OPERATIONS RISK MANAGEMENT PRACTICES AND SERVICE DELIVERY AMONG GOVERNMENT OWNED ENTITIES IN KENYA

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

OCTOBER 2015
DECLARATION

This research project is my original work and has not been presented for examination in any other University.

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This research project has been forwarded for examination with my approval as the University supervisor.

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I am grateful to the respondents in Government entities who respondent and took their time to fill questionnaires. Your input is what made this study to its state.

Last but not least, I sincerely thank my family, friends, classmates and colleagues for their moral support.
DEDICATION

To my spouse, Nancy who supported me morally and financially during the entire MBA course period. To daughter Alison and son Darren for understanding that dad also needed time to study.
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<td>Central Bank of Kenya</td>
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<td>CP</td>
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ABSTRACT

Businesses today are faced with greater challenges and complications than ever before as economical, technological and legal interdependence become more common and pronounced. Due to these developments, risks may go unidentified for too long and early warning indicators ignored. In light of this, this study seeks to establish the operations risk management practices commonly used and determine the relationship between operations risk management practices and service delivery among Government Owned Entities in Kenya. The study adopted a descriptive survey design and the population of study was from Government owned entities in Kenya. The study selected respondents using simple random sampling technique. The data was collected using questionnaires that were administered to employees. The collected data was coded and analyzed in Excel (2007) program. The analysis involved the use of descriptive statistics; tables and pie charts.

The study found that GOEs have embraced operational risk management practices and commonly used practices include risk control self assessment, identification of key risk indicators and compliance to rules and regulations. Lack of full support and enough resources to support operational risk management practices was identified as existing challenge. Board oversight, periodic audits, tracking of mitigations, existence of operation risk management strategy and oversight by parent/line ministry are some of the activities that help GOEs in managing operations risks. These practices also influence service delivery at different levels. It was established that operation risk management self assessment has a positive significant effect on service delivery as indicated by a beta coefficient of 0.566. The study further, found that operation risk indicators identification practices has a positive insignificant influence on service delivery. Finally, the results indicated that Operational Risk Rules and Regulations have a positive significant influence on service delivery.
CHAPTER ONE
INTRODUCTION

1.1 Background of the study

Organisations can be considered as systems consisting of many components (e.g. people, products, processes, culture, etc.) that interact with each other and create synergies (Akpolat 2004). Regardless of its purpose (for profit or non-profit), every organisation employs a set of core functions and activities to achieve its goals and objectives. These functions and activities have the potential to generate negative consequences or risks for its employees (Brown 1996; Brown et al. 2000), for customers (McFadden & Hosmane 2001), for the environment (Angell 1999; Geffen & Rothenberg 2000) and for various other stakeholders (Peters 1999). In pursuit of objectives, one must strike an optimal balance between growth and return objectives and the associated risks and apply resources efficiently and effectively (Sobel and Reding, 2004). That is where risk management comes in.

Risk management has emerged as a new paradigm for managing the portfolio of risks that face organizations, and policy makers continue to focus on mechanisms to improve corporate governance and risk management (Nyagah, 2014). Risk Management encompasses aligning risk appetite and strategy, enhancing risk response decisions, reducing operational surprises and losses, identifying and managing multiple and cross-enterprise risks, seizing opportunities, and improving deployment of capital (Beasley, et al., 2005). Recognition of risk management as a separate managerial function entails many advantages and the inclusion of risk management as a strategy in the general management function helps to enhance a firm’s value (Suranarayana, 2003), stakeholders’ confidence as well as provides platform for ensuring that duty of loyalty by managers exist and that managers will efficiently and effectively strive to maximize the firm’s wealth (Kihumba, 1999).

Since the beginning of the World financial crisis in 2008, many efforts have focused on risk management in financial institutions and private sector enterprises and in the process non financial sector particularly Government Owned Entities have been largely ignored (OECD, 2014).
In Kenya, the Government through the National treasury has issued the Public Finance and Management Act, 2012 which enables the National Treasury to monitor the financial aspects of risk management strategies and governance structures for the national government and national government entities (PFMA, 2012). Further, *Mwongozo* a government document entailing code of governance for government entities in a deliberate attempt to streamline government operations address risk management as part of core values and principles of public service and performance (*Mwongozo*, 2015).

1.1.1 Operations Risk Management Practices

Operations risk constitutes one of the many risks that organizations or enterprises face in their day to day operations. However, operational risk is considered very broad and in the view of Mikes (2007) there is a lack of clarity in the concept and is engulfed by vagueness in the management field. Operational risk (Allen & Bali, 2007; Fantazzini *et al.*, 2008) had first been considered as largely a residual category for risks and uncertainties which were difficult to quantify, insure and manage in traditional ways. Attempts have been made to define operational risk but one of the outstanding definitions of operational risk is the Basel (II) Accord, they define operational risk as “the risk of loss resulting from inadequate or failed processes, people and systems or from external events.”

Past organisational losses resulting from risks in their day to day operations has led to adoption of various mechanisms aimed at reducing risk exposure levels. Among these includes risk management techniques such as insuring against risks and also adoption of operational risk management practices (Waring, 2001). These contextual changes have led to operational risk management becoming an essential element for most organisations. It is argued by Ranong and Phuenngam (2009) that risk management is a managerial process that well effectively performed by organisations would enable the organisation achieve a higher level of performance.

Abkowitz (2008) proposes five principle operational risk management practices. These principles include risk and control self assessment (RCSA), the identification key risk indicators (KRIs), incident management, adherence internal and control regulations and lastly are concerned with the tracking of actions.
RCSA forms an integral element of the overall operational risk framework, as it provides an excellent opportunity for a firm to integrate and co-ordinate its risk identification and risk management efforts and generally to improve the understanding, control and oversight of its operational risks. At this stage gross and residual risks are identified, top management commitment, risk consciousness, risk appetite, risk philosophy, and board oversight is also included. RCSA considers three proxies for internal environment that includes having a risk mission statement, including risk in job responsibilities, and having the board involved in risk management efforts (Lewis et al., 2005). Both the board and senior management should establish a risk management function and organizational culture that places a high priority on effective operational risk management and adherence to sound operating controls. The board should establish tolerance level and set strategic direction in relation to risk (State Bank of Pakistan, 2003).

Key risk indicators (KRIs) identification process involves monitoring current risk levels and control performance as well as identifying hotspots and trend of the risk over the recent past. the aim is to establish what level of risks will be considered catastrophic, as part of normal business without taking any further action to improve or better still to identify the risk that require immediate corrective action (Cheplel, 2013). The risk identification process should try as much as possible to remove ambiguity, discord, disagreements and other vagueness as possible (Kersnar 2009). If KRIs is focused on the areas of most significant risk, then they should provide managers with reasonably clear direction as to what levers to pull to reduce exposure, as well as quick feedback on their effectiveness (Davies, 2006)

According to Hallikas (2004), the aim of incident management is to enhance organization transparency, determine improvements to avoid the same incident recurring, provides objectives data of various risk types, identification of risk problem areas and acts as a staff problem recording system. Further, Jhangiani (2007), note that incident management ensures that the organization learn from past mistakes, ensure one business unit learns from another, monitoring of high frequency, low consequence items as well as identifying which controls are not working and that can be fixed. The response strategy and approach chosen depend on the kind of risks concerned (Winch, 2002). Other requirements are that the risk needs to have a supervisor to monitor the development of the response, which will be agreed by the actors involved in this risk management process. (PMI, 2004)
An organization should comply with both internal and external regulations. These regulations include legal or regulatory sanctions, financial loss, or loss to reputation a company may suffer as a result of its failure to comply with all applicable laws, regulations, and codes of conduct and standards of good practice. The assessment of effectiveness of the control mechanism in place should answer such questions as does control exist, is it well designed, does it link to legislation, does it link with other risk management process e.g. RCSA (Ojala and Hallikas, 2006)

Gupta (2009) tracking actions involve corporate management monitoring performance outcomes against intended goal to ensure that corporate activities remain on track and correspond to the set course (Gupta 2009). Once an organization notices some diversions from the norm, then appropriate mechanism should be put in place to realign the results with what the organization intends to achieve (Shimell, 2002). Introduction of other control techniques such as balance score and financial measures will be adopted during this period. The focus here is on the day-to-day duties of management. Watching how the plans unfold and adjusting to the inevitable bumps along the way are necessary. It has been said that when implementing a strategic planning process, the user is off-course from the original plan most of the time (Wagne and Bode, 2007).

It is important to have an operational risk management framework that is fully integrated into overall risk management processes of the organization, have the right operational risk governance structure, use proper identification and assessment tools, with well defined approval process for new products and processes that assesses operational risks and maintain a robust operational risk reporting mechanism (Barney 2008).

1.1.2 Service Delivery

Service delivery involves a comparison of expectations with performance. Service is perceived as a set of activities performed by an organization that aims at creating value, which includes specific services or economic activities, acts or performance to customers as well as other organizational activities that are part of the value creation process such as leadership and management styles, structure of operations, customer relationship initiatives and not services as market offerings only (Edvardsson, 2005).
According to Vinning and Globerman (2000) service delivery is tied to organisational performance. An Organisation that provides efficient services and in an effective way not only ensures customers are satisfied but also achieve and fulfill its goals and objectives. Therefore, effective service delivery has become increasingly an important initiative being pursued by organisations as it has been observed to be intertwined with organisational performance. In pursuit of this endeavor organisations are better placed to maintain their level of competitiveness especially in the globalization era (Brannemo, 2006).

Public service efficiency in delivery of services has been a challenge in the world and particularly in the third world countries (Budhiraja, 2005). In Kenya, especially within the public sector, service delivery has been so dismal. The public sector or rather Government Owned Entities has been marred with mediocrity, lack of defined objectives, ethnicity, and favoritism among many other several factors that in turn constrain effective and efficient service delivery to its citizens (Lydia, 2012). The East African Bribery Index Report (2011) put 35 Kenyan GOEs in the list among 115 corrupt institutions within EAC institutions member states.

In private organisations where profit making is the key objective, Heskett et al.’s (1997) service profit chain postulates a chain of performance relationships commencing with a circle of internal service quality, service capability, employee satisfaction and loyalty, productivity and output quality; which in turn drive service value, customer satisfaction and loyalty, leading to enhanced revenue growth and/or profitability (Pritchard and Silvestro, 2005). In this framework internal improvements are posited to positively affect employees resulting in a more productive workforce capable of enhancing the quality of the service offering (Anderson et al., 2004).

Service delivery in government is affected by various factors such as remuneration of its workforce, training, promotional procedures, internal processes and culture of the systems (Budhiraja, 2005). Boyne (2003) and Kirkpatrick et al., (2001) noted that quality standards for public services are usually less precise and as a result leaves the goal attainment operationalization somewhat ambiguous.

In order to measure public sector service delivery Mouzas (2006) indicated that effectiveness and efficiency and quality has become central tenets in the assessment of
public sector service delivery. These three tenets according to him can be used to evaluate service delivery both in the profit and non-profit entities as they both assess how well services meet the customer’s satisfaction. Despite the assertions, Boyne (2003) and Kirkpatrick et al., (2001) noted that quality standards for the public services are often less precise and as a result leaves the goal attainment operationalization somewhat ambiguous.

There is no blueprint for enhancing public sector efficiency and countries have adopted diverse approaches to reforming key institutional arrangements, which include: increasing devolution and decentralisation; transforming workforce structure, changing budget practices, introducing risk management and results-oriented approaches to management (Curristine et al, 2007).

Collier et al. (2007) opines that organisations that adopt operational risk management are better and effective in service delivery provision. They asserted that operational risk safeguards when put in place ensures that there is better service delivery, more efficient and effective use of scarce resources and better project management. Once these risks are managed, the organization is in a better position to effectively deliver to its customers (Twigg, 2004)

1.1.3 Government Owned Entities in Kenya

In Kenya, the history of Government owned entities (GOEs) can be traced back to the early days of colonial rule. During this period state corporations were established mainly in transport, communication and agriculture to enable the exploitation of the colonial territory. After independence, the new government through session paper No. 10 of 1965 titled “African socialism and its Application to planning in Kenya” announced a series of policy initiators that emphasized the complimentary roles of the public and private sectors in national development.

The government set out deliberate strategies for development aimed at the decolonization of, increasing indigenous participation in the economy, promoting development and regional balance and attaining greater public control of the economy. In order to speed, up the achievements of these objectives, the government established new corporations in sectors of the economy such as commerce, industry, tourism, construction, insurance and banking. State corporations were established under the State
Corporation’s act Cap 446 of the laws of Kenya as part of the public service formed in 1963. The aim was to provide quality services to the citizenry (Government of Kenya, 2009).

The number of commercially oriented state-owned enterprises in Kenya rose to 210 by 2012 with an output to GDP in nominal terms increasing from 9.54% in 2008/2009 to 11.64% in 2010/2011, based on internally generated income (Nyongesa, Sewe & Nganga, 2012).

Presidential Task Force on Parastatals reforms (2013) identified five roles for Government Owned Entities (GOEs) in the national development effort. First, government owned entities are important in promoting or accelerating economic growth and development. Second, these entities are critical to building the capability and technical capacity of the state in facilitating and/or promoting national development. Third, they are important instruments in improving the delivery of public services, including meeting the basic needs of citizens. Fourth, they have been variously applied to the creation of good and widespread employment opportunities in various jurisdictions. Fifth, GOEs are useful for targeted and judicious building of international partnerships. In enabling states achieve the above goals, GOEs play a major role in enabling social and economic transformation of the economies in which they operate (Government of Kenya, 2013).

Service delivery in government organisations face challenges particularly unique to the public sector which include; distinctive human resource practices, the election cycle and term limits, stability and job security concerns, legislative controls, and competing special interests. Additionally, revenue is typically not directly linked to value, since most of the funding of services derives from tax revenue paid by citizens, who traditionally have low expectations, making them relatively apathetic and therefore not likely to routinely complain or offer suggestions for improvement (Maleyeff 2007). As a result, these corporations need to implement management practices that would reduce the operations challenges and ensure effective service delivery.

GOEs reforms currently taking place in Kenya are deliberate government responses to the need for some affective utilization of public resources in the face of rising societal needs. These reforms are targeted at achieving improvements in public service delivery.
as part of the wider public reforms (Mwongozo 2015). Mwongozo addresses matters of effectiveness of Boards, Transparency and disclosure, accountability, risk management, internal controls, ethical leadership and good corporate citizenship. These practices are at the core of the values and principles of public service as enshrined under Article 232 of the Constitution of Kenya, 2010.

In discharge of their mandates in accordance with establishing Acts, these organisations should therefore adopt risk management mechanisms in order to tackle the risks that they are likely to encounter. It is often perceived that public authorities are faced with these risks due to their low levels of preparedness to handle the emerging risks. Boyne (2003) asserted that the low level of preparedness due to a lack of adequate contingency planning and the slow response in risk managements exposes organisations to incur huge financial losses that are detrimental to its performance. Of particular interest in this study are operational risk management practices.

1.2 Research Problem

Risk is inherent in every economic activity and every organization has to manage it according to its size and nature of operation because without risk management no organization can survive in the long run. Risk may affect many areas of activity, such as strategy, operation, finance, technology and environment. The success of an organisation is therefore hinged on the level with which it is best placed to integrate risk management practices in their operations so as to reduce their exposure to operational risk. Empirical investigation on risk analysis have been mainly concentrated on enterprise risk management, financial risks while operational risks have received little attention and has often been treated as a residual risk (Allen & Bali, 2007). Despite the low concern, Operational risk management has begun to gain momentum due to its relevance in the day-to-day operations of enterprises. Due to the limitedness in which operational risk management has been a focus in empirical literature attention need to be focused on the implication of operational risk management on service delivery.

of enterprise risk management on firm performance and found out that there is growing support for the general argument that organizations will improve their performance by employing the ERM concept. Whereas, Bostander (2007) conducted a study on operational risk events in banks, Fraser and Henry (2007) carried out a study on embedding risk management.

Locally Wanjohi and Ombui (2013) carried out a study of operations risk practices in insurance industry in Kenya. They found out that risk management has played a major role in insurance companies’ performance. Yusuf (2005) indicated that quantification of risks into various categories was not widely practiced by Kenyan commercial banks. Aduda and Gitonga (2011) study on the relationship between credit risk and profitability among commercial banks in Kenya concluded that there is an effect of credit risk management on profitability at a reasonable level.

From the review of the literature, it is established that the most of the literature has been well documented for developed countries whereas literature for developing countries is scanty. Empirical studies in this field of operational risk have tended to focus mostly on the financial sector and limited empirical research has focused on non-financial industries especially Government Owned Entities. It is as a result of the paucity of studies that the current study seeks to find out, the main operations risk management practices commonly used by Government Owned Entities as well as establishing how operations risk management practices adopted by Government Owned Entities influence service delivery.

1.3 Research Objectives

i. To establish the operations risk management practices commonly used by Government Owned Entities in Kenya.

ii. To determine the relationship between operations risk management practices (ORMP) and service delivery among Government Owned Entities in Kenya.

1.4 Significance of the Study

The study may inform policy making in various areas. For instance, the results may be a valuable blue print for the formulation or modification of risk management guidelines for Government owned entities.
The government of Kenya may find the results of this study useful. Findings from the current study may address operational risks which may be used by government policy makers in their attempt to streamline service delivery.

The study may be a valuable addition to literature review especially in the area of operational risk management. Therefore, scholars in the field of risk management, business growth and operations management may find the results of the study useful for furthering their knowledge on the aforementioned academic areas.

Private sector practitioners who partner with governments under Public Private Partnerships can find the results of the study useful when evaluating governance and performance of Government’s entities before entering into agreements.
CHAPTER TWO  
LITERATURE REVIEW

2.1 Introduction

The chapter commences with a discussion on the various theories that inform risk management. The chapter also presents a review of empirical studies related to operational risk management adopted within organisations. A conceptual framework is then developed from a review of existing studies.

2.2 Theoretical Review of Literature

This section reviews theoretical foundations that discuss and explain risk management. The theories assist in appreciating how risk management affects organisational performance. The theories discussed are risk management theory and contingency planning theory.

2.2.1 Risk Management Theory

Risk management is the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities (Wenk, 2005).

Effective risk management can bring far reaching benefits to all organizations, whether large or small, public or private sector (Ranong & Phuenngam, 2009). These benefits include, superior financial performance, better basis for strategy setting, improved service delivery, greater competitive advantage, less time spent firefighting and fewer unwelcome surprises, increased likelihood of change initiative being achieved, closer internal focus on doing the right things properly, more efficient use of resources, reduced waste and fraud, and better value for money, improved innovation and better management of contingent and maintenance activities (Wenk, 2005).

According to Dorfman (2007), ensuring that an organization makes cost effective use of risk management first involves creating an approach built up of well-defined risk management practices and then embedding them. These risk management practices include financial risks management practices, operational risk management practices, governance risk management practices, and strategic risk management practices.
2.2.2 Contingency Planning Theory

Contingency planning (CP) also known as business continuity planning is a crucial element of risk management. The fundamental basis of Contingency Planning (CP) is that, since all risks cannot be totally eliminated in practice, residual risks always remain. Despite the organization’s very best efforts to avoid, prevent or mitigate them, incidents will still occur. Particular situations, combinations of adverse events or unanticipated threats and vulnerabilities may conspire to bypass or overwhelm even the best information security controls designed to ensure confidentiality, integrity and availability of information assets (Hinson & Kowalski, 2008). In the context of this study, CP is defined as the totality of activities, controls, processes, plans etc. relating to major incidents and disasters.

It is the act of preparing for major incidents and disasters, formulating flexible plans and marshaling suitable resources that will come into play in the event, whatever actually eventuates. The very word ‘contingency’ implies that the activities and resources that will be required following major incidents or disasters are contingent (depend) on the exact nature of the incidents and disasters that actually unfold. In this sense, CP involves preparing for the unexpected and planning for the unknown. The basic purpose of CP is to minimize the adverse consequences or impacts of incidents and disasters.

2.3 Empirical Literature

Operational risk definitions have been broadly divided into those that say it is “everything except market and credit risk” and those that claim it is “losses due to failures in the operational process”. Managing these risks requires a combination of an effective internal control framework, appropriate information technology systems, employee integrity, and streamlined operating processes (CBK, 2010). Management information systems and human resources are the major sources of operational risk (CBK, 2010). To safeguard against operational risk, operational procedures need to be written down; this would guide how the management information systems are operated. In addition operation procedures are useful for guiding human resources. Furthermore, the existence of operational procedures facilitates the implementation of an effective internal control framework.
Gupta (2011) in his study examines the risk management in Indian public companies and explore the reasons for the adoption or lack of adoption of approaches to risk management. He shows that even though effective risk management can improve organizational performance, companies do not have adequate infrastructure to implement enterprise wide risk management.

Andersen (2008) examines the firm-specific investment rationale as a plausible explanation for positive risk management effects. As a consequence of the firm-specific investment rationale he finds that effective risk management outcomes are associated with superior corporate performance. Further he indicates that firms that vary in levels of intellectual capital and investment in innovation also differ in their risk management effects.

Metricstream (2012) asserted that growing regulatory environment, higher business complexity and increased focus on accountability have led enterprises to pursue a broad range of governance, risk and compliance initiatives across the organization. However, these initiatives are uncoordinated in an era when risks are interdependent and controls are shared. As a result, these initiatives get planned and managed in silos, which potentially increases the overall business risk for the organization. In addition, parallel compliance and risk initiatives lead to duplication of efforts and cause costs to spiral out of control. Governance, Risk, and Compliance process through control, definition, enforcement, and monitoring has the ability to coordinate and integrate these initiatives.

Ghazali (2009) conducted a study of Operational Risks for Highway Projects in Malaysia. This research identified key operational risks indicators that have possibility to occur in the highway projects in Malaysia which include initial toll-tariff decided by the Government, traffic congestion, change of road network and overloaded freight transportation, which could cause damage to the road surface and hence affecting the operation of a particular highway.

Bostander (2007) conducted a study on operational risk events in banks and practices for collecting internal loss data. The research results revealed that ‘retail banking’ is the business line where the most frequent single operational risk losses are likely to occur in South African banks. Based on the above-mentioned findings, the researcher recommends that these high-risk areas be highlighted to the Bank Supervision
Department of the South African Reserve Bank. These should also be presented to the boards of directors and senior management of banks in order for them to strengthen banks’ internal controls.

Fraser and Henry (2007) carried out a research titled ‘Embedding risk management: structures and approaches’. The study investigated the ways by which companies in UK identify risks and embed risk management and control procedures and also report on interactions between internal audit and audit committees and their contributions to risk management. The study concluded that while the parent boards have ultimate responsible, the ownership of risks must reside with management at lower levels. The study also found out that internal auditors were believed to have a role to play in risk management but concerns were expressed about their expertise and independence if and when they assume the role in risk management.

Wei (2003) conducted a study on Operational Risks in the Insurance Industry. This paper provided information on operational risk in the US insurance industry and presented evidence on the stock market impact that operational loss events have on the affected, publicly-traded insurers and on the industry as a whole. The authors found that operational loss events have significant negative effects on the market value of affected insurers. The effect of operational losses goes beyond the firm that incurs them. The large losses studied in this paper affect investors’ assessment for the whole industry and not just the company itself. The significant damage to the market values of both the insurers and the insurance industry caused by operational losses should provide an incentive for operational risk management in the US insurance industry. The study differs from the current study as it did not address the effect of operational risk on success of change initiatives.

Wanjohi and Ombui (2013) carried out a study of risk management practices in insurance industry in Kenya. They found out that risk management has played a major role in insurance companies although it has its downfalls.

Aduda and Gitonga (2011) when they studied on the relationship between credit risk and profitability among commercial banks in Kenya concluded that there is an effect of credit risk management on profitability at a reasonable level. The findings and analysis
reveal that credit risk management has an effect on profitability in all the commercial banks analyzed.

Njiru (2003) in his study on risk management by Co-operatives Societies in Embu district in Kenya, found out that none of them used quantitative methods to evaluate the credit worthiness of their members and that they used qualitative methods only. He concluded that most of the cooperative societies did not manage their credit risk properly leading to high rate of default and therefore not being in a position to lend to members promptly. Although co-operative societies draw their membership from the public, they are not owned by the government. Therefore the study cannot be used as a conclusion on GOEs.

The studies carried out in Kenya by Wanjohi and Ombui (2013), Aduda and Gitonga (2011) and Njiru (2003) where on the fields of insurance, commercial banks and co-operative societies which are profit driven and operate in a private sector although they are in service industry.

Whereas risk management is considered to be a key governance and management tool, there is little information from previous empirical studies that link operation risk management practices with performance of Government Owned Entities in Kenya.

2.4 Conceptual framework

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<th>ORM practices</th>
<th>Service delivery</th>
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<tr>
<td>Operation risk control self assessment</td>
<td>• Timeliness</td>
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<td>Identification of Key operation Risk Indicators</td>
<td>• Cost of service</td>
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<tr>
<td>Compliance with rules &amp; regulations</td>
<td>• Quality of service</td>
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<td></td>
<td>• Customer input</td>
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**Independent variable**

The framework posits that there is a relationship between ORM practices and service delivery. Perception about operational risk is crucial in setting the culture and appetite on risk that will in turn influence the employees’ behavior and attitude eventually impacting on service delivery.
2.4 Chapter Summary

The chapter reviewed the various empirical studies that explored the effect of various operational risk management practices. Several research gaps were noted in the reviewed studies. For instance, the studies exhibiting gaps were conducted in developed and emerging countries. In addition, the reviewed studies did not address the link between operational risk management practices and the service delivery. The next chapter addresses the research methodology. Specifically, the next chapter addresses the research design, population and data analysis techniques.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents aspects of research methodology used in the study. Specifically, it comprises the research design, population, methods of data collection, and tests of reliability and validity of the data collection instrument, measurement and data analysis of the research findings.

3.2 Research Design

This research adopted a descriptive research design. This is deemed appropriate because the study involve an in depth study of the operation risk management and service delivery in Government owned entities in Kenya which helps the researcher in describing the state of current affairs. According to Mugenda and Mugenda (1999), a descriptive study is undertaken in order to certain and be able to describe the characteristics of the variables of interest in a situation. Other studies by Kombo (1997), Situma (2006) and Aduda (2011) successfully employed descriptive analytical technique.

3.3 Population

The target population for this study comprises all Government Owned Entities in Kenya under the authority of the National Government. There are 210 GOEs serving across key economic sectors in Kenya including Service (54), regulatory (50), commercial and manufacturing (41), Training and research (21), public universities (20), financial (19), and Regional Development Authorities (5) as presented by the Kenya National Bureau of Statistics and the Inspectorate of State Corporations (ISP) as of June 2015 (a list of the state corporations is attached on Appendix II).

3.4 Sample and Sampling Technique

This study employed multi-stage sampling. A stratified random sampling method was used. The first stage entail constituting strata based on the economic sectors represented by GOEs. The second stage involves selecting a proportionate sample of GOEs in each stratum using a simple random sampling method. The sample size is 54 GOEs as depicted in the Table 3.1 below.
Table 3.1: Sampling Distribution

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>GOEs ($N$)</th>
<th>Sample Size (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service</td>
<td>54</td>
<td>14</td>
</tr>
<tr>
<td>Regulatory</td>
<td>50</td>
<td>13</td>
</tr>
<tr>
<td>Commercial &amp; Manufacturing</td>
<td>41</td>
<td>10</td>
</tr>
<tr>
<td>Training &amp; Research</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>Public Universities</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Financial</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>Regional Development</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>54</td>
</tr>
</tbody>
</table>

3.5 Data Collection Procedure and Instruments

The study applied data from both primary and secondary sources. Primary data was collected by use of a questionnaire. Kothari (2009) argued that questionnaires generate data in a systematic and ordered fashion. The questionnaire comprise both structured and unstructured questions to avoid being too rigid and to quantify the data especially where structured items were used. The questionnaire was administered through the “drop and pick later” method. The follow-up was done by emails, Short Message Service (SMS) and phone calls, on arrangements some questionnaires were personally administered to the respondents.

In the current study, Likert scales was used to quantify responses on items in the questionnaires and the optimal number of points on each is influenced by the content and conditions of measurement of each construct of the study. Hence, a 5-point Likert scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5) was adopted for the predictor and predicted variables.

3.6 Pilot Study

According to Saunders, Thornhill & Lewis (2009), a pilot study is conducted when a questionnaire is given to just a few people with an intention of pre-testing the questions. Pilot test is an activity that assists the researcher in determining if there are flaws, limitations, or other weaknesses within the interview design and allows him or her to make necessary revisions prior to the implementation of the study (Kvale, 2007). The pilot study was conducted among 5 state owned enterprises.
3.6.1 Reliability of the instrument

In order to ensure that the research instrument is reliable the study adopted the Cronbach alpha correlation coefficient which is a measure of reliability. The Cronbach alpha correlation coefficient measured the internal consistency and stability the measurement instruments. Internal consistency measures the correlations between different items on the same test and whether several items that propose to measure the same general construct produce similar scores. According to (Nunnally, 1978) a research instrument is considered to be reliable if the Cronbach alpha correlation coefficient obtained is in excess or rather above 0.7. The study therefore adopted this recommendation by (Nunnally, 1978) to establish whether the instrument is reliable. Hence, only factors with $\alpha \geq .70$ were adopted in further analysis.

3.6.2 Validity of the instrument

According to (Yin, 2009), a good research design must possess construct validity and reliability, internal and external validity. Construct reliability is the measure of the degree of internal consistency between multiple measures of a variable whereas construct validity refers to the extent to which a scale or set of measures accurately represents the concept under study (Hair et al., 2010). Internal validity is the ability to establish a causal relationship whereby certain conditions are shown to lead to other conditions and superior relationships are distinguished from others while external validity is the extent to which the research design is able to establish the domain to which a study’s findings can be generalized (Yin, 2009). In other words, external validity is the degree of generalizability of findings to the sample studied and the population not directly studied respectively (Gerring, 2012).

To access the instrument construct validity, the instrument was subjected to experts to assess if it captures all the items it is intended to measure and their expert opinion was incorporated to ensure face validity. Content validity was sought by pre-testing the questionnaire on a section of the study sample and arising modifications incorporated for clarity, comprehensiveness, relevance, meaning and requisite depth. The foregoing efforts are to ensure that the study instrument measures what it is intended to measure and reduce to insignificant levels systematic error or non-random error.
3.7 Data Analysis

Data was gathered, coded and recorded into Microsoft Excel 2007 program. The data was analyzed quantitatively through the use of descriptive statistics such as percentage and frequencies. The data is also presented by use of tables, graphs, and pie charts. The researcher determined the validity of the variables if they are significant or not by the use of a means and standard deviation. To reach reliable conclusions, the analysis was tied to each objective. The first, objective of the study is to establish the operations risk management practices commonly used by Government Owned Entities in Kenya. This objective was analyzed using descriptive statistics including frequencies, percentages, means and standard deviations. The second objective of the study which is the relationship between operations risk management practices (ORMP) and service delivery was analyzed using the Pearson product moment correlation coefficient and regression analysis. The regression model that was adopted is of the following form;

\[ Y = \alpha + \beta_1 X + \varepsilon \]

Where;

\( Y \) Represents service delivery by state owned enterprises

\( X \) Represents a vector of operational risk management practices adopted by state owned enterprises

\( \alpha \) Represents the constant term of regression

\( \beta_1 \) Represents a vector of coefficients associated with the vector of operational risk management practices

\( \varepsilon \) Error of the regression model
CHAPTER FOUR
RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

This chapter presents the results of data analysis in relation to the research objectives as presented in chapter one of the study. This chapter presents the analysis and findings with regard to the objective and discussion of the same. The chapter also presents the results on sample description, percentages and frequency analysis, mean and standard deviations and finally a regression analysis is performed on the results.

4.1 Response Rate

Out of 54 administered questionnaires, 45 questionnaires were dully filled and returned. This represented 83.0% response rate as indicated in Figure 4.1. As asserted by Mugenda and Mugenda (2003) a response rate of 50% is adequate, 60% is considered good, 70% is considered very good. The study’s response rate of 83.0% is therefore considered population of focus of the study.

Figure 4.1: Response Rate

Source: Research Findings

4.2 Reliability of Measurement Scales

Reliability assesses the degree of consistency between multiple measurements of a variable (Hair et al, 2006). To access the reliability, the study used Cronbach's alpha correlation coefficients where the values of the scales measuring each construct were computed to ascertain whether these values are within the acceptable limits. All the
measures including operational risk self assessment, identification of key Operation Risk and compliance Operational Risk Rules and Regulations and Service Delivery constructs have acceptable Cronbach’s alpha values as all the values were in excess of the 0.7 threshold as asserted by Nunnally (1978).

Table 4.1: Reliability of Measurement Scales

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Cronbach's Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control risk self assessment</td>
<td>.824</td>
<td>4</td>
</tr>
<tr>
<td>Identification of Operation risk key indicators</td>
<td>.814</td>
<td>6</td>
</tr>
<tr>
<td>Compliance to operational Risk Rules and Regulations</td>
<td>.828</td>
<td>4</td>
</tr>
<tr>
<td>Service Delivery</td>
<td>.721</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Research Findings

4.3 Descriptive analysis

The descriptive analysis below shows the mean, and standard deviation of the different variables of interest in the study. It also presents the overall mean that will be used in determining the overall regression of the relationship between ORM practices and the performance of the GOEs. The respondents were requested to indicate to what extent they agreed with the statements in relation to the use and implementation of ORM practices in their organization in a five point Likert scale (1=strongly disagree, 2=disagree, 3= neither agree or disagree, 4= agree and 5= strongly agree)

4.3.1 Operation risk and control self assessment

Operation risk and control self assessment is one of the best practices in management of operations risk. Self assessment when coupled with adequate resources, robust audit frameworks, development of remedial plans and timely follow-up of issues identified can create a complete or effective risk management.

The respondents were requested to indicate to what extent they agreed with the statements in relation to the use and implementation of operation risk control self assessment practices in their organization in a five point Likert scale (1=strongly disagree, 2=disagree, 3= neither agree or disagree, 4= agree and 5= strongly agree)
Table 4.2: Findings on Operations Risk and Control Self Assessment

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization is able to allocate appropriate resources in support of risk management</td>
<td>4.43</td>
<td>1.15</td>
</tr>
<tr>
<td>policy and practice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are operational risk audit frameworks in the organisation for risk identification.</td>
<td>4.59</td>
<td>1</td>
</tr>
<tr>
<td>Operational risk reports are prepared on a regular basis</td>
<td>4.08</td>
<td>0.82</td>
</tr>
<tr>
<td>Risk mitigations are implemented appropriately and in a timely manner.</td>
<td>4.48</td>
<td>1.11</td>
</tr>
<tr>
<td><strong>Overall mean</strong></td>
<td><strong>4.39</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Research Findings**

To a great extent (mean ≥ 4.0), operation risk control and self assessment was being practiced by GOEs as a way of managing operational risks. The respondents (M=4.43, SD= 1.15) agreed that enough resources were allocated in support of risk management policy and practice. That there are operational risk audit frameworks in the organisations for risk identification (M=4.59, SD= 1), operational risk reports are prepared on a regular basis (M=4.08, SD=0.82) Finally, the respondents agreed that the recommendations arising from the operational risk audit reports are implemented appropriately and in a timely manner as indicated by (M=4.48, SD=1.11) respondents.

The findings show that operational risk control and self assessment as a practice is popular among GOEs at a mean of (4.4). This finding is similar to that of Lewis et, al (2005) study whereby they identified risk control self assessment as one of operation risk management practices. They further argued that top management commitment and board oversight, risk consciousness, appropriate risk appetite and existence of a risk philosophy is necessary for a successful risk control and self assessment which have similarities to allocation of resources for risk management, establishment of risk management framework, undertaking risk assessment audits and implementation of risk mitigations.
4.3.2 Key Operations Risk Indicators

Key Risk Indicators (KRIs) is an operational risk management practice that enables monitoring of potential changes to key risks and/or identifies emerging risks, enabling pre-emptive treatment actions. It is one of the practices used by GOEs in Kenya.

The study sought to find out to what extent respondents agreed with the statements in relation to the use and implementation of operation risk indicators as operations risk management practices in their organization in a five point Likert scale (1=strongly disagree, 2=disagree, 3= neither agree or disagree, 4= agree and 5= strongly agree).

<table>
<thead>
<tr>
<th>Table 4.3: Findings on key risk indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies and procedures exist that have set the risk appetite levels</td>
</tr>
<tr>
<td>Processes exist for independent flagging of risk prone activities</td>
</tr>
<tr>
<td>There is a system in place to ensure that flagged risks are followed</td>
</tr>
<tr>
<td>Processes are in place to ensure that policy overrides are minimal and exceptions are reported to management</td>
</tr>
<tr>
<td>People in the Company have the knowledge, skill and tools to support them in their duties in order to manage risk.</td>
</tr>
<tr>
<td>The board, or a board committee, approve the scope of all internal activities that review internal controls</td>
</tr>
<tr>
<td>There is sufficient detail in audit reports, or other control assessment reports, for the company's board and management to understand the situation as to regards risk activities</td>
</tr>
<tr>
<td>Overall mean</td>
</tr>
</tbody>
</table>

**Source: Research Findings**

The findings in table 4.3 indicate that key risk operation indicators identification with a mean of (M=4.47) is to a large extent practiced by state corporations in Kenya. The study also established that the respondents agreed to a large extent that policies and
procedures exist that have set the risk appetite levels (M=4.15), Processes exist for independent flagging of risk prone activities (M=4.38), while (M=4.60) asserted that there is a system in place to ensure that duties are rotated periodically. It was further established that processes are in place to ensure that policy overrides are minimal and exceptions are reported to management (M=4.73), people in the entities have the knowledge, skill and tools to support them in their duties in order to effectively manage risk (M=4.35) while (M=4.45) indicated that the board committee approve the scope of all internal activities that review internal controls. Finally, the respondents indicated that there is sufficient detail in audit reports, or other control assessment reports, for the company's board and management to understand the existing situation as to regards internal controls and risk events (M=4.61).

The results indicate that key risk indicators practices is practiced by GOEs in Kenya with an overall mean of 4.47. This practice is more common that operation risk control and self assessment which had an overall mean of 4.39.

The findings are in line with the Bostander (2007) and Ghazali (2009) studies whereby they identified key risk indicators prevalent in commercial banks and public highways management and called for the need to identify these high-risk areas and reported be highlighted to supervision and the boards of directors and senior management in order for them to strengthen internal controls. It implies, therefore that GOEs have put mechanism in place to identify high risk areas in their operations and to be able to flag them in time for appropriate actions to be taken.

4.3.3 Compliance with Rules and Regulations

Rules and regulations is one way in which operations risk is managed by GOEs in Kenya. Regulatory practices can take the forms of state regulation through the use laws or self-governing powers of the entity and corporate regulations.

The study sought to find out the extent to which the respondents agreed with the statements in relation to the use and implementation of rules and regulations as operational risk management practices in their organization in a five point Likert scale (1=strongly disagree, 2=disagree, 3= neither agree or disagree, 4= agree and 5= strongly agree).
Table 4.4 Compliance with rules and regulations

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOEs establishing Act and Executive orders clearly set the operational mandate</td>
<td>4.58</td>
<td>0.93</td>
</tr>
<tr>
<td>The parent ministry plays its oversight role.</td>
<td>3.59</td>
<td>0.92</td>
</tr>
<tr>
<td>Oversight bodies like Inspectorate of State Corporations and Public procurement Authority carry out periodic review.</td>
<td>3.43</td>
<td>1.04</td>
</tr>
<tr>
<td>There is a regular briefs to the board and executive committee on risk management issues</td>
<td>3.91</td>
<td>0.91</td>
</tr>
<tr>
<td>Overall mean</td>
<td>3.88</td>
<td></td>
</tr>
</tbody>
</table>

**Source: Research Findings**

The respondents were of the view that the organisation establishing legislation (Acts & executive orders) is clear on organisational mandate (M=4.58), this enables the organisation perform what is expected of it and to be able to set operational strategies in line with mandate. While (M=3.59) indicated that there is relevant oversight by parent ministry. Parent/line ministry oversight plays a crucial role in operations risk management whereas government agenda is undertaken. Other government oversight bodies like the inspectorate of state corporations and Public procurement oversight Authority reviewed activities of their GOEs (M= 3.43). The results also indicate that board and senior management received periodic reporting on risks and practices carried out to management any exposure (M=3.91).

Compliance with rules and regulations is practiced at the GOEs to a great extent with an overall mean of (M=3.88) although rankled lowly than control self assessment (M=4.39) and key risk indicators (M=4.47). This finding affirms Metricstream (2012) study whereby they identified a stringent regulatory environment, changing business environment and increased focus on accountability as factors that has led enterprises to pursue a broad range of governance, risk and compliance initiatives across the organization. The GOEs under study therefore were mindful of the regulatory
environment and the need to be compliant, adopting strategies to face a more challenging operating environment and need to be more accountable.

4.3.4 Effect of operation risk management practices on service delivery

The study sought to find out the extent that respondents agreed with statements about the effect of operation risk management practices on service delivery.

The study sought to find out the extent to which the respondents agreed with the statements in relation to the use and implementation of rules and regulations as operational risk management practices in their organization in a five point Likert scale (1=strongly disagree, 2=disagree, 3= neither agree or disagree, 4= agree and 5= strongly agree).

Table 4.5: Findings on effects of ORMP on service delivery

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The services are offered in a timely and responsive manner</td>
<td>4.45</td>
<td>1.1</td>
</tr>
<tr>
<td>The cost of service delivered is affordable</td>
<td>4.53</td>
<td>1.02</td>
</tr>
<tr>
<td>The quality of services offered are satisfactory and meets the customers' expectations</td>
<td>3.39</td>
<td>1.32</td>
</tr>
<tr>
<td>The suggestions from customers are taken into consideration in an attempt to improve on service delivery.</td>
<td>3.86</td>
<td>1.34</td>
</tr>
<tr>
<td>Overall mean</td>
<td>4.06</td>
<td></td>
</tr>
</tbody>
</table>

Source: Research Findings

The findings above in table 4.5 show that most respondents (M=4.06) consider adoption of ORMP as influencing service delivery in GOEs. The results indicated that the respondents agreed that state corporations provided services in a timely and responsive manner (M=4.45, SD=1.1). It was established by (M=4.53, SD=1.02) that the cost of service delivery is affordable while (M=3.39, SD1.32) asserted that the quality of services offered are satisfactory and meets the customers’ expectations and finally suggestions from the customers are taken into consideration in an attempt to improve on service delivery (M=3.86, SD=1.34).
4.4 Regression Analysis

The study also sought to establish the relationship between operation risk management practices and service delivery among Government Owned Entities in Kenya. The results presented in table 4.6, 4.7 and 4.8 respectively shows the influence of operation risk management practices on service delivery among GOEs in Kenya.

Table 4.6: Model Summary Results

<table>
<thead>
<tr>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.682</td>
<td>.766</td>
<td>.711</td>
<td>.5497</td>
</tr>
</tbody>
</table>

Source: Research Model

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (service delivery) that is explained by all the three independent variables (Risk control self assessment, Key Risk Indicators, compliance to rules and regulations.)

Table 4.6 above shows R = .682 and that 76% of the variances in the service delivery in state corporations are accounted for by the three independent operation risk management practices that were studied as indicated by an R² value of 0.766. This therefore means that other factors not studied in this research contribute 24% of the service delivery. Therefore, further research should be conducted to investigate the other factors (24%) that affect service delivery.

The ANOVA results are shown in Table 4.7 and show whether the model was fit to explain the relationship between operation risk management practices and service delivery.

Table 4.7: Model Significance (ANOVA)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>10.276</td>
<td>4</td>
<td>2.569</td>
<td>8.501</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>11.786</td>
<td>39</td>
<td>.302</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22.063</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research Findings
The results in table 4.7 also established that the estimated linear regression model was significant as indicated by an F-statistic of 8.501 and whose probability value was less than the 5% significance level. This shows that the model was fit to explain the relationship between operation risk management and service delivery.

The multiple regression analysis was conducted so as to determine the relationship between service delivery and the three independent variables. This model was used by Parrenas, (2005), when he carried out a research on risk monitoring procedures used by commercial banks to monitor credit risks. Table 4.11 below was generated using Excel 2007 to determine the coefficients of the equation.

The equation \( Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon \) therefore become:

\[
Y = 1.339 + 0.556X_1 + 0.118X_2 + 0.280X_3 + \varepsilon
\]

Where \( Y \) is the dependent variable (service delivery), \( X_1 \) is the Risk Control Self Assessment, \( X_2 \) is Key Risk Indicators variable, \( X_3 \) is Compliance to Rules and Regulation variable

Table 4.8 shows the regression coefficients for the independent variables used in the study. Both standardized and unstandardized coefficients are shown together with the t-values and the p-values.

**Table 4.8: Regression Coefficient**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.339</td>
<td>.457</td>
<td></td>
<td>2.929</td>
</tr>
<tr>
<td>Operational risk control self</td>
<td>.556</td>
<td>.461</td>
<td>.527</td>
<td>1.207</td>
</tr>
<tr>
<td>Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation Risk key indicators</td>
<td>.118</td>
<td>.388</td>
<td>.119</td>
<td>.306</td>
</tr>
<tr>
<td>identification</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance to rules and</td>
<td>.280</td>
<td>.244</td>
<td>-.303</td>
<td>-1.148</td>
</tr>
<tr>
<td>Regulations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Research Findings**
Table 4.8 show the results of regression analysis on the effect of operation risk management practices on service delivery among Government Owned Entities in Kenya.

According to the regression equation established, taking all factors into account (RCSA, KRIs and compliance to rules and regulations) constant at zero, service delivery will be 1.339. The results indicate that operation risk control self assessment has a positive significant effect on service delivery as indicated by a beta coefficient of 0.556 and p=.035. This implies that a good and accurate risk control self assessment is likely to increase or improve service delivery by .556. The results also showed that operation risk indicators identification practices have a positive insignificant influence on service delivery as indicated by a beta coefficient of 0.118 and p= .761. This means that risk indicators identification as an enterprise risk management practice to a greater extent does not affect the service delivery of GOEs in Kenya.

Finally, the results indicated that Rules and Regulations has a positive significant influence on service delivery as indicated by a beta coefficient of 0.280 and p= .018. This means that rules and regulations as an operation risk management practice affects service delivery of government entities in Kenya. More specifically, a unit increase in the rules and regulations practice leads to a .208 units increase in service delivery.

The findings are in line with the assertions of Metricstream (2012) that growing regulatory environment has led enterprises to pursue a broad range of risk and compliance initiatives across the organization. The findings are further consistent, with those of Wanjohi and Ombui (2013) who also indicated that risk management practices play a major role in insurance companies’ performance. Finally, it concurs with the findings of Aduda and Gitonga (2011) study on the relationship between credit risk and profitability among commercial banks in Kenya and concluded that there is an effect of risk management on performance.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of key findings, conclusions, recommendations and suggestions for further research. The summary, conclusions and recommendations are aligned to the objectives of the study.

5.2 Summary

The ORM practices that were analyzed included: risk and control assessment; assessment of key risk indicators and compliance to laws and regulations. Although other practices such as incident management and action tracking were mentioned in the study, it was not analysed. The results show that all the operation risk management measures had higher mean values which suggest that these practices were practiced highly by the GOEs surveyed. The most popular operation risk management practice as practiced by government entities in Kenya was found out to be key risk indicators identification. This practice also is in line with contingency planning theory where it is argued that organisations manage risk by identifying incidents and disasters points, formulating flexible plans and marshaling suitable resources that will come into play in the event, whatever actually eventuates. Risk control self assessment and compliance to rules and regulation were also found to be practices used although to a lower extent than key risk indicators. The study also shows that ORMP require various structural measures to align operations risk management, strategic planning, organizational culture and reporting structure together in order to realize the better outcome.

The results of regression analysis indicated that 76.6% of the variances in the service delivery in state corporations were accounted for by the operation risk management practices adopted. The results indicate that operation risk control self assessment and rules and regulations had a positive significant effect on service delivery. The study further, found that key risk indicators had a positive insignificant influence on service delivery.

5.3 Conclusions

The study examined the common operation risk management practices and its effects on service delivery in government owned entities in Kenya. The study found out that
operations risk control self assessment and compliance to rules and regulations had a positive significant influence on service delivery while Key risk indicators had a positive insignificant influence on service delivery. Overall, operation risk management practices accounted for above 76% of all variances in service delivery of the GOEs surveyed. Thus, the study concludes that operation risk management practices influence the service delivery of Government owned entities in Kenya to a large extent.

5.4 Recommendations
The study makes a number of recommendations. First, the study recommends that the government owned entities in Kenya should embrace robust risk management practices as these are likely to influence their service delivery and eventually attainment of objectives and mandates.

Secondly, the study recommends that for GOEs to attain high levels of service delivery, they should focus on improving the internal controls. This will help in identifying bottlenecks and reduce wastage in operations finally leading to improved service delivery.

Lastly, the regulatory environment should be strengthened and regular evaluation by supervisory arms of government carried out. Progressive laws should be enacted to help streamline operations and reduce operational surprises in GOEs. Except for commercial banks, it was noted that there are no established rules and regulations issued by the Government of Kenya to guide on operational risk management in GOEs.

5.5 Suggestions for Further Studies
The study sought to establish the relationship between operational risk management practices and service delivery among GOEs in Kenya, there is need therefore for a study to be conducted on the relationship between operational risks and financial performance of these state corporations. There is also need to conduct a study on the relationship between holistic risk management practices (ERM) and service delivery in state corporations. Further, studies may also look at the relationship between corporate governance and operational risks management practices in state corporations in Kenya.
REFERENCES


APPENDIX

Appendix I: Questionnaire

This section contains questions aimed at obtaining the background profile of the individual as well as questions relating to the objectives of the study. Please answer the questions as accurately as possible. In case of any difficulty in answering the questions you can seek clarification.

Part 1: General information. (Please tick the appropriate section as provided in the spaces alongside the statements.)

1. Name………………………………………………………………….. (Optional)

2: Operation Risk management practices adopted by GOEs

This Section is concerned with assessing the level of Operation Risk Management practices implementation and adoption. To what extend do you agree/disagree on each of the following statements. Rate using a scale of 1 to 5 where 1 is strongly disagree, 2 is disagree, 3 is Neutral, 4 is agree and 5 is Strongly agree

<table>
<thead>
<tr>
<th>Operation risk self assessment</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree not disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization is able to allocate appropriate resources in support of risk management policy and practice.</td>
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<tr>
<td>There are operational risk audit frameworks in the organisation that ensures risk exposure is reduced.</td>
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<tr>
<td>Operational risk reports are prepared on a regular basis so as to identify risks prevalence in the organisation</td>
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<tr>
<td>The recommendations arising from the operational risk audit reports are implemented appropriately and in a timely manner.</td>
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<tr>
<td>Key Operations risk indicators</td>
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<td>---------------------------------------------------------------------------------------------</td>
<td></td>
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<tr>
<td>Policies and procedures exist to ensure critical decisions are made with appropriate approval</td>
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<tr>
<td>Processes exist for independent verification of transaction</td>
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<tr>
<td>There is a system in place to ensure that duties are rotated periodically</td>
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<tr>
<td>Processes are in place to ensure that policy overrides are minimal and exceptions are reported to management</td>
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<tr>
<td>People in the Company have the knowledge, skill and tools to support them in their duties in order to effectively manage risk and achieve company objectives.</td>
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<tr>
<td>The board, or a board committee, approve the scope of all internal activities that review internal controls</td>
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<tr>
<td>There is sufficient detail in audit reports, or other control assessment reports, for the company's board and management to understand the situation as regards internal controls</td>
<td></td>
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</tbody>
</table>

**Compliance to rules and regulations**

| GOEs establishing Act and Executive orders clearly set the operational mandate |
| The parent ministry plays its oversight role                                           |
| Oversight bodies like Inspectorate of State Corporations and Public procurement Authority carry out periodic review |
| There is a regular briefs to the board and executive committee on risk management issues |
3. Service Delivery in Government Owned Entities

This section presents questions related to service delivery among government owned enterprises. To what extent do you agree/ disagree with the statements listed? Rate using a scale of 1 to 5 where 1 is strongly disagree, 2 is disagree, 3 is Neutral, 4 is agree and 5 is Strongly agree

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The services are offered in a timely and responsive manner</td>
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<tr>
<td>The cost of service delivered is affordable</td>
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<tr>
<td>The quality of services offered are satisfactory and meets the customers’ expectations</td>
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<tr>
<td>The suggestions from customers are taken into consideration in an attempt to improve on service delivery.</td>
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</tbody>
</table>

Thank you for your Participation

APPENDIX 2: Government Owned Enterprises

List of State Corporations in Kenya and their Categorization in Kenya

**Financial Category**
Industrial and Commercial Development Fund
Agricultural Finance Corporation
Kenya Revenue Authority
Kenya Urban Roads Authority
Kenya Roads Board
Kenya Rural Roads Authority
Kenya National Assurance Company
National Hospital Insurance Fund
Kenya Post Office Savings Bank
Kenya Tourist Development Corporation
Kenya Reinsurance Corporation
Consolidated Bank of Kenya
Kenya Industrial Estates
National Social Security Fund
Industrial Development Bank
Kenya National Trading Corporation
Development Bank
National Bank of Kenya
Retirement Benefits Authority

Commercial and Manufacturing Category
Nyayo Tea Zones
Kenyatta International Conference Centre
Kenya Literature Bureau
Kenya Seed Company Ltd
Jomo Kenyatta Foundation
Kenya Railways Corporation
Kenya Railways Corporation
Kenya Broadcasting Corporation
Nzoia Sugar Company
South Nyanza Sugar Company
Kenya Safari Lodges And Hotels
Kenya Power and Lighting Limited
Kenya Ports Authority
Kenya Wine Agencies
Kenya Electricity Generating Company Ltd
Kenya Pipeline Company Ltd
Agro Chemical and Food Company Ltd
National Oil Corporation of Kenya
Kenya Electricity Transmission Company
Postal Corporation of Kenya
Kenya Airports Authority
National Housing Corporation
Chemilil Sugar Company
Kenya Meat Commission
Numerical Machining Complex
East African Portland Cement
Pyrethrum Board of Kenya
National Cereals and Produce Board
Mwea Rice Mills
Western Kenya Rice Mills
Yatta Vineyards
Mt. Elgon Lodge
Geothermal Development Company
Golf Hotel Kakamega
Kabarnet Hotel Ltd
Sunset Hotel Kisumu
Rivatex Ltd
Kenya Sisal Board
Kenya National Shipping Line
New Kenya Cooperative Ltd
School Equipment Production Unit

Regulatory Category
National Irrigation Board
Kenya Dairy Board
Capital Markets Authority
Communication Commissions of Kenya
Catering and Tourism Training Levy Trustees Board
Kenya Film Commission
Tea Board of Kenya
Water Services Regulatory Board
Kenya Plant Health Inspectorate Services
Export Promotion Council
Kenya Copyright Board
Policy Holders Compensation Fund
Horticultural Crops Development Authority
Kenya Bureau of Standards
Kenya Sugar Board
Kenya Maritime Authority
Kenya Coconut Development Authority
Cotton Development Authority
Sacco Societies Regulatory Authority
Commission of Higher Education
Council of Legal Education
Kenya Civil Aviation Authority
Coffee Development Authority
Energy Regulatory Commission
Insurance Regulatory Commission
Kenya Film Classification Board
Coffee Board of Kenya
NGO Coordination Board
Public Procurement Oversight Authority
National Environmental Management Authority
Kenya Investment Authority
Export Processing Zones Authority
Pest Control Products Zones
Water Appeals Board
National Bio-Safety Authority
Media Council of Kenya
National Cohesion and Integration Commission
Lake Basin Development Authority
State Corporations Appeals Board
Kenya Vision 2030 Secretariat
Transition Commission of Kenya
Commission of Revenue Allocation
Kenya National Accreditation Services
Independent Electoral and Boundaries Commission
Kenya Anti-Corruption Corporation
Pharmacy and Poisons Board
National Communications Secretariat
National Agency For Population
Medical and Dentists Practitioners’ Board
Sugar Development Fund
Public Universities Category
University of Nairobi
Kenyatta University
Bondo University College
Jomo Kenyatta University of Agriculture and Technology
Kisii University College
Meru University College of Science and Technology
Maseno University
South Eastern University College
Masinde Muliro University
Kimathi University College
Kabianga University College
Egerton University
Moi University
Laikipia University College
Pwani University College
Mombasa Polytechnic University College
Kenya Polytechnic University College
Multi Media University College
Narok University College
Chuka University College

Training and Research Category
Coffee Research Foundation
Kenya Institute of Education
School of Government
Kenya Institute of Public Policy Research and Analysis
Tea Research Foundation
Kenya Water Institute
Kenya Veterinary and Vaccine Production Institute
Research Development Unit
Kenya Medical Training College
Kenya Medical Research Institute
Kenya Forestry Research Institute
Kenya Sugar Research Foundation
Kenya Industrial Research and Development Institute
Kenya Agricultural Research Institute
Kenya Marine and Fisheries Research Institute
National Council for Science and Technology
National Museum of Kenya
National Crime Research Centre
Co-operative college of Kenya
Kenya Utalii College
Bukura Agricultural College

Service Category
Agricultural and cooperative training and consultancy services
Rural Electrification Authority
Kenya National Library Services
National Water Conservation and Pipeline Corporation
Geothermal Development Company
Lake Victoria North Water Services Board
Water Services Trust Fund
Sports Stadia Management Board
National Campaign against Drug Abuse Authority
Kenya Tourist Board
National Council for Persons with Disability
National Commission on Gender and Development
National Co-coordinating Agency for Population and Development
Constituency Development Fund
Higher Education Loans Board
Kenya Accountants and Secretaries National Examination Board
Rift Valley Water Services Board
Nol Turesh Bulk Water Services Board
Tana Water Services Board
Kenya Forest Services
National Aids Control Council
Kenya National Examination Council
Brand Kenya
Kenya Ferry Services Ltd
Ahti Water Services Board
Privatization Commission Of Kenya
Kenya Animal Genetic Resources
Kenya ICT Board
Agricultural Development Corporation
Bomas of Kenya
Tourism Trust fund
Local Authorities Provident Fund
Kenya Medical Supplies Agency
Youth Enterprise Development Fund
Moi Teaching and Referral Hospital
Teachers Service Commission
Northern Water Services Board
National Council for Children’s Services
Kenya National Highways Authority
Tanathiti Water Services Board
Kenyatta National Hospital
Water Resources Management Authority
Kenya National Bureau of Statistics
Kenya Institute of Special Education
Kenya Year Book Editorial
Kenya Ordinance Factories Corporation
Coast Water Services Board
Centre for Mathematics Education Service
Kenya Wildlife Service
University of Nairobi Enterprises Ltd.
JKAUTES Ltd.
Kenya Medical and Technologist Board
National Quality Control Laboratory
National Council for Law Reporting
Regional Development Authorities Category
1. Coast Development Authority
2. Lake Basin Development Authority
3. Ewaso Ng’iro South Development Authority
4. Ewaso Ng’iro North Development Authority
5. Kerio Valley Development Authority

Source: Inspectorate of State Corporations, as at June, 31st 2015.