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THE EFFECT OF ENTERPRISE RISK MANAGEMENT AND MACRO ENVIRONMENT ON THE PERFORMANCE OF KENYAN STATE-OWNED CORPORATIONS

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Abstract

Enterprise risk management (ERM) has grown in importance within the context of both non-financial and financial organizations, undoubtedly with the reason that the business macro environment is rapidly changing and constantly becoming complex. The dynamism and complexity of the external environment have led to the demise of various organizations even with robust enterprise risk management systems. This study conceptualized the effect of ERM and macro environment on organizational performance. The theoretical conceptualization was anchored contingency theory of ERM, open systems theory and Stakeholders theory. The study focussed on state corporations (SCs) in Kenya and purposed to answer the question as to whether ERM and macro environment influenced the performance Kenya state owned corporations. The study population was 187 Kenya state owned enterprises geographically located in various parts of Kenya. Cross sectional survey design was applied in the study and structured questionnaire used to gathered data. The study used descriptive and inferential statistics to analyse the collected data. The study hypotheses were tested using Baron and Kenny model. The study findings established that ERM had a significant influence on the performance of SCs in Kenya. However, the findings revealed that macro environment had no significant moderate influence on the relationship between ERM and performance of SCs in Kenya, thereby failing to support the advancement of Open systems theory. The study contributed to knowledge by demonstrating that ERM has a positive influence on organizational performance. This position validated and advanced the proposition of the Contingency theory of ERM. The study made policy recommendations on further enforcement of ERM adoption in SCs, practicing managers to institutionalize strategic risk management and lastly, for stakeholders theory, to consider giving prominence to stakeholder risk assessment by the organization. The study was encountered a few limitation and recommends further studies to consider the study variable while adopting different research design.

Key words: Enterprise risk management, Macro environment, Organizational performance, State owned corporations.

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1.0 Introduction

Enterprise risk management (ERM) has gained in importance within the context of both non-financial and financial organizations, due to the increasing complexity and dynamism of the macro environment of the business (Kosmala, 2014; Verlag, 2014). There is an increasing prominence in literature tending to link performance and risk management in organizations globally (Rizzi et al, 2011). However, in as much as organizations acknowledge the importance of ERM on performance, it is similarly important to understand how macro environment may influence this relationship (Brustbauer, 2014). Open systems theory suggests a model that anchors the association between ERM, macro-environment and organizational performance.

ERM encompasses the planning, leading, controlling and organizing organizational activities with the purpose of minimizing the effects of risks on organizational operations and performance while enhancing the achievement of objectives (ISO, 2009). Any approach to ERM encompasses three components which include a strategic activity, governance activity and a monitoring activity which addresses any probable outcomes that could threaten the attainment of strategic oversight and goals at different organization levels (McShane et al., 2011). However, every firm has its own approach regarding the extent of engagement, maturity, adoption and formality of ERM activities. Organizations may manage the risks with the expectations to support the value creation process (Kosmala, 2014). However, two distinguishing risk management approaches should be taken into consideration; strategic and traditional. A strategic approach towards risk management is critical in the integration of risk management concepts and ideas. The risk management is designed to facilitate growth of organizations, if well executed within the context of macro environment (Lundqvist, 2014).

Macro-environment comprises of factors spanning beyond the firm's operating sphere (Hitt, Ireland & Hoskinson, 2011). They include economic, ecological, legal, social, technological and political factors (Pearce et al, 2012). Organization theorists have emphasized the importance of an organization in adapting to the environment in order to remain viable (Ansoff & McDonnell, 1990). Organizational performance relates to the changes and the dynamism of the relationship that exist between the organization and the operating environment (Machuki & Aosa, 2011). As the environment changes therefore, organization's survival entirely depends on devising appropriate responses to unforeseen discontinuities. The environment can either be perceived to pose a threat or offer opportunities necessary to steer its performance (Hubbard, 2009). However, with adopting flexibility in risk management coping strategies, coupled with positive attitudes towards uncertainty, an organization may find even the most perceived environmental turbulence to be the source of opportunities as opposed to threats. This would therefore mean that, if organizations may predict accurately and with certainty the extent and direction of changes in aspects including economic, ecological, legal, social, technological and political factors, it may effectively gain competitive advantage and eventually improve its overall performance (Herbane, 2009).

Organizational performance is the definite result or outcome of a firm evaluated against its planned goals and objectives (Alawattegama, 2017). According to Songling, Ishtiaq and Anwar (2018), firm performance is a broad construct capturing the operations, production and

accomplishment of the organization towards its various stakeholders. In this study, the Balanced Scorecard (BSC) was applied to measure performance. The BSC applies both non-financial and financial indicators of performance by applying four dimensions; learning and growth, internal business processes, financial and customers (Peng & Zhou, 2011). This study applied the Balanced Score Card approach by focusing on financial stewardship (revenue, and budget absorption) and non-financial performance (service delivery, ranking and customer satisfaction).

SCs in Kenya are created to facilitate government in fulfilling its core responsibility of achieving sustained socio-economic development (Kobia & Mohamed, 2006). The republic of Kenya has 187 state corporations enacted to deliver of various mandates (Directorate of Personnel Management, 2006). These SCs are expected to participate in policy implementation and revamping service delivery across the public sectors including; energy, transport, infrastructure, health, communications, tourism, agriculture and education to ultimately attain the aspirations of Kenya's Vision 2030 (KIPPRA, 2009). The performance of SCs is therefore of a major strategic importance in driving Kenya's socio-economic agenda as envisioned in the country's Big four (4) agenda and Vision 2030 which is affixed on the three main foundations, that is, economic, social and political, aiming to transform Kenya into an industrialized middle-income economy by 2030. However, the delivering of government's core socio-economic development objectives by the SCs is increasingly being exposed to unprecedented risks from the disruptions emanating from the macro-environment thus hampering SCs performance (PWC, 2012). This one the one hand, has brought to question the performance of SCs when compared to their heavy running budgets that burdens the citizens (Kobia & Mohamed, 2006) and on the other, the seemingly slow and inadequate integration of reforms related strategic management practices such as ERM to mitigate on the threats that could be emanating from the macro environment aspects (PWC, 2015). It is for this reason that a review of the integration of ERM and macro-environment and their effect on organization performance in SCs ought to be undertaken, thus the impetus for this study.

The relationship between the key hypothesized concepts in this study, which are ERM, macro-environment and the performance of the Kenyan SCs, remained largely undocumented in literature, signifying gaps, which this study took to address. Conceptually, studies have hardly explored ERM and organization performance. The debate on the relationship between organizational performance and ERM has been inconclusive (McShane et al., 2011). A few studies that looked at organizational performance and ERM provided mixed results. Among these studies, some advanced the existence of a positive relationship (Yegon, 2015), others positing that the influence of ERM on organizational performance differs in extent (Belanes & Hachana, 2009). Whereas others concluded that, firms have only adopted ERM as a contemporary practice and to erratic extent and therefore had not fully realized ERM's impact (Beasley et al., 2006). Arising from extant literature, it was apparent that, there was a need to determine the association between ERM, macro environment and performance of SCs, since to the best of the researcher's knowledge, there had been no study that had sought to establish this relationship, thus the impetus of this study.

According to Yegon (2015), a few studies relating to ERM and influence on

organizational performance have been explored. Contextually, Lundqvist (2014) studied ERM implementation and firm performance of publicly listed firms, focusing on Nordic countries where it was established that four underlying pillars of ERM enhances firm performance. Rao (2007) measured the importance of ERM to firm performance across different sectors in Dubai and established that there was a need for organizations to integrate ERM to management processes. Sunjka and Emwanu (2015) analyzed ERM practices and performance in manufacturing small and medium-sized enterprises in South Africa and established that higher risks to the firms emanated from the external environment. Limited studies explored the variables proposed in the study and their relationship, with hardly any focusing on the public sector organizations in least developed and developing countries. To the best of researcher's knowledge, there has been no study that sought to investigate ERM, macro environment and performance of Kenyan owned SCs, making this a gap that the study took to address.

The review of studies undertaken revealed that studies adopted varying research designs and methods to investigate the concept of ERM and other variables. For instance, Rao (2007) adopted census survey to evaluate the impact of ERM in private organizations, Sunjka and Emwanu (2015) adopted the case research approach to investigate the association between ERM and performance. The study employed a cross sectional survey design and used regression analysis to examine the association between ERM and performance of Kenyan SCs. To address this and the fore mentioned conceptual, contextual and methodological gaps, this study therefore, answered the question: *What is the influence of ERM and macro-environment on the performance of Kenya Owned State Corporations?*

2.0 Literature Review

This section provides a review of the foundations of theories that reinforce the study and provides literature review on the study objective. The reviewed literature is mainly sourced from scholarly articles and academic journals that provide the expected relationship amongst the study variables. The section further provides the conceptual model that guided the study, alongside the extracted hypotheses that guided the empirical study.

2.1 Theoretical Framework

This study reviewed the contingency theory of ERM, open systems theory and stakeholders' theory, which anchored the three study variables. Kaplan and Mike (2014) developed the contingency theory of ERM that advances that the practice of strategic risk management can be effectively operationalized by applying ERM approaches that match the fundamental type and nature of risks that the organization experiences. Hammond et al. (2006) posit that the principal behind the contingency theory of ERM is to find schemes of fit that would lead to the anticipated performance outcomes by having a fit between an organization's ERM practices and contingent factors. The conclusion from the theory is that the conditional circumstances in the organization enable effective management of risks and impact on performance (Kaplan & Norton, 1996). The contingency theory of ERM was applied in the study to conceptualize ERM, which is a strategic management practice in SCs in Kenya. The theory has however, faced criticism since it hypothesizes a persistent positive influence of ERM on organizational performance even in circumstances where the effect may not be individually credited to ERM (Beasley et al., 2006).

The conception of organisms as open systems has been advanced by Ludwig Von Bertalanffy since 1932. Open systems theory that guided the conceptualization of the influence of macro-environment on the association between organizational performance and ERM, is premised on the understanding that the environment affects organizations since they serve and depend on the setting of the occurrences in the environment (Burnes, 2004). This is anchored on the supposition of Ansoff and McDonell (1990) in progressing the discussion on organizations as open systems, because organizations are both environment dependent and serving. Accordingly, to Wernerfelt (1984), the external environment comprises of factors that are categorized as technological, political, social and economic in nature. Outside the boundaries of the organization are the external factors which the firm cannot control. These external factors could cause uncertainty and turbulence, but they also act as sources of organizational resources that the firm uses for its operations and growth. This therefore necessitates the organization to formulate and implement various strategic management practices to take advantage of the resources and opportunities provided by the external environment while at the same time mitigate the adverse effects emanating from the environment (Carpenter et al, 2004). Organizations ought to analyze the uncertainties that may be span from the environment and certify that strategic decisions take into consideration such risks with a view to minimize their effect on organizational objectives (Ansoff & McDonnell, 1990). Advocates of the open systems theory have the opinion that the survival of the organization depends on the effectiveness of its relationship with its external environment (Wernerfelt, 1984). Nevertheless, the theory has been critiqued for its deficiency in accepting a collaborative perspective that focusses on several resource dependences that are a result of the interaction between various practices in strategic management that could include strategic risk management (Kim & Lim, 1988). This generates the necessity to consider multiple strategy and resource dependency relationships in the context of organizational-environment interaction.

Stakeholder theory by Freeman (1984) hypothesizes that performance of the organization is a consequence of how effectively the firm satisfies the needs of its stakeholders. This implies that the unified stakeholder networks affect the process of decision-making, and thereby influencing the outcomes and effectiveness of the organization. In advancing the propositions of this theory, Child (1972) argues that one of the most important stakeholder constituents are shareholders whose main objective is profits. However, profit maximization is not the only focus of managers and therefore, managers are expected to make decisions that will serve the interests of the other stakeholders as well. This proposition anchored the performance of Kenya state owned state corporations, whose mandate cut across revenue generation, revenue collection, service delivery to the citizens, regulation and over-sight among others essential services (GoK, 2003). The critical role of the SCs in the delivery of the country socio-economic development lead to the introduction of performance management in all SCs, which system gives prominence to both non-financial and financial perspectives of performance (GoK, 2006).

2.2 Enterprise Risk Management and Organizational Performance

According to Sleimi (2020), ERM facilitates the identification, analysis and preparation by an organization for any uncertainties that may derail the organization from attaining

its objectives. Okeke, Aganoke and Onuorah (2018) in their analysing of ERM practice, confirmed that the critical components of ERM include; risk assessment, risk-communication, context setting and risk evaluation. El-Dalabeeh & ALshbiel (2019) in their study on public listed company in Jordan operationalized Context setting to relate to the risk management process scope and setting the principles for risk assessment within the context of the objectives of the organization. Abuzarqa, (2019) operationalized risk assessment as the the identification of risk factors and hazards supported by a systematic analysis Risk evaluation compares the estimated risk against the provided risk criteria for the aim of determining the significance of the risk, whereas evaluation entailed considering the appropriate risk treatment approach and reporting on the same. Similarly, Esa et al., (2018) while evaluating the practice of ERM indicated that risk communication is about the exchange of advice, opinions and instantaneous information between the organizational employees to enable them to make informed decisions towards ERM. According to Sleimi (2020) the various components of ERM are interdependent and work in harmony to culminate in the establishment of an effect ERM. The purpose of ERM is therefore, to have positive outcomes towards organizational performance.

There have been various studies linking ERM to organizational performance with mixed results. Sleimi (2020) determined that ERM practices had had significant positive effect on financial performance of banks. Other studies with similar findings include Songling et al. (2018) and Obala, Akpan and Abass (2014). However, there are studies with contradicting findings. For instance, Okeke et al. (2018) established an inverse association between organizational performance and ERM, largely due to poor communication and inadequate risks assessment and context setting. Besides, Abuzarqa (2019) established that ERM has no significant effect on performance of Hungarian banks. Studies with comparable findings include Saleem (2011) and Esa et al. (2018). Despite the importance of ERM in contributing to performance in all organizations, most of the research undertaken has placed emphasis on the private sector, largely focussing on commercial banks. Studies undertaken have focused on the publicly listed firms and further narrowed down to observing ERM on financial performance. These study results have obtained mixed or rather inconclusive findings (Brustbauer, 2014). Williams (2005) argues that although ERM is seen as one of the crucial strategic management practices organizations are continuously adopting, however, most businesses are yet to integrate the critical elements of ERM, to realize improved performance (Venkatraman & Ramanujam, 1986). the public sector.

ERM increases value when it helps improve performance though factors that may contribute to ERM not having an effect on organization performance include inadequate risk knowledge of management, poor risk assessment, lack of monitoring and evaluation of the adopted risk management tools and practices and poor communication (Ojasalo, 2009). In Kenya, implementing of public sector reforms was started in 1993 with the purpose of improving service delivery by the public sector. Three types of reforms have been implemented in three phases targeted at revamping state corporations. These include newer interventions such as introduction of revamped performance contracting in the year 2003 that included performance contract signing between the SCs and government and the annual evaluation, ranking and publication of all SCs

performance annually (GoK, 2003). Later reforms included the institutionalization of ERM in 2009 (KIPPRA, 2009). This was geared towards improving efficiency and effectiveness of public affairs and enhancing supporting of the achievement of the National developmental plans key among these being the country's economic blue-print, Vision 2030. A major supporting reforms strategy in these later reforms, was the introduction of a governance code, popularly referred to as "Mwongozo Code of Governance" (GoK, 2015). This Code institutionalized ERM as a practice in strategic management in all SCs. Since the year 2010, the implementation of enterprise risk management was made a mandatory practice in all state corporations with the objective of enhancing the implementation and delivery of government development programmes, projects and the general governance and performance of state corporations. However, to the best of the researcher knowledge an assessment of the relationship between ERM on performance of the SCs has not been undertaken, thus informing the need for such a study.

2.3 Enterprise Risk Management, Macro Environment and Organizational Performance

The moderating effect of macro environment, which according to Pearce, et.al (2012) comprises of economic, political, social, technological, ecological and legal factors on the association that may present between ERM and performance has obtained minimal attention in strategic management research (Lenz, 1980). The few empirical studies that have looked at this relationship have produced contradictory results (Grant, 1998). Organizations operate in an environment, which they have no control over. Progressing in time, organizations are increasingly being faced with major disruptions that may result to emergence of sudden and extensive changes that might overwhelm their adaptive abilities as they surpass the comprehension of the organizational seasoned managers (Machuki & Aosa, 2011). Organizations that operate in a stable environment tend to adopt less of risk management practices while those operating in turbulent environment tend to adopt more comprehensive ERM practices (Deloach, 2000).

The major consideration and purpose of any serious organization is to try and outperform the competitors in the industry by delivering sustained and superior returns to the owners of the firm and satisfy all the other stakeholders (Child, 1972). According to Machuki and Aosa, (2011), the aims of firms assessing relative organizational failure and success are conspicuous discourse in the affairs of organizational management. The actual results in comparison with the intended objectives, goals and outputs constitute the actual performance of the organization. Conventionally, financial indicators were the sole measures of performance (Wiersema & Bantel, 1992). However these measures proved inadequate in measuring performance or an organization, and growing interest in the environmental and societal activities of the firm, dimensions of measuring performance such as triple bottom line, balanced score card (Kaplan & Norton, 1996) and the sustainable balance scored that came up recently are being adopted progressively (Mahapatro, 2010). Besides, Pfennigstorg (1977) hypothesizes that mostly, performance in SCs internationally is broadly measured using various perspectives; non-financial aspects and financial stewardship. Non-financial aspects incorporate organizational development, quality management, service delivery and compliance with legal requirements. An entity's performance is its ability to fulfil its key objectives and

mission through sound management, strong governance, strategy and tenacious devotion to accomplish results and goals (Radner & Shepp, 1996).

Conceptual arguments have advanced that firms may gain from adopting a risk management culture to improve performance (Belanes & Hachana 2009). Strategy formulation entails alignment of strengths and weakness with opportunities and challenges in the environment of the organization (Wiersema & Bantel, 1992). It is arising from the need to achieve such a 'fit' that makes the role of strategic risk management in mitigating on the occurrences and the unprecedented business disruptions associated with economic, political, technological, social, ecological and legal factors of great importance (Deloach, 2000). Indeed, studies by Odundo (2012) established that external environment significantly impacted on performance, Gilley et al., (2002) concluded that the relationship between environmental dynamism and performance may be moderated by strategic risk management practices adopted by individual organizations, whereas Porter (1980) separately concluded that how an organization responds to happenings in the external environment, including choice of adopted strategies, measurement tools and systems will inform the performance of that organization. Additionally, Gilley et al., (2002), was of the opinion that the strategic risk management practices adopted by an organization may be moderated by the impact of environmental dynamism and the subsequent performance outcomes. Firms have in the recent past increasingly adopted more comprehensive approaches of ERM. Nevertheless, this appears to be to a lesser extent in the public sector and non-financial institutions (McShane et al., 2011). It is arising from the foregoing arguments, that a need was established to empirically bridge the gap by examining the influence of macro environment on the association between ERM and performance in Kenyan Owned State Corporations.

2.4 Conceptual Framework

Figure 1 presents the conceptual framework that directed the study. ERM is hypothesized to be the predictor variable in the study and it comprises of indicators such as risk communication, context setting, risk assessment and risk evaluation. The moderating variable in the framework is macro-environment. The main indicators of the variable are technological, economic, legal, ecologic, social and political factors. The response variable is organizational performance which is measured using non-financial and financial indicators.

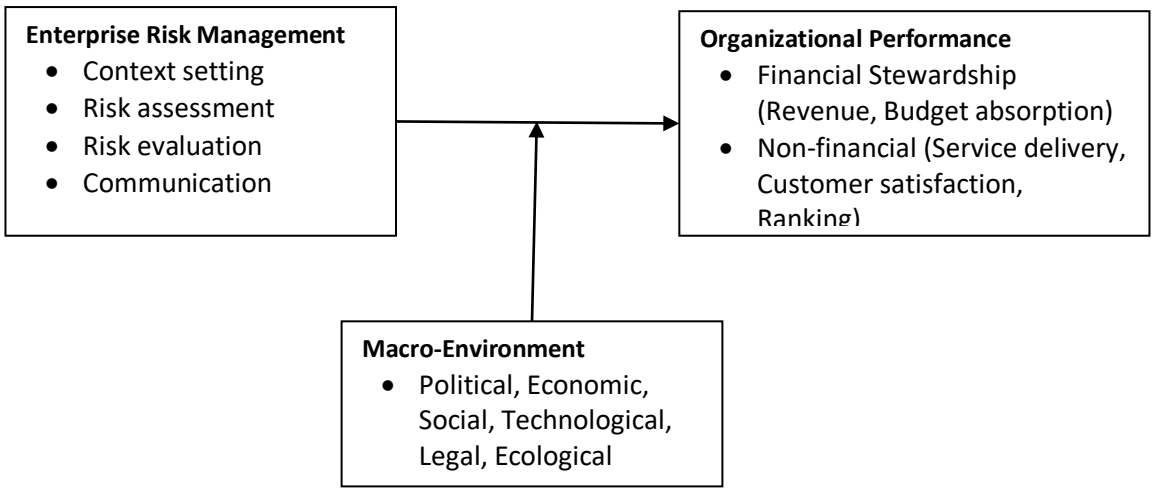

Figure 1: Conceptual Framework for ERM, macro environment and financial performance of state corporations in Kenya

The relationships portrayed in the conceptual was the basis of the following study's hypotheses:

H_1: ERM has a significant influence on organizational performance of SCs in Kenya.

H_2: The relationship between ERM and performance in Kenyan SCs is significantly moderated by the macro environment

3.0 Research Methodology

This section captures the philosophy of the research, the employed research design and population that was targeted. The section also highlights on the sampling method adopted by the study, the data collection approach and the descriptive data analysis measures used.

3.1 Research Philosophy and Research Design

Cross sectional survey design was applied in the study. The unit of analysis was 187 government State-Owned Corporations in Kenya. These corporations are classified into: development or promotional; regulatory; revenue collection; cultural and social services; commercial; educational and professional; and research institutions (GoK, 2013). A Yamane (1967) formula was used to compute a sample of 127 SCs that were selected using the stratified random sampling procedure.

3.2 Sampling Technique

The study used probability sampling design and adopted the Proportionate Stratified random sampling approach. Choice of technique was guided by the fact that stratified sampling classifies the study population into separate groups of similar population entities from which specific units can be selected randomly, thus increasing statistical efficiency (Trochim, 2000).

The sample size was derived using Yamane (1967:886) formulae. The formula was stated as follows;

$$n = \frac{N}{1 + Ne^2} \quad \text{.....(i)}$$

Where n = size of sample; N = study population and e = 95% confidence level.

On the basis of this formula the sample size was 127, which was 67.9% of the research population. The sample size was thereafter distributed across each of the sub-samples on the basis of their initial proportion as shown at Table 3.1 below. The applicability of the approach was chosen due to ease in carrying out and its high efficiency in statistics (Zikmund et al, 2013).

Table 3.0: Sample Size Determination

Category	Corporations	%	Sub-Sample
Executive agencies	62	33	42
Research institutions, public universities and vocational and tertiary and training institutions	45	24	31
Agencies conducting commercial functions	34	18	23
Agencies with regulatory functions	25	13	17
Strategic agencies	21	11	14
Total	**187**	**100**	**127**

Source: Researcher (2019)

The study relied on primary data which was gathered using a structured questionnaire. The participants were chief executive officer (CEOs) or authorized Head of risk function, Head of human resource or Head of corporate planning function. Before the final questionnaire was drafted, a pilot study was conducted whose results were applied in testing reliability and validity. The questionnaire's reliability was assured with a Cronbach's alpha above 0.7 ($\alpha = 0.974$). administration of the questionnaire was through the drop and pick method. This was aided by trained research assistants, who had the capacity and knowhow to effectively administer the questionnaires. Descriptive statistics such as means, standard deviations, percentages and frequencies, and ordinary least squares regression were used to analyze the quantitative data collected. Model specifications tests were conducted before model fitting. The study results were presented using tables.

4.0 Analysis of Findings and Discussions

This section provides the results on the response rate alongside setting out the study's descriptive results. The descriptive statistics relating to ERM, macro environment and organizational performance are then outlined. Finally, the findings relating to the study hypothesis are tabulated.

4.1 Response rate and Organization Characteristics

The study administered a total of 127 questionnaires and 92 questionnaires were collected which was a response rate of 72.4%. Babbie (2004) notes that a return rate of 50% or higher is suitable to analyze and publish the results. Majority of the respondents were drawn from education ministry (26.9%) while 37% of the organizations targeted had more than 1000 employees. Regarding years of operation, majority of the organizations (56.5%) had been in operations for a period of over 15

years. On scope of operations, 40.2% of the organizations operated at the regional scope. Regarding ownership, 93.5% of the organizations were fully government owned. Further, 52.2% of the organizations pursued commercial interests while 47.8% pursued non-commercial interests. Table 1 presents the results obtained based on response rate.

Table 1: Response Rate

Company Interest Category	Frequency	Percentage
Commercial	**48**	**52.2**
Non commercial	**44**	**47.8**
Total	**92**	**100.0**

Source: Primary Data (2019)

4.2 Descriptive Statistics

This section provides for the descriptive statistics results of the study variables. Details on the mean, standard deviation and coefficient of variation obtained are provided and a summary of how they were used to examine and interpret the results.

4.2.1 Enterprise Risk Management

ERM variable was analyzed on the subsections namely; communication, risk assessment, context setting and risk evaluation. The study sought the respondents rating on statements relating to enterprise risk management on a Likert scale that ranged from 1 – 5 (5 = Very great extent; 4 = Great extent; 3 = Moderate extent; 2 = Small extent; 1 = Not at all). The results of the sub-variables are presented in Tables 2 to 5.

Table 2: Descriptive Statistics for ERM-Context Setting

Statements	Mean	Std. Deviation	C_V (%)
Organization possess a formal strategy to pursue its mission and vision	4.7	0.808	17.191
Organization has clearly written roles, structure and responsibilities for its functions	4.76	0.603	12.668
Performance objectives are set periodically to measure whether the organization is accomplishing its aims	4.62	0.875	18.939
All staff signs individual performance contracts in my organization	4.38	0.892	20.365
Authority and responsibilities for the entire top management are formally defined	4.45	0.856	19.236
The organization has an approved policy on risk management	4.39	0.96	21.868
The existing risk policy provides for the identification of compliance, operational and strategic risks	4.24	1.073	25.307
There exists a board level committee with risk management responsibility led by a senior manager	4.4	0.915	20.795

The organization has a risk management function headed by a senior manager	4.33	1.049	24.226
Overall	**4.47**	**0.8923**	**19.962**

The results of the subscale 'contest setting' are presented in Table 2. The results for ERM sub variable of context setting showed that the subscale 'context setting' was undertaken to a large extent in the SCs (overall mean = 4.47, std deviation = 0.892). The statement with the highest rating was that 'organizations had clearly written roles, structure and responsibilities for their functions' (mean = 4.70 and std dev = 0.808). The lowest rated statement was that 'the organizations have a risk management function headed by a senior manager' (mean = 4.33 and std dev = 1.049). These statistics show ERM context setting was adopted to a large and very large extent in the SCs.

The next sub variable for ERM was risk assessment. The results established that risk assessment was conducted to a large extent in the SCs (overall mean = 4.30, std deviation = 0.993). Statement with highest mean rating was 'the organization identifies corruption risks and their likelihood to affect the ability of achieving set organizational objectives' (mean = 4.46, and std deviation = 0.818) while the lowest rated statement was 'the organization has an approved risk appetite statement (mean = 4.12 and std deviation = 1.226). This indicates that participants were of the view that risk assessment was conducted to large extent in the studied SCs. Table 3 presents the results of the subscale 'risk assessment'.

Table 3: Descriptive Statistics for ERM-Risk Assessment

Statements	**Mean**	**Std. Deviation**	**Cv (%)**
The organization identifies strategic risks and their likelihood to affect the capacity of accomplishing set firm goals	4.32	0.983	22.755
The organization identifies operational risks and their likelihood to affect the capacity of accomplishing set firm goals	4.27	1.039	24.333
The organization identifies compliance risks and their likelihood to affect the capacity of accomplishing set firm goals	4.22	1.036	24.550
The organization identifies quality management system and their likelihood to affect the ability of achieving set organizational goals	4.41	0.854	19.365
The organization detects corruption risks and their likelihood to affect the ability of achieving set organizational objectives	4.46	0.818	18.341
The organization has an approved risk appetite statement	4.12	1.226	29.757
Overall	**4.3**	**0.9927**	**23.086**

Risk evaluation was the third sub variable of ERM. The study results show that the SCs conducted risk evaluation to a large extent (overall mean = 4.11, std deviation = 1.118). The statement with the highest mean was 'formal reports are submitted to the board periodically on the state of risks and risk mitigation' (mean = 4.28, std deviation = 1.031). The statement with the lowest mean was 'alternative risk response plan is established for all the significant risks identified by the organization' (mean = 4.07 and std deviation = 1.107). These results indicate that the SCs observed best practices in risk evaluation to a large extent. Table 4 presents the results of the subscale 'risk evaluation'.

Table 4: Descriptive Statistics for ERM-Risk Evaluation

Statements	**Mean**	**Std. Deviation**	**C_V (%)**
The risk management function evaluates the on-going organizational risks	4.13	1.087	26.320
The organization assesses impacts of risks on main indicators of performance	4.13	1.056	25.569
Formal reports are submitted to the Board periodically on the state of risks and risk mitigation	4.28	1.031	24.089
The organization has an automated system to track risk-related information	3.98	1.309	32.889
Alternative risk response plan is established for all the significant risks identified by the organization	4.07	1.107	27.199
The organization undertakes structured and frequent updates of information related to risk	4.08	1.118	27.402
Overall	**4.11**	**1.118**	**27.202**

The findings for risk communication in the SOEs show that study participants were of the view that the SCs conducted risk communication to a large extent (overall mean = 4.00, std deviation = 1.163). The statement with the highest mean was 'identified risks are shared with the relevant organizational stakeholders as appropriate' (mean = 4.16, std deviation = 1.207). The statement with the lowest mean was 'All employees are aware of the organization's risk appetite levels' (mean = 3.82, std deviation = 1.226). All the statements however, showed that the SOEs conducted risk communication to a large extent. Table 5 presents the results of the subscale 'risk communication'. Arising from the study findings 'Context Setting' score the highest mean whereas 'ERM-Risk Communication scored the lowest mean, providing a likelihood that SCs were not sufficiently communicating matter relating to ERM within the organization.

Table 5: Descriptive Statistics for ERM-Risk Communication

Statements	Mean	Std. Deviation	Cv (%)
The organization holds formal risk management meetings to evaluate the status of implementation of ERM	4.04	1.118	27.673
All employees have been sensitized on the content of ERM	3.89	1.169	30.051
All employees are aware of the organization's risk appetite levels	3.82	1.226	32.094
Strategies of risk management are shared with all the management levels	4.08	1.088	26.667
Employees in the organization are aware about identified risks and mitigation measures	4.02	1.167	29.030
Identified risks are shared with the relevant organizational stakeholders as appropriate	4.16	1.207	29.014
Overall	**4.00**	**1.1625**	**29.063**

4.2.2 Macro Environment

Macro environment variable was analyzed on the subsections namely; communication, risk assessment, context setting and risk evaluation. The study sought the respondents rating on statements relating to enterprise risk management on a Likert scale of 1 – 5 (5 = Very great extent; 4 = Great extent; 3 = Moderate extent; 2 = Small extent; 1 = Not at all). The results of the sub-variables are presented in Tables 6 to 10.

Table 6: Descriptive Statistics for Political Environment

Statements	Mean	Std. Deviation	CV (%)
The country's overall political stability	4.47	0.813	18.19
Government pronouncements on policy changes from time to time	4.35	0.831	19.10
Political stability of the country	4.24	1.045	24.65
Interest from various stakeholders	4.16	0.998	23.99
Devolved government structure	3.68	1.094	29.73
Change of political regime	3.41	1.06	31.09
Overall	**4.05**	**0.97**	**23.95**

Source: Primary Data (2019)

In the subscale political environment, the key statements were; 'the country's overall political stability' (mean =4.47 and std dev = 0.813), 'government pronouncements on policy changes from time to time' (mean =4.35 and std dev = 0.831) and 'political stability of the country' (mean =4.24 and std dev = 1.045). The statement 'Devolved government structure' had the highest CV of 29.73. This means that the statement had the highest variation in response. The statement 'The country's overall political stability' had the lowest CV of 18.19. This means that the statement reported the lowest variation in response amongst the respondents.

Table 7: Descriptive Statistics for Economic Environment

Statements	**Mean**	**Std. Deviation**	**CV (%)**
Change in government's fiscal policies	4.37	1.075	24.60
Level of annual budget allocations to the organization	4.26	0.953	22.37
Level of the country's overall economic development	4.03	0.919	22.80
Changes in taxation regime and policies	3.7	1.09	29.46
Inflation trends in the country	3.62	1.137	31.41
Changes in interest rates	3.39	1.099	32.42
Fluctuation in foreign exchange rates	3.38	1.185	35.06
Overall	**3.82**	**1.365**	**35.73**

Source: Primary Data (2019)

In the subscale economic environment shown in Table 7, the key statements were; 'change in government's fiscal policies' (mean =4.37 and std dev = 1.075), 'level of annual budget allocations to the organization' (mean =4.26 and std dev = 0.953) and 'level of the country's overall economic development' (mean =4.03 and std dev = 0.919). The statement 'Change in government's fiscal policies' had the highest CV of 72.65. This means that the statement had the highest variation in response. The statement 'Level of annual budget allocations to the organization' had the lowest CV of 22.37. This means that the statement reported the least variation in response amongst the respondents.

Table 8: Descriptive Statistics for Social Environment

Statements	Mean	Std. Deviation	CV (%)
Social Environment			
Population growth rate	3.6	1.1	30.56
Demands of host communities influenced by norms	3	1.158	38.60
Gender issues	2.94	1.457	49.56
Cultural practices e.g. land demarcation, farming practices and pastoralism	2.88	1.307	45.38
Crime rates and acts of terrorism	2.85	1.109	38.91
Ethic and tribal inclinations	2.7	1.247	46.19
Overall	**2.99**	**1.229**	**41.10**

Source: Primary Data (2019)

In the subscale social environment, the key statements were; 'population growth rate' (mean =3.60 and std dev = 1.100), 'demands of host communities influenced by norms' (mean =3.00 and std dev = 1.158) and 'gender issues' (mean =2.94 and std dev = 1.457). The statement 'Gender issues' had the highest CV of 49.56. This means that the statement had the highest variation in response. The statement 'Population growth rate' had the lowest CV of 30.56. This means that the statement reported the least variation in response amongst the respondents. Table 9 presents the findings for technological and legal environments.

Table 9: Descriptive Statistics for Technological/Ecological and Legal Environment

Statements	Mean	Std. Deviation	CV (%)
Technological & Ecological			
Rapid developments in ICT e.g. internet usage & digitization of services	4.19	1.01	24.11
Occurrence of natural disasters e.g. floods and drought	3.79	1.245	32.85
Overall	**3.99**	**1.128**	**28.27**

Source: Primary Data (2019)

In the subscale technological and ecological, the key statements were; 'rapid developments in ICT such as, internet usage & digitization of services' (mean =4.19 and std dev = 1.01) and 'occurrence of natural disasters such as, floods and drought' (mean =3.79 and std dev = 1.245). The statement 'Occurrence of natural calamities such as drought and floods' had the highest CV of 32.85. This means that the statement had the most variation in response. The statement 'Rapid developments in ICT such as internet usage & digitization of services' had the lowest CV of 24.11. This means that the

statement reported the least variation in response amongst the respondents.

Table 10: Descriptive Statistics for Legal Environment

Statements	Mean	Std. Deviation	CV (%)
Legal Environment			
Legislative activities that are important to the organization's business	4.24	0.918	21.65
The legal framework prescribing organizational mandate	4.08	1.051	25.76
Change in the Kenya constitution 2010 and subsequent legislation	3.62	1.203	33.23
Introduction of environmental sustainability legislation	3.51	1.143	32.56
Civil society organizations agitation for rights	2.8	1.17	41.79
Overall	**3.65**	**1.097**	**30.05**

Source: Primary Data (2019)

In the subscale legal environment, the key statements were; 'legislative activities touching on the organization's business' (mean =4.24 and std dev = 0.918), 'the legal framework prescribing organizational mandate' (mean =4.08 and std dev = 1.051) and 'change in the Kenya constitution 2010 and subsequent legislation' (mean =3.62 and std dev = 1.203), 'introduction of environmental sustainability legislation' (mean =3.51 and std dev = 1.143) and 'civil society organizations agitation for rights' (mean = 2.8 and std dev = 1.17). The statement 'civil society organizations agitation for rights" had the highest CV of 41.79. This means that the statement had the most variation in response. The statement "Legislative activities touching on the organization's business" had the lowest CV of 21.65. This means that the statement reported the least variation in response amongst the respondents.

In general political environment was given the highest rating (mean = 4.05 std dev= 0.813), followed by technological and ecological environment (mean = 3.99, std dev = 1.128), followed by economic environment (mean = 3.82, std dev = 1.365), legal environment (mean = 3.65, std dev =1.097) and social environment (mean = 2.99, std dev = 1.229) respectively.

4.2.3 Organizational Performance

The study investigated the performance of the SCs and relied on primary data on performance rating by respondents on both non-financial and financial measures of the SCs performance on a Likert scale of 1 - 5 (5 = Very great extent; 4 = Great extent; 3 = Moderate extent; 2 = Small extent; 1 = Not at all). The performance was for 2011/2012 - 2015/2016 financial years. Table 11 presents the results of the resulting analysis.

Table 11: Organizational Performance

Measures of Performance	Mean	Std. Dev
Revenue collection	3.04	1.356
Budget absorption	4.04	1.200
Corporate customer satisfaction	2.93	0.878
Corporate service delivery	3.13	1.622

Source: Primary Data (2019)

The results on revenue collection by the SCs over the five-year period was indicated as good (mean score = 3.04, std deviation = 1.356) while budget absorption was rated as very good (mean score = 4.04, std deviation = 1.200). Further results indicated that corporate customer satisfaction was rated as good over the five years (mean score = 2.93, std deviation = 0.878) while corporate service delivery was also rated as good (mean score = 3.13, std deviation = 1.622). These results imply that the SCs had largely attained their objectives over the five years. The use primary data on performance indictors ranking of SCs as opposed to secondary data was due to the fact that though the SCs' performance had been individual evaluated by the relevant government authorities, there was lack of official published data by government on SCs performance ranking since the financial year 2014/15.

4.3 Hypothesis Testing

The study tested the following hypotheses;

H_1: ERM has a significant influence on organizational performance of SCs in Kenya.

H_2: The relationship between ERM and performance in Kenyan SCs is significantly moderated by the macro environment

4.3.1 ERM has a significant effect on organizational performance of SCs in Kenya

Simple linear regression analysis was applied to test the hypothesis. The analytical model applied was;

$OP = B_0 + B_1ERM.$

Where OP is the organizational performance and ERM is enterprise risk management. B_0 is a constant and B_1 is coefficient of ERM. The results obtained are presented in Table 12 to 14.

Table 12: Summary of the Model – ERM and Organizational Performance

R	R Square	Adjusted R Square	Std. Error of the Estimate
.256	0.065	0.054	6.79854

The study results in Table 12 indicate that coefficient of determination ($R^2 = .065$) implying that 6.5% of the variation in organizational performance was explained by the variations in ERM.

Table 13: Analysis of variance of the Model - ERM and Organizational Performance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	274.757	1	274.757	6.294	.017
Residual	3928.713	91	43.652		
Total	4203.469	92			

The model was overall significant ($F = 6.294$, $p = 0.017 < 0.05$) as indicated in Table 13. This shows that the regression model was a good fit and ERM could be applied as a linear predictor of organizational performance

.

Table 14: Influence of ERM on Organizational Performance

	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig**
	B	**Std. Error**	**Beta**		
(Constant)	23.287	4.267		5.458	0.000
ERM	0.479	0.196	0.256	2.438	0.017

ERM had a significant positive effect on organizational performance ($\beta = 0.479$, $t = 2.438$, $p = 0.017 < 0.05$) as presented in Table 14. This suggests that a one-unit improvement in ERM causes 0.479 units increase in organizational performance. These results offer an implication that ERM affects organizational performance, hence hypothesis that ERM has a significant influence on organizational performance in Kenyan SCs was accepted.

4.3.2 The relationship between ERM and performance in Kenyan SCs is significantly moderated by the macro environment

The hypothesis was tested using stepwise regression analysis proposed by Baron and Kenny (1986). Before the regression analysis, model specifications tests involved test of linearity, multicollinearity, normality of residuals and heteroscedasticity were conducted. No regression assumption was violated. The first step tested the influence of ERM on organizational performance. The second step examined the influence of macro environment on ERM. The third step introduced the interaction term and assessed whether it is significant. To confirm moderation, the influence of the interaction term in the third step should be significant.

The analytical model applied was;

$OP = B_0 + B_1ERM + B_2ME + B_3(ERM)(ME)$

The results obtained are presented in Table 15 to 17.

Table 15: Summary of the Moderating Model - Macro-environment on the Relationship between ERM and Organizational Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.256[a]	0.065	0.054	6.79854	0.065	6.224	0.017
2	.290[b]	0.084	0.063	6.61389	0.019	1.812	0.182
3	.330[c]	0.109	0.078	6.56131	0.025	2.416	0.124

Study results (Table 15) show that in the first step, ERM explains 6.5 percent of the change in organizational performance (R^2 = 0.065). In step 2 (model 2) when macro-environment was introduced into the model, together, ERM and macro environment explain 8.4 percent of the change in organizational performance of the state corporations. In step three, the interaction term was introduced in the model. The results indicate that R^2 improved by 2.5 percent from 8.4% in step two to 10.9% The analysis of variance of the three models was assessed and findings are presented in Table 16.

Table 16: Analysis of variance of the Moderating Model - Macro-environment on the Relationship between ERM and Organizational Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	274.757	1	274.757	6.294	.017[b]
	Residual	3928.713	90	43.652		
	Total	4203.469	91			
2	Regression	354.035	2	177.018	4.093	.021[c]
	Residual	3849.434	89	43.252		
	Total	4203.469	91			
3	Regression	458.052	3	152.684	3.587	.018[d]
	Residual	3745.418	88	42.562		
	Total	4203.469	91			

Source: Primary Data (2019)

Table 16 presents the results that show that the first model was overall significant (F = 6.294, p value = 0.017 < 0.05). In step 2 (model 2), the overall model was also statistically significant (F= 4.093, p value = 0.021< 0.05). Besides, the overall model in step three was also statistically significant (F = 3.587, p value = 0.018 < 0.05). These

findings indicated that the three models were a good fit. This led to the testing of the variables that were statistically significant in the model. Table 17 presents the results.

Table 17: Moderating Influence of Macro-environment on the Relationship between ERM and Organizational Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	23.287	4.267		5.458	0.000
	ERM	0.479	0.196	0.256	2.438	0.017
2	(Constant)	18.744	5.347		3.505	0.001
	ERM	0.363	0.209	0.194	1.733	0.087
	ME	0.379	0.282	0.151	1.346	0.182
3	(Constant)	5.385	10.1		0.533	0.595
	ERM	1.081	0.507	0.578	2.134	0.036
	ME	1.203	0.599	0.478	2.008	0.048
	ERM_ME	-0.044	0.028	-0.618	-1.554	0.124
a. Dependent Variable: OP						
b. Predictors: (Constant), ERM						
c. Predictors: (Constant), ERM, ME						
d. Predictors: (Constant), ERM, ME, ERM_ME_Intercept						

Source: Primary Data (2019)

Table 17 presents the results that show that the beta coefficient of the first model was statistically significant (β= 0.479, t = 2.438, p value = 0.017 < 0.05). Step one results indicated that ERM had a significant positive influence on organization performance of SCs in Kenya. This hence led to progressing to step two. In Step 2, ERM's coefficient not significant (β= 0.363, t = 1.733, p value = 0.087 > 0.05). Additionally, macro environment's coefficient was also not significant (β = 0.379, t = 1.346, p value = 0.182 > 0.05). Therefore, step two's results were not significant. Finally, the beta coefficient for interaction term was not significant (β = -0.044, t = -1.554, p value = 0.124 > 0.05). Step three's results were not significant and therefore indicating no significant moderation. The results led to rejection of the study hypothesis. The deduction was that macro-environment does not significantly moderate the association between ERM and performance in Kenyan SCs.

The study was conducted on the basis of six variables of the macro-environment

denoted by the PESTEL as theorized by Pearce et al, (2012). The study findings implied that when macro environment is introduced, notwithstanding the statistical significance of the overall model, ERM and macro environment had no significant effect on organization performance and therefore, there was no moderation. These study results on the lack of statistically significant moderating effect of macro environment could be credited to the timing aspect, bearing in mind that the study was conducted at a time, when the nation had just concluded is general elections. This hence had brought political consensus which the government of Kenya was experiencing after synergy and consensus building amongst the various political factions. Besides, these results could be ascribed to the fact that contrary to private entities that pursue profits, governments do not pursue profits but are focused on objectives inherent in democratic and political structures, where economy is a secondary objective. Therefore, despite macro economic factors being a significant contributor to the aspects that make up the external environment as indicated by Machuki and Aosa (2011), the state corporations had aligned themselves with the prevailing macro environment.

The study findings indicate that all the models regarding macro environment factors (legal, technological, social and political factors) were not statistically significant regarding in moderating the association between ERM and organizational performance. These findings supported the results by Machuki and Aosa (2011) that external environment did not significantly influence performance of organizations. However, the study findings are contradictory to the findings by Murgor (2014) and Kosure (2015) who established that external environment has a significant moderating influence on the association between performance in organizations and the organization's structures of management.

Including macro environment in the model brought new perceptions to the association between ERM and organizational performance. The study demonstrated that macro environment had no significant moderating influence on the relationship between ERM and performance of SCs in Kenya. While the conventional open systems theory supports the notion that organizations serve and depend on the external environment (Burnes, 2004) and that forces in the macro environment affects practices of strategic management in the organization, including strategic risk management (Hammond et al., 2006), the findings of the study showed otherwise. This is a depiction that, despite the government's efforts to introduce reforms in SCs, unlike their counterpart financial sector organizations where ERM is given prominence in view of the high impact of the effects of any uncertainty to their competitive business position, SCs have continued to rely on and are assured of funding from the exchequer for their continued existence on one hand, whilst on the other, they experience less stringent accountability mechanisms regarding their performance. Owing to these factors, the state corporations tend to pay less attention in undertaking an in-depth macro environment assessment when designing and operationalizing ERM, which is currently a mandatory strategic management practice in all SCs.

5.0 Implications of the Study

ERM in the present high volatile, unpredictable and disruptive operating environment is essential and a very critical strategic management practice to the successful operation of any organization, in the delivery of goals and objectives, as it enhances the organization's preparedness to mitigate effects of uncertainties that can negatively affect its operations, while supporting business continuity and positively influence organizational performance Sleimi (2020). The study hypothesized as to whether ERM has a significant influence on organizational performance of SCs in Kenya and if macro environment significantly moderated the relationship between ERM and organization performance. The effect of ERM was established as significant on both non-financial and financial performance, thereby supporting other related finding by El-Dalabeeh & ALshbiel (2019) and Sleimi (2020). The study however revealed that the association between ERM and performance of SCs was not moderated by the macro-environment. The study did not support the open systems considered view that firms depend on happenings in the external environment and that the forces in the macro affects organizational survival as advanced by Burnes (2004).

Kaplan & Mike (2014) advanced that further studies ought to be conducted in different settings to refine the contingency of ERM theory postulations. It was established through this study, that as it is a Kenyan government policy position, SCs where implementing ERM as demonstrated by the high mean scores against the assessed sub-variable; Context Setting; Risk Assessment; Risk Evaluation and Risk Communication. The study findings therefore make a contribution to knowledge, by validating the propositions of the Contingency theory of ERM. The study findings have also offered this validation in the context of the public sector in the developing world where to the best of the researcher knowledge, such study had not been conducted before. The study further supported the advancements of the Stakeholders theory regarding performance of the organization focus on both financial and non financial aspects and make a contribution towards the theory's consideration of risk assessment extending to the various stakeholder to better inform the organizations goals and objective setting.

For policy, as the reform interventions to promote efficiency and effectiveness of delivery of government national development plan and efficient service delivery continues to receive focus (KIPPRA, 2009), the findings of this study as regards the effect of ERM on the non-financial and financial performance of SCs, can be of importance in the support of ongoing government reforms and policy review to inculcating resilience in government agencies while establishing assurance in the achievement of the set socio-economic developmental goals. The study has shown that ERM enhances performance. It is important that government give consideration to enforcing the adoption of ERM in SCs within which the undertaking of proper assessment of risks will inform the effective design and implementation of organizational objectives (Kaplan & Mike 2014).

Improvement of organizational management practices has been a long standing desire within the Kenyan public sector thus the basis of various implemented reforms programmes (PWC, 2015) arising from the finding that ERM has a significant positive influence of the performance of SCs, the study's contribution to practice is through the established significant relationship between ERM and organizational performance. This validated position creates assurance to the governance related reform initiative relating to ERM that targeted organization leadership. Managers in SCs will benefit from the assurance that with effective adoption of enterprise risk management SCs have a greater chance of improving on their achievement of performance goals.

6.0 Conclusions

The study was motivated by the lack of evidence to the best of the researchers knowledge on the effect of ERM and macro environment on the performance of SCs. The sought to answer the question as to whether; ERM and macro-environment influences the performance of Kenya Owned State Corporations. Two specific objectives and hypotheses were tested and the study concluded that ERM has a significant effect on the performance of SCs whereas macro environment had no significant moderation effect on the association between ERM and organizational performance. The study's theoretical framework was supported by Contingency theory of ERM, open system theory and Stakeholders theory. The study supported the propositions of the Contingency theory of ERM and made its contribution to knowledge through its validation of the propositions of the theory within the Kenyan public sector context. The study also supported the propositions of the Stakeholders theory and recommended the consideration of risk assessment of stakeholders needs in the theory to better address organization response to these need while improving on performance. However, the study failed to support open systems theory.

7.0 Recommendations

The study makes the following recommendations. Firstly, to policy, in view of the critical position held by the SCs in delivering the various essential services to it citizens and in the face of the unprecedented immense business and services disruptions caused by catastrophes, pandemics and other uncertainties, ERM as a strategic management practice that is aimed to mitigate on the negative impact associated with uncertainties that lead to non-achievement of objectives, should be enacted and regulated for effective implementation in SCs and enhance governments preparedness in its response to uncertainties and disruptions span by the environment. The process of ERM institutionalization in SCs can also be enforced through the established government performance contracting system as is the case of corruption risk assessment that is currently over sighted by a government agency and was rated as a highly adopted component of ERM assessment, by the study. This action will considerably enhance the delivery of planned national government development programmes and projects, key among these being the economic blue print Vision 2030 and the BIG 4 Agenda. This intervention will also support the effective evaluation and monitoring to measure impact on SCs

performance through stringent audits, implementation of mitigation actions and follow-through reporting mechanisms to the central government as is the current practice in the area of financial auditing and reporting.

Secondly, the recommendation to practice is that leadership in SCs as the overseers in the institutionalization of ERM as provided for in Mwongozo Code of Governance (2015), ought to ensure the adoption of organization wide enterprise risk management, to better inform strategy formulation and realization of performance goals. Managers would need to ensure the integration of strategic risk management at all levels of decisions making in the organization. Risk communication exhibited the lowest mean score among the four ERM sub-variables adopted by the study. Manager should therefore work toward integrating communication aspects for the effectiveness of achieving organizational wide strategic risk management.

Lastly, the study findings on the one hand, did augment the proposition of the contingency theory of ERM and the advancements by the stakeholder theory and therefore recommends the introduction of aspects of risk management in the Stakeholder theory continuum that has been criticized for it simplistic approach and assumption that all stakeholders impact and needs as related the organization are equal (Radner & Shepp, 1996). This will facilitate the theory to better address stakeholders needs that may cause non-satisfaction and impact organizational performance. On the other hand, the study findings indicated that macro environment did not have a statistically significant moderating influence on the association between ERM and organizational performance. This was an interesting realization, not supporting the proposition by the Open systems theory that organizations are dependent on the external environment (Burnes, 2004) and several other previous research findings. The analysis of the study findings offered insights on the relatively stable past operating environment in the public sector coupled with assurances of exchequer funding. These issues have in the past made the environment-organization interaction in the public sector considerably different when compared to the private sector. It is however worthwhile noting that SCs operating environment is equally changing and rapidly evolving, necessitating future assessment of the SCs organizational-external environment relationship over time.

8.0 Limitations and suggestions for Further Research

The study faced several limitations. The first challenge was associated with the limited literature available on the influence of macro environment, ERM and performance. As a result of this limitation, a challenge arose as to how much the researcher could compare the study findings with previous research.

Contextually, the study was carried out among Kenyan owned state corporations. State corporations ordinarily function in very dissimilar external and internal environment from other firms either in the private financial or non-financial sector. Therefore, the results are to be applied reservedly since they might not be readily generalized to other sectors such as those

operating in the very competitive private sector.

In light of the fore-mentioned limitations, the study makes the following suggestions for further study. First, the study adopted a cross-sectional survey research design and relied on information collected through self-reporting by respondents in the target organizations. Future research could adopting different research philosophy, research design and data collections methods. This would include performing a longitudinal study to obtain more insights on the study variable relationships over time, use of secondary data sources to enhance objectivity of the collected data and possibly adoption of a triangulation approach to enrich the study findings.

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