

**Influence of Corporate Entrepreneurship on the Performance of
State Corporations in Kenya**

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**Thesis Submitted in Fulfillment of the Requirement for the award
of Doctor of Philosophy in Entrepreneurship of Jomo Kenyatta
University of Agriculture and Technology**

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DECLARATION

This thesis is my original work and has never been presented for a degree in any other University.

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DEDICATION

To, my wife Dorcas for patience and constantly urging me on, my children Fiona, Briega and Bart for patience especially when working over the weekends, and my late parents for great inspiration.

A special tribute and dedication in loving memory of Mzee Cyprian, Mrs Severina Linyiru and Mrs Lucy Mutunga for impacting my life so positively.

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ABBREVIATIONS AND ACRONYMS

CE	Corporate Entrepreneurship
EO	Entrepreneurial Orientation
GLC	Government Linked Companies
RBV	Resourced Based View
ROE	Return on Equity
ROI	Return on Investment
SOEs	State Owned Enterprises
SPSS	Statistical Package for Social Sciences

DEFINITION OF TERMS

Corporate Entrepreneurship: Corporate Entrepreneurship can be defined as the sum of a company's efforts aimed at innovation, pro-activeness and risk taking (Zahra & Garvis, 2000).

Performance: This term is used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Wood & Sangster, 2005).

Entrepreneurs: are people undertaking economic risk to create a new organization that will apply new technology or innovative process to generate value to others (Schramm, 2006).

Proactiveness: is a set of self starting, action oriented behaviours aimed at modifying the situation or oneself to achieve greater personal or organizational effectiveness (Crant, 2000).

Risk taking: is defined as engagement in behaviors that are associated with some probability of undesirable results (Steinberg & Scott, 2003).

Competitive Aggressiveness: is the firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace (Lumpkin & Dess, 1996).

Innovativeness: is the process of engaging in behaviours designed to generate and implement new ideas, processes, products and services, regardless of the ultimate success of these new phenomena (Kim & Mauborgne, 2005).

Organization factors: these are the internal factors basically explained by the resources, structure, organizational culture, leadership style, manner of exercising the power (Porter, 2001).

ABSTRACT

The purpose of this study was to establish the influence of corporate entrepreneurship on performance of state corporations in Kenya. The study was guided by five specific objectives which are: to establish the effect of proactiveness on performance of state corporations in Kenya, to determine the influence of risk taking on performance of state corporations in Kenya, to evaluate the effect of innovativeness on performance of state corporations in Kenya, to establish the influence of competitive aggressiveness on performance of state corporations in Kenya and to determine the effect of organization factors on the performance of state corporations in Kenya. The study adopted an explanatory research design. The population of the research consists of the 187 state corporations in Kenya as at 2013. A purposive sample of 55 commercial state corporations was included in the study. The study used primary data gathered using questionnaires. Statistical Package for Social Sciences (SPSS) was used in the analysis of data. The data was analyzed by use of descriptive and inferential statistics. Descriptive statistics produced frequencies, trends, means and percentages while inferential statistics produced regression and correlation results which showed the causal relationship among the variables. The study findings indicated that there was improved firm performance which was linked to corporate entrepreneurship. Results showed that companies initiated actions to which competitors responded to, the firms had a tendency to be ahead of other competitors in introducing novel ideas or products and the companies strived in identifying new markets to sell products. Results indicated that risk taking, innovativeness, competitive aggressiveness and organizational factors were key determinants of firm performance for commercial state corporations in Kenya. The study concludes that the intensive usage of corporate entrepreneurship in the enterprises generally increases the efficiency of doing business by creating new products and services, shortening the time to get to the market, reducing the costs, decreasing the prices and more efficiently answering on the moves of the competitors and market changes. Therefore the strategic intention of managers of these enterprises should be a creation of new organizational climate based on the tighter cooperation between the individuals with the aim of achieving the synergic effects in internal entrepreneurial activities. Results also led to the conclusion that corporate entrepreneurship improves performance by increasing company's proactivity and willingness to take risks by pioneering the development of new products, processes and services. The study recommends to the management of firms that corporate entrepreneurship should be pursued as a competitive and performance improvement strategy by all firms regardless of size. For corporate entrepreneurship to thrive, firms need to put in place an environment with support systems, structures and resources that encourage employees to behave entrepreneurially. The management should therefore ensure that they engage all the employees as they embrace corporate entrepreneurship to ensure that all staff are working towards achieving the same objective and company goal. The study is a justification of the fact that an organization with competitive innovativeness skills has a deep understanding of the business enterprises which catapults their growth to a large extent.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Corporate entrepreneurship (CE) is crucially important to the survival, profitability and growth of a company. This is due to the fact that CE activities tend to stimulate creativity and innovation as well as to encourage a culture of calculated risk-taking throughout organizational operations which may reinforce the company's position in existing markets by entering new and lucrative growth fields (Zahra, Filatotchev & Wright, 2009). The corporate entrepreneurship elements in the established firms comprise the activities such as innovation, pro-activeness and risk-taking (Zahra, 1993). Empirically, several studies have been conducted on this issue especially in the case of developed countries. Focus of these studies was on the correlation between corporate entrepreneurship dimensions in different analysis scenarios. These include comparisons between countries (Antoncic & Scarlet, 2008), between young and matured companies (George, 2005; Antoncic & Scarlet, 2008; Aktan & Bulut, 2008) and between manufacturing and non-manufacturing entities (Antoncic & Scarlet, 2008).

Corporate entrepreneurship has been defined by researchers from several perspectives. Sharma and Chrisman (1999) for instance, defined corporate entrepreneurship as “a process whereby an individual or group of individuals in an established company attempts to create a new organization or to instigate renewal or innovation within the current organizational structure. Morris and Kuratko (2002), on the other hand, defined corporate entrepreneurship as a term used to describe the entrepreneurial behaviour inside an established organization. In some circumstances, the term has also been referred to as corporate venturing or intrapreneurship (Zahra, 1991; Hornsby, Kuratko, & Zahra, 2002). Additionally, the literature on corporate entrepreneurship has been seriously discussed in theoretical (Aktan & Bulut, 2008) and field studies, in exploring its multidimensional structure such as risk-taking,

innovativeness, pro-activeness and competitive aggressiveness (Lumpkin & Dess, 1996; 2001; Sharma & Chrisman, 1999). Crucially, Lassen (2007) posits that in order to survive, firms are required to continuously manage change and maintain flexibility, thus both fields of strategic management and entrepreneurship are envisaged to become increasingly intertwined.

The literature on the financial performance and dimensions of corporate entrepreneurship has shown that corporate entrepreneurship dimensions such as proactiveness, risk-taking, innovation and competitive aggressiveness significantly and positively influences the financial performance of the companies being investigated. Lassen (2007) investigated seven established high-tech firms that evolved to radical technological innovation. The radical innovation project, as suggested in the study, entails at least one of the following: (1) new to the world performance features; (2) signification improvement in known features (5times to 10 times); (3) significant reduction in losses (30%-50%). However, in order to obtain desired balance between entrepreneurial and strategic forces, incorporation of strategic considerations at several different levels of organization was found to be crucial. Subsequently, the study proposed a strategic entrepreneur model to be adopted by the firms. For data analysis, it looked at financial performance of the firms as a primary dependent variable against the level of entrepreneurship of the firm such as the effectiveness combination of autonomy, innovativeness, risk-taking, pro-activeness and competitive aggressiveness. The study emphasized the importance of the commercialization of products and technologies for enabling the firm to capture more value in the market.

Aktan and Bulut (2008) also examined the effects of four sub-dimensions of corporate entrepreneurship (pro-activeness, risk-taking, innovation, and competitive aggressiveness) against the financial performance of 312 firms. The study used return on investment (ROI), return on equity (ROE), growth of sales and market based measurement (economic value added, market value added) and concludes that all the correlation coefficients across the corporate entrepreneurship dimensions and the financial performance components are positive and significant. The findings

demonstrate that all the four dimensions of corporate entrepreneurship examined impacts positively and significantly on financial performance.

1.1.1 Global Outlook of Corporate Entrepreneurship in State Corporations

Corporate entrepreneurship (CE) is increasingly regarded as an overall construct capturing all entrepreneurial activities in incumbent organizations (Sharma & Chrisman, 1999). The field originated from the strategic management literature, where early researchers proposed that entrepreneurial organizations can be identified by three dimensions: innovativeness, proactiveness and risk-taking. Miller (1983) suggested that the entrepreneurial organization is 'one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with proactive innovations. A non- entrepreneurial firm is one that innovates very little, is highly risk averse, and imitates the moves of competitors instead of leading the way. Therefore entrepreneurship can tentatively be viewed as a composite weighting of these three variables. Many then followed up exploring CE using different labels and introducing slightly different constructs, including entrepreneurial strategic posture (Covin & Slevin, 1989) or entrepreneurial orientation (Lumpkin & Dess, 1996), to mention only a few. Over the past decade, entrepreneurial orientation has become the most dominant label in this literature, but its salient dimensions are still based on Miller's original conceptualization (Rauch, Wiklund, Lumpkin & Frese, 2009).

Lumpkin and Dess (1996) described CE in terms of five dimensions (autonomy, innovativeness, risk taking, proactiveness and competitive aggressiveness). They, nonetheless, conclude that it is unclear whether all five dimensions will always be present in entrepreneurial firms, or whether any of these dimensions must always be present for an organization to be entrepreneurial.

Entebang (2006) conducted a study on corporate entrepreneurial orientations in state owned enterprises in Malaysia. The study attempted to determine the level of entrepreneurial orientation in a sample of Government Linked Companies (GLCs) in Malaysia in relation to the dimensions of innovation, risk taking, proactiveness

and aggressive competitiveness. According to the findings of the study, based on a questionnaire survey, the GLCs show positive entrepreneurial behavior in innovation, proactiveness and competitive aggressiveness, but are low in their rating for risk taking.

A study by Zahra (2001) using mailed questionnaires (to Chief Executive Officers) and secondary financial sources of 450 companies listed on the Fortune 500 list of the United States industrial corporations shows that 50 of the 60 possible correlations between corporate entrepreneurship and performance measures (83.3%) were significant at $p < 0.05$. The study thus concluded that corporate entrepreneurship was positively associated with accounting performance measures of the study. Short term improvements in financial performance through corporate entrepreneurship were expected to be incremental due to the magnitude of correlations of the study that was found to be stable within the contemporaneous and lagged analyses.

Romero-Martínez, Fernández-Rodríguez, and Vázquez-Inchausti (2010) analyzed the impact of privatization on the level of corporate entrepreneurship among 38 non-financial Spanish State Owned Enterprises for the period of 1985- 2000. The results indicated that corporate entrepreneurship (measured by six EO's extended dimensions: product innovation; process innovation; organizational innovation; national venturing; international venturing and strategic renewal) increased over time among firms operating in highly competitive industries. After considering the effects of ownership changes and competitive environment, the study revealed that SOEs were innovative, had improved their management structure, systems and performance. However, centralization of controlling power to the government limited the managers' autonomy in making fast decision to venture into new business activities.

1.1.2 Corporate Entrepreneurship of State Corporations in Emerging Economies

The work of Antoncic and Zorn (2004) indicated that variables of corporate entrepreneurship (new firm formation, product/service and process innovation) are a potent mediator in the organizational support–performance relationship. Additionally, the study illustrated that two out of three corporate entrepreneurship activities and performance elements were positively and significantly related. The organizational support and profitability relationship was also found to be positive. The variables of performance used as the dependent variables were measured in terms of absolute growth and profitability. Growth was assessed via two items (the average annual employment growth over the last three years and the average annual sales growth over the last three years) while profitability was assessed via three items (average annual return on sales, average annual return on assets, and average annual return on equity in the last three years).

Antoncic and Scarlet (2008) also predicted a positive relationship between corporate entrepreneurship and performance for both Slovenian and Romanian state owned enterprises. While the majority of correlations between corporate entrepreneurship and growth items as well as corporate entrepreneurship and profitability items were positive and significant, their study indicated mixed results. The Slovenian state owned enterprises, for instance, illustrated the significance of the majority of correlations between corporate entrepreneurship and growth items (86%) and corporate entrepreneurship and profitability items (71%). The Romanian state owned enterprises, on the other hand, indicated that two items of corporate entrepreneurship were important for absolute profitability (broadening business lines in current industries, the percentage of company revenue generated from newer products). Also, another two items, (broadening business lines in current industries, marketing of many new lines of products or services), are shown to have strong correlations with relative profitability.

Lekmat and Selvarajah (2008) examined the corporate entrepreneurship activity of senior managers in 400 auto-parts manufacturing state owned enterprises randomly chosen from the Thailand Automotive Industry directory 2006-2007. The study measured the relationship between corporate entrepreneurship and firm performance in terms of the growth and profitability of the sample SOEs. A 23-item corporate entrepreneurship Likert-type scale comprising new business venturing (4 items), self-renewal (11 items), pro-activeness (3 items), innovativeness (5 items) and financial performance (4 items) was used. Financial performance was measured against the sample on areas related to profitability, cash flow, sales growth and market share. The study suggested that corporate entrepreneurship has significant influence on firm performance in terms of financial aspects. Innovativeness, for instance, has the strongest effect on superior firm performance; and this is consistent with the argument that innovation is the most important component of corporate entrepreneurship as well as the dominant predictor of performance (Zahra, 1991; Antoncic & Hisrich, 2004). Self-renewal and organizational support were also found to be positively and significantly related to firm performance.

Terrence, Titikorn and Sang (2010) did a study on corporate entrepreneurship in the face of changing competition in six Thai manufacturing firms. The study sought to extend previous research on factors associated with corporate entrepreneurship (CE) by surveying operating managers and top executives in Thai manufacturing firms. The study used an expanded case method that combined face-to-face interviews with the top executives and results of responses to the corporate entrepreneurship assessment instrument (CEAI) by middle managers in three large and three medium Thai manufacturing firms. The results of this study suggest that management support for CE, their use of rewards and recognition, and their allowing workers discretion in their jobs all are significantly related to improving competitiveness, as indicated by internal performance improvement and firm financial improvement. Unlike previous studies, time allocated to idea generation/innovation activities and cross-boundary communications are not found to be significantly associated with CE in Thai manufacturing firms. These quantitative results were augmented by the interview

results, which suggest that CE in Thai manufacturing firms is affected by global competitiveness, technology, and government policies

1.1.3 Corporate Entrepreneurship of State Corporations in Africa

Goosen et al. (2002) used a three-factor key intrapreneurship model to study the significance of the financial outcomes towards company performance involving a sample of companies listed in the industrial sector of the Johannesburg Stock Exchange, South Africa. The results of the study support the hypothesis that corporate entrepreneurship dimensions such as innovativeness, pro-activeness and management's internal influence significantly contributes to financial performance. To add, there was a positive relationship between the intrapreneurship factors, specifically the management's influence and financial performance. The study found a moderate correlation of $r = 0.39$ ($p < 0.001$) between entrepreneurial posture and a financial performance scale. Among the measurements of financial performance used include return on average assets, return on average equity, total asset growth and share return. This study confirmed and emphasized the importance that positive organizational outcomes are associated with higher levels of leadership.

Nyanjom (2007) conducted a study on corporate entrepreneurship orientation and the pursuit of innovating opportunities in Botswana. The study sought to determine whether existing firms in Botswana represent the concept of an entrepreneurial company within the sphere of corporate entrepreneurship by pursuing innovating opportunities. The intention was to identify the knowledge, attitudes and beliefs of individuals as potential corporate entrepreneurs, their ability to be innovative and how such innovation is brought to fruition. To obtain quantifiable measures of the link between CE orientation and innovation, a quantitative approach was used and a formalized, cross-sectional research design. The sample consisted of 100 individuals at supervisory levels and above in large corporate companies, from eight different provinces in Botswana. A research instrument was used and convenience sampling employed. Factor analysis was performed on the questionnaire to determine its validity and reliability. A Pearson correlation coefficient test was conducted on the

three factors identified in factor analysis. The chi-square test and T-test (Mann-Whitney U test) are used to illustrate the statistically significant differences between the different variables and factors. This study proved the inextricable link between CE orientation and the pursuit of innovation as a conduit to enhancing entrepreneurial activities in companies in Botswana. The results confirm that companies with an inherently high CE orientation receive a higher benefit from the exploitation of innovation, which improves the rate of innovation flows in the companies.

Ashivata (2010) conducted a study aimed at determining the effects if any of corporate entrepreneurship on mobile phone service providers in Kenya. The study sought to determine whether the mobile phone service providers practice corporate entrepreneurship and then determined the effects on the company performance. The study revealed that corporate entrepreneurship practice cannot be ignored by mobile phone service operators in Kenya. The mobile phone service operators have various elements that amount to corporate entrepreneurship and they include new product venturing, research and development efforts, market diversification and even business strategies. The study concluded that corporate entrepreneurship brings about more revenue and thereby better performance to these firms.

1.1.4 Organizational Performance

Organizational performance comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives). According to Richard (2009) organizational performance encompasses three specific areas of firm outcomes. Financial performance (profits, return on assets, return on investment; product market performance (sales, market share); and shareholder return (total shareholder return, economic value added). An organization performance is tested against the commitment that the management made in performance management system. It measures the management plans and tests whether social, economic and ecological goals are being achieved.

According to Guralnik and David (2004), performance is achievement which is often used to show the ability or “the show” which is commonly used to show up the performance, or it also means “doing the task that shows someone’s action in working. On the other hand, Bernardin and Russel (2009) define that performance is the record of the result which is gained from the function of certain work or certain activities in certain period of time.

A firm’s financial performance and operations are integrally connected. Studies have shown that the concept of firm’s performance is multidimensional in nature (Aktan & Bulut, 2008; Wiklund & Shepherd, 2005). Within firm performance, the focus has always been on the financial side; hence it is traditionally defined in financial terms. In addition, shareholders, investors and other stakeholders are interested to get information about the firm’s performance conditions frequently. Financial performance information (return on equity, return on investment, sales growth and profitability) is the most extremely explicit and valid information among the other performance dimensions (Zhao et al., 2011). On the other hand financial information should also be available particularly for regulatory and supervisory bodies for auditing the certain fiscal issues and taxations. The extent to which this financial information should be disclosed depend upon firms’ features, that is, being private or public character of the firm, its size, or the firm’s being quoted or unquoted.

Financial performance is the firm’s ability to generate new resources from day to day operations over a specific period of time (Peterson & Peterson, 1996). Broadbert and Cullen (2005); Kaplan and Norton (2000) opine that the financial performance measures can be divided into two major forms. The traditional measures which are based on accounting/ financial data (the effect of actions on one year’s profit return on equity and return on investment) which reflects a firm’s past financial performance and on the market based measures derived from stock market values (Economic Value Added and Market Value Added approaches) which are based on valuation principles. To test the financial performance effects of CE, the performance measurement scale of this research was adapted from the frequently used traditional financial criteria.

Successful entrepreneurial accomplishments inevitably affects the firm's financial performance in the long run, barely in the short run; there might be no association among CE climate factors and firm's financial performance criteria due to project investments and firm's internal resource usages or possible losses (Aktan & Bulut,2008; Hayton, 2005). Thus, the first signals of successful entrepreneurial accomplishments may be obtained from marketplaces, sales growth and market share. Then, in the long run, these improvements in the competitive position in the marketplace may create higher financial returns as the outcomes of CE. Therefore, one criterion, that is, sales was used to reveal the association between CE and financial performance of manufacturing firms.

1.1.5 State Corporations in Kenya

State Corporations commonly referred to as Parastatals (in Kenya) are established within the provision of State Corporations Act chapter 446 of the laws of Kenya, and given the autonomy to run and concentrate on specific mandates in order to improve service delivery to the public. Although they have Board of Directors or equivalent governing bodies to oversee the day-to-day operations, they operate within the general supervision of respective Ministries under which they are created (GOK, 2012).

There are approximately 187 state corporations in Kenya today which are divided into eight broad functional categories based on the mandate and core functions; the eight categories are: Financial Corporations, Commercial/ manufacturing Corporations, Regulatory Corporations, Public universities, Training and research Corporations, Service Corporations, Regional development authorities, Tertiary education and Training Corporations. The total number of State Corporations may have changed owing to time lapse and creation of new ones (GOK, 2012).

The guidelines on terms and conditions of service for the state corporations released by office of President in consultation with the State Corporations Advisory Committee in November 2011, stresses that State Corporations have no option but to

embrace modern business management practices (Government Press, 2011). The guidelines go further to point out that each and every Corporation is expected to have a corporate strategy with clear goals, a set of values, objectives and a mission.

1.2 Statement of the Problem

In the constantly changing business environment companies tend to seek for new opportunities on the market where they can develop and sustain their competitive advantage and outperform competitors. In some environments, entrepreneurial orientation (risk taking, proactiveness, marketing aggressiveness, innovativeness and autonomy) of a firm leads to higher firm performance, and, thus, firms tend to be more entrepreneurial in order to improve their position on the market (Rauch et al., 2009). State corporations in Kenya have performed poorly compared to their private counterparts. Evidence of this is in the poor performance contracting results by majority of Parastatals. Specifically, only a few commercially oriented corporations have reported profit or surplus. This is an economic problem that policy makers are still grappling with.

The problem of poor performance of commercial Parastatals represents a drain on the exchequer and also results into non delivery on intended services. This has a negative implication on the welfare of Kenyan Citizens and may also imply that Vision 2030 is not met. This is evidenced by Government report in 2011/12, eleven (11) commercial State Corporations made losses, compared to twelve (12) in 2010/11 and sixteen (16) in 2009/10. This represents 21%, 23% and 31% respectively of all commercial oriented Government Owned Entities. The pattern of stock of publicly guaranteed debt to State Corporations in Kenya shows a decline in 2007 from 2006, but has been on an upward trend since then. The increase in this stock of debt is largely attributed to disbursements for creation of new infrastructure such as the Sondu Miriu Hydropower Project and Kenya Ports Authority under the Mombasa Port Modernization Project. It is also important to note from the Annual Public Debt Report 2011/2012, that of the Kshs. 961.3million payments by the Government on

Guaranteed Debt in 2011/12, 95.6% was on to two (2) State Corporations, pointing to significant defaults in payments (GoK, 2012).

A few researches of CE in enterprises have been conducted in Africa, for example, Gantsho (2006) carried out an experimental study on how CE can be implemented in Development Finance Institutions in South Africa. The study only concentrated on how CE could be implemented in financial institutions and also did not address the issue of how to improve performance in such institutions. Nyanjom (2007) likewise researched on how enterprises in Botswana can develop and enhance entrepreneurial innovation and encourage entrepreneurial activity within enterprises. This study failed to address the obstacles affecting CE and enterprise characteristics at a global level.

In Kenya, many studies (Lwamba, Bwisa & Sakwa, 2014; Mokaya, 2012; Mayaka, 2006; Ongore & K'Obonyo, 2011; Miring'u & Muoria, 2011; Mang'unyi, 2011) have been conducted on factors that influence performance of enterprises; however, they fail to address commercial state corporations. For example, Mayaka (2006) in their studies of leading Kenya companies concentrated on the factors that lead to the companies' success in order to develop a case study. Hence, the studies failed to identify CE dimensions that lead to good performance of the enterprises and specifically commercial state corporations.

This study sought to establish the effect of CE on the performance of state corporations in Kenya. Existing studies covered developed and emerging countries while most of the studies done in Kenya did not address corporate entrepreneurship in the state corporations in Kenya. There has also been little consensus on how state corporations generally reacted to various dimensions of corporate entrepreneurship. These are the gaps that the study wished to address.

1.3 Objectives of the Study

1.3.1 General Objective

The purpose of this study was to establish the influence of corporate entrepreneurship on performance of state corporations in Kenya.

1.3.2 Specific Objectives

This study was guided by the following specific objectives:

1. To establish the influence of pro activeness on performance of state corporations in Kenya.
2. To determine the influence of risk taking on performance of state corporations in Kenya.
3. To evaluate the influence of innovativeness on performance of state corporations in Kenya.
4. To establish the influence of competitive aggressiveness on performance of state corporations in Kenya.
5. To determine the influence of organization factors on the performance of state corporations in Kenya.

1.3 Research Hypotheses

The study hypotheses were;

H₀₁: Pro activeness has no influence on performance of state corporations in Kenya.

H_{A1}: Pro activeness influences performance of state corporations in Kenya.

H₀₂: Risk taking does not influence performance of state corporations in Kenya.

H_{A2}: Risk taking influences performance of state corporations in Kenya.

H₀₃: Innovativeness has no influence on performance of state corporations in Kenya.

H_{A3}: Innovativeness influences performance of state corporations in Kenya.

H₀₄: Competitive aggressiveness has no influence on performance of state corporations in Kenya.

H_{A4}: Competitive aggressiveness influences performance of state corporations in Kenya.

H_{A5}: Organization factors influence performance of state corporations in Kenya.

H₀₅: Organization factors do not influence performance of state corporations in Kenya

1.5 Significance of the Study

This study can be of importance to various stakeholders. Among them that can find this study important are the state corporations themselves, the employees, the government, educationists and academicians, students.

The government in its effort to realize its strategic goals and to promote growth of the economy through state corporations can appreciate the role of corporate entrepreneurship in the growth process. The report can empower leaders with proactive management of entrepreneurship and influence improvement in service delivery.

The report was of great value to both the employer and the employees. It helped organizations to understand how they can utilize and tap the potential of opportunities available through entrepreneurial orientation for business growth. It also helped them understand the various dimensions of corporate entrepreneurship that are available and invest in adequate resources to these activities as well as match them with their respective organizational goals. Employees on the other hand appreciated the necessity of development whether through self-development or through their organizations and strived to develop to remain relevant and of value.

This study aimed at making contributions to knowledge on corporate entrepreneurship. The academic fraternity researchers and students can find this research important in helping them understand dimensions of corporate entrepreneurship and in effect it can open up research and study opportunities.

1.6 Scope of the Study

This study sought to establish the influence of corporate entrepreneurship on performance of state corporations in Kenya. Specifically, the study looked at whether pro activeness, risk taking, innovativeness, competitive aggressiveness and organization factors influence performance of commercial state corporations in Kenya. The study population was the 187 state corporations listed in the Presidential Task Force Report (2013) and a purposive sample of 55 commercial state corporations was taken. The study was conducted in year 2014, and data was collected during this period.

1.7 Limitations of the Study

The study targeted financial performance which is a sensitive area in commercial state corporations. The area of corporate entrepreneurship is also sensitive and therefore the respondents may feel intruded when requested to complete a questionnaire which requires them to disclose such information. However confidentiality and protection of information was assured to the company management and the respondents. Information was coded to avoid direct reference to particular companies and individuals. The study was also limited to 55 commercial state corporations due to time all 187 state corporations could not be studied. Also due to time and budgetary constraints the study concentrated on the objectives stated.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter summarizes the information from other researchers who had carried out their research in the same sphere of corporate entrepreneurship and firm performance. The study specifically covers the theoretical discussions, conceptual framework and model and research gap.

2.2 Theoretical Framework

This study was built on the underpinning theories, including the Schumpeterian Theory on Innovations, the discovery and creative theories of entrepreneurship and theories of corporate entrepreneurship (CE model of Lumpkin and Dess, a proposed CE model (Mokaya, 2012) and Goosen de Coning and Smit model) the latter of which was used to guide the study.

2.2.1 Schumpeterian Theory on Innovations

Schumpeter's (1934) theory of innovative profits emphasized the role of entrepreneurship (his term was entrepreneurial profits) and the seeking out of opportunities for novel value and generating activities which would expand (and transform) the circular flow of income through risk taking, pro activity by the enterprise leadership and innovation which aims at fostering identification of opportunities through intellectual capital of entrepreneur to maximize the potential profit and growth.

Schumpeterian growth theory goes beyond economist theory by distinguishing explicitly between physical and intellectual capital, and between saving, which makes physical capital grow, and innovation, which makes intellectual capital grow. It supposes that technological progress comes from innovations carried out by firms motivated by the pursuit of profit, and that it involves what Schumpeter called

“creative destruction”. That is, each innovation is aimed at creating some new process or product that gives its creator a competitive advantage over its business rivals; it does so by rendering obsolete some previous innovation; and it is in turn destined to be rendered obsolete by future innovations (Schumpeter, 1934).

Endogenous growth theory challenges this neoclassical view by proposing channels through which the rate of technological progress, and hence the long-run rate of economic growth, can be influenced by economic factors. It starts from the observation that technological progress takes place through innovations, in the form of new products, processes and markets, many of which are the result of economic activities. For example, because firms learn from experience how to produce more efficiently, a higher pace of economic activity can raise the pace of process innovation by giving firms more production experience. Also, because many innovations result from R&D expenditures undertaken by profit-seeking firms, economic policies with respect to trade, competition, education, taxes and intellectual property can influence the rate of innovation by affecting the private costs and benefits of doing R&D (Dinopoulos & Thompson, 1998).

Schumpeter, as cited by Swedberg (2000), pointed out economic behavior is somewhat automatic in nature and more likely to be standardized, while entrepreneurship consists of doing new things in a new manner, innovation being an essential value. As economics focused on the external influences over organizations, he believed that change could occur from the inside, and then go through a form of business cycle to really generate economic change. He set up a new production function where the entrepreneur is seen as making new combinations of already existing materials and forces, in terms of innovation; such as the introduction of a new good, introduction of a new method of production, opening of a new market, conquest of a new source of production input, and a new organization of an industry (Casson, 2002). For Schumpeter, the entrepreneur is motivated by the desire for power and independence, the will to succeed, and the satisfaction of getting things done (Swedberg, 2000). He conceptualized ‘creative destruction’ as a process of transformation that accompanies innovation where there is an incessant destruction

of old ways of doing things substituted by creative new ways, which lead to constant innovation (Aghion & Howitt, 1992).

The entrepreneur's crucial significance to the dynamics of the capitalist system flows from the fact that it is the entrepreneur's innovations that disrupt the economy and move it forward from one equilibrium to the other. Rather than adapting to external pressures, the entrepreneur destroys the static equilibrium from within the system by inventing new products, processes or behaviors that contrast the routine systems and activities (McDaniel, 2005; Drejer, 2004).

2.2.2 Theories of Entrepreneurship

Theory of entrepreneurship is a psychological approach, necessary to understand entrepreneurship. It argues that any theory of entrepreneurship should use active actions as a starting point — entrepreneurship is the epitome of an active agent in the market (rather than a reactive agent). The term entrepreneur originally meant an owner-manager, often the founder of business, the man who combined land, labour and capital for productive use. It is now sometimes used to refer to the innovative manager, who may or may not be the owner, or for the manager who makes crucial decisions for the company (Dale, 1987). According to Petrin (1997) entrepreneurship is defined variously so that to some, entrepreneurship means primarily innovation, to others it means risk-taking, while to others, a market stabilizing force and to others still, it means starting, owning and managing a small business. Quoting from Tyson, Petrin and Rogers (1994), Petrin (1997) adds that the entrepreneur is viewed as a person who either creates new markets, finds new sources of supply and new organizational forms; or as a person who is willing to take risks; or a person who, by exploiting market opportunities, eliminates disequilibrium between aggregate supply and aggregate demand, or as one who owns and operates a business. EO therefore encompasses creation of new combinations of production factors, new markets, and new sources of supply and new organizational forms.

Two theories of entrepreneurship are advanced for this study: the discovery theory and the creative theory of entrepreneurship.

a) The Discovery Theory of Entrepreneurship

This theory, also known as the Individual/Opportunity Nexus Theory focuses on the existence of discovery and exploitation of opportunities and is grounded on the suggestion that opportunities are objective; individuals are unique, and entrepreneurs are risk-taking (Avarez, n.d.). The theory has three assumptions: “objectives and opportunities”, “individuals are unique”, and “entrepreneurs are risk-bearing”.

Opportunities have an objective component and they exist whether or not they are recognized. They are derived from the attributes of the industries or markets within which an entrepreneur contemplates action. If an entrepreneur understands the attributes or structure of an industry, he or she will be able to anticipate the kinds of opportunities present in that industry, e.g. the primary opportunity in fragmented markets is consolidation in order to exploit economies of scale. The primary opportunity in mature industries is to refine products and undertake process innovation to improve quality and lower costs (Porter, 1980). Understanding entrepreneurial opportunities is therefore important because the characteristics of an opportunity influence the value they are likely to create.

Entrepreneurship requires differences in people and these differences manifest themselves in the ability to recognize opportunities (Shane, 2003). Individuals are alert to existing opportunities (Kirzner, 1973). Entrepreneurial alertness is an attitude of receptiveness of available but currently overlooked opportunities in a market (Kirzner, 1997). This assumption recognizes the entrepreneurial nature of human action taken and the human agent that is at all times spontaneously on the lookout for unnoticed market imperfections. The recognition of these market imperfections might inspire new activity (Alvarez & Barney, 2007). Entrepreneurial alertness is not a deliberate search, but is the constant scanning of the environment by the entrepreneur who notices market imperfections. The recognition of these

imperfections is accompanied by a sense of 'surprise' of the imperfection that had not previously been recognized. The alert individuals are on the lookout for imperfectly distributed information about potentially mispriced resources that they may have access to before others. These opportunities exist independent of actors but the economic actor must act on the opportunity to earn profits.

Risk-bearing is a necessary part of the entrepreneurial process (Shane, 2003). The Individual/Opportunity nexus assumes conditions of risk. The economic actor does not know with certainty whether the opportunity discovered will be successful; it has a probabilistic chance of being so. Thus, the entrepreneurial process is about risk, not certainty. This theory is applicable to this study as it relates to a number of the dimensions of entrepreneurial orientation - opportunity identification and development and entrepreneurial risk-taking.

b) The Creative Theory of Entrepreneurship

This theory is focused on the entrepreneur and the creation of the firm (Schumpeter, 1934; Venkataraman, 2003). The theory is grounded on three major assumptions: opportunities are subjective; opportunities are not recognized, they are created; and entrepreneurs bear uncertainty.

Opportunities are created through a series of decisions to exploit a potential opportunity. They are created by economic actors; they do not exist independently. Their existence holds the potential for profit generation. The theory assumes uncertainty, not risk. Under conditions of uncertainty, the attributes of an industry are either knowable, or are changing in ways difficult to predict. Opportunities must therefore be created and refined through a process of hypothesizing what the opportunity might be; testing the hypothesis, until it roughly correlates with what turns out to be objective opportunities in an industry.

Examples are to be found in many industries, for example, the electronics or the motor vehicle industries - firms like Samsung or Toyota cannot ask customers for guidance on how to create new products. Any new products they develop will be

beyond the experience or potential of customers. These firms must therefore go through a process of generating new products, trying them with customers, discover which of them are reasonably accepted or successful; refine them to improve marketability. Opportunities are discovered by analyzing market and industry structures - "opportunity creation" - through hypothesis testing and learning. Opportunities do not exist independent of the actions of the entrepreneur but are created by the entrepreneur. People are not different; there are only differences in decision-making under entrepreneurial decision-making and under entrepreneurial uncertainty conditions. The entrepreneur is not autonomous but the creator of the opportunity. Decision-making occurs in the absence of correct procedures for exploiting existing resources.

Uncertainty, not risk, is a necessary condition for entrepreneurship, hence reliance on assumptions of uncertainty. Risk refers to the situation when two conditions exist: 1) when possible future outcomes of a decision are known and when the probability of each of these outcomes are also known (Wald, 1950), hence, three positions: all possible future outcomes are known before decision-making; the probability of any one of these outcomes occurring is ≤ 1 , but > 0 ; the probability of all outcomes occurring = 1. Uncertainty exists when possible outcomes of a decision and the probability of those outcomes are not known (Knight, 1921); decision-makers do not know that they do not know possible future outcomes (Shackle, 1972). This theory is relevant to entrepreneurial risk-taking and innovativeness, i.e. creativity.

2.2.3 Theories of Corporate Entrepreneurship

Contemporary theories and models of entrepreneurial behaviour emphasize the interaction between an individual's personality and the environment (Endler, 1983; Martin, 1984; Gartner, 1988; Potkay & Allen, 1986). These theories include Gartner's (1988) conceptual framework for describing new venture creation, Birds' (1988) model of entrepreneurial intentions, Greenberger and Sexton's (1988) model of new venture creation and Bygrave's (1989) paradigm for entrepreneurship research. The most relevant theories for this study are discussed here below.

a) CE Model of Lumpkin and Dess

In comparison, Lumpkin and Dess (1996) present an alternative model for entrepreneurial orientation represented in figure 2.1. These authors describe entrepreneurial orientation in terms of the five dimensions (autonomy, innovativeness, risk taking proactiveness and competitive aggressiveness). Entrepreneurial Orientation, according to Lumpkin and Dess (1996) refers to the processes, practices, and decision-making activities that lead to a new entry. They state that a new entry is accomplished by entering new markets with new or existing goods and services. In this context a new entry is the idea that underlies the concept of CE. Key dimensions that characterize EO include a propensity to act autonomously, a willingness to innovate and take risks and a tendency to be aggressive toward competitors and proactive relative to marketplace opportunities.

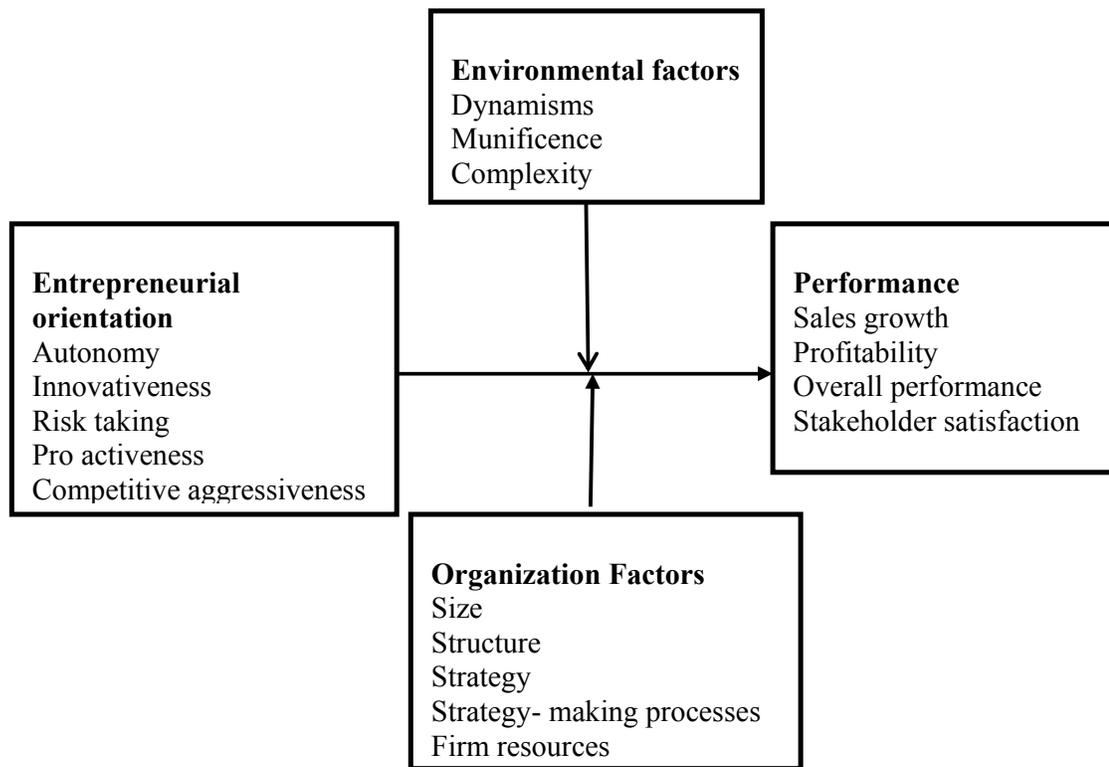


Figure 2.1: Conceptual model of the entrepreneurial orientation-performance relationship (Lumpkin & Dess, 1996)

The model differs from the (Covin & Slevin, 1991) model since it indicates that both environmental and organizational factors influence the relationship between entrepreneurial orientation and firm performance, yet there is no recognition that firm performance influences entrepreneurial orientation. This implies that the model presented by Lumpkin and Dess represents a static view of the firm with no feedback between performance, entrepreneurial orientation and the environment and organizational factors. The Covin and Slevin model incorporates feedback between the different relationships implying that entrepreneurial orientation itself is a dynamic concept. The model is useful in this study since it provides a source of entrepreneurial constructs such as autonomy, innovativeness, risk taking proactiveness and competitive aggressiveness. These constructs have been

incorporated in the proposed conceptual framework.

b) The CE model of Goosen de Coning and Smit

Goosen et al.(2002) developed a CE model incorporating three components of CE that have been well documented in the literature. These are innovativeness, self-renewal and pro-activeness. The authors also included the component “new business venturing” from the work of Antoncic and Hisrich (2001).The final CE model with new features is shown in figure 2.2

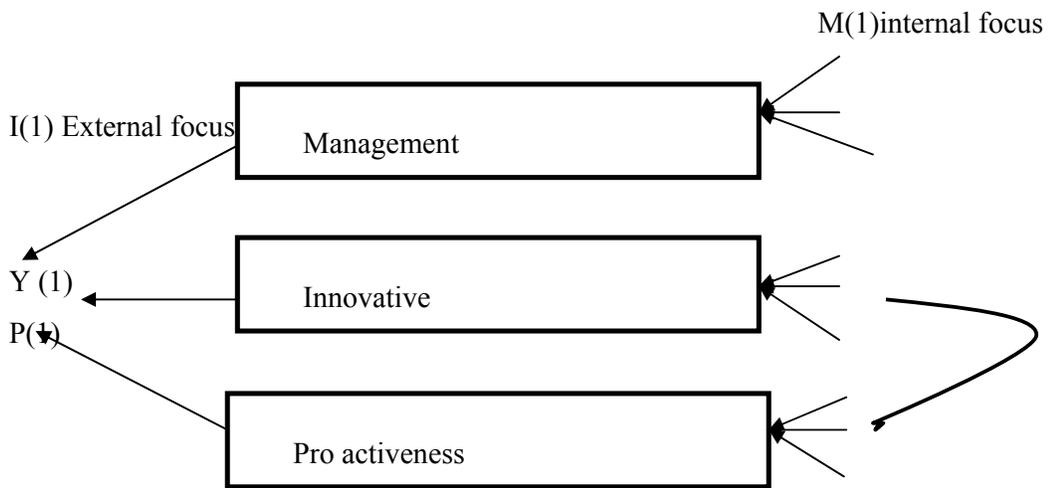


Figure 2.2: The development of a factor based instrument to measure CE (Goosen, de Coning &Smit, 2002)

In the model Y(1) is the level of CE; I(1) is the innovativeness factor; P(1) is the proactiveness factor; and M(1) is the management factor. The Goosen, de Coning and Smit (2002) model is particularly germane to the present study. It has offered rich and new dimensions to the construct of CE. Although the literature on CE recognizes the importance of management support, the Goosen, et al. (2002) study

has amplified on the CE construct by recognizing nine related dimensions, namely management style, management orientation, communication, environment, structures, strategy, risk-taking, creativity and innovation, product innovativeness and proactiveness. The new additional dimensions add to the richness of the CE culture. Some of the aspects have not been captured in CE models developed before. The model is useful in this study since it provides a source of entrepreneurial constructs such as autonomy, innovativeness, proactiveness. It also covers management which is an organization factor. These constructs have been incorporated in the proposed conceptual framework.

c) A proposed CE Model (Mokaya 2012)

The proposed model borrows heavily from those proposed by other theorists(Heinonen & Korvela,2003;Niornsby et al., 1993). It is based on the premise that corporate entrepreneurship efforts result in increased performance and therefore firms that engage in intrapreneurial activities are expected to achieve higher levels of growth and profitability than organizations that do not. The model is useful in this study since it provides a source of entrepreneurial constructs such as autonomy, innovativeness, risk taking proactiveness and competitive aggressiveness. It also proposes organization characteristics as contributing to firm performance. These constructs have been incorporated in the proposed conceptual framework.

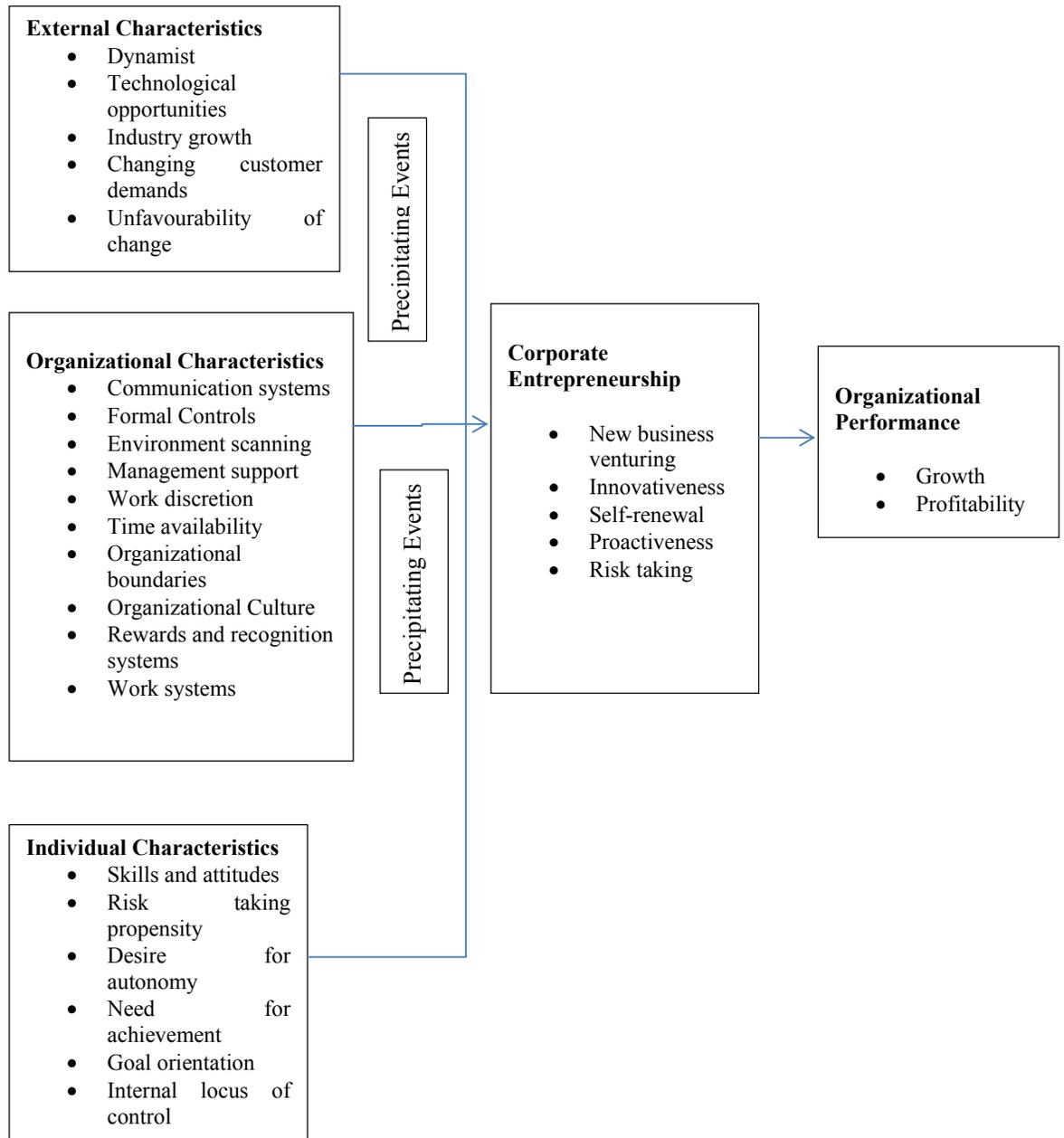


Figure 2.3: A proposed Corporate Entrepreneurship Model (Mokaya, 2012)

2.3 Conceptual Framework

2.3.1 Derivation of Conceptual Framework

A lot of empirical evidence can be found in the literature that states corporate entrepreneurship improves performance by increasing company's proactivity and willingness to take risks by pioneering the development of new products, processes and services.(Rauch, Wiklund, Lumpkin, & Frese, 2009).While there are several theories and approaches to corporate entrepreneurship, this study focuses on the factors affecting firm performance. It explores the relationship between corporate entrepreneurship and organizational antecedents that affect firm performance. Three models that closely depict this relationship are explained above and led to the development of the conceptual framework. They include CE model of Lumpkin and Dess , a proposed CE model by Mokaya and Goosen de Coning and Smit model.

Mugenda and Mugenda (2003) and Smith (2004), define a conceptual framework as a hypothesized model, identifying the area under study and the relationship between the dependent and independent variables. The theoretical base of this paper is founded by reviewing the literature. In the literature, causal linkages have been identified among entrepreneurial orientation, firm resources, innovation and firm performance. Previous studies showed that EO is a key ingredient for organizational success and has been found to lead to higher performance (Zahra & Covin, 1995; Wiklund & Shepherd, 2005).Lumpkin and Dess (1996) also suggested that EO is a source of competitive advantage. Firms that possess higher levels of EO will perform better than those with lower level of EO (Lyon et al, 2000; Rauch et al., 2009). By adopting higher levels of EO, it allows the firms to have the ability to identify and seize opportunities in a way that differentiates them from non-entrepreneurial firms (Covin & Slevin, 1991).

The specific dimensions of EO were introduced for the first time by Miller (1983). He suggested that the entrepreneurial firm is one that engages in product market innovation, undertakes somewhat risky ventures, and is first to come up with

'proactive' innovation, beating competitors to the punch (Miller, 1983). Accordingly, Miller identified the salient dimensions of EO as innovative, risk taking, and proactive. However the most frequently found and tested multi-dimensional structure of CE are the dimensions of innovativeness, risk taking, proactiveness, autonomy and competitive aggressiveness (Aktan & Bulut, 2008; Lumpkin & Dess, 2001; Sharma & Chrisman, 1999; Lwamba, Bwisa & Sakwa, 2014).

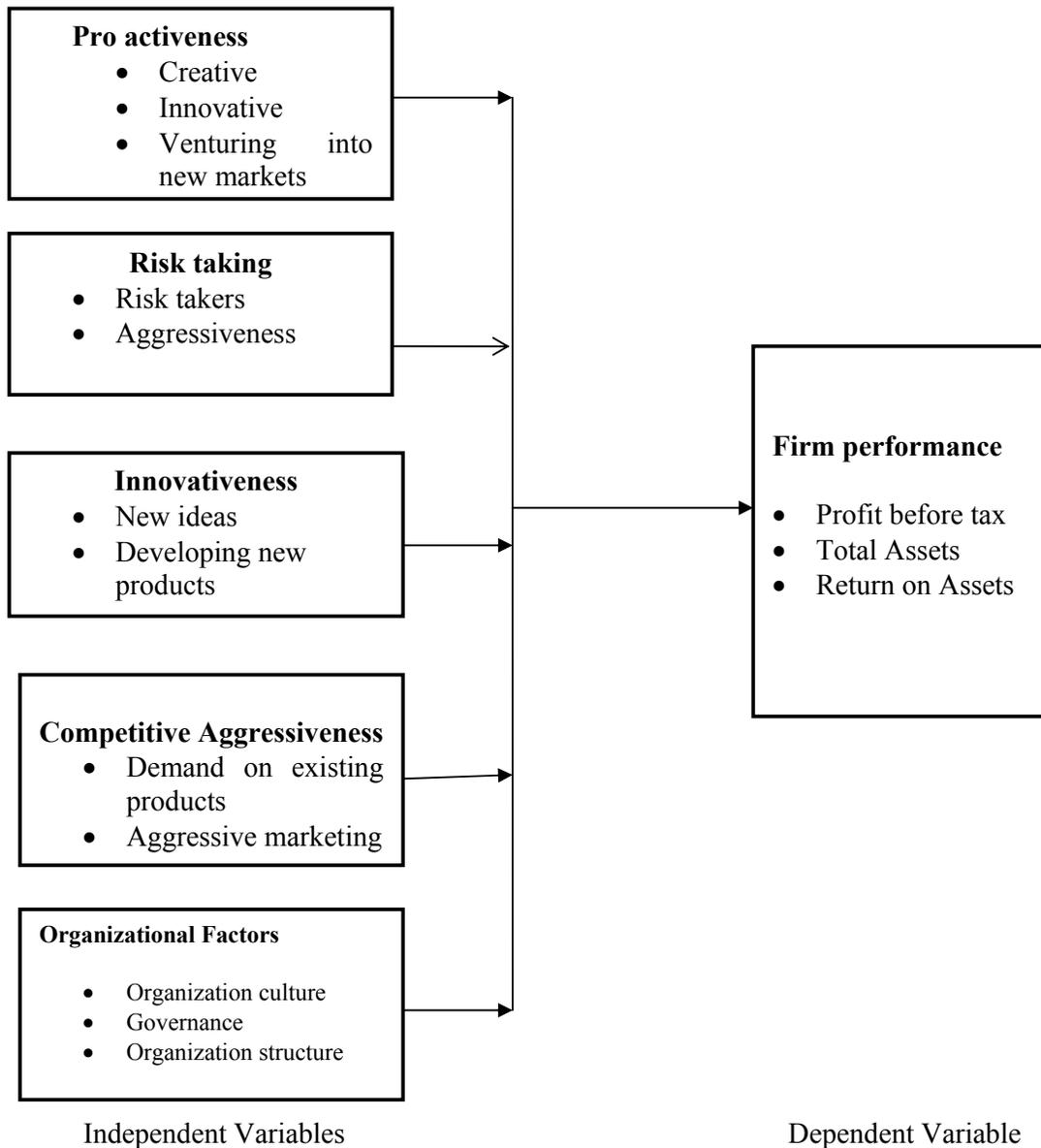


Figure 2.4: Conceptual Framework

Figure 2.4 shows the conceptual framework. This study used other models and conceptual frameworks to blend organizational factors with entrepreneurial orientation. The framework borrowed from the works of Lumpkin and Dess, Mokaya and Goosen de Coning and Smit models. However it departs from these models as it hypothesizes that two categories (organizational factors and entrepreneurial orientation) directly influence firm performance. The corporate

entrepreneurship variable includes risk taking, proactiveness, innovativeness, competitive aggressiveness. Organization factors include organization culture, structure and governance.

2.3.1 Pro Activeness and Firm Performance

Pro-activeness shows a firm's aggressive pursuit of market opportunities and a strong emphasis on wanting to be among the very first to implement innovation in its industry (Rauch et al.,2009). Pro-activeness is an opportunity-seeking, forward-looking perspective characterized by the introduction of new products and services ahead of the competitors and acting in anticipation of future demand (Lumpkin & Dess 1996; Rauch et al.,2009). Miller (1983) defines pro-activeness as an indication of a company's determination to pursue promising opportunities, rather than merely responding to competitors' moves. According to Lumpkin and Dess (1996), pro-activeness refers to how a firm relates to market opportunities in the process of new entry. They added that pro-activeness involves pursuing opportunities and the will to respond aggressively to competitors.

Wiklund (1999) stated that pro-activeness gives firms the ability to present new products or services to the market ahead of competitors, which also gives them a competitive advantage. Pro-active firms have a greater tendency to lead than to follow in the development of new procedures and technologies and the introduction of new products and services (Lumpkin & Dess, 1996). An entrepreneurial firm instills flexibility and grants individuals and teams the freedom to exercise their creativity to champion new ideas (Wang, 2008). These activities by the firm's team enable the firm to be more pro-active in introducing new products. Pro-activeness suggests an emphasis on initiating activities. It is closely related to innovativeness. For example, new product innovation is part of innovativeness but also forms part of pro-activeness by the firm (Lumpkin & Dess, 1996).

According to Lumpkin and Dess (1996), the importance of being a first-mover or pioneer has been frequently emphasized in the entrepreneurial process since

Schumpeter. Proactive firms are likely to be first-movers when they face threats and/or opportunities in their environment (Agca et al.,2009). In the business world, proactive firms tend to be leaders, rather than followers of other corporations (Lumpkin & Dess, 1996).

According to Zahra and Garvis (2000), proactive corporate entrepreneurship, such as first entry, can improve a firm's performance. The first entrants tend to exploit opportunities before their rivals and enjoy significant strategic advantage in the markets (Zahra & Garvis, 2000). Consequently, pro-activeness can be conducive to a company's performance improvement.

2.3.2 Risk Taking and Firm Performance

Risk taking involves taking bold actions by venturing into the unknown, borrowing heavily and/or committing significant resources to ventures in uncertain environments (Wang, 2008; Lumpkin *et al.*,2009; Rauch *et al.*,2009). Zahra and Garvis (2000) define risk taking as a company's disposition to support innovative projects, even when the payoff from these activities is uncertain. Subsequently these activities can enhance the company's ability to recognize and exploit market opportunities ahead of its competitors.

Autonomy within the entrepreneurial organization allows individuals to act freely and be able to explore new ideas (Lumpkin *et al.*,2009) that can create competitive advantage. This type of behaviour by individuals within the firm brings about the possibility of acting on potential ideas for the future growth of the firm. The behaviour of managers by insisting on following the tried-and-tested paths or tending to support only projects with expected returns that are certain, have a negative relation to performance as compared to taking bold actions by entering the unknown business environment (Lumpkin & Dess, 1996). Thus, the support by senior management within the organization allows for individuals to take calculated risks.

Entrepreneurial firms are risk-tolerant and this characteristic often stimulates them to eliminate the kind of traditional authoritarian structures that inhibit collaborative

learning (Wang, 2008). These firms allow individuals and teams to act independently and exercise their creativity by taking risks in coming up with new ideas (Lumpkin & Dess, 1996). According to Miller (1983) and Wang (2008) risk-tolerant and innovative firms' managers encourage new ways of thinking - tolerating mistakes and rewarding individuals with new ideas that contribute to innovation and business improvement. The culture of allowing individuals to making mistakes when trying new ways of improving business performance promotes a sense of open-mindedness (Moreno & Casillas, 2008).

2.3.3 Innovativeness and Firm Performance

Innovativeness reflects a firm's tendency to engage in, and support, new ideas, uniqueness, experimentation and creative processes that may result in new products, services, or technological processes (Clark, 2010; Lumpkin and Dess, 1996). Innovative firms have capabilities to monitor the market changes and respond quickly, thus capitalizing on emerging opportunities (Wiklund, 1999). According to Huse et al.(2005), firms operating in turbulent environments are often characterized by rapid and frequent new product creation and high levels of research and development. Such environments appear to play a crucial role in influencing corporate entrepreneurship in an organization. Environmental changes stimulate firms to innovate by introducing new technologies, new products, service and processes to take advantage of opportunities arising from the dynamic environment (Huse et al.,2005). Environmental change can cause the firm to search for new means to remain competitive, which foster process innovation activities. Innovation keeps firms ahead of their competitors, thereby gaining a competitive advantage that leads to improved financial results (Wiklund, 1999).

Zahra and Garvis (2000) define innovation as the firm's ability to create new products and successfully introduce them to the market. Innovation also revises the firm's knowledge base, allowing it to develop new competitive approaches, which can be exploited in new foreign markets to achieve growth and profitability (Zahra & Garvis, 2000). Clark (2010) found that companies that are innovators based their

focus on new innovations, the number of new innovations and levels of investment in new innovations.

Venter et al (2008), state that at the centre of entrepreneurship is innovativeness". An organization that innovates is classified as being entrepreneurial. Entrepreneurial activities influence a company's commitment to innovation (Miller, 1983; Lumpkin & Dess, 1996) by offering innovative products and processes. According to Huse et al.(2005), innovation has become a source of international competitive advantage.

Zahra and Garvis (2000) stated that innovation can also lead to the development of key capabilities that can improve a firm's performance. They also put emphasis on the fact that innovation generates products, goods, processes, services and systems that can be used to meet customer needs and build a strong market position. Thus innovation can improve the firm's profitability and fuel its growth. Better profitability and sustainability are also realized from continuous innovation by the entrepreneurial organisation. Huse et al.(2005) stated that innovation can be distinguished in three ways: the development of new products and services, the adoption of new technologies with an intention to improve production methods, the establishment of novel organizational structures and administrative systems.

Innovation involves reinventing products in a profitable manner (Venter et al.,2008). The level of entrepreneurial behaviour by the organization allows the company constantly to evaluate the potential possible business opportunities that will bring growth and sustainable business (Lumpkin & Dess, 1996).

Innovation can be forced by industrial factors (fast technology changes in the industry, customer demands), environmental dynamism (new processes, technology) and international activities such as international diversification (Huse et al.,2005). According to Lumpkin and Dess (1996), a level of expenditure and a number of resources dedicated to research and development represent a firm's involvement in innovation activities. Innovation stimulates firms to behave entrepreneurially. According to Venter et al (2008), most technological firms use innovation to achieve

objectives such as maximum profits, gaining market share, creating niche markets and adding value for stakeholders.

2.3.4 Competitive Aggressiveness and Firm Performance

Firms which could not take a new position against the increased intensity of the competition and/or became late to enter into the growing markets, compute the opportunity costs and try to make alternative strategies to survive or to remain in competition (Birkinshaw, Hood & Young, 2005). Firms which decide to gain share from those markets, adopt competitive aggressive behaviours by employing marketing strategies such as competing on price, increasing promotion and/or combating for the distribution channels or imitating the competitors' actions and/or products (Dess, Lumpkin, & Eisner, 2007). By acting aggressive via marketing tools, they force relatively stronger competitors to make entry barriers for the current markets. From the two points of view –either new entrants or existing firms- the purposes of these bold and aggressive behaviors are initially to remain in competition and then to make profit by fulfilling the opportunities of markets.

Competitive aggressiveness is considered as a strong struggle to overcome the competitors; it is characterized by a combative attitude or aggressive response, which seeks a better positioning in the market or defeat threats. Competitive aggressiveness, which has a relation with the organization's propensity, intensely and directly challenges its competitors reaching better market position, seeking to overcome them. Chene Hambrick (1995) deal with the competitive aggressiveness as being an organization's trend in responding aggressively to the competition actions, looking forward to reaching competitive advantage, dominating it with responsiveness. Similarly, Lumpkin and Dess (2001) characterized it as threat responses. For Venkatraman (1989), the competitive aggressiveness is the position adopted by a company, through allocating resources in order to gain positions in a specific market faster than its competitors. It can be based on product innovation, market development, and high investment to improve market share and to achieve a competitive position. Covin and Covin (1990) point out that some evidences of

competitive aggressiveness can be reached when evaluating the management attitude as far as competitiveness is concerned. This evidence can also reflect the use of non-conventional competition methods instead of traditional or reliable ones (Lumpkin & Dess, 1996).

2.3.5 Organizational Factors and Firm Performance

The evolution of organizations and change management system in planning, require new ways of orientation and require organizations to continuously adapt to environmental changes inside and outside the organization. Organization's environment includes a set of 'actors' and interest groups represented by owners, managers, customers, suppliers, etc., known in the literature as stakeholders, who are directly or indirectly affected by the organization's work and have the means and control over it. These conditions require achieving harmony between the organization's external (economic, political, technological, legal) and internal environment (resources, structure, organizational culture, leadership style, manner of exercising the power) (Bermig, 2010).

Organizations should identify the factors related to the success of their organization, since failure in achieving the goals related to these factors may lead to the failure of the organization. A key success factor is a performance area of critical importance in achieving consistently high productivity. There are at least two broad categories of key success factors that are common to virtually all organizations' business processes and human processes. Human processes include good leadership, good communication, vision, teamwork and embracing change, resources, structure, organizational culture, leadership style, manner of exercising the power (Porter, 2001).

Mang'unyi (2011) carried out a study to explore the ownership structure and Corporate Governance and its effects on performance of firms. His study focused on selected banks in Kenya. His study revealed that there was significant different between Corporate Governance and financial performance of banks. The study

recommended that corporate entities should promote Corporate Governance to send positive signals to potential investors and those regulatory agencies including the government should promote and socialize Corporate Governance and its relationship to firm performance across industries.

Miring'u and Muoria (2011) analyzed the effects of Corporate Governance on performance of commercial state corporations in Kenya. Using a descriptive study design, the study sampled 30 SCs out of 41 state corporations in Kenya and studied the relationship between financial performance, board composition and size. The study found a positive relationship between Return on Equity (ROE) and board compositions of all State Corporations.

Dehaene et al. (2001) found that board size is positively related to company performance. However, the results of Haniffa et al. (2006) are inconclusive. Using a market return measure of performance, their results suggest that a large board is seen as less effective in monitoring performance, but when accounting returns are used, large boards seem to provide the firms with the diversity in contacts, experience and expertise needed to enhance performance. Yermack (2006) finds an inverse relationship between board size and firm value; in addition, financial ratios related to profitability and operating efficiency also appear to decline as board size grows.

A study conducted in Kenya by Ongore and K'Obonyo (2011) on interrelations among ownership, board and manager characteristics and firm performance in a sample of 54 firms listed at the Nairobi Stock Exchange (NSE). Using PPMC, Logistic Regression and Stepwise Regression, the paper presents evidence of significant positive relationship between foreign, insider, institutional and diverse ownership forms, and firm performance. However, the relationship between ownership concentration and government, and firm performance was significantly negative. The role of boards was found to be of very little value, mainly due to lack of adherence to board member selection criteria. The results also show significant positive relationship between managerial discretion and performance. Collectively, these results are consistent with pertinent literature with regard to the implications of

government, foreign, manager (insider) and institutional ownership forms, but significantly differ concerning the effects of ownership concentration and diverse ownership on firm performance.

Empirical evidence on the effect of the board size on performance is mixed. Manderlier et al(2009) found that board size has a positive impact on operational efficiency, suggesting that a large number of directors positively influence the rationalization of operational costs. On the contrary, Bermig (2010) demonstrated that smaller boards are more effective in monitoring management and thus associated with better performance. He found a significant negative effect on the board size and earnings, management suggesting that smaller boards are more efficient in monitoring. But benefits of this have to be compared with disadvantages when other dimensions of the firm performance are taken into account. Wu et al (2009) also found that firm performance is negative and significant in relation to board size.

2.4 Empirical Review

Corporate entrepreneurship is the main driver of innovation, risk taking and pro-activeness and can be triggered by different activities and actions within, and outside, the organization (Miller 1983; Dess et al., 1999). Tang, Tang, Marino, Zhang and Li (2009) have argued that ever increasing levels of entrepreneurial behaviour (innovation, risk taking, and pro-activeness) can lead to worsening company performance. Based on their research findings, the relationship between EO and company performance is curvilinear. They found that, over a certain period, a continuous increase in the level of corporate entrepreneurship negatively impacted on company performance.

Lekmat and Selvarajah (2008) examined the corporate entrepreneurship activity of senior managers in 400 auto-parts manufacturing companies randomly chosen from the Thailand Automotive Industry directory 2006-2007. The study measures the relationship between corporate entrepreneurship and firm performance in terms of the growth and profitability of the sample firms. A 23-item corporate

entrepreneurship Likert-type scale comprising new business venturing (4 items), self-renewal (11 items), pro-activeness (3 items), innovativeness (5 items) and financial performance (4 items) was used. Financial performance was measured against the sample on areas related to profitability, cash flow, sales growth and market share. The study suggests that corporate entrepreneurship has significant influence on firm performance in terms of financial aspects. Innovativeness, for instance, has the strongest effect on superior firm performance; and this is consistent with the preceding argument that innovation is the most important component of corporate entrepreneurship as well as the dominant predictor of performance (Zahra, 1991; Antoncic & Hisrich, 2004). Self-renewal and organizational support were also found to be positively and significantly related to firm performance.

According to a limited number of studies on interaction between corporate entrepreneurship and firm's financial performance that were conducted in Turkey as a developing market, there are different relationships and interaction between concepts in terms of these five different dimensions. The results of research that was conducted by Danişman and Erkocaoğlan (2007) on companies that publicly traded on Istanbul Stock Exchange (ISE) showed that there is a positive relationship between corporate entrepreneurship dimension of innovation and firms' profitability and there is no significant relationship with growth. In another study that was conducted by Aktan and Bulut (2008) demonstrated that, corporate entrepreneurship dimensions of risk taking, competitive aggressiveness, innovation and proactiveness have a weak impact on firms' financial performance. Another study by Kaya (2006) concluded that there is moderate and positive relationship between corporate entrepreneurship and firms' performance, and human resources was taken as an intermediary between those two concepts. According to research on 347 companies made by Fiş and Çetindamar (2009), there is a strong relationship between corporate entrepreneurship and firm's financial performance. In the studies above, the corporate entrepreneurship dimensions were examined, and from the results it is evident that one or several of these dimensions have effect on business performance.

2.5 Critique of Existing Literature

Aktan and Bulut (2008) examined the effects of four sub-dimensions of corporate entrepreneurship (pro-activeness, risk-taking, innovation, and competitive aggressiveness) against the financial performance of 312 firms. The study used return on investment (ROI), return on equity (ROE), growth of sales and market based measurement (economic value added, market value added) and concludes that all the correlation coefficients across the corporate entrepreneurship dimensions and the financial performance components are positive and significant. The findings demonstrate that all the four dimensions of corporate entrepreneurship examined impacts positively and significantly on financial performance. The finding from the above study was only limited to four variables as possible determinants of financial performance. The current study looked at five variables and was also carried out in Kenya, which is a developing economy

Entebang (2006) conducted a study on corporate entrepreneurial orientations in state owned enterprises in Malaysia. The study attempted to determine the level of entrepreneurial orientation in a sample of Government Linked Companies (GLCs) in Malaysia in relation to the dimensions of innovation, risk taking, proactiveness and aggressive competitiveness. According to the findings of the study, based on a questionnaire survey, the GLCs show positive entrepreneurial behavior in innovation, proactiveness and competitive aggressiveness, but are low in their rating for risk taking. The finding from above study in Malaysia was only limited to entrepreneurial orientations in state owned enterprises in Malaysia. The study looked at four variables as possible determinants of financial performance. Again this a study carried out in a developed economy while this study is in a developing economy and has hypothesized on five variables.

Romero-Martínez, Fernández-Rodríguez, and Vázquez-Inchausti (2010) analyzed the impact of privatization on the level of corporate entrepreneurship among 38 non-financial Spanish State Owned Enterprises for the period of 1985- 2000. The results indicated that corporate entrepreneurship (measured by six EO's extended

dimensions: product innovation; process innovation; organizational innovation; national venturing; international venturing and strategic renewal) increased over time among firms operates in highly competitive industries. After considering the effects of ownership changes and competitive environment, the study revealed that SOEs were innovative, had improved their management structure, systems and performance. However, centralization of controlling power to the government limited the managers' autonomy in making fast decision to venture into new business activities. The above study looked at six constructs of corporate entrepreneurship while the current study looked at five variables. The above study was also done in an emerging economy hence the need to carry out a study in a developing country such as Kenya.

A study by Zahra (2001) using mailed questionnaires (to Chief Executive Officers) and secondary financial sources of 450 companies listed on the Fortune 500 list of the United States industrial corporations shows that 50 of the 60 possible correlations between corporate entrepreneurship and performance measures (83.3%) were significant at $p < 0.05$. The study thus concluded that corporate entrepreneurship was positively associated with accounting performance measures of the study. Short term improvements in financial performance through corporate entrepreneurship were expected to be incremental due to the magnitude of correlations of the study that was found to be stable within the contemporaneous and lagged analyses. The above study was done in the United States which is a developed country while current study was done in Kenya which is a developing country.

A few researches of CE in enterprises have been conducted in Africa, for example, Gantsho (2006) carried out an experimental study on how CE can be implemented in Development Finance Institutions in South Africa. The study only concentrated on how CE could be implemented in financial institutions and also did not address the issue of how to improve performance in such institutions. Nyanjom (2007) likewise researched on how enterprises in Botswana can develop and enhance entrepreneurial innovation and encourage entrepreneurial activity within enterprises. This study

failed to address the obstacles affecting CE and enterprise characteristics at a global level.

2.6 Research Gaps

A critical review of past literature showed that several conceptual and contextual research gaps existed in the influence of corporate entrepreneurship on the performance of state corporations. For instance, the studies by Lekmat and Selvarajah (2008) examined the corporate entrepreneurship activity of senior managers in 400 auto-parts manufacturing companies randomly chosen from the Thailand Automotive Industry directory 2006-2007. The study suggested that corporate entrepreneurship has significant influence on firm performance in terms of financial aspects. Innovativeness, for instance, had the strongest effect on superior firm performance; and this is consistent with the preceding argument that innovation is the most important component of corporate entrepreneurship as well as the dominant predictor of performance (Zahra, 1991; Antoncic & Hisrich, 2004). Self-renewal and organizational support were also found to be positively and significantly related to firm performance.

Goosen et al. (2002) used a three-factor key intrapreneurship model to study the significance of the financial outcomes towards company performance involving a sample of companies listed in the industrial sector of the Johannesburg Stock Exchange, South Africa. The results of the study support the hypothesis that corporate entrepreneurship dimensions such as innovativeness, pro-activeness and management's internal influence significantly contributes to financial performance. This study confirms and emphasizes the importance that positive organizational outcomes are associated with higher levels of leadership.

In Kenya, many studies (Lwamba, Bwisa & Sakwa, 2014; Mokaya, 2012; Mayaka, 2006; Ongore & K'Obonyo, 2011; Miring'u & Muoria, 2011; Mang'unyi, 2011) have been conducted on factors that influence performance of enterprises; however, they fail to address commercial state corporations. For example, Mayaka (2006) in

their studies of leading Kenya companies concentrated on the factors that lead to the companies' success in order to develop a case study. Hence, the studies failed to identify CE dimensions that lead to good performance of the enterprises and specifically commercial state corporations.

However, all the above studies were carried out in developed and emerging countries such as USA, Italy and Israel. It is therefore possible to argue that the influence of corporate entrepreneurship on performance of state corporations of developed and emerging economies are somewhat different from those of a developing economy like Kenya. It is due to this scarcity and inconclusiveness of studies that this study therefore sought to fill the research gap on the influence of corporate entrepreneurship on performance of commercial state corporations in Kenya.

2.7 Chapter Summary

The above chapter reviewed the various corporate entrepreneurship theories that explain the independent and dependent variables. The reviewed theories are then critiqued for relevance to specific variables. The chapter also explored the conceptualization of the independent and the dependent variables by analyzing the relationships between the two sets of variables. In addition, an empirical review was conducted where past studies both global and local is reviewed in line with the following criteria, title, scope, methodology resulting into a critique. It is from these critiques that the research gap was identified.

Based on previous studies, the overall evaluation of corporate entrepreneurship is that the firms involved in entrepreneurial endeavours see more increased growth and profitability levels than firms that do not attempt to engage in intrapreneurship activities (Agca *et al* 2009). Thus it can be said that the intensity of intrapreneurship in a firm is positively related to the level of organizational growth and profitability. Wiklund (1999) found that there is a positive relationship between Entrepreneurial Orientation and performance. A number of other studies have found that there is a positive relationship between a firm's Corporate Entrepreneurship activities and their

long-term organisational performance (Zahra & Covin 1995; Covin & Miles 1999; Wiklund 1999).

Entrepreneurial firms must foster organizational learning in order to maximize the effect of Entrepreneurial Orientation on company performance (Wang 2008). Organizational learning has been explained as knowledge acquisition in the former view and value acquisition in the latter. According to Sebora and Theerapatvong (2009), an entrepreneurial mindset is encouraged by and related to management support. Management support indicates a willingness to support entrepreneurial behaviour within the organization. Corporate Entrepreneurship is important for organizational survival, growth, profitability and renewal (Sebora & Theerapatvong 2009; Covin and Miles 1999; Lumpkin and Dess 1996).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides details about the methodology adopted to assist in achieving the research objectives. According to Newing (2011), a research methodology is concerned with what you will actually do in order to address the specific objectives and research questions you have developed. People often equate ‘methodology’ with the list of individual methods that were used – questionnaires, semi-structured interviews and so on. This chapter covered the research design incorporating research philosophy, type of research, population, sampling technique, sample size, instruments, pilot test and data analysis.

3.2 Research Design

A research design is the structure of research. Orodho (2003) defines it as the scheme outline or plan that is used to generate answers to research problems. Newing (2011) states that the term ‘research design’ is used both for the overall process described above (research methodology) and also, more specifically, for the research design structure. The latter is to do with how the data collection is structured. According to Lavrakas (2008), a research design is a general plan or strategy for conducting a research study to examine specific testable research questions of interest.

Yang (2008) states that the phrase “research design” denotes both a process and a product aimed at facilitating the construction of sound arguments. Research design is the plan, structure of investigation conceived so as to obtain answers to research questions and to control variance (Kerlinger, 1986). The nature of the study –whether it is exploratory, descriptive or experimental depends on the stage to which knowledge about the research topic has advanced (Sekaran, 2006). Available research strategies include experiment, survey, case study, action research, grounded theory, ethnography and archival research. The choice of the research strategy is

guided by the research question(s) and objective(s), the extent of existing knowledge, the amount of time and resources available as well as the philosophical underpinning (Sounders, Lewis & Thornhill, 2003). Schwab (2005), states that a research design establishes procedures to obtain cases for study and to determine how scores will be obtained from those cases.

This study was quantitative in nature and employed an explanatory research design. This was because the study intended to provide an understanding of the relationships among the research variables. Explanatory research was used for understanding phenomenon in terms of its likely causes. This type of research is used to measure what impact a specific change will have on existing norms and assumptions. Explanatory research implies that the research in question is intended to explain, rather than simply to describe, the phenomena studied (Maxwell & Mittapalli, 2008). Most social scientists seek causal explanations that reflect tests of hypotheses. Causal effect occurs when variation in one phenomenon, an independent variable, leads to or results, on average, in variation in another phenomenon, the dependent variable (Somekh & Lewin, 2005).

3.3 Target Population

Burns and Grove (2003) states that population includes all elements that meet certain criteria for inclusion in a study. Newing (2011) describes a population as the set of sampling units or cases that the researcher is interested in. According to Kothari (2004), a population refers to all items in any field of inquiry and is also known as the 'universe'.

Target population consists of all members of a real or hypothetical set of people, events or objects from which a researcher wishes to generalize the results of their research while accessible population consists of all the individuals who realistically could be included in the sample (Borg & Gall, 2007). This study comprised of 187 state corporations in Kenya which also form the target and accessible population as per the presidential task force report on state corporations (2013). The study

concentrated on 55 commercial state corporations and the unit of observation was the management cadre. The study concentrated on only commercial state corporations because it was expected that the players have the relevant and accurate information needed in this study.

3.4 Sampling Frame

A sampling frame is a list of population from which a sample is drawn (Leary, 2001). It is the source material or device from which list of all elements within a population that can be sampled is drawn (Särndal, Swensson & Wretman, 1992) and may include individuals, households or institutions. It's a published list in which or a set of directions for identifying a population (Gall, Gall & Borg, 2007). Jessen (1978) highlights its importance based on features such as single representation of each and every element, numerical identifiers, contact information, maps, location and other relevant information presented in a logical and systematic fashion and exclusion of elements outside the population of interest (Sapsford & Jupp, 2006; Bernstein, 1998; Kish, 1995). Examples in real life would be electoral registers, attendance registers and so on.

A sampling frame facilitates formation of a sampling unit that refers to one member of a set of entities being studied which is the material source of the random variable (Bailey, 2008; Klaus & Oscar, 2008; Cochran, 1977; Sarndal, Swensson & Wretman, 1992). Common examples of a unit would be a single person, animal, plant, or manufactured item that belongs to a larger collection of such entities being studied. For the purpose of this study, the sampling frame for the target population was the list of all 55 commercial state corporations from the presidential task force report on state corporations(2013) as indicated on Appendix III.

3.5 Sample and Sampling Technique

A sample design is the architecture or the strategy used to select study participants or respondents (Kothari, 2004). Sampling refers to the systematic selection of a limited number of elements out of a theoretically specified population of elements. The

rationale is to draw conclusions about the entire population. According to Kothari (2004), the ultimate test of a sample design is how well it represents the characteristics of the population it purports to. The reason for sampling in this study was to lower cost, accessibility of study population and the greater speed of data collection. This study used purposive sampling method on all state corporations. Purposive sampling was used to select the case respondents from the employees. According to Mugenda and Mugenda (2003) purposive sampling is a sampling technique that allows a researcher to use cases that have required information with respect to the objectives of the study. Cases of subjects are therefore handpicked because they are informative and have the required characteristics. The rationale for using purposive sampling was that only a certain proportion of the total number of state corporations was likely to have most of the features of corporate entrepreneurship. This proportion that fits this description was the commercial state corporations.

Kombo and Tromp (2009) and Kothari (2004) describe a sample as a collection of units chosen from the universe to represent it. Marczyk, Dematteo, Festinger (2005) and Yang (2008) defined a sample as subset of the population to be studied. Sampling is the selection of a subset of individuals from within a population to yield some knowledge about the whole population, especially for the purposes of making predictions based on statistical inference (Scott & Wild, 2001; Black, 2004; 2011). Its main advantages are cost, speed, accuracy and quality of the data. A purposive sampling methodology was employed since 55 commercial state corporations were selected from a total of 187 state corporations. The 55 commercial state corporations studied represented 10 sectors which are Agriculture, Livestock and Fisheries, East African Affairs, Commerce and Tourism, Education, Science and Technology, Industrialization and Enterprise Development, Lands, Housing and Urban Development, National Treasury, Transport & Infrastructure, Energy and Petroleum, Environment, Water and Natural Resources and Information, Communication and Technology. Each firm was issued with one questionnaire which can either be filled by the chief executive officer, company secretary, finance director, division directors

or business development manager.

3.6 Data Collection Instruments

The study used questionnaires to obtain qualitative data for analysis which was further validated from analysis of secondary data. Schwab (2005) defines questionnaires as measuring instruments that ask individuals to answer a set of questions or respondent to a set of statements.

According to Dawson (2002), there are three basic types of questionnaires; closed ended, open-ended or a combination of both. Closed-ended questionnaires are used to generate statistics in quantitative research. As these questionnaires follow a set format, and as most can be scanned straight into a computer for ease of analysis and greater numbers can be produced. Open-ended questionnaires are used in qualitative research, although some researchers quantify the answers during the analysis stage. The questionnaire does not contain boxes to tick, but instead leaves a blank section for the respondent to write in an answer. Whereas closed-ended questionnaires might be used to find out how many people use a service, open-ended questionnaires might be used to find out what people think about a service. As there are no standard answers to these questions, data analysis is more complex. Also, as it is, opinions which are sought rather than numbers, fewer questionnaires need to be distributed. However, many researchers tend to use a combination of both open and closed questions. That way, it is possible to find out how many people use a service and what they think about that service on the same form. Many questionnaires begin with a series of closed questions, with boxes to tick or scales to rank, and then finish with a section of open questions for more detailed response.

Mugenda and Mugenda (2003) and Kothari (2004) agree that questionnaires have various merits like; there is low cost even when the universe is large and is widely spread geographically; it is free from the bias of the interviewer; answers are in respondents' own words; respondents have adequate time to give well thought out answers; respondents who are not easily approachable can also be reached

conveniently; large samples can be made use of and thus the results can be made more dependable and reliable. They also concur that the main demerits of questionnaires are; low rate of return of the duly filled in questionnaires; bias due to no-response is often indeterminate; it can be used only when respondents are educated and cooperating; the control over questionnaire may be lost once it is sent; there is inbuilt inflexibility because of the difficulty of amending the approach once questionnaires have been dispatched; there is also the possibility of ambiguous replies or omission of replies altogether to certain questions i.e. interpretation of omissions is difficult; it is difficult to know whether willing respondents are truly representative and this method is likely to be very slow.

3.7 Data Collection Procedure

Burns and Grove (2003) define data collection as the precise, systematic gathering of information relevant to the research sub-problems, using methods such as interviews, participant observations, focus group discussion, narratives and case histories. This study intended to use questionnaires to obtain both quantitative and qualitative data for analysis. Yang (2008) states that the questions in a study are directly related to the research questions. In development of a survey questionnaire, the variables for which information needs to be collected have to be identified followed by their operational definition. According to Newing (2011), questionnaires consist of a series of specific, usually short questions that are either asked verbally by an interviewer, or answered by the respondent on their own (self-administered). Primary data was collected through the administration of questionnaires to the commercial state corporation employees. Kothari (2004) describes primary data as those which are collected afresh and for the first time, and thus happen to be original in character. Morrison et al. (2007) describes primary data as those items that are original to the problem under study.

Primary data was collected through the administration of one questionnaire to each state corporation and distributed to be filled by the chief executive officer, company secretary, finance director, division directors or business development manager.

Research assistants were engaged to administer and follow up on the questionnaires using well- spaced phone calls.

3.8 Pilot Test

To check the validity and reliability of the questionnaires in gathering the data required for purposes of the study, a pilot study was carried out. The purpose of pilot testing is to establish the accuracy and appropriateness of the research design and instrumentation (Saunders, Lewis & Thornhill (2007). Newing (2011) states that the importance of pilot testing cannot be overemphasized; you will almost always find that there are questions that people fail to understand or interpret in different ways, places in the questionnaire where they are not sure where to go next, and questions that turn out simply not to elicit useful information. Cooper and Schindler (2006) concur that the purpose of pilot test is to detect weaknesses in design and implementation and to provide proxy for data collection of a probability sample. Sekaran (2006) reinforces that pilot test is necessary for testing the reliability of instruments and the validity of a study.

3.8.1 Instrument Reliability

Reliability refers to the repeatability, stability or internal consistency of a questionnaire (Jack & Clarke, 1998). Cronbach's alpha was used to test the reliability of the measures in the questionnaire (Cronbach, 1951). According to Sekaran (2006), Cooper and Schindler (2003), Cronbach's alpha has the most utility for multi-item scales at the interval level of measurement, requires only a single administration and provides a unique, quantitative estimate of the internal consistency of a scale.

Baker et al. (2001) states that the size of a sample to be used for piloting testing varies depending on time, costs and practicality, but the same would tend to be at least 10 per cent of the main survey. According to Cooper and Schindler (2006) the respondents in a pilot test do not have to be statistically selected when testing the validity and reliability of the instruments.

In this study, data collection instrument which is a questionnaire was tested on 20% of the sample of the questionnaires to ensure that it was relevant and effective. Reliability was tested using questionnaire duly completed by eleven (11) randomly selected respondents from 11 state corporations. These respondents were not included in the final study sample in order to control for response biasness.

The questionnaire responses were input into statistical package for social sciences (SPSS) and Cronbach's alpha coefficient generated to assess reliability. The closer Cronbach's alpha coefficient is to 1, the higher the internal consistency reliability (Sekaran, 2003). A coefficient of 0.7 was recommended for a newly developed questionnaire.

Table 3.1: Reliability Tests

Variable	Cronbach's Alpha	No. of Items
Pro-activeness	0.725	6
Risk-taking	0.700	8
Innovativeness	0.926	8
Competitive aggressiveness	0.872	7
Organizational factors	0.754	9
Environmental factors	0.914	9
Firm performance	0.900	10

3.8.2 Instrument Validity

Validity refers to whether a questionnaire is measuring what it purports to measure (Bryman & Cramer 1997). It describes validity as the degree of congruence between the explanations of the phenomena and the realities of the world. While absolute validity is difficult to establish, demonstrating the validity of a developing measure is very important in research (Bowling, 1997). This study used both construct validity and content validity. For construct validity, the questionnaire was divided into several sections to ensure that each section assessed information for a specific objective, and also ensured that the same closely ties to the conceptual framework for this study. To ensure content validity, the questionnaire was subjected to thorough

examination by two randomly selected managers. They were asked to evaluate the statements in the questionnaire for relevance and whether they were meaningful, clear and loaded of offensive. On the basis of the evaluation, the instrument was adjusted appropriately before subjecting it to the final data collection exercise. Their review comments were used to ensure that content validity was enhanced.

3.9 Data Processing and Analysis

According to Zikmund et al. (2010), data analysis refers to the application of reasoning to understand the data that has been gathered with the aim of determining consistent patterns and summarizing the relevant details revealed in the investigation. To determine the patterns revealed in the data collected regarding the selected variables, data analysis was guided by the aims and objectives of the research and the measurement of the data collected.

Information was sorted, coded and input into the statistical package for social sciences (SPSS) for production of graphs, tables, descriptive statistics and inferential statistics. A multivariate logistic regression was used to test the significance of the influence of the independent variables on the dependent variable.

Factor analysis was used to establish the appropriateness of the questionnaire constructs. Specifically factor loadings were used to establish the weights of the various statements on extracted factors. Before the factor analysis was conducted, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was conducted to determine whether adequate correlation exists between the individual items contained within each of the sections of the questionnaire. A KMO statistic, an associated Bartlett's p-value and an Anti-image correlation statistic are determined when using this test.

This study used the multiple linear regression analysis to test the statistical significance of the various independent variables on the chosen dependent variables. Faraway (2002), states that multiple linear regressions are used in situations where the number of independent variables are more than one. According to IBM (2010),

the assumptions of linear regression must be met by the data to be analyzed, these assumptions state that the coefficients must be linear in nature, the response errors should follow a Gaussian distribution and the errors should have a common distribution.

Qualitative content analysis and quantitative data analysis was used to analyze the data collected from the field. Qualitative content analysis is a method of analyzing written, verbal or visual communication messages (Cole, 1988). Content analysis as a research method is a systematic and objective means of describing and quantifying phenomena (Sandelowski, 1995). In qualitative data was analyzed through content analysis.

Quantitative data was analyzed using various statistical methods for measuring central tendencies including mean, median and mode as well as measures of dispersion including standard deviation. Quantitative data was subjected to statistical tests including the t-test, the F-test and the Chi-square test to establish the levels of significance and the strengths of the relationships. Multiple logistic regression was also used to analyze quantitative data to establish the causal effect of one variable upon another and establish the relationship between the various variables.

The multivariate logistic regression model was as laid below. Equation (i) shows the logistic regression model of the independent variables against the dependent variable.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Where:

- i. Y = Odds of Firm Performance
- ii. $\{\beta_i; i=1,2,3,4,5\}$ = The coefficients for the various independent variables
- iii. X_i for;

X_1 = Vector of Pro Activeness

X_2 = Vector of Risk Taking

X_3 = Vector of Innovativeness

X_4 = Vector of Competitive Aggressiveness

X_5 = Vector of Organization factors

- iv. e is the error term which is assumed to be normally distributed with mean zero and constant variance.

Hosmer and Stanley (2000) emphasize that regression methods have become an integral component of any data analysis concerned with describing the relationship between a response variable and one or more explanatory variables. The data that was obtained from the questionnaires was primarily qualitative and was analyzed to identify the most important and statistically significant determinant of corporate entrepreneurship variable or variables that have impacted most on performance of commercial state corporations. According to IBM (2010), logistic regression is useful in situations where there are more than two independent variables and the dependent variable is categorical.

Using SPSS, the regression models was tested on how well they fit the data. The model fitness was estimated using the coefficient of determination which helps to explain how closely the predictor variables explain the variations in the dependent variable. The significance of each independent variable was also tested. The t-test statistic was used to test the significance of each individual predictor or independent variable and hypothesis. The p-value for each t-test was used to make conclusions on whether to reject or accept the null hypotheses. The benchmark for this study for accepting or rejecting the null hypothesis was a level of significance of 5 percent. If the p-value was less than five percent the null hypothesis was rejected and the alternate hypothesis was accepted. Also if the p-value was greater than 5 percent the null hypothesis was accepted and the alternate hypothesis was rejected.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter dealt with the analysis of data. The data analysis was in harmony with the specific objectives where patterns were investigated, interpreted and inferences drawn on them. This chapter presented the results for demographic information followed with sampling adequacy, factor analysis, descriptive analysis and inferential statistics which included correlation and logistic regression. The chapter also highlighted the summary of results from testing of the hypothesis.

4.2 Response Rate

The number of questionnaires, administered to all the respondents, was 55. A total of 45 questionnaires were properly filled and returned from the commercial state corporation employees. This represented an overall successful response rate of 82%. According to Mugenda and Mugenda (2003), a response rate of 50% or more is adequate. Babbie (2004) also asserted that return rates of 50% are acceptable to analyze and publish, 60% is good and 70% is very good.

Table 4.1: Response Rate

Response Rate	Frequency	Percent
Returned	45	82%
Unreturned	10	18%
Total	55	100%

4.3 Demographic Information

This section presents the demographic characteristics such as gender, level of education, years worked in the organization, size of the organization and years of firms' existence.

4.3.1 Gender of the Respondents

The respondents were asked to indicate their gender. Figure 4.1 that majority (80%) of the respondents was male and 20% were female. The findings imply that state corporation sector is a male dominated field. According to Ellis et al. (2007), in spite of women being major actors in Kenya's economy, and notably in agriculture and the informal business sector, men dominate in the formal sector citing the ratio of men to women in formal sector as 0.74 : 0.26.

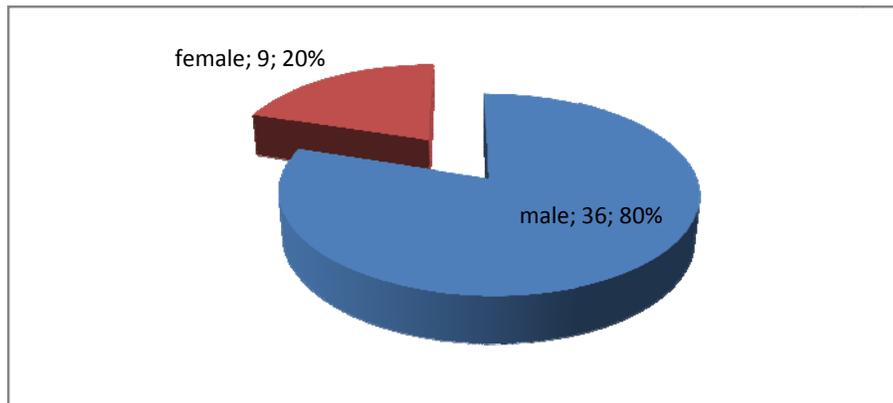


Figure 4.1: Gender of the Respondents

4.3.2 Level of Education

The respondents were asked to indicate their highest level of education. Figure 4.2 illustrates that 89% of the respondents had reached post graduate level and 11% had attained university level. The findings imply that most of the respondents had high level of education which could have contributed to accurate responses.

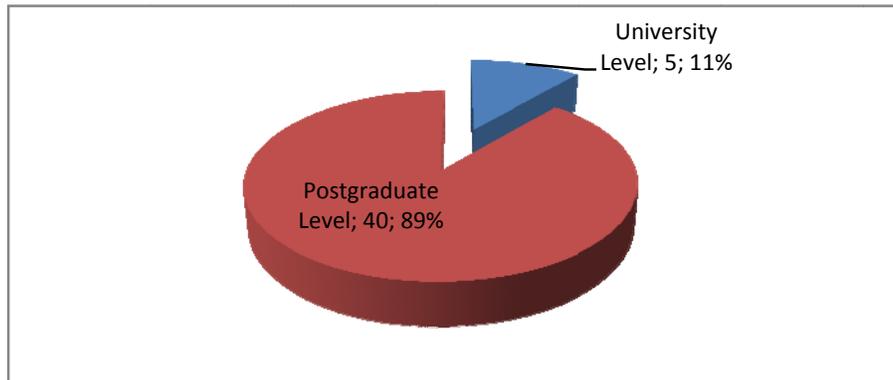


Figure 4.2: Level of Education

4.3.3 Years Worked in the Organization

The study sought to find out the years the respondents had worked in the organization. Table 4.2 shows that 51.1% of the respondents indicated they had worked for 6 years and above while 42.2% indicated between 3 to 5 years and 6.7% indicated less than 2 years. The findings imply that the respondents had worked long enough in the state corporations and hence had knowledge about the issues that the researcher was looking for.

Table 4.2: Years Worked in the Organization

Years worked	Frequency	Percent
Less than 2 years	3	6.7
3-5 years	19	42.2
6 years and above	23	51.1
Total	45	100

4.3.4 Size of Organization

The respondents were asked to indicate the size of the organization. Figure 4.3 indicates that 49% of the respondents indicated that their organizations were large (500 employees and above) while 44% indicated small (1-249 employees) and 7% indicated medium (250-499 employees).

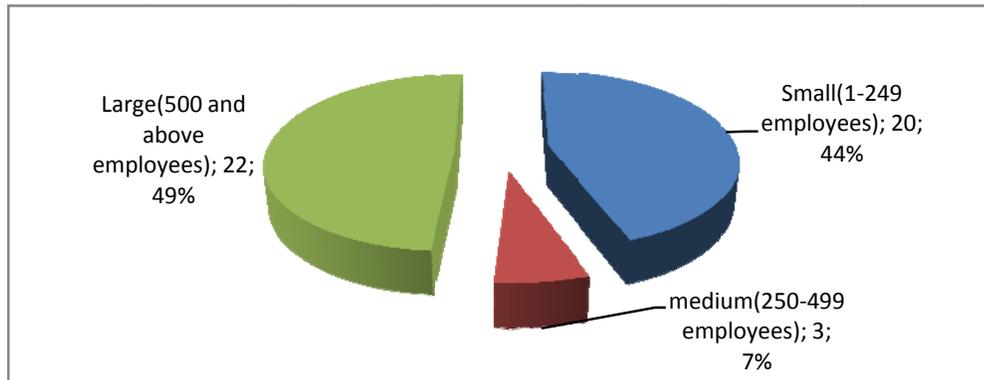


Figure 4.3: Size of the Organization

4.3.5 Years of the Firm Existence

The respondents were asked to indicate the years of the firms' existence. Table 4.3 shows that 66.7% of the respondents indicated 16 years and above while 20% indicated between 11-15 years and 13.3% indicated between 1-5 years.

Table 4.3: Years of the Firm Existence

Years of the firm`s existence	Frequency	Percent
1-5 years	6	13.3
11-15 years	9	20
16 and above years	30	66.7
Total	45	100

4.3.6 Effect of Corporate Entrepreneurship on Performance

The respondents were asked to indicate whether there is any effect of corporate entrepreneurship on performance. Figure 4.4 show that 78% of the respondents indicated that corporate entrepreneurship has effect on performance.

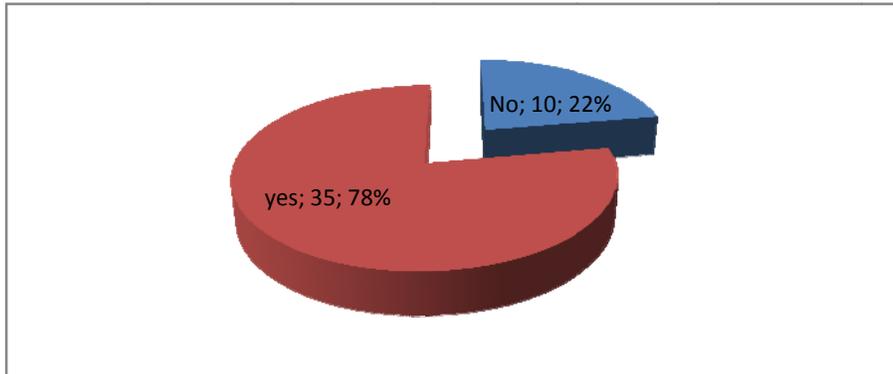


Figure 4.4: Effect of Corporate Entrepreneurship on Performance

4.4 Pro Activeness and Performance

4.4.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on pro activeness and firm performance, a coefficient of 0.913 was found as shown in Table 4.4. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the pro activeness variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

Table 4.4: Reliability Test for Pro Activeness

Statement	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Our company initiates actions to which competitors then respond	0.655	0.91
In dealing with its competitors, my firm has a tendency to be ahead of other competitors in introducing novel idea or products	0.847	0.888
My company strives in identifying new markets to sell products	0.334	0.938
Our firm shapes the environment by introducing new products, technologies, administrative techniques than merely react	0.801	0.893
Our company continuously improves the quality of the product and services to be competitive	0.863	0.887
Our company always foresees potential environmental changes ahead of the competitors	0.882	0.888
Our company always foresees future demands ahead of the competitors	0.834	0.89
Number of items	7	
Cronbach's Alpha	0.913	

4.4.2 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Barlett's Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.5 showed that the KMO statistic was 0.731 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 320.067 with 21 degree of freedom, at $p < 0.05$). The results of the KMO and Bartlett's Test are summarized in Table 4.5. These results provide an excellent justification for further statistical analysis to be conducted.

Table 4.5: Pro Activeness KMO Sampling Adequacy and Bartlett's Sphericity Tests

Test	Coefficient
Kaiser-Meyer-Olkin Measure	0.731
Bartlett's Chi- Square	320.067
Bartlett's df	21
Bartlett's Sig.	0

4.4.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 7 statements on pro activeness and firm performance can be factored into 1 factor. The total variance explained by the extracted factor is 68.59% as shown in Table 4.6. The factor communalities of the variable are shown in Appendix IV.

Table 4.6: Pro Activeness Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.801	68.59	68.59	4.801	68.59	68.59
2	1.033	14.762	83.351			
3	0.597	8.53	91.882			
4	0.264	3.766	95.648			
5	0.184	2.63	98.278			
6	0.09	1.288	99.565			
7	0.03	0.435	100			

Extraction Method: Principal Component Analysis.

Table 4.7 shows the factor loadings for sub-constructs of pro activeness. All the statements attracted coefficients of more than 0.4 hence all the statements were retained for analysis. According to Rahn (2010) and Zandi (2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability and deemed to lead to desirable and acceptable solutions.

Table 4.7: Factor Loading for Pro activeness

Item	Factor loading
Our company continuously improves the quality of the product and services to be competitive	0.923
Our company always foresees future demands ahead of the competitors	0.909
My company strives in identifying new markets to sell products	0.899
Our firm shapes the environment by introducing new products, technologies, administrative techniques than merely react	0.892
In dealing with its competitors, my firm has a tendency to be ahead of other competitors in introducing novel idea or products	0.884
Our company always foresees potential environmental changes and future demands ahead of the competitors	0.881
Our company initiates actions to which competitors then respond	0.861

4.4.4 Descriptive Analysis

The first objective of the study was to find out the influence of pro activeness on performance of state corporations in Kenya. Table 4.8 shows that 66.7% of the respondents agreed that their company initiates actions to which competitors then respond, 57.8% agreed that in dealing with its competitors, their firm had a tendency to be ahead of other competitors in introducing novel idea or products and 75.6% agreed that their company strives in identifying new markets to sell products. In addition 71.1% agreed that their firm shapes the environment by introducing new products, technologies, administrative techniques than merely react, 82.3% agreed that their company continuously improves the quality of the product and services to be competitive and 51.1% agreed that their company always foresees potential environmental changes ahead of the competitors. Finally 57.8% of the respondents

agreed that their company always foresees future demands ahead of the competitors. The mean score for responses for this section was 3.65 which indicates that majority of the respondents agreed that pro activeness was a key driver of firm performance.

Means greater than 1 and less than 1.5 implied that the pro activeness influenced performance to no extent. Means greater than 1.5 and less than 2.5 implied that pro activeness influenced performance to a little extent. Means greater than 2.5 and less than 3.5 implied that pro activeness influenced performance to a moderate extent. Means greater than 3.5 and less than 4.5 implied that pro activeness influenced performance to a greater extent. Means greater than 4.5 implied that pro activeness influenced performance to a very great extent.

The standard deviation on the other hand describes the distribution of the response in relation to the mean. It provides an indication of how far the individual responses to each factor vary from the mean. A standard deviation of more than 1 indicates that the responses are moderately distributed, while less than 1 indicates that there is no consensus on the responses obtained. An average of 0.986 for all statements on pro activeness indicates that the responses are moderately distributed.

The study findings corroborate with those of Wiklund (1999) who stated that pro-activeness gives firms the ability to present new products or services to the market ahead of competitors, which also gives them a competitive advantage. The findings further agree with those of Lumpkin and Dess (1996) who asserted that Pro-active firms have a greater tendency to lead than to follow in the development of new procedures and technologies and the introduction of new products and services. These findings were also supported by Wang (2008) who posited that an entrepreneurial firm instills flexibility and grants individuals and teams the freedom to exercise their creativity to champion new ideas.

Table 4.8: Pro Activeness and Performance Descriptive Analysis

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert Mean	Std. Deviation
Our company initiates actions to which competitors then respond	4.4%	24.4%	4.4%	60.0%	6.7%	3.4	1.074
In dealing with its competitors, my firm has a tendency to be ahead of other competitors in introducing novel idea or products	11.1%	4.4%	26.7%	51.1%	6.7%	3.38	1.072
My company strives in identifying new markets to sell products	0.0%	11.1%	13.3%	48.9%	26.7%	3.91	0.925
Our firm shapes the environment by introducing new products, technologies, administrative techniques than merely react	4.4%	11.1%	13.3%	42.2%	28.9%	3.8	1.12
Our company continuously improves the quality of the product and services to be competitive	0.0%	11.1%	6.7%	46.7%	35.6%	4.07	0.939
Our company always foresees potential environmental changes and future demands ahead of the competitors	4.4%	11.1%	33.3%	51.1%	0.0%	3.31	0.848
Average	3.5%	12.0%	18.4%	47.9%	18.1%	3.65	0.9896

4.4.5 Relationship Between Pro Activeness and Firm Performance

Table 4.9 shows the correlation results which indicate that there was a positive and significant relationship between pro activeness and firm performance. This was evidenced by the p value of 0.000 which is less than that of critical value (0.05)

Table 4.9: Relationship between Pro Activeness and Firm Performance

Variable		Firm performance	Pro-activeness
Firm performance	Pearson Correlation	1	
	Sig. (2-tailed)		
Pro-activeness	Pearson Correlation	0.509	1
	Sig. (2-tailed)	0.000	

Binary logistic regression was used to model relationship between pro activeness and firm performance. Table 4.10 shows that pro activeness was statistically associated with firm performance ($p < 0.002$). An increase in pro activeness increases the probability of having high firm performance by 6.476 times. The findings imply that those firms with high pro activeness have higher chances of having higher firm performance as compared to those without or with low pro activeness.

The study findings corroborate with those of Wiklund (1999) who stated that pro-activeness gives firms the ability to present new products or services to the market ahead of competitors, which also gives them a competitive advantage. The findings further agree with those of Lumpkin and Dess (1996) who asserted that Pro-active firms have a greater tendency to lead than to follow in the development of new procedures and technologies and the introduction of new products and services. These findings were also supported by Wang (2008) who posited that an entrepreneurial firm instills flexibility and grants individuals and teams the freedom to exercise their creativity to champion new ideas.

Table 4.10: Logistic Regression for Pro Activeness

Variable	Beta	S.E.	Wal d	D f	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Pro-activeness	1.868	0.607	9.478	1	0.002	6.476	1.971	21.27
Constant	-6.414	2.273	7.962	1	0.005	0.002		

4.5 Risk taking

4.5.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on risk taking and firm performance, a coefficient of 0.874 was found as shown in Table 4.11. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the risk taking variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

Table 4.11: Reliability Test for Risk Taking

Statement	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Relative to our competitors, our company has higher propensity to take risks	0.744	0.841
Our company has shown a great deal of tolerance for high risk projects	0.802	0.83
The top managers of my firm favour, a bold, aggressive posture in order to maximize the probability of exploiting potential when faced with uncertainty	0.768	0.839
Most people in this organization are willing to take risks	0.739	0.845
This organization supports many small and experimental projects realizing that some will undoubtedly fail	0.576	0.871
The term “risk taker” is considered a positive attribute for people	0.493	0.887
Number of items	6	
Cronbach's Alpha	0.874	

4.5.2 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Barlett’s Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.12 showed that the KMO statistic was 0.732 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett’s Test of Sphericity was also highly significant (Chi-square = 206.343 with 15 degree of freedom, at $p < 0.05$). The results of the KMO and Bartlett’s Test are summarized in

Table 4.12. These results provide an excellent justification for further statistical analysis to be conducted.

Table 4.12: Risk Taking KMO Sampling Adequacy and Bartlett's Sphericity Tests

Test	Coefficient
Kaiser-Meyer-Olkin Measure	0.732
Bartlett's Chi- Square	206.343
Bartlett's df	15
Bartlett's Sig.	0

4.5.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 6 statements on risk taking and firm performance can be factored into 1 factor. The total variance explained by the extracted factor is 63.62% as shown in Table 4.13. The factor communalities of the variable are shown in Appendix IV.

Table 4.13: Risk Taking Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.817	63.622	63.622	3.817	63.622	63.622
2	1.2	19.995	83.617			
3	0.45	7.506	91.123			
4	0.26	4.325	95.448			
5	0.215	3.59	99.038			
6	0.058	0.962	100			

Extraction Method: Principal Component Analysis.

Table 4.14 shows the factor loadings for sub-constructs of risk taking. All the statements attracted coefficients of more than 0.4 hence all the statements were retained for analysis. According to Rahn (2010) and Zandi (2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability and deemed to lead to desirable and acceptable solutions.

Table 4.14: Factor Loading for Risk Taking

Item	Factor loading
The term "risk taker" is considered a positive attribute for people	0.928
This organization supports many small and experimental projects realizing that some will undoubtedly fail	0.92
Most people in this organization are willing to take risks	0.877
The top managers of my firm favour, a bold, aggressive posture in order to maximize the probability of exploiting potential when faced with uncertainty	0.859
Our company has shown a great deal of tolerance for high risk projects	0.813
Relative to our competitors, our company has higher propensity to take risks	0.813

4.5.4 Descriptive Analysis

The second objective of the study was to determine the influence of risk taking on performance of state corporations in Kenya. Table 4.15 shows 68.9% of the respondents agreed that relative to their competitors, their company had higher propensity to take risks, 64.4% agreed that their company has shown a great deal of tolerance for high risk projects and 53.3% agreed that the top managers of their firm favour, a bold, aggressive posture in order to maximize the probability of exploiting potential when faced with uncertainty. Forty two point two percent of the respondents neither agreed nor disagreed that most people in their organization are willing to take risks, 42.3% agreed that their organization supports many small and experimental projects realizing that some will undoubtedly fail and 46.7% agreed that the term "risk taker" is considered a positive attribute for people. The mean

score for responses for this section was 3.27 which indicates that majority of the respondents agreed that risk taking was a key driver of firm performance.

Means greater than 1 and less than 1.5 implied that risk taking influenced performance to no extent. Means greater than 1.5 and less than 2.5 implied that risk taking influenced performance to a little extent. Means greater than 2.5 and less than 3.5 implied that risk taking influenced performance to a moderate extent. Means greater than 3.5 and less than 4.5 implied that risk taking influenced performance to a greater extent. Means greater than 4.5 implied that risk taking influenced performance to a very great extent.

The standard deviation on the other hand describes the distribution of the response in relation to the mean. It provides an indication of how far the individual responses to each factor vary from the mean. A standard deviation of more than 1 indicates that the responses are moderately distributed, while less than 1 indicates that there is no consensus on the responses obtained. An average of 1.03 for all statements on risk taking indicates that the responses are moderately distributed.

The findings are supported by those of Miller (1983) and Wang (2008) who argued that risk-tolerant and innovative firms' managers encourage new ways of thinking - tolerating mistakes and rewarding individuals with new ideas that contribute to innovation and business improvement. The culture of allowing individuals to making mistakes when trying new ways of improving business performance promotes a sense of open-mindedness (Moreno & Casillas, 2008).

Table 4.15: Risk Taking and Performance Descriptive Analysis

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert Mean	Std. Deviation
Relative to our competitors, our company has higher propensity to take risks	4.4%	13.3%	13.3%	55.6%	13.3%	3.6	1.031
Our company has shown a great deal of tolerance for high risk projects	4.4%	17.8%	13.3%	51.1%	13.3%	3.51	1.079
The top managers of my firm favour, a bold, aggressive posture in order to maximize the probability of exploiting potential when faced with uncertainty	4.4%	17.8%	24.4%	51.1%	2.2%	3.29	0.944
Most people in this organization are willing to take risks	4.4%	24.4%	42.2%	26.7%	2.2%	2.98	0.892
This organization supports many small and experimental projects realizing that some will undoubtedly fail	8.9%	22.2%	26.7%	35.6%	6.7%	3.09	1.104
The term “risk taker” is considered a positive attribute for people	6.7%	26.7%	20.0%	37.8%	8.9%	3.16	1.127
Average	5.5%	20.4%	23.3%	43.0%	7.8%	3.27	1.030

4.5.5 Relationship Between Risk Taking and Firm Performance

Table 4.16 shows the correlation results which indicate that there was a positive and significant relationship between risk taking and firm performance. This was evidenced by the p value of 0.001 which is less than that of critical value (0.05)

Table 4.16: Relationship between Risk Taking and Firm Performance

Variable		Firm performance	Risk taking
Firm performance	Pearson Correlation Sig. (2-tailed)	1	
Risk taking	Pearson Correlation Sig. (2-tailed)	0.476 0.001	1

Binary logistic regression was used to model relationship between risk taking and firm performance. Table 4.17 shows that risk taking was statistically associated with firm performance ($p < 0.018$). An increase in risk taking practices increases the probability of having high firm performance by 3.496 times. The findings imply that those firms with high risk taking practices have higher chances of having higher firm performance as compared to those without or with low risk taking practices. The findings are supported by those of Miller (1983) and Wang (2008) who argued that risk-tolerant and innovative firms' managers encourage new ways of thinking - tolerating mistakes and rewarding individuals with new ideas that contribute to innovation and business improvement. The culture of allowing individuals to making mistakes when trying new ways of improving business performance promotes a sense of open-mindedness (Moreno & Casillas, 2008).

Table 4.17: Logistic Regression for Risk Taking

Variable	Beta	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Risk taking	1.252	0.527	5.645	1	0.018	3.496	1.245	9.817
Constant	-3.771	1.804	4.368	1	0.037	0.023		

4.6 Innovativeness and Firm Performance

4.6.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on innovativeness and firm performance, a coefficient of 0.792 was found as shown in Table 4.18. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the innovativeness variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

Table 4.18: Reliability Test for Innovativeness

Statement	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
Our company frequently tries out new ideas	0.703	0.721
Our company is creative in its methods of operation	0.61	0.743
Our company seeks out new ways to do things	0.568	0.757
Company's emphasis on developing new products	0.562	0.756
Our Company spends on new product development activities	0.513	0.768
Our company Invests in developing proprietary Technologies	0.341	0.809
Number of items	6	
Cronbach's Alpha	0.792	

4.6.2 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Barlett's Test of Sphericity. For a data set to be regarded

as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.19 showed that the KMO statistic was 0.660 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 93.273 with 15 degree of freedom, at $p < 0.05$). The results of the KMO and Bartlett's Test are summarized in Table 4.19. These results provide an excellent justification for further statistical analysis to be conducted.

Table 4.19: Innovativeness KMO Sampling Adequacy and Bartlett's Sphericity Tests

Test	Coefficient
Kaiser-Meyer-Olkin Measure	0.660
Bartlett's Chi- Square	93.273
Bartlett's df	15
Bartlett's Sig.	0

4.6.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 6 statements on innovativeness and firm performance can be factored into 1 factor. The total variance explained by the extracted factor is 50.35% as shown in Table 4.20. The factor communalities of the variable are shown in Appendix IV.

Table 4.20: Innovativeness Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.021	50.352	50.352	3.021	50.352	50.352
2	1.113	18.557	68.909			
3	0.701	11.676	80.585			
4	0.627	10.455	91.039			
5	0.314	5.24	96.279			
6	0.223	3.721	100			

Extraction Method: Principal Component Analysis.

Table 4.21 shows the factor loadings for sub-constructs of innovativeness. All the statements attracted coefficients of more than 0.4 hence all the statements were retained for analysis. According to Rahn (2010) and Zandi (2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability and deemed to lead to desirable and acceptable solutions.

Table 4.21: Factor Loading for Innovativeness

Item	Factor loading
Company's emphasis on developing new products	0.936
Our Company spends on new product development activities	0.932
Our company frequently tries out new ideas	0.912
Our company seeks out new ways to do things	0.897
Our company is creative in its methods of operation	0.897
Our company Invests in developing proprietary Technologies	0.82

4.6.4 Descriptive Analysis

The third objective of the study was to evaluate the influence of innovativeness on performance of state corporations in Kenya. Table 4.22 shows 71.1% of the respondents agreed that their company frequently tries out new ideas, 64.4% agreed that their company was creative in its methods of operation and 73.4% agreed that

their company seeks out new ways to do things. Fifty three point four percent of the respondents agreed that company's emphasis on developing new products, 51.1% agreed that their company spends on new product development activities and 57.7% agreed that their company invests in developing proprietary Technologies. The mean score for responses for this section was 3.55 which indicates that majority of the respondents agreed that innovativeness was a key determinant of firm performance.

Means greater than 1 and less than 1.5 implied that innovativeness influenced performance to no extent. Means greater than 1.5 and less than 2.5 implied that innovativeness influenced performance to a little extent. Means greater than 2.5 and less than 3.5 implied that innovativeness influenced performance to a moderate extent. Means greater than 3.5 and less than 4.5 implied that innovativeness influenced performance to a greater extent. Means greater than 4.5 implied that innovativeness influenced performance to a very great extent.

The standard deviation on the other hand describes the distribution of the response in relation to the mean. It provides an indication of how far the individual responses to each factor vary from the mean. A standard deviation of more than 1 indicates that the responses are moderately distributed, while less than 1 indicates that there is no consensus on the responses obtained. An average of 0.923 for all statements on innovativeness indicates that the responses are moderately distributed.

The findings agree with those in Clark (2010) who found that companies that are clearly innovators based their focus on new innovations, the number of new innovations and levels of investment in new innovations. The findings are also supported by Venter et al (2008) who stated that at the centre of entrepreneurship is innovativeness. An organization that innovates is classified as being entrepreneurial. Entrepreneurial activities influence a company's commitment to innovation (Miller, 1983; Lumpkin and Dess, 1996) by offering innovative products and processes. According to Huse et al. (2005), innovation has become a source of international competitive advantage.

The study findings are consistent with those of Zahra and Garvis (2000) who stated that innovation can also lead to the development of key capabilities that can improve a firm's performance. They also put emphasis on the fact that innovation generates products, goods, processes, services and systems that can be used to meet customer needs and build a strong market position. Thus innovation can improve the firm's profitability and fuel its growth. Better profitability and sustainability are also realized from continuous innovation by the entrepreneurial organization.

Table 4.22: Innovativeness and Firm Performance

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert Mean	Std. Deviation
Our company frequently tries out new ideas	0.0%	17.8%	11.1%	57.8%	13.3%	3.67	0.929
Our company is creative in its methods of operation	4.4%	11.1%	20.0%	51.1%	13.3%	3.58	1.011
Our company seeks out new ways to do things	0.0%	13.3%	13.3%	66.7%	6.7%	3.67	0.798
Company's emphasis on developing new products	0.0%	20.0%	26.7%	46.7%	6.7%	3.4	0.889
Our Company spends on new product development activities	4.4%	6.7%	37.8%	40.0%	11.1%	3.47	0.944
Our company Invests in developing proprietary Technologies	0.0%	20.0%	22.2%	44.4%	13.3%	3.51	0.968
Average	1.5%	14.8%	21.9%	51.1%	10.7%	3.55	0.923

4.6.5 Relationship Between Innovativeness and Firm Performance

Table 4.23 shows the correlation results which indicate that there was a positive and significant relationship between innovativeness and firm performance. This was evidenced by the p value of 0.000 which is less than the critical value (0.05)

Table 4.23: Relationship between Innovativeness and Firm Performance

Variable		Firm performance	Innovativeness
Firm performance	Pearson Correlation	1	
	Sig. (2-tailed)		
Innovativeness	Pearson Correlation	0.642	1
	Sig. (2-tailed)	0.000	

Binary logistic regression was used to model the relationship between innovativeness and firm performance. Table 4.24 shows that innovativeness was statistically associated with firm performance ($p < 0.002$). An increase in innovativeness increases the probability of having high firm performance by 9.409 times. The findings imply that those firms with high innovativeness have higher chances of having higher firm performance as compared to those without or with low innovativeness.

The study findings are consistent with those of Zahra and Garvis (2000) who stated that innovation can also lead to the development of key capabilities that can improve a firm's performance. They also put emphasis on the fact that innovation generates products, goods, processes, services and systems that can be used to meet customer needs and build a strong market position. Thus innovation can improve the firm's profitability and fuel its growth. Better profitability and sustainability are also realized from continuous innovation by the entrepreneurial organization.

Table 4.24: Logistic Regression for Innovativeness

Variable	Beta	S.E.	Wald	d f	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Innovativeness	2.242	0.731	9.399	1	0.002	9.409	2.245	39.435
Constant	-7.419	2.573	8.312	1	0.004	0.001		

4.7 Competitive Aggressiveness and Firm Performance

4.7.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on competitive aggressiveness and firm performance, a coefficient of 0.844 was found as shown in Table 4.25. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the competitive aggressiveness variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

Table 4.25: Reliability Test for Competitive Aggressiveness

Statement	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Owing to the nature of the environment, bold, wide ranging acts are necessary to achieve the firm's objectives	0.319	0.866
The company stimulates new demand on existing products in the current market through aggressive advertisement	0.718	0.799
The company takes bold and wide ranging acts (e.g. sales, promotion, competitive prices and distributive channels) to market products	0.538	0.836
Our company has a strong tendency to increase the market share by reducing competitors through competitive marketing strategies	0.718	0.8
Our company spends substantial amount of financial resources in sales promotion	0.886	0.762
Our company actively searches for significant opportunities to improve market share	0.567	0.83
Number of items	6	
Cronbach's Alpha	0.844	

4.7.2 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Barlett's Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.26 showed that the KMO statistic was 0.615 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 169.807 with 15 degree of freedom, at $p < 0.05$). The results of the KMO and Bartlett's Test are summarized in Table 4.26. These results provide an excellent justification for further statistical analysis to be conducted.

Table 4.26: Competitive Aggressiveness KMO Sampling Adequacy and Bartlett's Sphericity Tests

Test	Coefficient
Kaiser-Meyer-Olkin Measure	0.615
Bartlett's Chi- Square	169.807
Bartlett's df	15
Bartlett's Sig.	0

4.7.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 6 statements on competitive aggressiveness and firm performance can be factored into 1 factor. The total variance explained by the extracted factor is 57.09% as shown in Table 4.27. The factor communalities of the variable are shown in Appendix IV.

Table 4.27: Competitive Aggressiveness Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.425	57.091	57.091	3.425	57.091	57.091
2	0.96	15.995	73.087			
3	0.848	14.138	87.225			
4	0.561	9.351	96.576			
5	0.117	1.958	98.534			
6	0.088	1.466	100			

Extraction Method: Principal Component Analysis.

Table 4.28 shows the factor loadings for sub-constructs of competitive aggressiveness. All the statements attracted coefficients of more than 0.4 hence all the statements were retained for analysis. According to Rahn (2010) and Zandi

(2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability and deemed to lead to desirable and acceptable solutions.

Table 4.28: Factor Loading for Competitive Aggressiveness

Item	Factor loading
Our company spends substantial amount of financial resources in sales promotion	0.959
Our company has a strong tendency to increase the market share by reducing competitors through competitive marketing strategies	0.937
Our company actively searches for significant opportunities to improve market share	0.934
The company stimulates new demand on existing products in the current market through aggressive advertisement	0.916
The company takes bold and wide ranging acts (e.g. sales, promotion, competitive prices and distributive channels) to market products	0.912
Owing to the nature of the environment, bold, wide ranging acts are necessary to achieve the firm's objectives	0.876

4.7.4 Descriptive Analysis

The fourth objective of the study was to establish the influence of competitive aggressiveness on performance of state corporations in Kenya. Table 4.29 shows 93.4% of the respondents agreed that owing to the nature of the environment, bold, wide ranging acts are necessary to achieve the firm's objectives, 42.2% agreed that the company stimulates new demand on existing products in the current market through aggressive advertisement and 53.3% agreed that the company takes bold and wide ranging acts (e.g. sales, promotion, competitive prices and distributive channels) to market products. Thirty seven point eight percent of the respondents agreed that their company had a strong tendency to increase the market share by reducing competitors through competitive marketing strategies, 42.2% agreed that their company spends substantial amount of financial resources in sales promotion and 51.1% agreed that their company actively searches for significant opportunities to improve market share. The mean score for responses for this section was 3.33

which indicates that majority of the respondents agreed that competitive aggressiveness was a key determinant of firm performance.

Means greater than 1 and less than 1.5 implied that competitive aggressiveness influenced performance to no extent. Means greater than 1.5 and less than 2.5 implied that competitive aggressiveness influenced performance to a little extent. Means greater than 2.5 and less than 3.5 implied that competitive aggressiveness influenced performance to a moderate extent. Means greater than 3.5 and less than 4.5 implied that competitive aggressiveness influenced performance to a greater extent. Means greater than 4.5 implied that competitive aggressiveness influenced performance to a very great extent.

The standard deviation on the other hand describes the distribution of the response in relation to the mean. It provides an indication of how far the individual responses to each factor vary from the mean. A standard deviation of more than 1 indicates that the responses are moderately distributed, while less than 1 indicates that there is no consensus on the responses obtained. An average of 1.042 for all statements on competitive aggressiveness indicates that the responses are moderately distributed.

The study findings agree with those in Dess, Lumpkin, and Eisner (2007) who asserted that firms which decide to gain share from competitive markets, adopt competitive aggressive behaviors by employing marketing strategies such as competing on price, increasing promotion and/or combating for the distribution channels or imitating the competitors' actions and/or products. By acting aggressive via marketing tools, they force relatively stronger competitors to make entry barriers for the current markets. The purposes of these bold and aggressive behaviors are initially to remain in competition and then to make profit by fulfilling the opportunities of markets.

Table 4.29: Competitive Aggressiveness and Firm Performance

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert Mean	Std. Deviation
Owing to the nature of the environment, bold, wide ranging acts are necessary to achieve the firm's objectives	0.0%	6.7%	0.0%	46.7%	46.7%	4.33	0.798
The company stimulates new demand on existing products in the current market through aggressive advertisement	13.3%	26.7%	17.8%	42.2%	0.0%	2.89	1.112
The company takes bold and wide ranging acts (e.g. sales, promotion, competitive prices and distributive channels) to market products	6.7%	13.3%	26.7%	42.2%	11.1%	3.38	1.072
Our company has a strong tendency to increase the market share by reducing competitors through competitive marketing strategies	4.4%	40.0%	17.8%	31.1%	6.7%	2.96	1.086
Our company spends substantial amount of financial resources in sales promotion	6.7%	37.8%	13.3%	37.8%	4.4%	2.96	1.107
Our company actively searches for significant opportunities to improve market share	4.4%	13.3%	31.1%	33.3%	17.8%	3.47	1.079
Average	5.9%	23.0%	17.8%	38.9%	14.5%	3.33	1.042

4.7.5 Relationship Between Competitive Aggressiveness and Firm Performance

Table 4.30 shows the correlation results which indicate that there was a positive and significant relationship between competitive aggressiveness and firm performance. This was evidenced by the p value of 0.000 which is less than the critical value (0.05)

Table 4.30: Relationship between Competitive Aggressiveness and Firm Performance

Variable		Firm performance	Competitive Aggressiveness
Firm performance	Pearson Correlation	1	
	Sig. (2-tailed)		
Competitive aggressiveness	Pearson Correlation	0.654	1
	Sig. (2-tailed)	0.000	

Binary logistic regression was used to model relationship between competitive aggressiveness and firm performance. Table 4.31 shows that competitive aggressiveness was statistically associated with firm performance ($p < 0.020$). An increase in competitive aggressiveness increases the probability of having high firm performance by 3.061 times. The findings imply that those firms with high competitive aggressiveness have higher chances of having higher firm performance as compared to those without or with low competitive aggressiveness.

The study findings agree with those in Dess, Lumpkin, and Eisner (2007) who asserted that firms which decide to gain share from competitive markets, adopt competitive aggressive behaviors by employing marketing strategies such as competing on price, increasing promotion and/or combating for the distribution channels or imitating the competitors' actions and/or products. By acting aggressive via marketing tools, they force relatively stronger competitors to make entry barriers for the current markets. The purposes of these bold and aggressive behaviors are

initially to remain in competition and then to make profit by fulfilling the opportunities of markets.

Table 4.31: Logistic Regression for Competitive Aggressiveness

Variable	Beta	S.E.	Wald	d f	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Competitive aggressiveness	1.119	0.48	5.423	1	0.020	3.061	1.194	7.846
Constant	-3.331	1.652	4.066	1	0.044	0.036		

4.8 Organizational Factors

4.8.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on organizational factors and firm performance, a coefficient of 0.729 was found as shown in Table 4.32. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the organizational factors variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

Table 4.32: Reliability Test for Organizational Factors

Statement	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The company has a competitive culture	0.423	0.715
The organization structure favours Coordination and communication	0.248	0.751
The company has engaged in strategic alliances to boost it performance	0.47	0.705
The company is effective at lobbying the government and funding organizations for more resources	0.556	0.682
The organization has well trained and competent work force	0.468	0.715
The board of directors offers a adequate oversight	0.555	0.683
Our company has independent board committees in place to enhance effective monitoring.	0.505	0.698
Number of items	7	
Cronbach's Alpha	0.739	

4.8.2 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Barlett's Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.33 showed that the KMO statistic was 0.812 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 456.424 with 21 degree of freedom, at $p < 0.05$). The results of the KMO and Bartlett's Test are summarized in Table 4.33. These results provide an excellent justification for further statistical analysis to be conducted.

Table 4.33: Organizational Factors KMO Sampling Adequacy and Bartlett's Sphericity Tests

Test	Coefficient
Kaiser-Meyer-Olkin Measure	0.812
Bartlett's Chi- Square	456.424
Bartlett's df	21
Bartlett's Sig.	0

4.8.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 7 statements on organizational factors and firm performance can be factored into 1 factor. The total variance explained by the extracted factor is 82.48% as shown in Table 4.34. The factor loading and communalities of the variable are shown in Appendix IV.

Table 4.34: Organizational Factors Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.774	82.48	82.48	5.774	82.48	82.48
2	0.699	9.979	92.458			
3	0.192	2.742	95.2			
4	0.129	1.84	97.04			
5	0.119	1.697	98.738			
6	0.072	1.028	99.766			
7	0.016	0.234	100			

Extraction Method: Principal Component Analysis.

Table 4.35 shows the factor loadings for sub-constructs of organizational factors. All the statements attracted coefficients of more than 0.4 hence all the statements were

retained for analysis. According to Rahn (2010) and Zandi (2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability and deemed to lead to desirable and acceptable solutions.

Table 4.35: Factor Loading for Organizational Factors

Item	Factor loading
Our company has independent board committees in place to enhance effective monitoring.	0.927
The board of directors offers a adequate oversight	0.913
The company is effective at lobbying the government and funding organizations for more resources	0.834
The company has engaged in strategic alliances to boost it performance	0.802
The organization has well trained and competent work force	0.653
The company has a competitive culture	0.652
The organization structure favours Coordination and communication	0.572

4.8.4 Descriptive Analysis

The fifth objective of the study was to determine the influence of organization factors on the performance of state corporations in Kenya. Table 4.36 shows 55.6% of the respondents agreed that the company has a competitive culture, 48.9% agreed that the organization structure favours coordination and communication and 66.6% agreed that the company has engaged in strategic alliances to boost it performance. Forty eight point nine percent of the respondents agreed that the company was effective at lobbying the government and funding organizations for more resources, 84.5% agreed that the organization has well trained and competent work force, 66.7% agreed that the board of directors offers a adequate oversight and 73.4% agreed that their company has independent board committees in place to enhance effective monitoring. The mean score for responses for this section was 3.33 which indicates that majority of the respondents agreed that organizational factors were key determinant of firm performance.

Means greater than 1 and less than 1.5 implied that organizational factors influenced performance to no extent. Means greater than 1.5 and less than 2.5 implied that organizational factors influenced performance to a little extent. Means greater than 2.5 and less than 3.5 implied that organizational factors influenced performance to a moderate extent. Means greater than 3.5 and less than 4.5 implied that organizational factors influenced performance to a greater extent. Means greater than 4.5 implied that organizational factors influenced performance to a very great extent.

The standard deviation on the other hand describes the distribution of the response in relation to the mean. It provides an indication of how far the individual responses to each factor vary from the mean. A standard deviation of more than 1 indicates that the responses are moderately distributed, while less than 1 indicates that there is no consensus on the responses obtained. An average of 1.00 for all statements on organizational factors indicates that the responses are moderately distributed.

The findings are consistent with those of Miring'u and Muoria (2011) who analyzed the effects of Corporate Governance on performance of commercial state corporations in Kenya. Using a descriptive study design, the study sampled 30 SCs out of 41 state corporations in Kenya and studied the relationship between financial performance, board composition and size. The study found a positive relationship between Return on Equity (ROE) and board compositions of all State Corporations.

The study findings further agree with those in Manderlier et al(2009) found that board size has a positive impact on operational efficiency, suggesting that a large number of directors positively influence the rationalization of operational costs.

Table 4.36: Organizational Factors and Firm performance

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert Mean	Std. Deviation
The company has a competitive culture	0.0%	17.8%	26.7%	37.8%	17.8%	3.56	0.99
The organization structure favours Coordination and communication	0.0%	22.2%	28.9%	37.8%	11.1%	3.38	0.96
The company has engaged in strategic alliances to boost its performance	0.0%	26.7%	6.7%	62.2%	4.4%	3.44	0.943
The company is effective at lobbying the government and funding organizations for more resources	0.0%	24.4%	26.7%	26.7%	22.2%	3.47	1.1
The organization has well trained and competent work force	0.0%	2.2%	13.3%	66.7%	17.8%	4	0.64
The board of directors offers a adequate oversight	6.7%	8.9%	17.8%	48.9%	17.8%	3.62	1.093
Our company has independent board committees in place to enhance effective monitoring.	13.3%	8.9%	4.4%	55.6%	17.8%	3.56	1.271
Average	2.9%	15.9%	17.8%	48.0%	15.6%	3.58	1.000

4.8.5 Relationship Between Organizational Factors and Firm Performance

Table 4.37 shows the correlation results which indicate that there was a positive and significant relationship between organizational factors and firm performance. This was evidenced by the p value of 0.000 which is less than that of critical value (0.05)

Table 4.37: Relationship between Organizational Factors and Firm Performance

Variable		Firm performance	Organizational Factors
Firm performance	Pearson Correlation	1	
	Sig. (2-tailed)		
Organizational Factors	Pearson Correlation	0.624	1
	Sig. (2-tailed)	0.000	

Binary logistic regression was used to model relationship between organizational factors and firm performance. Table 4.38 shows that organizational factors was statistically associated with firm performance ($p < 0.002$). An increase in organizational factors effectiveness increases the probability of having high firm performance by 15.699 times. The findings imply that those firms with effective organizational factors have higher chances of having higher firm performance as compared to those without organizational factors.

The findings are consistent with those of Miring'u and Muoria (2011) who analyzed the effects of Corporate Governance on performance of commercial state corporations in Kenya. Using a descriptive study design, the study sampled 30 SCs out of 41 state corporations in Kenya and studied the relationship between financial performance, board composition and size. The study found a positive relationship between Return on Equity (ROE) and board compositions of all State Corporations.

The study findings further agree with those in Manderlier et al(2009) found that board size has a positive impact on operational efficiency, suggesting that a large number of directors positively influence the rationalization of operational costs.

Table 4.38: Logistic Regression for Organizational Factors

Variable	Beta	S.E.	Wald	d f	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Organizational Factors	2.754	0.888	9.619	1	0.002	15.699	2.755	89.453
Constant	-9.305	3.134	8.814	1	0.003	0		

4.9 Firm Performance

4.9.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on firm performance, a coefficient of 0.839 was found as shown in Table 4.39. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the firm performance variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

Table 4.39: Reliability Test for firm performance

Statement	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Our firm profitability has increased over the last five years	0.756	0.782
Our firm financial leverage has increased over the last five years	0.571	0.825
Our firm has experienced an increase in total revenue collected over the last 5 years	0.752	0.784
Our firm has experienced an increase in assets over the last 5 years	0.618	0.814
Our firm has a higher market value	0.658	0.806
The organization is more inclined to decisions that enhance returns on its physical capital rather than relational capital	0.361	0.857
Number of items	6	
Cronbach's Alpha	0.839	

4.9.2 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Barlett's Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.40 showed that the KMO statistic was 0.732 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 265.495 with 15 degree of freedom, at $p < 0.05$). The results of the KMO and Bartlett's Test are summarized in Table 4.40. These results provide an excellent justification for further statistical analysis to be conducted.

Table 4.40: Firm Performance KMO Sampling Adequacy and Bartlett's Sphericity Tests

Test	Coefficient
Kaiser-Meyer-Olkin Measure	0.732
Bartlett's Chi- Square	265.495
Bartlett's df	15
Bartlett's Sig.	0

4.9.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 6 statements on organizational firm

performance can be factored into 1 factor. The total variance explained by the extracted factor is 72.66% as shown in Table 4.41.

Table 4.41: Firm Performance Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.36	72.663	72.663	4.36	72.663	72.663
2	0.849	14.155	86.818			
3	0.426	7.106	93.924			
4	0.23	3.828	97.751			
5	0.081	1.353	99.105			
6	0.054	0.895	100			

Extraction Method: Principal Component Analysis.

Table 4.42 shows the communalities for firm performance. The communalities results indicate that all the statements had significant communalities/shared variance. As a rule of the thumb, a communality of above 0.4 indicates significant communality.

Table 4.42: Firm Performance Communalities

Statement	Initial	Extraction
Our firm profitability has increased over the last five years	1	0.823
Our firm financial leverage has increased over the last five years	1	0.652
Our firm has experienced an increase in total revenue collected over the last 5 years	1	0.82
Our firm has experienced an increase in assets over the last 5 years	1	0.745
Our firm has a higher market value	1	0.764
The organization is more inclined to decisions that enhance returns on its physical capital rather than relational capital	1	0.556

Extraction Method: Principal Component Analysis.

Table 4.43 shows the factor loading from the highest to lowest. It shows that firm profitability has increased over the last five years had the highest factor loading at

0.907, followed by our firm has experienced an increase in total revenue collected over the last 5 years with 0.906 and our firm has a higher market value had 0.874.

Table 4.43: Firm Performance Rotated Component Matrix

Statement	Component
Our firm profitability has increased over the last five years	0.907
Our firm has experienced an increase in total revenue collected over the last 5 years	0.906
Our firm has a higher market value	0.874
Our firm has experienced an increase in assets over the last 5 years	0.863
Our firm financial leverage has increased over the last five years	0.808
The organization is more inclined to decisions that enhance returns on its physical capital rather than relational capital	0.746

Extraction Method: Principal Component Analysis.

4.9.4 Descriptive Analysis

The study sought to determine the performance of state corporations in Kenya. Table 4.44 shows that 66.7% of the respondents agreed that their firm profitability has increased over the last five years, 48.9% agreed that their firm financial leverage has increased over the last five years and 80% agreed that their firm has experienced an increase in total revenue collected over the last 5 years. In addition, 86.7% of the respondents agreed that their firm has experienced an increase in assets over the last 5 years, 68.9% agreed that their firm has a higher market value and 71.1% agreed that the organization was more inclined to decisions that enhance returns on its physical capital rather than relational capital. The mean score for the responses was 3.68 which indicate that many employees agreed to the statements regarding firm performance.

Means greater than 1 and less than 1.5 implied that performance has improved to no extent. Means greater than 1.5 and less than 2.5 implied that performance has improved to a little extent. Means greater than 2.5 and less than 3.5 implied that performance has improved to a moderate extent. Means greater than 3.5 and less than 4.5 implied that performance has improved to a greater extent. Means greater than 4.5 implied that performance has improved to a very great extent.

The standard deviation on the other hand describes the distribution of the response in relation to the mean. It provides an indication of how far the individual responses to each factor vary from the mean. A standard deviation of more than 1 indicates that the responses are moderately distributed, while less than 1 indicates that there is no consensus on the responses obtained. An average of 1.123 for all statements on firm performance indicates that the responses are moderately distributed.

The study findings agreed with those of Lekmat and Selvarajah (2008) who examined the corporate entrepreneurship activity of senior managers in 400 auto-parts manufacturing companies randomly chosen from the Thailand Automotive Industry directory 2006-2007. The study suggested that corporate entrepreneurship has significant influence on firm performance in terms of financial aspects. Self renewal and organizational support were also found to be positively and significantly related to firm performance.

The study findings agree with those of Goosen et al. (2002) who used a three-factor key intrapreneurship model to study the significance of the financial outcomes towards company performance involving a sample of companies listed in the industrial sector of the Johannesburg Stock Exchange, South Africa. The results of the study support the hypothesis that corporate entrepreneurship dimensions such as innovativeness, pro-activeness and management's internal influence significantly contributes to financial performance.

Table 4.44: Firm Performance

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert Mean	Std. Deviation
Our firm profitability has increased over the last five years	6.7%	13.3%	13.3%	37.8%	28.9%	3.69	1.221
Our firm financial leverage has increased over the last five years	11.1%	13.3%	26.7%	26.7%	22.2%	3.36	1.282
Our firm has experienced an increase in total revenue collected over the last 5 years	6.7%	13.3%	0.0%	51.1%	28.9%	3.82	1.193
Our firm has experienced an increase in assets over the last 5 years	6.7%	6.7%	0.0%	71.1%	15.6%	3.82	1.007
Our firm has a higher market value	0.0%	20.0%	11.1%	46.7%	22.2%	3.71	1.036
The organization is more inclined to decisions that enhance returns on its physical capital rather than relational capital	0.0%	20.0%	8.9%	53.3%	17.8%	3.69	0.996
Average	5.2%	14.4%	10.0%	47.8%	22.6%	3.68	1.123

4.9.5 Summary of Key Results

The summary of the results are shown on Table 4.45 which indicated that all variables (proactiveness, risk taking, innovativeness, competitive aggressiveness and organizational factors) were good predictors of performance. In the univariate analysis all independent variables were statistically significant in explaining organizational performance. However organizational factors had the highest probability of having high performance since it had an Expected Beta of 15.699. This

implies that those firms with effective organizational factors have higher chances of having higher firm performance as compared to those without organizational factors. This was followed by innovativeness, pro activeness, risk taking and competitive aggressiveness in that order. The study findings imply that all variables are vital in influencing organizational performance though organizational factors, innovativeness and proactiveness were the higher contributors.

Table 4.45: Summary of Key Coefficients

Variable	Mean Score	Std Deviation	P value	Expected Beta
Pro-activeness	3.65	0.9896	0.002	6.476
Risk taking	3.27	1.030	0.018	3.496
Innovativeness	3.55	0.923	0.002	9.409
Competitive Aggressiveness	3.33	1.042	0.020	3.061
Organizational Factors	3.58	1.000	0.002	15.699

4.9.6 Multivariate Logistic Regression Analysis for Firm Performance (Overall Model)

A multivariate logistic regression was used to model relationship between all independent variables and firm performance that were found significant in binary stage. The regression model took the following equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Where:

- i. Y = Odds of Firm Performance
- ii. $\{\beta_i; i=1,2,3,4,5\}$ = The coefficients for the various independent variables
- iii. X_i for;
 - X_1 = Vector of Pro Activeness
 - X_2 = Vector of Risk Taking
 - X_3 = Vector of Innovativeness

X_4 = Vector of Competitive Aggressiveness

X_5 = Vector of Organization factors

Table 4.46 shows that pro activeness was statistically associated with firm performance ($p < 0.038$). An increase in pro activeness increases the probability of having high firm performance by 8.196 times. The findings imply that those firms with high pro activeness have higher chances of having higher firm performance as compared to those without or with low pro activeness.

Table 4.46 shows that organizational factors was statistically associated with firm performance ($p < 0.005$). An increase in organizational factors effectiveness increases the probability of having high firm performance by 34.422 times. The findings imply that those firms with effective organizational factors have higher chances of having higher firm performance as compared to those without organizational factors.

The study findings agreed with those of Lekmat and Selvarajah (2008) who examined the corporate entrepreneurship activity of senior managers in 400 auto-parts manufacturing companies randomly chosen from the Thailand Automotive Industry directory 2006-2007. The study suggested that corporate entrepreneurship has significant influence on firm performance in terms of financial aspects. Self-renewal and organizational support were also found to be positively and significantly related to firm performance.

The study findings agree with those of Goosen et al. (2002) who used a three-factor key intrapreneurship model to study the significance of the financial outcomes towards company performance involving a sample of companies listed in the industrial sector of the Johannesburg Stock Exchange, South Africa. The results of the study support the hypothesis that corporate entrepreneurship dimensions such as innovativeness, pro-activeness and management's internal influence significantly contributes to financial performance.

Table 4.46: Multivariate Logistic Regression Analysis for Firm Performance

Variable	Beta	S.E.	Wald	d f	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Pro activeness	2.104	1.012	4.324	1	0.038	8.196	1.129	59.517
Risk taking	-0.495	1.026	0.233	1	0.63	0.61	0.082	4.551
Innovativeness	2.156	1.327	2.639	1	0.104	8.637	0.641	116.414
Competitive aggressiveness	-0.81	0.941	0.741	1	0.389	0.445	0.07	2.813
Organizational Factors	3.539	1.274	7.713	1	0.005	34.422	2.833	418.257
Constant	-22.943	7.724	8.822	1	0.003	0		

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter finalizes the study by providing the summary of key findings, conclusions and recommendations. The summary, conclusions and recommendations are aligned to the specific objectives of the study.

5.2 Summary of the Findings

The general objective of the study was to establish the influence of corporate entrepreneurship on performance of state corporations in Kenya. One of the key findings was that the directors at commercial state corporations were concerned with performance of the firms in Kenya. This was demonstrated by the extent of agreement with the statements in the questionnaire in support of firm performance of state corporations in Kenya. The findings indicated that there was improved firm performance which was linked to corporate entrepreneurship.

5.2.1 Influence of Pro Activeness on Firm Performance of State Corporation

The first objective of the study was to find out the influence of pro activeness on performance of state corporations in Kenya. Results showed that companies initiated actions to which competitors responded to, the firms had a tendency to be ahead of other competitors in introducing novel idea or products and the companies strived in identifying new markets to sell products. Additionally, the study findings indicated that the firms shaped the environment by introducing new products, technologies, administrative techniques than merely react, the company continuously improves the quality of the product and services to be competitive and the company always foresaw potential environmental changes and demands ahead of the competitors.

Logistic regression results revealed that pro activeness was statistically associated with firm performance ($p < 0.002$). An increase in pro activeness increases the probability of having high firm performance by 6.476 times. The findings imply that those firms with high pro activeness have higher chances of having higher firm performance as compared to those without or with low pro activeness.

5.2.2 Influence of Risk Taking on Firm Performance of State Corporations

The second objective of the study was to determine the influence of risk taking on performance of state corporations in Kenya. Results indicated that risk taking was a key determinant of firm performance for commercial state corporations in Kenya. This was evidenced by the responses from the respondents and logistic regression results. The respondents agreed with the statements that relative to their competitors, their company had higher propensity to take risks, their company has shown a great deal of tolerance for high risk projects and the top managers of their firm favour, a bold, aggressive posture in order to maximize the probability of exploiting potential when faced with uncertainty.

Binary logistic regression results showed that risk taking was statistically associated with firm performance ($p < 0.018$). An increase in risk taking practices increases the probability of having high firm performance by 3.496 times. The findings imply that those firms with high risk taking practices have higher chances of having higher firm performance as compared to those without or with low risk taking practices.

5.2.3 Influence of Innovativeness on Firm Performance of State Corporations

The third objective of the study was to evaluate the influence of innovativeness on performance of state corporations in Kenya. The study findings indicated that innovativeness has contributed to excellent firm performance of commercial state corporations. The study findings indicated that the firms frequently tried out new ideas, they were creative in methods of operation and the company sought out new ways to do things. The firms also emphasized on developing new products, spent on new product development activities and invested in developing proprietary

Technologies. Logistic regression results showed that innovativeness was statistically associated with firm performance ($p < 0.002$). An increase in innovativeness increases the probability of having high firm performance by 9.409 times. The findings imply that those firms with high innovativeness have higher chances of having higher firm performance as compared to those without or with low innovativeness.

5.2.4 Influence of Competitive Aggressiveness on Firm Performance of State Corporations

The fourth objective of the study was to establish the influence of competitive aggressiveness on performance of state corporations in Kenya. The study findings indicated that the companies had a strong tendency to increase the market share by reducing competitors through competitive marketing strategies, the companies spent substantial amount of financial resources in sales promotion and the companies actively searched for significant opportunities to improve market share. Additionally, the results indicated that competitive aggressiveness was statistically associated with firm performance ($p < 0.020$). An increase in competitive aggressiveness increases the probability of having high firm performance by 3.061 times. The findings imply that those firms with high competitive aggressiveness have higher chances of having higher firm performance as compared to those without or with low competitive aggressiveness.

5.2.5 Influence of Organizational Factors on Firm Performance of State Corporations

The fifth objective of the study was to determine the influence of organization factors on the performance of state corporations in Kenya. Results revealed that organizational factors were one of the key drivers of firm performance for state corporations. Majority of the respondents agreed that organization structure favours coordination and communication, the company has engaged in strategic alliances to boost its performance, the organization has well trained and competent work force, the board of directors offers adequate oversight and the company has independent

board committees in place to enhance effective monitoring. Organizational factors were statistically associated with firm performance ($p < 0.020$). An increase in organizational factors effectiveness increases the probability of having high firm performance by 15.699 times. The findings imply that those firms with effective organizational factors have higher chances of having higher firm performance as compared to those without organizational factors.

5.3 Conclusions

Based on the objectives and the findings of the study the following conclusion can be made. The intensive usage of corporate entrepreneurship in the enterprises generally increases the efficiency of doing business by creating new products and services, shortening the time to get to market, reducing the costs, decreasing the prices and more efficiently answering on the moves of the competitors and market changes. Therefore the strategic intention of managers of these enterprises should be a creation of new organizational climate based on the tighter cooperation between the individuals with the aim of achieving the synergic effects in internal entrepreneurial activities.

5.3.1 Pro Activeness and Firm Performance

Pro activeness was found to have an effect on firm performance. It can therefore be concluded that firms that nurture organizational structures and values conducive environment to entrepreneurial activities such as pro activeness are likely to experience better performance results. It was possible to conclude that the entrepreneurial element of pro activeness leads to business success among organizations. The findings indicated that the success of the firms was achieved because of the appropriate management decisions, e.g. being first to market, ability to adapt quickly to changes, ability to seize opportunities in new markets or products and a proactive approach to drive the business forward.

5.3.2 Risk Taking and Firm Performance

Results also led to the conclusion that corporate entrepreneurship improves performance by increasing company's proactivity and willingness to take risks by pioneering the development of new products, processes and services. It can also be concluded that the firms have developed a mentality inclined to risk-taking activities. The study concludes that firm managers characteristics (e.g. ability to create a sustainable and wealth creating venture, notion of risk taking, the ability to innovate, and other psychological dispositions (e.g. persistence, action, orientation and self-confidence) were prevalent in the firms studied and for that reason they have managed to survive and compete in their industries and localities.

5.3.3 Innovativeness and Firm Performance

Innovativeness had a positive effect on firm performance. It can therefore be concluded that firms are trying to be innovative and therefore, it can be said that innovativeness, as a dimension of corporate entrepreneurship, is a factor that has an influence on the performance of commercial state corporations. Results led to the conclusion that there is a stronger link between innovations and inventions of products and the company's performance in production companies, while service oriented companies are showing better results when compared with major competitors.

5.3.4 Competitive Aggressiveness and Firm Performance

The study concludes that competitive aggressiveness has an effect on firm performance. Commercial state corporations that apply and promote activities regarding corporate entrepreneurship can be sure that they can achieve significant competitive advantage and superior performance. It was possible to conclude that the environment in which entrepreneurial activities are practiced have strong impact on company performance, changes in the market in terms of prices, rules, regulations and emergence of new competitors have a strong and significant influence on firms' financial performance.

5.3.5 Organizational Factors and Firm Performance

Organizational factors were statistically significant in explaining firm performance of commercial state corporations. It can therefore be concluded that for any firm to have better results should manage the organizational factors and nurture conducive environment for all employees to work in. the study further concludes that resource availability, supportive organizational structure and rewards to employees leads to improved firm performance. This is because without effective organizational culture and structure, corporate entrepreneurship cannot thrive due to systematic and individual resistance.

5.4 Recommendations

Based on the results, findings and conclusions the following recommendations have been deciphered. The study recommends to the management of firms that corporate entrepreneurship should be pursued as a competitive and performance improvement strategy by all firms regardless of size. This is because corporate entrepreneurship influences firm performance positively.

For corporate entrepreneurship to thrive, firms need to put in place an environment with support systems, structures and resources that encourage employees to behave entrepreneurially. The management should therefore ensure that they engage all the employees as they embrace corporate entrepreneurship to ensure that all staffs are working towards achieving the same objective and company goal.

The study is a justification of the fact that an organization with competitive innovativeness skills has a deep understanding of the business enterprises which catapults their growth to a large extent. The study recommends that the management should use technology in controlling the production cost while maintaining competitive prices as it results in continued profitability of a firm and therefore growth. Managers should be efficient time managers with a control on the firm cost of operation to help provide a working schedule and competitive prices which fit the client needs.

The study recommends that firms can increase the innovative capability of their firms by paying more attention towards learning orientation and entrepreneur orientation to improve performance. The investment in learning based capabilities and developing of entrepreneurial instinct to exploit opportunities plays a key role in the maintenance of innovativeness.

The findings of this study suggest that firms which aim at sustaining their competitive advantage have to enhance marketing activities to improve business performance. This proves that market oriented culture should enhance entrepreneurial behavior within the firm. In a competitive environment, aggressive marketing can strengthen performance. The market information obtained from customers and the competitors helps the firm to keep an eye on the market. These findings may be of help to managers of firms to intensify initiatives to encourage better understanding on the significance of corporate entrepreneurship and marketing orientation which boosts firm's competitive position and superior performance. This helps them to be more entrepreneurial and market oriented in order for the firms to survive the intensively competitive market environment.

5.5 Areas for Further Research

A replica of this study can be carried out with a further scope to include other state corporations and see whether the findings hold true. Future studies should apply different research instruments like interview guide, focus group discussions to involve respondents in discussions in order to generate detailed information which would help in bringing out better strategies for corporate entrepreneurship and performance of firms in Kenya.

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APPENDICES

Appendix I: Introduction Letter

Date.....
Chief Executive Office
P.O Box
Nairobi.

Dear Sir,

RE: ACADEMIC RESEARCH PROJECT

I am a Phd student at the Jomo Kenyatta University of Agriculture and Technology (JKUAT). I wish to conduct a research entitled “*influence of corporate entrepreneurship on performance of state corporations in Kenya*”. A questionnaire has been designed and will be used to gather relevant information to address the research objectives of the study. The purpose of writing to you is to kindly request you to grant me permission to collect information on this important subject from randomly selected members of staff.

Please note that the study will be conducted as an academic research and the information provided will be treated in strict confidence. Strict ethical principles will be observed to ensure confidentiality and the study outcomes and reports will not include reference to any individuals.

Your acceptance will be highly appreciated.

Yours Sincerely

Bruno Mugambi Linyiru

Appendix II: Questionnaire

This questionnaire is meant to gather information regarding the influence of corporate entrepreneurship on performance of state corporations in Kenya.

CONFIDENTIALITY CLAUSE:

The responses you provide will be used for academic purposes and will be strictly confidential.

PART A

GENERAL /DEMOGRAPHIC DATA

1. Kindly indicate your gender

- a) Male
- b) Female

2. Please indicate the highest level of education you have ever attained

- a) Secondary level
- b) College level
- c) University level
- d) Post graduate level

3. How many years have you worked in the firm?

- a) Less than 2 years
- b) 3 to 5 years
- c) Over 5 years

4. What is the organization size (firm size)

- a) Small (Less than 500 employees)
- b) Medium (Up to 500 employees)
- c) Large (Over 500 employees)

5. How long has the organization been in operation (firm age)?

- a) 1 to 5 years
- b) 6 to 10 years
- c) 11 to 15 years
- d) Over 15 years

PART B

CORPORATE ENTREPRENEURSHIP AND FIRM PERFORMANCE

In your opinion, does corporate entrepreneurship influence firm performance?

- a) Yes
- b) No

Section 1: Pro Activeness

This section aims at finding out the effect of pro activeness on performance of state corporations in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2=disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Our company initiates actions to which competitors then respond					
2	In dealing with its competitors, my firm has a tendency to be ahead of other competitors in introducing novel idea or products					

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3	My company strives in identifying new markets to sale products					
4	Our firm shapes the environment by introducing new products, technologies, administrative techniques than merely react					
5	Our company continuously improves the quality of the product and services to be competitive					
6	Our company always foresees potential environmental changes and future demands ahead of the competitors					
7	Our company always foresees future demands ahead of the competitors					

What are other effects of pro-activeness on firm performance in your organization?

i.....

ii.....

Section 2: Risk Taking

This section aims at determining the influence of risk taking on performance of state corporations in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2=disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Relative to our competitors, our company has higher propensity to take risks					
2	Our company has shown a great deal of tolerance for high risk projects					

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3	The top managers of my firm favour, a bold, aggressive posture in order to maximize the probability of exploiting potential when faced with uncertainty					
4	Most people in this organization are willing to take risks					
5	This organization supports many small and experimental projects realizing that some will undoubtedly fail					
6	The term “risk taker” is considered a positive attribute for people					

In your opinion how else has risk taking influenced firm performance in your organization?

i.....

ii.....

Section 3: Innovativeness

This section aims at evaluating the effect of innovativeness on performance of state corporations in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2=disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Our company frequently tries out new ideas					
2	Our company is creative in its methods of operation					

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3	Our company seeks out new ways to do things					
4	Company's emphasis on developing new products					
5	Our Company spends on new product development activities					
6	Our company Invests in developing proprietary Technologies					

Section 4: Competitive Aggressiveness

This section aims at establishing the influence of competitive aggressiveness on performance of state corporations in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Owing to the nature of the environment, bold, wide ranging acts are necessary to achieve the firm's objectives					
2	The company stimulates new demand on existing products in the current market through aggressive advertisement					
3	The company takes bold and wide ranging acts (e.g. sales, promotion, competitive prices and distributive channels) to market products					
4	Our company has a strong tendency to increase the market share by reducing competitors through competitive marketing strategies					
5	Our company spends substantial amount of financial resources in sales promotion					
6	Our company actively searches for significant opportunities to improve market share					

Section 5: Organization Factors

This section aims at determining the effect of organization factors on the performance of state corporations in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The company has a competitive culture					
2	The organization structure favours Coordination and communication					

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3	The company has engaged in strategic alliances to boost its performance					
4	The company is effective at lobbying the government and funding organizations for more resources					
5	The organization has well trained and competent work force					
	The board of directors offers an adequate oversight					
6	Our company has independent board committees in place to enhance effective monitoring.					

What are other factors that affect firm performance in your organization?

i.....

ii.....

Section 6: Firm Performance

This section aims at exploring performance of state corporations in Kenya. Please indicate your agreement or otherwise with the following statements using the following likert scale. **Key: 1=strongly disagree, 2= disagree; 3=neutral; 4= agree; 5= strongly agree**

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Our firm profitability has increased over the last five years					
2	Our firm financial leverage has increased over the last five years					
3	Our firm has experienced an increase in total revenue collected over the last 5 years					
4	Our firm has experienced an increase in assets over the last 5					

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	years					
5	Our firm has a higher market value					
6	The organization is more inclined to decisions that enhance returns on its physical capital rather than relational capital					

Appendix III: List of Commercial State Corporations

	Company	Sector
1	Agro-Chemical and Food company	Agriculture, Livestock & Fisheries
2	Kenya Meat Commission	Agriculture, Livestock & Fisheries
3	Muhoroni Sugar Company Ltd	Agriculture, Livestock & Fisheries
4	Nyayo Tea Zones development Corporation	Agriculture, Livestock & Fisheries
5	South Nyanza Sugar Company Limited	Agriculture, Livestock & Fisheries
6	Chemilil Sugar Company Ltd	Agriculture, Livestock & Fisheries
7	Nzoia Sugar Company Ltd	Agriculture, Livestock & Fisheries
8	Simlaw Seeds Kenya	Agriculture, Livestock & Fisheries
9	Simlaw Seeds Tanzania	Agriculture, Livestock & Fisheries
10	Simlaw Seeds Uganda	Agriculture, Livestock & Fisheries
11	Kenya National Trading Trading (KNTC)	East African Affairs, Commerce & Tourism
12	Kenya Safari Lodges and Hotels Ltd	East African Affairs, Commerce & Tourism
13	Golf Hotel Kakamega	East African Affairs, Commerce & Tourism
14	Kabarnet Hotel Limited	East African Affairs, Commerce & Tourism
15	Mt Elgon Lodge	East African Affairs, Commerce & Tourism
16	Sunset Hotel Kisumu	East African Affairs, Commerce & Tourism
17	Jomo Kenyatta Foundation	Education, Science & Technology
18	Jomo Kenyatta University Enterprises Ltd	Education, Science & Technology
19	Kenya Literature Bureau (KLB)	Education, Science & Technology
20	Rivatex (East Africa) Ltd	Education, Science & Technology
21	School Equipment Production Unit	Education, Science & Technology
22	University of Nairobi Enterprises Ltd	Education, Science & Technology
23	University of Nairobi Press (UONP)	Education, Science & Technology
24	Development Bank of Kenya Ltd	Industrialization & Enterprise Development
25	Kenya Wine Agencies Ltd (KWAL)	Industrialization & Enterprise Development
26	KWA Holdings	Industrialization & Enterprise Development
27	New Kenya Co-operative Creameries	Industrialization & Enterprise Development
28	Yatta Vineyards Ltd	Industrialization & Enterprise Development

29	National Housing Corporation	Lands, Housing & Urban Development
30	Research Development Unit Company Ltd	Lands, Housing & Urban Development
31	Consolidated Bank of Kenya	National Treasury
32	Kenya National Assurance Co. (2001) Ltd	National Treasury
33	Kenya Reinsurance Corporation Ltd	National Treasury
34	Kenya National Shipping Line	Transport & Infrastructure
35	Kenya Animal Genetics Resource Centre	Agriculture, Livestock & Fisheries
36	Kenya Seed Company (KSC)	Agriculture, Livestock & Fisheries
37	Kenya Veterinary Vaccine Production Institute	Agriculture, Livestock & Fisheries
38	National Cereals & Produce Board (NCPB)	Agriculture, Livestock & Fisheries
39	Kenyatta International Convention Centre	East African Affairs, Commerce & Tourism
40	Geothermal Development Company (GDC)	Energy & Petroleum
41	Kenya Electricity Generating Company (KENGEN)	Energy & Petroleum
42	Kenya Electricity Transmission Company (KETRACO)	Energy & Petroleum
43	Kenya Pipeline Company (KPC)	Energy & Petroleum
44	Kenya Power and Lighting Company (KPLC)	Energy & Petroleum
45	National Oil Corporation of Kenya	Energy & Petroleum
46	National Water Conservation and Pipeline Corporation	Environment, Water & Natural Resources
47	Numerical Machining Complex	Industrialization & Enterprise Development
48	Kenya Broadcasting Corporation	Information, Communication & Technology
49	Postal Corporation of Kenya	Information, Communication & Technology
50	Kenya Development Bank (After merger of TFC, ICDC, KIE, IDB, AFC)	National Treasury
51	Kenya EXIM Bank	National Treasury
52	Kenya Post Office Savings Bank	National Treasury
53	Kenya Airports Authority (KAA)	Transport & Infrastructure
54	Kenya Ports Authority (KPA)	Transport & Infrastructure
55	Kenya Railways Corporation (KRC)	Transport & Infrastructure

Source: Presidential Taskforce on Parastatal Reforms

Appendix IV: Factor Loading and Communalities

Table 1: Communalities

Communalities	Initial	Extraction
Our company initiates actions to which competitors then respond	1	0.859
In dealing with its competitors, my firm has a tendency to be ahead of other competitors in introducing novel idea or products	1	0.936
My company strives in identifying new markets to sale products	1	0.927
Our firm shapes the environment by introducing new products, technologies, administrative techniques than merely react	1	0.911
Our company continuously improves the quality of the product and services to be competitive	1	0.966
Our company always foresees potential environmental changes and future demands ahead of the competitors	1	0.939
Our company always foresees future demands ahead of the competitors	1	0.944
Relative to our competitors, our company has higher propensity to take risks	1	0.901
Our company has shown a great deal of tolerance for high risk projects	1	0.901
The top managers of my firm favour, a bold, aggressive posture in order to maximize the probability of exploiting potential when faced with uncertainty	1	0.896
Most people in this organization are willing to take risks	1	0.921
This organization supports many small and experimental projects realizing that some will undoubtedly fail	1	0.871
The term “risk taker” is considered a positive attribute for people	1	0.899
Our company frequently tries out new ideas	1	0.927
Our company is creative in its methods of operation	1	0.949
Our company seeks out new ways to do things	1	0.916
Company’s emphasis on developing new products	1	0.955
Our Company spends on new product development activities	1	0.957
Our company Invests in developing proprietary Technologies	1	0.829
Owing to the nature of the environment, bold, wide ranging acts are necessary to achieve the firm’s objectives	1	0.796
The company stimulates new demand on existing products	1	0.9

in the current market through aggressive advertisement		
The company takes bold and wide ranging acts (e.g. sales, promotion, competitive prices and distributive channels) to market products	1	0.857
Our company has a strong tendency to increase the market share by reducing competitors through competitive marketing strategies	1	0.92
Our company spends substantial amount of financial resources in sales promotion	1	0.953
Our company actively searches for significant opportunities to improve market share	1	0.897
The company has a competitive culture	1	0.869
The organization structure favours Coordination and communication	1	0.702
The company has engaged in strategic alliances to boost it performance	1	0.871
The company is effective at lobbying the government and funding organizations for more resources	1	0.882
The organization has well trained and competent work force	1	0.875
The board of directors offers a adequate oversight	1	0.928
Our company has independent board committees in place to enhance effective monitoring.	1	0.911

Extraction Method: Principal Component Analysis.