure (Tick as appropriate)
  - i. Fully Locally owned
  - ii. Fully Foreign owned
  - iii. Both locally and foreign owned

Percentage of ownership: Local \_\_ %; Foreign \_\_ %
6. Size of organization (number of employees) (Tick as appropriate)

Below 200	[ <input type="checkbox"/> ]	Between 402-600	[ <input type="checkbox"/> ]
Between 201-400	[ <input type="checkbox"/> ]	601 and above	[ <input type="checkbox"/> ]
7. Names (Types) of products/services offered to the market  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Title of interviewee \_\_\_\_\_
9. How long have you been with this company? \_\_\_\_\_ years
10. What is your role in the company's strategic planning process?

### Part II: Environment

One aspect of this study in the environment which consists of all external factors considered during your firm's decision making process. On the basis of the implications of developments in the various sectors of the environment to your firm, please provide answers to questions in this section.

11. Does your firm regularly collect information on its external environment?  
Yes [  ]                      No [  ]

12. If Yes in (11) above, how is the exercise conducted and who is in charge?
13. How can you describe the business environment in which your firm operates?
14. To what extent does each of the following factors in the external environment have influence on decision making in your firm? **TICK** as appropriate.

**Key:**

1-Not at all; 2-Less extent; 3- Moderate extent; 4- Large extent; 5-Very large extent

<b>Environmental Factors</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Political factors					
Economic factors					
Technological factors					
Socio-Cultural factors					
Regulatory factors					
Ecological factors					
Your Creditor's actions					
Market factors (customer behavior)					
Labour market dynamics					
Trade unions' activities					
Threat of new entrants into your firm's industry					
Bargaining power of suppliers over your firm					
Threat of substitute products/services					
Bargaining power of buyers over your firm					
Competition in the industry					

15. To what extent have developments in each of these factors been favorable to your firm during the last five years?

**Key:**

1-Not at all; 2-Less extent; 3- Moderate extent; 4- Large extent; 5-Very large extent

<b>Environmental Factors</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Political factors					
Economic factors					
Technological factors					
Socio-Cultural factors					
Regulatory factors					
Ecological factors					
Your Creditor's actions					
Market factors (customer behavior)					
Labour market dynamics					
Trade unions' activities					
Threat of new entrants into your firm's industry					
Bargaining power of suppliers over your firm					
Threat of substitute products/services					
Bargaining power of buyers over your firm					
Competition in the industry					



16. To what extent have the developments in each of these factors become more predictable?

**Key:**

1-Not at all; 2-Less extent; 3- Moderate extent; 4- Large extent; 5-Very large extent

<b>Environmental Factors</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Political factors					
Economic factors					
Technological factors					
Socio-Cultural factors					
Regulatory factors					
Ecological factors					
Your Creditor's actions					
Market factors (customer behavior)					
Labour market dynamics					
Trade unions' activities					
Threat of new entrants into your firm's industry					
Bargaining power of suppliers over your firm					
Threat of substitute products/services					
Bargaining power of buyers over your firm					
Competition in the industry					

17. In each set of factors, how much change have you observed in the last five years?

**Key:**

1-No change at all; 2-Little; 3- Moderate change; 4- Great change; 5-Dramatic change

<b>Environmental Factors</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Political factors					
Economic factors					
Technological factors					
Socio-Cultural factors					
Regulatory factors					
Ecological factors					
Your Creditor's actions					
Market factors (e.g. customer behavior, number of customer groups)					
Labour market dynamics					
Trade unions' activities					
Threat of new entrants into your firm's industry					
Bargaining power of suppliers over your firm					
Threat of substitute products/services					
Bargaining power of buyers over your firm					
Competition in the industry					

18. In each set of environmental factors, how many issues does your firm need to deal with? (for example types of customer groups)

**Key:**

1-None at all; 2-Very few; 3- Moderate number; 4- Many; 5-Very many

Environmental Factors	1	2	3	4	5
Political factors					
Economic factors					
Technological factors					
Socio-Cultural factors					
Regulatory factors					
Ecological factors					
Your Creditor's actions					
Market factors (customer behavior)					
Labour market dynamics					
Trade unions' activities					
Threat of new entrants into your firm's industry					
Bargaining power of suppliers over your firm					
Threat of substitute products/services					
Bargaining power of buyers over your firm					
Competition in the industry					

19. Following question (18) above, are the issues different from or similar to each other?

**Key:**

1-Similar; 2-Somewhat Similar; 3- Neither similar nor different; 4- Somewhat Different; 5- Different

Environmental Factors	1	2	3	4	5
Political factors					
Economic factors					
Technological factors					
Socio-Cultural factors					
Regulatory factors					
Ecological factors					
Your Creditor's actions					
Market factors (customer behavior)					
Labour market dynamics					
Trade unions' activities					
Threat of new entrants into your firm's industry					
Bargaining power of suppliers over your firm					
Threat of substitute products/services					
Bargaining power of buyers over your firm					
Competition in the industry					

**Part III: Strategy**

20. Another aspect of this study is strategy. For purposes of this study, strategy is represented by the strategic orientation exhibited during strategic decision making process and the strategy types adopted as a result. Please use such decisions your firm has made in the last five years as the frame of reference when answering the questions in this section. Please indicate the extent to which decision making in your firm is described by each of the following statements. Use the keys provided to TICK as appropriate.

**Key:**

1-Not at all; 2-Less extent; 3- Moderate extent; 4- Large extent; 5-Very large extent

Strategic Decision Process		1	2	3	4	5
i.	In making strategic decisions, we look into the future to anticipate conditions.					
ii.	We are willing to sacrifice short-term profitability for long-term goals.					
iii.	We emphasize investments that will provide us with a future competitive edge.					
iv.	In making strategic decisions, we constantly seek to introduce new brands or new products in the market					
v.	In making strategic decisions, we respond to signals of opportunities quickly					
vi.	In making strategic decisions, we emphasize planning techniques and information systems					
vii.	In analyzing situations, we evaluate possible consequences thoroughly and obtain alternatives.					
viii.	We seek opportunities that have been shown to be promising.					
ix.	We emphasize the use of cost control systems for monitoring performance.					
x.	We search for big opportunities, and favour large, bold decisions despite the uncertainty of their outcomes.					
xi.	We approve new projects on a 'stage-by-stage' basis rather than with 'blanket' approval.					

xii. In making strategic decisions, we tend to focus on investments that have:

- Low risk and low return [ ]
- Low risk and moderate return [ ]
- Moderate risk and moderate return [ ]
- High risk and moderate return [ ]
- High risk and high return [ ]

21. In the last five years, to what extent have strategic decisions resulted into pursuing each one of the following strategies? Use the key below and TICK as appropriate.

**Key:**

1-Not at all; 2-Less extent; 3- Moderate extent; 4- Large extent; 5-Very large extent

Resultant Strategy		1	2	3	4	5
i.	Concentration					
ii.	Market development					
iii.	Product development					
iv.	Diversification					
v.	Strategic alliances					
vi.	Joint ventures					

vii. Divestiture					
viii. Merger					
ix. Acquisition					

**Part IV: Firm-Level Institutions**

**a) Administrative Systems**

22. To what extent does your organization manifest the following aspects in its administrative systems? Use the key below and TICK as appropriate.

**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

Aspect	1	2	3	4	5
i. There is clear assigning of responsibility for various tasks of strategy implementation.					
ii. Whenever there is need, an appropriate and suitable organizational structure has always been put in place to support the implementation of strategy.					
iii. The systems used to manage the organization have always been adapted to support strategy implementation.					
iv. The work processes are highly automated					
v. Decision making is highly automated					
vi. Management always reviews the reward structure to ensure competitiveness.					
vii. Decision-making process is highly decentralized.					
viii. Various systems and processes have been enforced to closely monitor what individuals are doing in respect to what they are supposed to be doing.					
ix. Employees are encouraged to participate in contributing ideas to better enhance effective strategy implementation.					

**b) Resources and Competencies**

23. To what extent does your organization manifest the following aspects in its resources and competencies? Use the key below and TICK as appropriate.

**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

Aspect	1	2	3	4	5
i. Enough resources have always been provided to all departments/sections to carry out key tasks of strategy implementation.					
ii. The need for retraining the workforce and management of change has always been taken into account.					
iii. Management always ensures there is enough qualified and professional staff to implement the organization's strategy.					
iv. Possession of superior and valuable resources e.g market intelligence.					
v. Developing brand equity					
vi. Possession of rare resources.					

vii. Continuous learning on how to do things better.					
viii. Possession of tacit/implicit/intangible knowledge embedded in the organizational culture.					
ix. Ability to analyze and predict the behaviour of competition..					
x. Highly charged, motivated and loyal employees					
xi. Rare, valuable, and imperfectly imitable organizational culture					
xii. High level of customer service quality					

#### Part V: Corporate Performance

24. Do you think aligning your firm's strategic behaviour with environmental developments has had any impact in the firm's performance? Explain.

25. Please indicate the extent to which the following statements describe your firm's performance over the past five years. Use the key to TICK as appropriate

#### 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

Statement	1	2	3	4	5
i. We have introduced new products in the last five years.					
ii. Our market share has been improving over the years.					
iii. Our product/service quality has improved for the last five years.					
iv. Our operational efficiency has been increasing over the years.					

26. In your view, what could you consider to be the consequences of misaligning your firm's strategy with environmental developments?

27. If your firm is foreign-owned, how does this affect the firm's strategic orientation with respect to its response to local business environmental conditions?

28. Please give any other general comments as relates to your firm and the environment in which it operates.

**END**

**Thank you for your time and cooperation**

## Appendix II: NSE Listed Companies as at June 30<sup>th</sup> 2010

1. Rea Vipingo Ltd.
2. Sasini Tea & Coffee Ltd.
3. Kakuzi Ltd.
4. Access Kenya Group
5. Marshalls E.A. Ltd.
6. Car & General Ltd.
7. Kenya Airways Ltd.
8. CMC Holdings Ltd.
9. Nation Media Group Ltd.
10. TPS (Serena) Ltd.
11. ScanGroup Ltd.
12. Standard Group Ltd.
13. Safaricom Ltd.
14. Barclays Bank of Kenya Ltd.
15. CFC Stanbic Bank Ltd.
16. Housing Finance Ltd.
17. Centum Investment Ltd.
18. Kenya Commercial Bank Ltd.
19. National Bank of Kenya Ltd.
20. Pan Africa Insurance Holdings Co. Ltd
21. Diamond Trust Bank of Kenya Ltd.
22. Jubilee Insurance Co. Ltd
23. Standard Chartered Bank Ltd.
24. NIC Bank Ltd.
25. Equity Bank Ltd.
26. Olympia Capital Holdings Ltd
27. The Co-operative Bank of Kenya Ltd.
28. Kenya Re-Insurance Ltd.
29. Athi River Mining Ltd.
30. BOC Kenya Ltd.
31. British American Tobacco Kenya Ltd.
32. Carbacid Investments Ltd. .
33. E.A. Cables Ltd.
34. E.A. Breweries Ltd.
35. Sameer Africa Ltd.
36. Kenya Oil Ltd.
37. Mumias Sugar Company Ltd.
38. Unga Group Ltd.
39. Bamburi Cement Ltd.
40. Crown berger (K) Ltd.
41. E.A Portland Cement Co. Ltd.
42. Kenya Power & Lighting Co. Ltd.
43. Total Kenya Ltd.
44. Eveready East Africa Ltd.
45. Kengen Ltd.
46. A.Baumann & Co.Ltd Ord
47. City Trust Ltd Ord
48. Eaagads Ltd Ord
49. Express Ltd Ord
50. Williamson Tea Kenya Ltd Ord
51. Kapchorua Tea Co. Ltd Ord Ord
52. Kenya Orchards Ltd Ord
53. Limuru Tea Co. Ltd Ord

## Appendix IIIa: Researcher Letter of Introduction

Machuki N. Vincent  
University of Nairobi,  
P.O Box 30197, 00100,  
Nairobi.  
Tel. 0721-687001; 0751-506569  
E-mail: [mnvincent@yahoo.com](mailto:mnvincent@yahoo.com);  
[machuki.vincent@gmail.com](mailto:machuki.vincent@gmail.com)

The Management,  
...Company Name...,  
P.O Box –Number--, ..Code...,  
..Town/City, Kenya.

### **RE: REQUEST FOR ACADEMIC RESEARCH DATA**

I am writing to kindly request for permission to obtain data from your organization for the above-mentioned purpose. I am a doctoral candidate at the University of Nairobi, School of Business and as part of the requirements for the award of the degree I am conducting research on **Environment-Strategy Co-alignment and Performance of Publicly Quoted Companies in Kenya**.

Given that your firm is listed in the Nairobi Stock Exchange, you have been identified as one of the target respondents among other firms listed in the NSE spanning all sectors of the economy. I therefore request you allow me to collect data that are pertinent for the research. My mode of data collection is through personal interviews and administration of questionnaires. The administration of questionnaires will be preceded by a short interview of between 10-15 minutes. Consequently, I am targeting at least **Two Respondents** from your organization at Senior/Top Management Level: **Manager** in charge of **Corporate Strategy/Planning** and **Manager** in charge of **Marketing**.

I assure that the information collected will be used purely for this academic research and I guarantee utmost confidentiality. I have attached a letter from the University certifying my candidature, a copy of the interview guide, and a copy of the questionnaire. I intend to book appointments with the identified respondents to conduct the interviews after-which they will fill the questionnaires upon clarifying issues that may arise. A copy of the findings will be availed to you upon request.

Thank you,  
Yours Faithfully

Machuki N. Vincent  
PhD. Candidate



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

Telephone: 4184160/1-5 Ext. 204  
Email: [commerce@uonbi.ca.ke](mailto:commerce@uonbi.ca.ke)

P.O. Box 30197  
Nairobi, Kenya

18<sup>th</sup> May, 2010

**To WHOM IT MAY CONCERN**

**RE: MACHUKI VINCENT NYASAKA – D80/80026/2007**

This is to certify that **Machuki Vincent Nyasaka – D80/80026/2007** is a Ph.D candidate at the School of Business, University of Nairobi. His study is entitled **“Environment-Strategy Co-alignment and Performance of Publicly Quoted Companies in Kenya.”**

The purpose of this letter therefore, is to kindly request you to assist and facilitate in carrying out the research in your organization. His mode of data collection is both through interviews and questionnaire administration a copy of which is herewith attached for your kind consideration and necessary action.

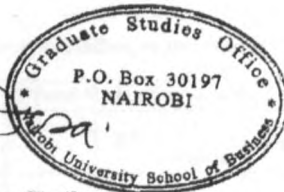
Data and information obtained through this exercise will be used for academic purposes only. Hence, the respondents are requested not to indicate their names anywhere on the questionnaire.

We look forward to your cooperation.

Thank you.

A handwritten signature in black ink, appearing to read 'E. Aosa'.

**Prof. Evans Aosa**  
**Associate Dean**  
**Graduate Business Studies**  
**School of Business**





**Appendix IV: Moderating effect of firm-level institutions on the effect of environment (complexity)-Strategy (orientations and types) Co-alignment on PBT**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
PBT= f(complexity, analysis, firm-level institutions)	32	.429	.184	2.257	.131	32	0.721	0.521	0.905	0.572
PBT= f(complexity, defensiveness, firm-level institutions)	32	.417	.174	2.106	.148	32	0.668	0.446	0.672	0.746
PBT= f(complexity, futurity, firm-level institutions)	32	.417	.174	2.110	.147	32	0.679	0.461	0.712	0.715
PBT= f(complexity, riskiness, firm-level institutions)	32	.418	.175	2.119	.146	32	0.671	0.450	0.681	0.739
PBT = f(complexity, proactiveness, firm-level institutions)	32	.421	.177	2.148	.143	32	0.676	0.456	0.700	0.725
PBT = f(complexity, concentration, firm-level institutions)	32	.448	0.201	2.512	0.106	32	0.680	0.462	0.715	0.712
PBT = f(complexity, market development, firm-level institutions)	32	.433	0.188	2.313	0.125	32	0.805	0.648	1.531	0.254
PBT = f(complexity, product development, firm-level institutions)	32	.528	0.279	3.867	0.038	32	0.858	0.736	2.325	0.095
PBT = f(complexity, diversification, firm-level institutions)	32	.446	0.199	2.486	0.109	32	0.723	0.523	0.914	0.565
PBT = f(complexity, strategic alliances, firm-level institutions)	32	.532	0.283	3.954	0.036	32	0.766	0.586	1.181	0.402
PBT = f(complexity, joint venture, firm-level institutions)	32	.422	0.178	2.168	0.141	32	0.669	0.448	0.675	0.743
PBT = f(complexity, divestiture, firm-level institutions)	32	.418	0.175	2.118	0.146	32	0.707	0.500	0.833	0.623
PBT = f(complexity, merger, firm-level institutions)	32	.423	0.179	2.174	0.140	32	0.705	0.497	0.825	0.630
PBT = f(complexity, acquisition, firm-level institutions)	32	.417	0.174	2.109	0.148	32	0.690	0.476	0.757	0.681

**Firm-Level Institutions:** Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences

**Appendix V: Moderating effect of firm-level institutions on the effect of environment (dynamism)-Strategy(orientations and types) Co-alignment on PBT**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
PBT = f(dynamism, analysis, firm-level institutions)	32	.321	.103	1.149	.337	32	0.721	0.520	0.903	0.573
PBT = f(dynamism, defensiveness, firm-level institutions)	32	.285	.081	.882	.430	32	0.670	0.449	0.680	0.740
PBT = f(dynamism, futurity, firm-level institutions)	32	.271	.074	.796	.465	32	0.678	0.460	0.710	0.716
PBT = f(dynamism, riskiness, firm-level institutions)	32	.284	.081	.877	.431	32	0.672	0.451	0.685	0.736
PBT = f(dynamism, proactiveness, firm-level institutions)	32	.273	.075	.808	.460	32	0.672	0.451	0.685	0.736
PBT = f(dynamism, concentration, firm-level institutions)	32	.286	.082	.888	.427	32	0.671	0.450	0.682	0.739
PBT = f(dynamism, market development, firm-level institutions)	32	.326	.106	1.189	.325	32	0.793	0.629	1.413	0.296

PBT = f(dynamism, product development, firm-level institutions)	32	.449	.201	2.523	.105	32	0.856	0.733	2.284	0.100
PBT = f(dynamism, diversification, firm-level institutions)	32	.298	.089	.974	.395	32	0.722	0.521	0.906	0.571
PBT = f(dynamism, strategic alliances, firm-level institutions)	32	.406	.165	1.975	.165	32	0.741	0.549	1.015	0.498
PBT = f(dynamism, joint venture, firm-level institutions)	32	.268	.072	.772	.475	32	0.669	0.447	0.675	0.744
PBT = f(dynamism, divestiture, firm-level institutions)	32	.284	.081	.879	.431	32	0.709	0.503	0.842	0.616
PBT = f(dynamism, merger, firm-level institutions)	32	.310	.096	1.063	.364	32	0.721	0.520	0.902	0.573
PBT = f(dynamism, acquisition, firm-level institutions)	32	.269	.072	.777	.473	32	0.694	0.481	0.772	0.669
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix VI: Moderating effect of firm-level institutions on the effect of environment (munificence)-Strategy(orientations and types) Co-alignment on PBT**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
PBT = f(munificence, analysis, firm-level institutions)	32	0.225	0.050	0.531	0.596	32	0.719	0.517	0.892	0.581
PBT = f(munificence, defensiveness, firm-level institutions)	32	0.165	0.027	0.279	0.760	32	0.663	0.439	0.653	0.761
PBT = f(munificence, futurity, firm-level institutions)	32	0.162	0.026	0.270	0.766	32	0.695	0.482	0.777	0.665
PBT = f(munificence, riskiness, firm-level institutions)	32	0.141	0.020	0.202	0.819	32	0.665	0.442	0.660	0.756
PBT = f(munificence, proactiveness, firm-level institutions)	32	0.091	0.008	0.083	0.921	32	0.664	0.441	0.659	0.756
PBT = f(munificence, concentration, firm-level institutions)	32	0.152	0.023	0.237	0.791	32	0.658	0.433	0.636	0.773
PBT = f(munificence, market development, firm-level institutions)	32	0.224	0.050	0.530	0.597	32	0.805	0.647	1.531	0.254
PBT = f(munificence, product development, firm-level institutions)	32	0.402	0.162	1.927	0.172	32	0.856	0.734	2.295	0.099
PBT = f(munificence, diversification, firm-level institutions)	32	0.214	0.046	0.480	0.626	32	0.739	0.546	1.004	0.505
PBT = f(munificence, strategic alliances, firm-level institutions)	32	0.365	0.133	1.534	0.240	32	0.736	0.542	0.985	0.517
PBT = f(munificence, joint venture, firm-level institutions)	32	0.089	0.008	0.080	0.923	32	0.657	0.432	0.634	0.775
PBT = f(munificence, divestiture, firm-level institutions)	32	0.139	0.019	0.196	0.824	32	0.729	0.531	0.943	0.545
PBT = f(munificence, merger, firm-level institutions)	32	0.160	0.026	0.264	0.771	32	0.701	0.491	0.805	0.644
PBT = f(munificence, acquisition, firm-level institutions)	32	0.090	0.008	0.082	0.922	32	0.687	0.472	0.746	0.689
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix VII: Moderating effect of firm-level institutions on the effect of environment (complexity)-Strategy (orientations and types) Co-alignment on TNAs**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
TNAs = f(complexity, analysis, firm-level institutions)	32	.320	.103	1.144	.339	32	0.822	0.676	1.740	0.194
TNAs = f(complexity, defensiveness, firm-level institutions)	32	.324	.105	1.175	.329	32	0.821	0.675	1.729	0.197
TNAs = f(complexity, futurity, firm-level institutions)	32	.320	.103	1.145	.338	32	0.811	0.657	1.598	0.233
TNAs = f(complexity, riskiness, firm-level institutions)	32	.342	.117	1.328	.287	32	0.868	0.753	2.541	0.075
TNAs = f(complexity, proactiveness, firm-level institutions)	32	.330	.109	1.220	.316	32	0.813	0.662	1.630	0.223
TNAs = f(complexity, concentration, firm-level institutions)	32	.341	.116	1.318	.290	32	0.824	0.679	1.760	0.189
TNAs = f(complexity, market development, firm-level institutions)	32	.448	.200	2.506	.107	32	0.811	0.657	1.597	0.233
TNAs = f(complexity, product development, firm-level institutions)	32	.324	.105	1.172	.330	32	0.833	0.694	1.893	0.160
TNAs = f(complexity, diversification, firm-level institutions)	32	.347	.120	1.370	.277	32	0.818	0.669	1.681	0.209
TNAs = f(complexity, strategic alliances, firm-level institutions)	32	.320	.103	1.145	.338	32	0.811	0.658	1.601	0.232
TNAs = f(complexity, joint venture, firm-level institutions)	32	.391	.153	1.805	.190	32	0.813	0.661	1.624	0.225
TNAs = f(complexity, divestiture, firm-level institutions)	32	.323	.104	1.162	.333	32	0.844	0.713	2.066	0.130
TNAs = f(complexity, merger, firm-level institutions)	32	.358	.128	1.468	.254	32	0.812	0.659	1.607	0.230
TNAs = f(complexity, acquisition, firm-level institutions)	32	.330	.109	1.226	.315	32	0.810	0.657	1.594	0.234
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix VIII: Moderating effect of firm-level institutions on the effect of environment (dynamism)-Strategy(orientations and types) Co-alignment on TNAs**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
TNAs = f(dynamism, analysis, firm-level institutions)	32	.303	.092	1.008	.383	32	.831	.690	1.858	.167
TNAs = f(dynamism, defensiveness, firm-level institutions)	32	.301	.090	.994	.388	32	.836	.699	1.935	.152
TNAs = f(dynamism, futurity, firm-level institutions)	32	.301	.090	.995	.387	32	.836	.699	1.937	.152
TNAs = f(dynamism, riskiness, firm-level institutions)	32	.311	.096	1.068	.363	32	.888	.788	3.105	.041
TNAs = f(dynamism, proactiveness, firm-level institutions)	32	.319	.102	1.136	.341	32	.824	.678	1.757	.190
TNAs = f(dynamism, concentration, firm-level institutions)	32	.338	.114	1.291	.297	32	.836	.698	1.927	.154
TNAs = f(dynamism, market development, firm-level institutions)	32	.400	.160	1.900	.176	32	.823	.677	1.748	.192

TNAs = f(dynamism, product development, firm-level institutions)	32	.307	.094	1.039	.372	32	.840	.706	2.005	.139
TNAs = f(dynamism, diversification, firm-level institutions)	32	.311	.097	1.071	.361	32	.825	.680	1.775	.186
TNAs = f(dynamism, strategic alliances, firm-level institutions)	32	.301	.091	.997	.387	32	.823	.678	1.752	.191
TNAs = f(dynamism, joint venture, firm-level institutions)	32	.392	.154	1.815	.189	32	.825	.680	1.773	.186
TNAs = f(dynamism, divestiture, firm-level institutions)	32	.313	.098	1.089	.356	32	.842	.709	2.029	0.135
TNAs = f(dynamism, merger, firm-level institutions)	32	.312	.097	1.080	.359	32	.823	.677	1.750	0.192
TNAs = f(dynamism, acquisition, firm-level institutions)	32	.306	.094	1.032	.375	32	.823	.677	1.750	0.192
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix IX: Moderating effect of firm-level institutions on the effect of environment (munificence)-Strategy(orientations and types) Co-alignment on TNAs**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
TNAs = f(munificence, analysis, firm-level institutions)	32	.139	.019	.198	.822	32	.829	.688	1.835	.172
TNAs = f(munificence, defensiveness, firm-level institutions)	32	.133	.018	.180	.837	32	.839	.704	1.983	.143
TNAs = f(munificence, futurity, firm-level institutions)	32	.149	.022	.227	.799	32	.829	.687	1.830	.173
TNAs = f(munificence, riskiness, firm-level institutions)	32	.147	.022	.221	.803	32	.878	.770	2.797	.056
TNAs = f(munificence, proactiveness, firm-level institutions)	32	.146	.021	.219	.805	32	.822	.675	1.733	.196
TNAs = f(munificence, concentration, firm-level institutions)	32	.190	.036	.373	.693	32	.828	.685	1.811	.177
TNAs = f(munificence, market development, firm-level institutions)	32	.291	.085	.928	.412	32	.820	.673	1.716	.200
TNAs = f(munificence, product development, firm-level institutions)	32	.156	.024	.250	.781	32	.846	.715	2.094	.125
TNAs = f(munificence, diversification, firm-level institutions)	32	.188	.035	.367	.697	32	.822	.676	1.742	.194
TNAs = f(munificence, strategic alliances, firm-level institutions)	32	.128	.016	.167	.847	32	.821	.673	1.718	.200
TNAs = f(munificence, joint venture, firm-level institutions)	32	.297	.088	.965	.398	32	.821	.674	1.722	.199
TNAs = f(munificence, divestiture, firm-level institutions)	32	.161	.026	.268	.768	32	.838	.702	1.964	.147
TNAs = f(munificence, merger, firm-level institutions)	32	.178	.032	.327	.725	32	.823	.678	1.755	.190
TNAs = f(munificence, acquisition, firm-level institutions)		.155	.024	.247	.784		.823	.677	1.750	.192
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix X: Moderating effect of firm-level institutions on the effect of environment (complexity)-Strategy (orientations and types) Co-alignment on Sales Revenue**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
Sales Revenue = f(complexity, analysis, firm-level institutions)	32	.405	.164	1.960	.167	32	.707	.500	.833	.623
Sales Revenue = f(complexity,	32	.557	.310	4.498	.024	32	.845	.713	2.073	.128

defensiveness, firm-level institutions)											
<b>Sales Revenue = f(complexity, futurity, firm-level institutions)</b>	<b>32</b>	.435	.189	2.332	.123	<b>32</b>	.766	.586	1.181	.402	
<b>Sales Revenue = f(complexity, riskiness, firm-level institutions)</b>	<b>32</b>	.337	.114	1.284	.299	<b>32</b>	.705	.497	.824	.630	
<b>Sales Revenue = f(complexity, proactiveness, firm-level institutions)</b>	<b>32</b>	.381	.145	1.695	.209	<b>32</b>	.701	.491	.804	.645	
<b>Sales Revenue = f(complexity, concentration, firm-level institutions)</b>	<b>32</b>	.340	.116	1.308	.293	<b>32</b>	.698	.488	.794	.653	
<b>Sales Revenue = f(complexity, market development, firm-level institutions)</b>	<b>32</b>	.335	.112	1.261	.305	<b>32</b>	.757	.572	1.116	.437	
<b>Sales Revenue = f(complexity, product development, firm-level institutions)</b>	<b>32</b>	.330	.109	1.222	.316	<b>32</b>	.697	.485	.786	.658	
<b>Sales Revenue = f(complexity, diversification, firm-level institutions)</b>	<b>32</b>	.324	.105	1.175	.329	<b>32</b>	.696	.485	.785	.659	
<b>Sales Revenue = f(complexity, strategic alliances, firm-level institutions)</b>	<b>32</b>	.527	.278	3.855	.038	<b>32</b>	.807	.652	1.558	.245	
<b>Sales Revenue = f(complexity, joint venture, firm-level institutions)</b>	<b>32</b>	.487	.237	3.108	.067	<b>32</b>	.814	.662	1.631	.223	
<b>Sales Revenue = f(complexity, divestiture, firm-level institutions)</b>	<b>32</b>	.521	.271	3.721	.042	<b>32</b>	.790	.625	1.388	.306	
<b>Sales Revenue = f(complexity, merger, firm-level institutions)</b>	<b>32</b>	.349	.122	1.387	.27	<b>32</b>	.798	.637	1.465	.277	
<b>Sales Revenue = f(complexity, acquisition, firm-level institutions)</b>	<b>32</b>	.385	.148	1.739	.201	<b>32</b>	.809	.655	1.580	.238	
<b>Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences</b>											

**Appendix XI: Moderating effect of firm-level institutions on the effect of environment (dynamism)-Strategy(orientations and types) Co-alignment on Sales Revenue**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
<b>Sales Revenue = f(dynamism, analysis, firm-level institutions)</b>	<b>32</b>	.401	.161	1.919	.173	<b>32</b>	.711	.505	.851	.610
<b>Sales Revenue = f(dynamism, defensiveness, firm-level institutions)</b>	<b>32</b>	.467	.219	2.796	.085	<b>32</b>	.816	.666	1.661	.215
<b>Sales Revenue = f(dynamism, futurity, firm-level institutions)</b>	<b>32</b>	.418	.174	2.113	.147	<b>32</b>	.766	.587	1.185	.399
<b>Sales Revenue = f(dynamism, riskiness, firm-level institutions)</b>	<b>32</b>	.287	.082	.895	.424	<b>32</b>	.840	.618	.840	.618
<b>Sales Revenue = f(dynamism, proactiveness, firm-level institutions)</b>	<b>32</b>	.337	.114	1.282	.299	<b>32</b>	.703	.494	.814	.638
<b>Performance= f(dynamism, concentration, firm-level institutions)</b>	<b>32</b>	.289	.084	.912	.418	<b>32</b>	.701	.491	.804	.645
<b>Sales Revenue = f(dynamism, market development, firm-level institutions)</b>	<b>32</b>	.312	.097	1.078	.359	<b>32</b>	.755	.570	1.107	.442
<b>Sales Revenue = f(dynamism, product development, firm-level institutions)</b>	<b>32</b>	.295	.087	.954	.402	<b>32</b>	.703	.494	.812	.639
<b>Sales Revenue = f(dynamism, diversification, firm-level institutions)</b>	<b>32</b>	.298	.089	.974	.395	<b>32</b>	.700	.491	.803	.646
<b>Sales Revenue = f(dynamism, strategic alliances, firm-level institutions)</b>	<b>32</b>	.498	.248	3.305	.058	<b>32</b>	.789	.623	1.376	.311
<b>Sales Revenue = f(dynamism, joint venture, firm-level institutions)</b>	<b>32</b>	.434	.189	2.325	.124	<b>32</b>	.817	.667	1.672	.212
<b>Sales Revenue = f(dynamism, divestiture, firm-level institutions)</b>	<b>32</b>	.451	.203	2.548	.103	<b>32</b>	.770	.593	1.212	.385

Sales Revenue = f(dynamism, merger, firm-level institutions)	32	.287	.083	.901	.422	32	.782	.611	1.309	.340
Sales Revenue = f(dynamism, acquisition, firm-level institutions)	32	.336	.113	1.270	.303	32	.803	.645	1.513	.260
Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XII: Moderating effect of firm-level institutions on the effect of environment (munificence)-Strategy(orientations and types) Co-alignment on Sales Revenue**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
Sales Revenue = f(munificence, analysis, firm-level institutions)	32	.340	.115	1.306	.293	32	.701	.492	.807	.642
Sales Revenue = f(munificence, defensiveness, firm-level institutions)	32	.407	.165	1.982	.164	32	.808	.653	1.569	.242
Sales Revenue = f(munificence, futurity, firm-level institutions)	32	.401	.161	1.917	.173	32	.787	.619	1.352	.321
Sales Revenue = f(munificence, riskiness, firm-level institutions)	32	.172	.030	.304	.741	32	.691	.477	.759	.679
Sales Revenue = f(munificence, proactiveness, firm-level institutions)	32	.267	.071	.765	.478	32	.693	.480	.768	.672
Sales Revenue = f(munificence, concentration, firm-level institutions)	32	.200	.040	.416	.665	32	.688	.473	.749	.686
Sales Revenue = f(munificence, market development, firm-level institutions)	32	.211	.045	.466	.634	32	.755	.571	1.107	.442
Sales Revenue = f(munificence, product development, firm-level institutions)	32	.194	.038	.393	.680	32	.687	.472	.746	.689
Sales Revenue = f(munificence, diversification, firm-level institutions)	32	.174	.030	.313	.735	32	.689	.475	.753	.683
Sales Revenue = f(munificence, strategic alliances, firm-level institutions)	32	.541	.292	4.133	.031	32	.794	.631	1.423	.292
Sales Revenue = f(munificence, joint venture, firm-level institutions)	32	.356	.126	1.447	.259	32	.819	.671	1.699	.205
Sales Revenue = f(munificence, divestiture, firm-level institutions)	32	.380	.144	1.685	.211	32	.766	.587	1.186	.399
Sales Revenue = f(munificence, merger, firm-level institutions)	32	.193	.037	.388	.683	32	.787	.619	1.353	.320
Sales Revenue = f(munificence, acquisition, firm-level institutions)	32	.287	.082	.898	.423	32	.811	.658	1.605	.231
Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XIII: Moderating effect of firm-level institutions on the effect of environment (complexity)-Strategy (orientations and types) Co-alignment on EPS**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
EPS = f(complexity, analysis, firm-level institutions)	32	.321	.103	1.148	.337	32	.579	.335	.420	.922
EPS = f(complexity, defensiveness, firm-level institutions)	32	.401	.161	1.919	.173	32	.606	.367	.483	.883
EPS = f(complexity, futurity, firm-level institutions)	32	.326	.106	1.189	.325	32	.725	.526	.925	.558
EPS = f(complexity, riskiness, firm-level institutions)	32	.319	.102	1.131	.343	32	.639	.408	.574	.821
EPS = f(complexity, proactiveness, firm-level institutions)	32	.340	.115	1.304	.294	32	.442	.909	.442	.909
EPS = f(complexity, concentration,	32	.318	.101	1.123	.345	32	.576	.331	.413	.926

firm-level institutions)											
EPS = f(complexity, market development, firm-level institutions)	32	.359	.129	1.478	.252	32	.653	.426	.619	.787	
EPS = f(complexity, product development, firm-level institutions)	32	.318	.101	1.123	.345	32	.587	.345	.439	.911	
EPS = f(complexity, diversification, firm-level institutions)	32	.479	.230	2.985	.073	32	.635	.403	.562	.829	
EPS = f(complexity, strategic alliances, firm-level institutions)	32	.507	.257	3.467	.051	32	.777	.603	1.267	.359	
EPS = f(complexity, joint venture, firm-level institutions)	32	.330	.109	1.222	.316	32	.699	.489	.797	.650	
EPS = f(complexity, divestiture, firm-level institutions)	32	.632	.399	6.649	.006	32	.791	.626	1.394	.304	
EPS = f(complexity, merger, firm-level institutions)	32	.409	.167	2.003	.161	32	.622	.387	.526	.854	
EPS = f(complexity, acquisition, firm-level institutions)	32	.378	.143	1.669	.214	32	.636	.404	.566	.826	
<b>Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences</b>											

**Appendix XIV: Moderating effect of firm-level institutions on the effect of environment (dynamism)-Strategy(orientations and types) Co-alignment on EPS**

Model	Without Moderating Variables					With Moderating Variables					
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.	
EPS = f(dynamism, analysis, firm-level institutions)	32	.118	.014	.142	.868	32	.562	.316	.386	.940	
EPS = f(dynamism, defensiveness, firm-level institutions)	32	.175	.031	.316	.733	32	.569	.324	.399	.933	
EPS = f(dynamism, futurity, firm-level institutions)	32	.115	.013	.134	.875	32	.777	.603	1.266	.359	
EPS = f(dynamism, riskiness, firm-level institutions)	32	.142	.020	.205	.816	32	.637	.406	.570	.824	
EPS = f(dynamism, proactiveness, firm-level institutions)	32	.152	.023	.237	.791	32	.573	.329	.408	.928	
EPS = f(dynamism, concentration, firm-level institutions)	32	.125	.016	.158	.855	32	.561	.314	.382	.941	
EPS = f(dynamism, market development, firm-level institutions)	32	.256	.066	.704	.506	32	.653	.426	.618	.787	
EPS = f(dynamism, product development, firm-level institutions)	32	.122	.015	.151	.861	32	.571	.326	.403	.931	
EPS = f(dynamism, diversification, firm-level institutions)	32	.389	.151	1.783	.194	32	.616	.380	.510	.866	
EPS = f(dynamism, strategic alliances, firm-level institutions)	32	.379	.143	1.675	.213	32	.714	.510	.869	.597	
EPS = f(dynamism, joint venture, firm-level institutions)	32	.122	.015	.152	.860	32	.677	.459	.706	.720	
EPS = f(dynamism, divestiture, firm-level institutions)	32	.494	.244	3.222	.061	32	.700	.489	.799	.649	
EPS = f(dynamism, merger, firm-level institutions)	32	.217	.047	.495	.617	32	.589	.347	.444	.908	
EPS = f(dynamism, acquisition, firm-level institutions)	32	.201	.041	.423	.661	32	.606	.367	.484	.883	
<b>Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences</b>											

**Appendix XV Moderating effect of firm-level institutions on the effect of environment (munificence)-Strategy(orientations and types) Co-alignment on EPS**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
EPS = f(munificence, analysis, firm-	23	.054	.003	.029	.971	23	.559	.312	.379	.943

level institutions)										
Performance= f(munificence, defensiveness, firm-level institutions)	23	.112	.012	.126	.882	23	.560	.314	.381	.942
EPS = f(munificence, futurity, firm-level institutions)	23	.071	.005	.050	.951	23	.799	.639	1.476	.273
EPS = f(munificence, riskiness, firm-level institutions)	23	.097	.009	.096	.909	23	.641	.411	.581	.815
EPS = f(munificence, proactiveness, firm-level institutions)	23	.077	.006	.059	.943	23	.562	.316	.385	.940
EPS = f(munificence, concentration, firm-level institutions)	23	.063	.004	.040	.961	23	.555	.308	.372	.946
EPS = f(munificence, market development, firm-level institutions)	23	.250	.063	.667	.524	23	.661	.436	.645	.767
EPS = f(munificence, product development, firm-level institutions)	23	.064	.004	.041	.960	23	.568	.323	.397	.934
EPS = f(munificence, diversification, firm-level institutions)	23	.342	.117	1.326	.288	23	.599	.359	.467	.894
EPS = f(munificence, strategic alliances, firm-level institutions)	23	.399	.159	1.898	.176	23	.729	.532	.947	.543
EPS = f(munificence, joint venture, firm-level institutions)	23	.039	.002	.015	.985	23	.681	.463	.719	.710
EPS = f(munificence, divestiture, firm-level institutions)	23	.476	.226	2.927	.077	23	.713	.509	.863	.602
EPS = f(munificence, merger, firm-level institutions)	23	.195	.038	.396	.678	23	.589	.347	.443	.908
EPS = f(munificence, acquisition, firm-level institutions)	23	.173	.030	.309	.737	23	.606	.368	.485	.883
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XVI: Moderating effect of firm-level institutions on the effect of environment (complexity)-Strategy (orientations and types) Co-alignment on ROI**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
ROI = f(complexity, analysis, firm-level institutions)	23	.305	.093	1.026	.377	23	.820	.672	1.709	.202
ROI = f(complexity, defensiveness, firm-level institutions)	23	.264	.070	.748	.486	23	.762	.580	1.153	.417
ROI = f(complexity, futurity, firm-level institutions)	23	.168	.028	.291	.751	23	.777	.605	1.274	.356
ROI = f(complexity, riskiness, firm-level institutions)	23	.180	.032	.336	.719	23	.806	.650	1.549	.248
ROI = f(complexity, proactiveness, firm-level institutions)	23	.227	.051	.541	.590	23	.799	.639	1.474	.273
ROI = f(complexity, concentration, firm-level institutions)	23	.353	.125	1.426	.264	23	.796	.634	1.446	.284
ROI = f(complexity, market development, firm-level institutions)	23	.234	.055	.578	.570	23	.802	.643	1.501	.264
ROI = f(complexity, product development, firm-level institutions)	23	.264	.069	.747	.487	23	.774	.599	1.244	.370
ROI = f(complexity, diversification, firm-level institutions)	23	.222	.049	.519	.603	23	.766	.587	1.184	.400
ROI = f(complexity, strategic alliances, firm-level institutions)	23	.459	.211	2.670	.094	23	.853	.727	2.223	.107
ROI = f(complexity, joint venture, firm-level institutions)	23	.513	.264	3.580	.047	23	.786	.617	1.343	.325
ROI = f(complexity, divestiture, firm-level institutions)	23	.404	.163	1.947	.169	23	.789	.623	1.379	.310
ROI = f(complexity, merger, firm-level institutions)	23	.147	.022	.221	.804	23	.763	.583	1.164	.411



ROI = f(complexity, acquisition, firm-level institutions)	23	.169	.029	.295	.748	23	.783	.613	1.319	.335
Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XVII: Moderating effect of firm-level institutions on the effect of environment (dynamism)- Strategy(orientations and types) Co-alignment on ROI**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
ROI = f(dynamism, analysis, firm-level institutions)	23	0.308	0.095	1.051	0.368	23	0.815	0.66	1.648	0.218
ROI = f(dynamism, defensiveness, firm-level institutions)	23	0.146	0.021	0.219	0.805	23	0.759	0.56	1.136	0.426
ROI = f(dynamism, futurity, firm-level institutions)	23	0.020	0.000	0.004	0.996	23	0.772	0.60	1.233	0.375
ROI = f(dynamism, riskiness, firm-level institutions)	23	0.141	0.020	0.201	0.819	23	0.795	0.63	1.427	0.291
ROI = f(dynamism, proactiveness, firm-level institutions)	23	0.206	0.043	0.444	0.648	23	0.801	0.64	1.489	0.268
ROI = f(dynamism, concentration, firm-level institutions)	23	0.287	0.082	0.898	0.423	23	0.797	0.64	1.454	0.281
ROI = f(dynamism, market development, firm-level institutions)	23	0.220	0.048	0.507	0.610	23	0.782	0.612	1.313	0.338
ROI = f(dynamism, product development, firm-level institutions)	23	0.253	0.064	0.681	0.517	23	0.771	.595	1.222	0.381
ROI = f(dynamism, diversification, firm-level institutions)	23	0.150	0.022	0.229	0.797	23	0.763	.582	1.162	0.412
ROI = f(dynamism, strategic alliances, firm-level institutions)	23	0.408	0.167	1.998	0.162	23	0.851	.724	2.191	0.112
ROI = f(dynamism, joint venture, firm-level institutions)	23	0.463	0.215	2.732	0.089	23	0.784	.615	1.329	0.331
ROI = f(dynamism, divestiture, firm-level institutions)	23	0.342	0.117	1.322	0.289	23	0.789	.622	1.372	0.312
ROI = f(dynamism, merger, firm-level institutions)	23	0.051	0.003	0.026	0.974	23	0.760	.577	1.137	0.425
ROI = f(dynamism, acquisition, firm-level institutions)	23	0.109	0.012	0.120	0.888	23	0.777	.603	1.268	0.358
Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XVIII: Moderating effect of firm-level institutions on the effect of environment (munificence)- Strategy(orientations and types) Co-alignment on ROI**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
ROI = f(munificence, analysis, firm-level institutions)	23	0.301	0.090	0.993	0.388	23	0.819	0.671	1.702	0.204
ROI = f(munificence, defensiveness, firm-level institutions)	23	0.187	0.035	0.362	0.700	23	0.762	0.581	1.154	0.416
ROI = f(munificence, futurity, firm-level institutions)	23	0.073	0.005	0.054	0.948	23	0.779	0.607	1.286	0.350
ROI = f(munificence, riskiness, firm-level institutions)	23	0.140	0.020	0.200	0.820	23	0.797	0.636	1.454	0.281
ROI = f(munificence, proactiveness, firm-level institutions)	23	0.194	0.038	0.391	0.682	23	0.804	0.647	1.524	0.256
ROI = f(munificence,	23	0.342	0.117	1.323	0.289	23	0.797	0.634	1.446	0.284

concentration, firm-level institutions)										
ROI = f(munificence, market development, firm-level institutions)	23	0.214	0.046	0.481	0.625	23	0.787	0.620	1.360	0.318
ROI = f(munificence, product development, firm-level institutions)	23	0.245	0.060	0.638	0.539	23	0.771	0.595	1.224	0.379
ROI = f(munificence, diversification, firm-level institutions)	23	0.192	0.037	0.383	0.686	23	0.769	0.591	1.207	0.388
ROI = f(munificence, strategic alliances, firm-level institutions)	23	0.512	0.262	3.549	0.048	23	0.855	0.731	2.268	0.102
ROI = f(munificence, joint venture, firm-level institutions)	23	0.469	0.220	2.826	0.083	23	0.784	0.614	1.327	0.332
ROI = f(munificence, divestiture, firm-level institutions)	23	0.348	0.121	1.377	0.275	23	0.790	.624	1.382	0.309
ROI = f(munificence, merger, firm-level institutions)	23	0.069	0.005	0.048	0.953	23	0.764	0.583	1.167	0.409
ROI = f(munificence, acquisition, firm-level institutions)	23	0.108	0.012	0.118	0.889	23	0.790	0.623	1.379	0.310
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XIX: Moderating effect of firm-level institutions on the effect of environment (complexity)-Strategy(orientations and types) Co-alignment on New Product Introduction**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
NPI = f(complexity, analysis, firm-level institutions)	23	.575	.331	4.949	.018	23	.706	.498	.827	.628
NPI = f(complexity, defensiveness, firm-level institutions)	23	.238	.057	.603	.557	23	.648	.420	.603	.799
NPI = f(complexity, futurity, firm-level institutions)	23	.251	.063	.671	.522	23	.644	.414	.590	.809
NPI = f(complexity, riskiness, firm-level institutions)	23	.164	.027	.277	.761	23	.667	.445	.669	.748
NPI = f(complexity, proactiveness, firm-level institutions)	23	.623	.389	6.357	.007	23	.743	.553	1.029	.489
NPI = f(complexity, concentration, firm-level institutions)	23	.200	.040	.418	.664	23	.660	.435	.642	.769
NPI = f(complexity, market development, firm-level institutions)	23	.553	.306	4.400	.026	23	.808	.653	1.567	.242
NPI = f(complexity, product development, firm-level institutions)	23	.663	.440	7.857	.003	23	.800	.639	1.477	.273
NPI = f(complexity, diversification, firm-level institutions)	23	.335	.112	1.264	.304	23	.759	.576	1.130	.429
NPI = f(complexity, strategic alliances, firm-level institutions)	23	.176	.031	.318	.731	23	.660	.436	.643	.768
NPI = f(complexity, joint venture, firm-level institutions)	23	.222	.049	.516	.604	23	.657	.431	.632	.777
NPI = f(complexity, divestiture, firm-level institutions)	23	.183	.033	.345	.712	23	.644	.415	.590	.808
NPI = f(complexity, merger, firm-level institutions)	23	.173	.030	.308	.739	23	.644	.415	.591	.808
NPI = f(complexity, acquisition, firm-level institutions)	23	.170	.029	.296	.747	23	.670	.449	.679	.740
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XX: Moderating effect of firm-level institutions on the effect of environment (dynamism)-Strategy(orientations and types) Co-alignment on New Product Introduction**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
NPI = f(dynamism, analysis, firm-level institutions)	23	.553	.306	4.414	.026	23	.711	.506	.853	.608
NPI = f(dynamism, defensiveness, firm-level institutions)	23	.243	.059	.627	.544	23	.649	.421	.605	.797
NPI = f(dynamism, futurity, firm-level institutions)	23	.285	.081	.882	.430	23	.649	.421	.606	.796
NPI = f(dynamism, riskiness, firm-level institutions)	23	.195	.038	.396	.678	23	.674	.455	.695	.729
NPI = f(dynamism, proactiveness, firm-level institutions)	23	.667	.445	8.015	.003	23	.776	.602	1.260	.362
NPI = f(dynamism, concentration, firm-level institutions)	23	.233	.054	.573	.573	23	.677	.459	.707	.719
NPI = f(dynamism, market development, firm-level institutions)	23	.535	.286	4.012	.034	23	.752	.566	1.086	.454
NPI = f(dynamism, product development, firm-level institutions)	23	.668	.447	8.069	.003	23	.815	.664	1.650	.218
NPI = f(dynamism, diversification, firm-level institutions)	23	.402	.161	1.925	.172	23	.790	.623	1.379	.310
NPI = f(dynamism, strategic alliances, firm-level institutions)	23	.205	.042	.438	.651	23	.674	.454	.692	.730
NPI = f(dynamism, joint venture, firm-level institutions)	23	.251	.063	.670	.523	23	.662	.438	.649	.764
NPI = f(dynamism, divestiture, firm-level institutions)	23	.219	.048	.503	.612	23	.650	.423	.610	.793
NPI = f(dynamism, merger, firm-level institutions)	23	.193	.037	.388	.683	23	.650	.422	.609	.794
NPI = f(dynamism, acquisition, firm-level institutions)	23	.196	.038	.398	.677	23	.681	.464	.720	.709
Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XXI: Moderating effect of firm-level institutions on the effect of environment (munificence)-Strategy(orientations and types) Co-alignment on New Product Introduction (NPI)**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
NPI = f(munificence, analysis, firm-level institutions)	23	.478	.229	2.966	.074	23	.760	.678	.760	.678
NPI = f(munificence, defensiveness, firm-level institutions)	23	.112	.013	.128	.880	23	.634	.402	.559	.831
NPI = f(munificence, futurity, firm-level institutions)	23	.115	.013	.135	.875	23	.633	.401	.557	.832
NPI = f(munificence, riskiness, firm-level institutions)	23	.114	.013	.133	.876	23	.667	.444	.666	.750
NPI = f(munificence, proactiveness, firm-level institutions)	23	.576	.332	4.970	.018	23	.746	.556	1.043	.480
NPI = f(munificence, concentration, firm-level institutions)	23	.215	.046	.484	.623	23	.651	.424	.614	.790
NPI = f(munificence, market development, firm-level institutions)	23	.469	.220	2.821	.083	23	.728	.530	.940	.547
NPI = f(munificence, product development, firm-level institutions)	23	.597	.357	5.543	.012	23	.768	.590	1.198	.393
NPI = f(munificence, diversification, firm-level institutions)	23	.268	.072	.774	.474	23	.778	.605	1.278	.354
NPI = f(munificence, strategic alliances, firm-level institutions)	23	.089	.008	.080	.923	23	.651	.423	.612	.792
NPI = f(munificence, joint venture, firm-level institutions)	23	.198	.039	.409	.669	23	.641	.411	.582	.815

$NPI = f(\text{munificence, divestiture, firm-level institutions})$	23	.144	.021	.211	.811	23	.633	.401	.558	.832
$NPI = f(\text{munificence, merger, firm-level institutions})$	23	.089	.008	.079	.924	23	.633	.400	.557	.833
$NPI = f(\text{munificence, acquisition, firm-level institutions})$	23	.089	.008	.080	.923	23	.656	.430	.630	.779
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XXII: Moderating effect of firm-level Institutions on the effect of environment (complexity)-Strategy(orientations and types) Co-alignment on Product/Service Quality**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
$(P/S Q = f(\text{complexity, analysis, firm-level institutions}))$	23	.397	.158	1.873	.180	23	.637	.406	.569	.824
$(P/S Q = f(\text{complexity, defensiveness, firm-level institutions}))$	23	.282	.080	.864	.436	23	.680	.462	.715	.713
$(P/S Q = f(\text{complexity, futurity, firm-level institutions}))$	23	.496	.246	3.263	.059	23	.645	.416	.594	.805
$(P/S Q = f(\text{complexity, riskiness, firm-level institutions}))$	23	3.713	.043	3.713	.043	23	.655	.428	.625	.782
$(P/S Q = f(\text{complexity, proactiveness, firm-level institutions}))$	23	.282	.080	.866	.436	23	.644	.415	.592	.807
$(P/S Q = f(\text{complexity, concentration, firm-level institutions}))$	23	.279	.078	.841	.446	23	.643	.414	.589	.809
$(P/S Q = f(\text{complexity, market development, firm-level institutions}))$	23	.424	.180	2.197	.137	23	.715	.512	.873	.594
$(P/S Q = f(\text{complexity, product development, firm-level institutions}))$	23	.295	.087	.956	.401	23	.636	.405	.567	.825
$(P/S Q = f(\text{complexity, diversification, firm-level institutions}))$	23	.279	.078	.842	.445	23	.666	.444	.665	.751
$(P/S Q = f(\text{complexity, strategic alliances, firm-level institutions}))$	23	.329	.108	1.216	.317	23	.763	.582	1.161	.412
$(P/S Q = f(\text{complexity, joint venture, firm-level institutions}))$	23	.382	.146	1.714	.206	23	.779	.606	1.283	.351
$(P/S Q = f(\text{complexity, divestiture, firm-level institutions}))$	23	.348	.121	1.376	.276	23	.776	.602	1.262	.36
$(P/S Q = f(\text{complexity, merger, firm-level institutions}))$	23	.354	.126	1.436	.261	23	.643	.413	.586	.811
$(P/S Q = f(\text{complexity, acquisition, firm-level institutions}))$	23	.306	.093	1.030	.375	23	.675	.456	.698	.726
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XXIII: Moderating effect of firm-level institutions on the effect of environment (dynamism)-Strategy(orientations and types) Co-alignment on Product/Service Quality**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
$(P/S Q = f(\text{dynamism, analysis, firm-level institutions}))$	23	.422	.178	2.167	.141	23	.715	.511	.872	.594
$(P/S Q = f(\text{dynamism, defensiveness, firm-level institutions}))$	23	.347	.120	1.368	.277	23	.745	.554	1.036	.484
$(P/S Q = f(\text{dynamism, futurity, firm-level institutions}))$	23	.564	.318	4.660	.022	23	.775	.601	1.256	.364
$(P/S Q = f(\text{dynamism, riskiness, firm-level institutions}))$	23	.528	.279	3.865	.038	23	.733	.537	.966	.530
$(P/S Q = f(\text{dynamism,}))$	23	.340	.116	1.307	.293	23	.708	.502	.840	.618

proactiveness, firm-level institutions)										
(P/S Q = f(dynamism, concentration, firm-level institutions)	23	.342	.117	1.324	.288	23	.727	.529	.935	.551
(P/S Q = f(dynamism, market development, firm-level institutions)	23	.445	.198	2.469	.110	23	.767	.588	1.187	.398
(P/S Q = f(dynamism, product development, firm-level institutions)	23	.355	.126	1.439	.261	23	.836	.621	.836	.621
(P/S Q = f(dynamism, diversification, firm-level institutions)	23	.346	.120	1.361	.279	23	.717	.514	.882	.588
(P/S Q = f(dynamism, strategic alliances, firm-level institutions)	23	.378	.143	1.667	.214	23	.830	.690	1.851	.169
(P/S Q = f(dynamism, joint venture, firm-level institutions)	23	.440	.194	2.401	.116	23	.835	.696	1.911	.157
(P/S Q = f(dynamism, divestiture, firm-level institutions)	23	.419	.175	2.125	.146	23	.809	.655	1.584	.237
(P/S Q = f(dynamism, merger, firm-level institutions)	23	.372	.138	1.602	.226	23	.737	.544	.992	.512
(P/S Q = f(dynamism, acquisition, firm-level institutions)	23	.357	.127	1.460	.256	23	.750	.562	1.069	.464
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XXIV: Moderating effect of firm-level institutions on the effect of environment (munificence)-Strategy(orientations and types) Co-alignment on Product/Service Quality (P/S Q)**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
(P/S Q = f(munificence, analysis, firm-level institutions)	23	.263	.069	.742	.489	23	.752	.566	1.086	.454
(P/S Q = f(munificence, defensiveness, firm-level institutions)	23	.171	.029	.300	.744	23	.760	.577	1.137	.425
(P/S Q = f(munificence, futurity, firm-level institutions)	23	.363	.132	1.518	.243	23	.812	.660	1.617	.227
(P/S Q = f(munificence, riskiness, firm-level institutions)	23	.418	.175	2.116	.147	23	.764	.584	1.168	.409
(P/S Q = f(munificence, proactiveness, firm-level institutions)	23	.138	.019	.195	.825	23	.746	.556	1.044	.480
(P/S Q = f(munificence, concentration, firm-level institutions)	23	.128	.017	.168	.847	23	.745	.555	1.038	.484
(P/S Q = f(munificence, market development, firm-level institutions)	23	.308	.095	1.048	.369	32	.806	.650	1.548	.248
(P/S Q = f(munificence, product development, firm-level institutions)	23	.144	.021	.212	.811	32	.754	.569	1.098	.447
(P/S Q = f(munificence, diversification, firm-level institutions)	23	.128	.016	.165	.849	32	.747	.558	1.050	.476
(P/S Q = f(munificence, strategic alliances, firm-level institutions)	23	.220	.049	.510	.608	32	.810	.656	1.591	.235
(P/S Q = f(munificence, joint venture, firm-level institutions)	23	.324	.105	1.176	.329	32	.821	.674	1.726	.198
(P/S Q = f(munificence, divestiture, firm-level institutions)	23	.286	.082	.888	.427	32	.801	.642	1.492	.267
(P/S Q = f(munificence, merger, firm-level institutions)	23	.230	.053	.560	.580	32	.746	.557	1.047	.478
(P/S Q = f(munificence, acquisition, firm-level institutions)	23	.190	.036	.373	.693	32	.753	.567	1.090	.452
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XXV: Moderating effect of firm-level institutions on the effect of environment (complexity)-Strategy(orientations and types) Co-alignment on Market Share**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
Market Share = f(complexity, analysis, firm-level institutions)	23	.576	.331	4.957	.018	23	.773	.598	1.238	.372
Market Share = f(complexity, defensiveness, firm-level institutions)	23	.184	.034	.352	.707	23	.747	.558	1.050	.476
Market Share = f(complexity, futurity, firm-level institutions)	23	.293	.086	.941	.407	23	.692	.478	.764	.675
Market Share = f(complexity, riskiness, firm-level institutions)	23	.169	.029	.294	.749	23	.691	.477	.761	.677
Market Share = f(complexity, proactiveness, firm-level institutions)	23	.324	.105	1.174	.330	23	.693	.481	.771	.670
Market Share = f(complexity, concentration, firm-level institutions)	23	.021	.000	.004	.996	23	.699	.488	.795	.652
Market Share = f(complexity, market development, firm-level institutions)	23	.468	.219	2.799	.085	23	.809	.655	1.581	.238
Market Share = f(complexity, product development, firm-level institutions)	23	.318	.101	1.128	.344	23	.698	.487	.792	.654
Market Share = f(complexity, diversification, firm-level institutions)	23	.035	.001	.012	.988	23	.688	.473	.749	.686
Market Share = f(complexity, strategic alliances, firm-level institutions)	23	.187	.035	.363	.700	23	.752	.565	1.084	.456
Market Share = f(complexity, joint venture, firm-level institutions)	23	.059	.004	.035	.965	23	.713	.508	.861	.603
Market Share = f(complexity, divestiture, firm-level institutions)	23	.065	.004	.042	.959	23	.691	.477	.760	.678
Market Share = f(complexity, merger, firm-level institutions)	23	.395	.156	1.850	.183	23	.704	.496	.821	.632
Market Share = f(complexity, acquisition, firm-level institutions)	23	.427	.182	2.224	.134	23	.683	.467	.730	.701
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XXVI: Moderating effect of firm-level institutions on the effect of environment (dynamism)-Strategy(orientations and types) Co-alignment on Market Share**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
Market Share = f(dynamism, analysis, firm-level institutions)	23	.631	.398	6.617	.006	23	1.473	.274	1.473	.274
Market Share = f(dynamism, defensiveness, firm-level institutions)	23	.230	.053	.561	.579	23	.764	.583	1.166	.410
Market Share = f(dynamism, futurity, firm-level institutions)	23	.448	.200	2.505	.107	23	.733	.537	.967	.529
Market Share = f(dynamism, riskiness, firm-level institutions)	23	.275	.076	.821	.454	23	.710	.505	.850	.611
Market Share = f(dynamism, proactiveness, firm-level institutions)	23	.434	.188	2.315	.125	23	.925	.557	.925	.557
Market Share = f(dynamism, concentration, firm-level institutions)	23	.201	.040	.422	.662	23	.710	.504	.847	.613
Market Share = f(dynamism, market development, firm-level institutions)	23	.527	.278	3.851	.038	23	.792	.628	1.405	.299
Market Share = f(dynamism,	23	.407	.166	1.986	.163	23	.724	.525	.920	.561

product development, firm-level institutions)										
Market Share = f(dynamism, diversification, firm-level institutions)	23	.225	.051	.533	.595	23	.718	.515	.885	.585
Market Share = f(dynamism, strategic alliances, firm-level institutions)	23	.249	.062	.661	.527	23	.777	.604	1.269	.358
Market Share = f(dynamism, joint venture, firm-level institutions)	23	.212	.045	.470	.632	23	.732	.536	.963	.532
Market Share = f(dynamism, divestiture, firm-level institutions)	23	.212	.045	.470	.632	23	.709	.502	.841	.617
Market Share = f(dynamism, merger, firm-level institutions)	23	.433	.188	2.312	.125	23	.712	.507	.857	.606
Market Share = f(dynamism, acquisition, firm-level institutions)	23	.482	.232	3.024	.071	23	.704	.496	.821	.633
Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XXVII: Moderating effect of firm-level institutions on the effect of environment (munificence)-Strategy(orientations and types) Co-alignment on Market Share**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
Market Share = f(munificence, analysis, firm-level institutions)	23	.576	.332	4.970	.018	23	.763	.582	1.162	.411
Market Share = f(munificence, defensiveness, firm-level institutions)	23	.173	.030	.309	.738	23	.747	.558	1.050	.476
Market Share = f(munificence, futurity, firm-level institutions)	23	.300	.090	.992	.388	23	.683	.466	.728	.703
Market Share = f(munificence, riskiness, firm-level institutions)	23	.171	.029	.301	.743	23	.690	.476	.757	.681
Market Share = f(munificence, proactiveness, firm-level institutions)	23	.338	.114	1.292	.297	23	.690	.476	.757	.680
Market Share = f(munificence, concentration, firm-level institutions)	23	.014	.000	.002	.998	23	.691	.478	.763	.676
Market Share = f(munificence, market development, firm-level institutions)	23	.472	.223	2.870	.080	23	.751	.565	1.081	.457
Market Share = f(munificence, product development, firm-level institutions)	23	.321	.103	1.150	.337	23	.686	.471	.742	.692
Market Share = f(munificence, diversification, firm-level institutions)	23	.035	.001	.012	.988	23	.685	.469	.737	.696
Market Share = f(munificence, strategic alliances, firm-level institutions)	23	.211	.045	.468	.633	23	.750	.563	1.074	.461
Market Share = f(munificence, joint venture, firm-level institutions)	23	.059	.003	.034	.966	23	.702	.493	.811	.640
Market Share = f(munificence, divestiture, firm-level institutions)	23	.065	.004	.042	.959	23	.683	.466	.728	.703
Market Share = f(munificence, merger, firm-level institutions)	23	.400	.160	1.902	.175	23	.699	.488	.794	.652
Market Share = f(munificence, acquisition, firm-level institutions)	23	.454	.206	2.598	.099	23	.678	.459	.708	.718
Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XXVIII: Moderating effect of firm-level institutions on the effect of environment (complexity)-Strategy(orientations and types) Co-alignment on Operational Efficiency(OE)**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.

OE = f(complexity, analysis, firm-level institutions)	23	.500	.250	3.339	.056	23	.765	.586	1.178	.403
OE = f(complexity, defensiveness, firm-level institutions)	23	.243	.059	.626	.545	23	.728	.530	.941	.547
OE = f(complexity, futurity, firm-level institutions)	23	.358	.128	1.466	.255	23	.664	.441	.656	.758
OE = f(complexity, riskiness, firm-level institutions)	23	.216	.047	.490	.620	23	.646	.417	.597	.803
OE = f(complexity, proactiveness, firm-level institutions)	23	.263	.069	.744	.488	23	.647	.419	.600	.801
OE = f(complexity, concentration, firm-level institutions)	23	.181	.033	.339	.716	23	.649	.422	.607	.795
OE = f(complexity, market development, firm-level institutions)	23	.277	.077	.831	.450	23	.776	.602	1.260	.362
OE = f(complexity, product development, firm-level institutions)	23	.305	.093	1.027	.376	23	.649	.421	.605	.797
OE = f(complexity, diversification, firm-level institutions)	23	.208	.043	.454	.642	23	.648	.420	.603	.799
OE = f(complexity, strategic alliances, firm-level institutions)	23	.310	.096	1.060	.365	23	.798	.638	1.466	.277
OE = f(complexity, joint venture, firm-level institutions)	23	.314	.099	1.094	.354	23	.716	.512	.875	.593
OE = f(complexity, divestiture, firm-level institutions)	23	.288	.083	.908	.419	23	.649	.422	.608	.795
OE = f(complexity, merger, firm-level institutions)	23	.277	.077	.832	.450	23	.678	.460	.710	.717
OE = f(complexity, acquisition, firm-level institutions)	23	.206	.042	.444	.648	23	.612	.792	.612	.792
<b>Firm-Level Institutions:</b> Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences										

**Appendix XXIX: Moderating effect of firm-level institutions on the effect of environment (dynamism)-Strategy(orientations and types) Co-alignment on Operational Efficiency(OE)**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
OE = f(dynamism, analysis, firm-level institutions)	23	.502	.252	3.368	.055	23	.770	.594	1.217	.383
OE = f(dynamism, defensiveness, firm-level institutions)	23	.181	.033	.339	.716	23	.711	.505	.850	.611
OE = f(dynamism, futurity, firm-level institutions)	23	.357	.127	1.456	.257	23	.678	.460	.709	.718
OE = f(dynamism, riskiness, firm-level institutions)	23	.199	.040	.412	.668	23	.647	.418	.599	.802
OE = f(dynamism, proactiveness, firm-level institutions)	23	.234	.055	.578	.570	23	.648	.420	.604	.798
OE = f(dynamism, concentration, firm-level institutions)	23	.145	.021	.214	.809	23	.649	.421	.606	.796
OE = f(dynamism, market development, firm-level institutions)	23	.271	.073	.792	.467	23	.757	.573	1.118	.436
OE = f(dynamism, product development, firm-level institutions)	23	.292	.085	.935	.409	23	.650	.422	.609	.794
OE = f(dynamism, diversification, firm-level institutions)	23	.163	.027	.274	.763	23	.650	.423	.610	.793
OE = f(dynamism, strategic alliances, firm-level institutions)	23	.281	.079	.859	.439	23	.781	.610	1.301	.343
OE = f(dynamism, joint venture, firm-level institutions)	23	.273	.075	.808	.460	23	.714	.510	.867	.598
OE = f(dynamism, divestiture, firm-level institutions)	23	.237	.056	.595	.561	23	.648	.420	.603	.799
OE = f(dynamism, merger, firm-	23	.282	.080	.867	.435	23	.678	.460	.709	.718



level institutions)										
OE = f(dynamism, acquisition, firm-level institutions)	23	.180	.032	.335	.719	23	.652	.425	.615	.790
<b>Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences</b>										

**Appendix XXX: Moderating effect of firm-level institutions on the effect of environment (munificence)-Strategy (orientations and types) Co-alignment on Operational Efficiency (OE)**

Model	Without Moderating Variables					With Moderating Variables				
	N	r	R <sup>2</sup>	F-Value	Sig.	N	r	R <sup>2</sup>	F-Value	Sig.
OE = f(munificence, analysis, firm-level institutions)	23	.525	.276	353(a)	.125	23	.763	.583	1.163	.411
P OE = f(munificence, defensiveness, firm-level institutions)	23	.353	.125	1.427	.263	23	.728	.531	.942	.546
OE = f(munificence, futurity, firm-level institutions)	23	.390	.152	1.798	.191	23	.661	.437	.647	.765
OE = f(munificence, riskiness, firm-level institutions)	23	.311	.097	1.073	.361	23	.647	.419	.600	.801
OE = f(munificence, proactiveness, firm-level institutions)	23	.324	.105	1.170	.331	23	.648	.419	.602	.799
OE = f(munificence, concentration, firm-level institutions)	23	.302	.091	1.003	.384	23	.651	.424	.614	.791
OE = f(munificence, market development, firm-level institutions)	23	.345	.119	1.349	.282	23	.746	.557	1.046	.479
OE = f(munificence, product development, firm-level institutions)	23	.370	.137	1.585	.230	23	.650	.422	.609	.794
OE = f(munificence, diversification, firm-level institutions)	23	.295	.087	.953	.402	23	.648	.420	.603	.798
OE = f(munificence, strategic alliances, firm-level institutions)	23	.523	.273	3.764	.041	23	.814	.663	1.638	.221
OE = f(munificence, joint venture, firm-level institutions)	23	.378	.143	1.668	.214	23	.729	.531	.944	.545
OE = f(munificence, divestiture, firm-level institutions)	23	.352	.124	1.411	.267	23	.652	.425	.617	.788
OE = f(munificence, merger, firm-level institutions)	23	.347	.120	1.366	.278	23	.678	.460	.709	.718
OE = f(munificence, acquisition, firm-level institutions)	23	.295	.087	.955	.402	23	.651	.424	.612	.792
<b>Firm-Level Institutions: Financial resources, Systems, Internal controls, Management Style, Culture, Procedures, Knowledge base, Structure, Human resources, Skills and Competences</b>										