EFFECT OF ENTERPRISE RISK MANAGEMENT ON FINANCIAL PERFORMANCE OF SUPERMARKETS IN NAIROBI COUNTY

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MASTER OF SCIENCE IN COMMERCE (FINANCE AND INVESTMENTS)

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DECLARATION

Declaration by Candidate

I the undersigned declare that this dissertation is my original work and has never been presented for a degree award or any other university programme.

Signed……. Date…….

Edwin Mwalw'a Munyalo

Reg. No.: 14/01260

Declaration by the Supervisors

I confirm that the work in this dissertation was done by the candidate under my/our supervision.

Signed……. Date…….

Dr. Peter Njuguna

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DEDICATION

I dedicate this dissertation to my family who bore the demands of this course. I wish to appreciate my mother for her constant prayers for me and bringing me up the way they did.

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The successful completion of this dissertation has involved the help of many people who I may not be able to comprehensively list here. I wish to thank God the Almighty, to whom all knowledge and wisdom come from for His grace that was so sufficient throughout the course. I am grateful to my supervisor, Dr. Peter Njuguna for his dedication, guidance and valuable suggestions that ensured that a good paper is submitted.

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OPERATIONAL DEFINATION OF KEY TERMS

Financial Performance The outputs and outcomes of the operation of the resources and competencies available in an organization and that can be measured and evaluated by comparing the actual performance of the organization to what is planned (Lechner & Gatzert, 2018).

Risk Identification The process of determining risks that could potentially prevent the program, enterprise, or investment from achieving its objectives. It is the basis for analysis and control of risk management and ensures risk management effectiveness (Okogbuo *et al*., 2015).

Risk Mapping Risk mapping it involves putting into action the measures taken to manage risk. All measures that are taken to manage risk must be monitored and reviewed to ensure that they are effective (Pehlivan & Öztemir, 2015).

Risk Monitoring Risk monitoring activities implement the risk monitoring strategy by gathering information through automated or manual means, alerting or reporting on information relevant to intended purposes for risk monitoring, and providing inputs to ongoing risk assessment and response processes (Muchelule, Iravo, Odhiambo & Noor, 2017).

Risk Response Risk response entails formulating a mitigating plan to reduce efficiently the impacts of the identified risks (Aloini, Dulmin, Mininno & Ponticelli, 2012).

ABBREVIATION AND ACRONYMS

CEO: Chief Executive Officer

CP: Contingency planning

ERM: Enterprise Risk Management

GDP: Gross Domestic Product

ISO: International Organization for Standardization

NACOSTI: National Commission for Science, Technology and Innovation

PRM: Professional Risk Manager

RI: Risk identification

SMEs: Small and medium-sized enterprises

SPSS: Statistical Package for the Social Sciences

ABSRTACT

Enterprise risk management (ERM) is an increasingly popular strategy that attempts to holistically evaluate and manage all of the risks faced by the firm. A combination of factors including gross mismanagement, poor strategic decisions, tax issues and massive internal losses perpetrated by some wayward employees and suppliers are the main reasons behind the turmoil's and slow death of giant retail chain stores in Kenya. Retail firms make money and increase stakeholder value by engaging in inventory activities which harbor many risks. However failure to identify, assess, and manage the major risks facing these organization's business model results in significant loss of stakeholder value. This study therefore sought to fill the research gap by assessing the effect of ERM on financial performance of supermarkets in Nairobi County. The specific objectives of the study was to establish the effect of risk identification, risk monitoring, risk response and risk mapping on financial performance of supermarkets in Nairobi County. The study applied a descriptive research design. The target population of this study comprised 10 major supermarkets that include Tuskys, Naivas, QuickMart, Cleanshelf, Tumaini, Ukwala, Chandarana, Eastmatt, Shoprite and Carrefour. The target size of the population is 80 top, middle and supervisors working in these sections in the supermarkets in Nairobi County. The findings indicated that risk identification and financial performance of supermarkets in Nairobi County, Kenya is positively and significantly related (β=0.143, p=0.001). Risk monitoring and performance of financial performance of supermarkets in Nairobi County, Kenya are positively and significantly related (β= 0.251, p=0.000). Risk response and financial performance of supermarkets in Nairobi County, Kenya are positively and significantly related (β= 0.132, p=0.030). Risk Mapping and financial performance of supermarkets in Nairobi County, Kenya were positive and significant (β =0.150, p=0.005). The study rejected the hypothesis on risk identification, risk monitoring, risk response and risk mapping on the performance of supermarket. The study concluded that risk identification, risk monitoring, risk response and risk mapping were key enterprise risks that largely affected the performance of supermarket. The study recommends that supermarkets should institute and nurture good enterprise risk management programmes. The programmes should encompass the design and institutionalization of appropriate risk management structures to effectively provide direction and oversight over the management of risks that affect such supermarkets. Enterprise risk management frameworks and policies should be defined and communicated across the supermarkets to widen the ownership and enhance responsibility and accountability for all staff in the management of risks within the supermarkets. A sustained campaign to improve on risk culture should be introduced in supermarkets coupled with regular risk management practices of risk identification, risk monitoring, risk response and risk mapping. The campaign should encourage communication of risks in an open, timely, and transparent manner and provide all key stakeholders with the relevant information that informs the decisions and norms of the supermarkets.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Risk management by organizations is core in mitigating uncertainty in the business environment and in enhancing growth and performance. According to Maseko (2017) enterprise risk management is an increasingly popular strategy that attempts to holistically evaluate and manage all of the risks faced by the firm (Florio & Leoni, 2017). Risk management is deemed a core factor for business competitiveness. It facilitates a firm to develop a unique strategy to minimize the potential losses and open a door for the exploitation of new opportunities. According to Zou and Hassan (2017), the growth and performance of both organizations and business enterprises depend mostly on the identification and management of both inherent risks, market risks and operations risk. Risk management is an activity within project management that is gaining importance because businesses are moving towards globalization and because of the increasing competition.

The premise of Enterprise Risk Management (ERM) is to minimize direct and indirect costs of financial distress, earnings volatility, and negative shocks in financial markets, as well as improve the decision-making process to select the best investment opportunities (Callahan & Soileau, 2017). ERM practices enable a firm to reduce different types of costs associated with firms' operational and non-operational activities. ERM is crucial for everyday business activities and organizational practices in the current era as it facilitates business firms to control their internal system (Zou & Hassan, 2017). ERM helps top management to manage different types of risk effectively (Annamalah, Raman & Arvindan, 2018). Effective ERM practices help to reply to unexpected threats, to ensure flexibility and to take the benefits of opportunities which in turn facilitate firms to gain competitive advantage (Armeanu, Georgeta, Stefan & Petrache, 2017).

Globally, Brancato and Newman (2016) in United States of America, posited that the awareness of the value of ERM is no longer limited to the insurance or financial industries. Leading industrial companies utilize ERM to move from a single functional-silo view to a risk-adjusted, organization-wide planning strategy. Providing a holistic view, ERM compares the risk-adjusted value of one plan versus another. In Europe, Acharyya and Stanely (2018) found that ERM creates value when the infrastructure is fully embedded within a company's operations, and it matures. The findings

confirm the need to treat the implementation of risk management in a holistic manner if the true benefits are to be realized. Therefore, the quality of value creation depends on the level of integration of risk into the operations, underwriting, investment, human resources, reporting, compliance, and IT functions.

Regionally, in South Africa, Abdullah, Janor, Hamid and Yatim (2017) studied the effect of enterprise risk management on firm value. The study found that improved ERM quality mitigates the level of risks faced by companies, which ultimately reduces firm value. Further in South Africa, a majority of risk professionals in South Africa reported that their enterprise risk management programs are fully or partially integrated into their businesses' operations. The 2019 Enterprise Risk Management Report in South Africa indicated that 88% of the 97 risk professionals across 16 industries responding to the survey conducted reported either having fully or partially integrated ERM programs in operation, with 45% reporting having a fully integrated program. Ugwuanyi and Ibe (2019) on Enterprise risk management and performance of Nigeria's Enterprises found that enterprise Risk Management enhances the performance of firms in the Enterprises. The study therefore suggested that managers in the enterprises in Nigeria should continue to adopt and implement enterprise rise management as a tool to enhance organizational performance and this should be backed by policy.

The key aspects of ERM include risk identification, risk monitoring, risk response and risk mapping. Risk identification (RI) is the process of determining risks that could potentially prevent the program, enterprise, or investment from achieving its objectives (Okogbuo *et al*., 2015). It is the basis for analysis and control of risk management and ensures risk management effectiveness. At the identification phase, the sources, features, causes and effects of risk on a project are established. Risk monitoring activities implement the risk monitoring strategy by gathering information through automated or manual means, alerting or reporting on information relevant to intended purposes for risk monitoring, and providing inputs to ongoing risk assessment and response processes. The purpose of risk monitoring is to address how risk will be monitored (Muchelule, Iravo, Odhiambo & Noor, 2017).

Risk response entails formulating a mitigating plan to reduce efficiently the impacts of the identified risks (Aloini, Dulmin, Mininno & Ponticelli, 2012). Risk response is considered to be a very important stage in risk management because if it's finding the projects lead to create

opportunities and decrease the threats that indicate how well are the managers (Aven, 2012). Risk mapping it involves putting into action the measures taken to manage risk. All measures that are taken to manage risk must be monitored and reviewed to ensure that they are effective (Pehlivan & Öztemir, 2015). A central area of uncertainty in risk mapping is uncertainty importance analysis. The challenge is to identify what are the most critical and essential contributors to output uncertainties and risk. Risk mapping considers how the event could impact cost, schedule, or technical performance objectives.

Enterprise Risk Management plays an important role in helping the companies to strengthen the ability of the firm in planning their strategy in handling any risk. It is doubtless that organizations with risk-related practices can smooth their income volatility and decrease the impact of financial crises to enhance their performance (Ashraf, Sidra & Lliang, 2017). In the current churning market, ERM practices and financial literacy are required to acquire a sustainable competitive position and high profitability. ERM is an efficient risk management method and is rapidly becoming the norm of best practice. Kenya's business environment has been described as the most dynamic in the region (Chesula & Iravo, 2016). In the recent past the economic environment and other business environmental changes have occurred exposing several entities to collapse, near collapse and even others being subjected into receivership.

Kearney (2017) argued that Economic and GDP growth, coupled with an emerging shopping culture and a bang in shopping center space, is energizing the African retail sector. The retail sector analysts in Kenya concur that a combination of factors including gross mismanagement, poor strategic decisions, tax issues and massive internal losses perpetrated by some wayward employees and suppliers are the main reasons behind the turmoil's and slow death of giant retail chain stores in Kenya (Mithamo, Marwa, & Letting, 2015; Some, 2017). The sector having a huge current market and future potential due to a number of factors like expanding middle class that has a high purchasing power, a conducive macro-economic environment in Kenya with gross domestic product growth of 5% in 2017 and a low retail penetration rate of 35%.

1.1.1 Enterprise Risk Management

Enterprise Risk Management (ERM) is defined by Yevgen and Wohlgemuth (2017) as the process that endeavors to control the uncertainty that influences the achievement of objectives, with the goal of reaching the objectives and thus creating value for the organization in which it is applied.

According to Anton (2018) ERM is a process effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of the entity's objectives. Cristina and Leoni (2017) reiterated that ERM is critical in organizations as it supports superior financial performance, better basis for strategy setting, improved service delivery, greater competitive advantage, more efficient use of resources, reduced waste and fraud (Lechner & Gatzert, 2016).

ERM focuses on people, intellectual assets, brand values, business expertise and skills, principle source of profit stream and the regulatory environment. As per Alaa, Mukhtar and Moade (2018) ERM allows firms to manage a wide array of risks in an integrated, enterprise-wide which is a shift from the traditional risk management where individual risk categories are managed separately in risk silos. Companies that adopt ERM have a more competitive advantage over the ones that don't. There is a significant positive relationship between risk management and financial performance making it important for firms to entrench risk management strategies in their day to day operations in order to ensure continuous improvement in their financial performance.

Hampton (2015) identifies other benefits of ERM as helping organizations to concentrate on the bigger picture since some risks are critical while others are unimportant, pursuit of upside of risk since many possible losses are accompanied by possible gains. Enterprise risk management integrates risks and embraces an organization-wide approach through coordination between individuals, processes and domains, thereby reducing overall risk and improving its performance, and thereby increasing the value of the organization. Adoption of ERM was most common among institutions in the developed countries such as the United States/Canada, Australia, and countries in Europe, compared to developing countries.

1.1.2 Financial Performance

According to Maghanga and Kalio (2014), performance is an indicator of firm's success, conditions, compliance and refers to the degree to which financial objectives have been accomplished. Financial Performance refers to a way of determining how well a firm uses its assets from its core operations and generates revenues within a given financial period (Armstrong & Fic, 2014). Financial performance is defined as the outputs and outcomes of the operation of the resources and competencies available in an organization and that can be measured and evaluated

by comparing the actual performance of the organization to what is planned. Financial performance in an organization measures the results of a firm's policies and operations in monetary terms. As per Syafri (2012), financial performance alludes to firm's financial health status over a set period.

Organizational performance can be measured through non-financial and financial means. Bakar and Ahmad (2017) observed that majority of organization often preferred using financial means to measure their performance. According to Tavitiyaman, Zhang and Qu (2018) measures of organizational performance are productivity, market base, profitability and reputation/position. Kiragu (2015) highlights organizational performance in terms of four perspectives which are the financial, customer, internal processes and innovativeness. The financial perspective identifies the key financial drivers of enhancing performance which are profit margin, asset turnover, leverage, cash flow, and working capital. The author further states that customer focus describes performance in terms of brand image, customer satisfaction, customer retention and customer profitability. Internal processes involve the efficiency of all the systems in the organization while innovativeness is concerned with the ease with which employees are able to adapt to changing conditions.

According to Harzing (2018), organizational performance is not only indicated by the sales figures, rather, changes in sales may simply reflect changes in the market size or changes in economic conditions. Performance of employees relative to competitors is measured by the proportion of the market that the employees are able to capture (market share). Sales may be determined on a value basis or on a unit basis and while the employee sales figures are readily available, total market sales is more difficult to determine. Many employees to increase their sales relative to competitors. This study used sales performance, operational efficiency and organizational growth as its measures for supermarket performance.

1.1.3 Enterprise Risk Management and Financial Performance

Performance, and financial performance in particular, is the cornerstone of all business organizations. It represents the status of an organization's existence and embodies the important factor in achieving its goal of sustainability (Cristina & Leoni, 2017). According to Songling and Muhammad (2018), enterprise risk management has emerged as a modern model for managing the various types of risk faced by organizations, which improves the level of board of director‘s and

CEO‘s risk control by working on compiling and analyzing all types of risks that the organization may face in the future and working to confront them in an integrated manner. ERM practices are not only essential for the improvement of a firm’s performance but also help to reduce different types of risk exposure (Florio & Leoni, 2017). Successful ERM practices enable firms to enhance their values and manage risk in an effective way (Lechner & Gatzert, 2018).

As per Callahan and Soileau (2017), ERM increases a firm’s profitability by reducing different operational and marginal costs as well as reduce the uncertainty of stock market returns. A firm that has a formal implementation of ERM practices can enjoy the high operational performance and earns over those who have lack of ERM practices (Callahan & Soileau, 2017). Hence, managers are strongly encouraged and advised to work in the implementation of ERM practices to improve the firm values and performance. It is doubtless that there is a significant positive association between ERM practices and firm performance (Florio & Leoni, 2017; Zou & Hassan, 2017). Successful ERM practices enable firms to enhance their values and manage risk in an effective way (Lechner & Gatzert, 2016). It increases a firm’s profitability by reducing different operational and marginal costs as well as reduce the uncertainty of stock market returns.

The practice of risk management in commerce stems largely from the need to avoid contractual, tortuous or statutory liability which has the capacity to dent the image of the organization. A firm that has a formal implementation of ERM practices can enjoy the high operational performance and earns over those who have lack of ERM practices (Callahan & Soileau 2017). ERM helps firms to aggregate risk inherent in different business activities, thus providing them with a more objective basis for resource allocation which implies improved capital efficiency and return on equity. Mwangi (2018) observes that, risks are increasing in today’s dynamic environment making ERM an integral part of any organization.

1.1.4 Supermarkets in Nairobi County, Kenya

The supermarkets in Kenya is one of the main drivers of the economy. The retail sector is among the six priority sectors projected to make up the largest part of Kenya’s Gross Domestic Product (GDP) and to create approximately 50 per cent of total formal employment. Indeed, the sector’s potential fits squarely under the economic pillar of Vision 2030 that seeks to improve the prosperity of all Kenyans by achieving a 10 per cent GDP growth rate. A report by Oxford Business Group placed Kenya’s retail market as the continent’s second most developed, trailing behind

South Africa, and the fastest growing sector within the continent (Nzomo, 2017; Kimotho, 2018; Demmler, Ecker & Qaim, 2018). The structure of retail sector in Kenya has followed trends in major economies in Europe and Asia.

According to Patibandla (2012) the retail sectors include dry groceries (grains and cereals, packaged foods, toiletries, and household items), electronics, certain kinds of men's clothing and shopping malls a good example being the format of Two Rivers mall in Nairobi. Dry grocery is particularly attractive because of the proliferation of brands and products which have helped improve retail margins on two levels: they're package-goods, hence suppliers must match retailer's better terms to obtain shelf space, and secondly, they practice what up market supermarkets like Tuskys in Nairobi central business district do such as attracting customers with frozen foods and offering a superior range of goods. They can also offer discounts because of their increased margin spread.

Retailers in these sectors must invest substantially to shape the supply chain and persuade consumers to change their buying behavior. The supermarket is not a new concept in Kenya, having had the first store of its kind in the 1960s. A lot of changes have been experienced in Kenya's retail sector. Many new foreign as well as local investors are establishing retail chains or supermarkets in Kenya (Njoroge, 2015). To do so, they are being forced to build their supply chains from scratch and to spur consumer interest in products that aren't familiar to many Kenyan shoppers. For example, Choppies, which has spent months developing a supply chain and devising unique product bundles, is now emerging as a force in the retail chain sector. Kenya's retail sector has experienced tremendous new entrants as well as threats of exit by some major players in the recent years.

The retail market was valued at ksh 1.8 trillion in 2017 according to a survey conducted by Proctor and Gamble and is projected to increase substantially by approximately 10% annually over the next 10-15 years (Kimotho, 2017). Retail giants like Nakumatt gave up the struggle to hold onto market share as new multinationals like Choppies, Shoprite, Carrefour, Game, entered the market (Joyce *et al.,* 2017; Kariuki, 2018). Some of the old players in the retail industry are Uchumi Supermarkets, founded in the mid '70s and Nakumatt Supermarkets, founded in 1987. However much growth was not seen within the retail chains until the mid '90s when supermarkets grew from 5 to the current over 300 stores in Kenya (Kiruga, 2013). These range from well-established

retail chains to independent one store supermarkets. In the past six years, the dominant players in the sector includes Nakumatt which had 66 branches (Some, 2017).

Tuskys Supermarkets is another major chain in Kenya, ranking second, by sales, in the retail industry. The oldest and once leading supermarket chain, Uchumi, is also a major player in the industry (Mwangi, 2018). In the 1990's Uchumi spearheaded the hypermarket concept in Kenya. Other key retail chains are Ukwala, Chandarana, Eastmatt and Naivas. This study finds it necessary to study the effect of ERM on the financial performance of supermarkets in Nairobi County owing to the fact that the supermarkets in Nairobi County are much advanced in terms of embracing ERM and thus provided a better picture regarding these concepts in the Kenyan context.

1.2 Statement of the Problem

Supermarkets are exposed to a large number of risks from different sources such as globalization, deregulation, environmental changes, technological changes, complicated financial model, and corporate governance changes. According to the Competition Authority of Kenya (2020), on analyzing the debt portfolios of 25 major retailers, four of them were in debt distress, but three were working on getting back on track. Three of the four retailers had presented payment plans and have continuously reduced their debt portfolio.

In this regard, the scope, complexity and interdependencies of emerging risks are compelling many retail companies to adopt comprehensive and integrated approaches (Ndigwa & Moronge, 2019). Retail firms make money and increase stakeholder value by engaging in inventory activities which harbor many risks. However, failure to identify, assess, and manage the major risks facing these organization's business model results in significant loss of stakeholder value (Yevgen & Wohlgemuth, 2017). As with most of management capabilities, sustaining ERM in retail firms requires a process of continuous improvement. Changes in prevailing conditions in the operating environment, the enterprise's composition, objectives and the expectations of key stakeholders require additional effort to maintain ERM capability in the inventory function. The local retails stores in Kenya have been struggling to gain a significant market share and create strong brand reputation over the years yet not much has been achieved. While linking with the current supermarkets tribulations where they are closing down on underperforming, the study thus sought to relate the concept of enterprise risk management with their performance.

In addition existing studied present research gaps; Wambua (2017) conducted a study on the effect of enterprise risk management on performance of water service providers in Kenya and established that operational risk management, financial risk management and corporate governance risk management had a significant positive effect on performance of water service providers in Kenya. Njagi (2015) carried out an evaluation of the level of enterprise risk management adoption and maturity of insurance companies in Kenya and revealed that organization related challenges have a significant effect on ERM maturity. Mahogo (2015) studied the effect of risk management on the performance of shopping malls in Nairobi County and found that that risk management has significant effect on the performance of shopping malls in Nairobi County, the risk management practice frequently adopted include risk identification, risk analysis and risk evaluation (Nzomo, 2017; Kimotho, 2018; Demmler, Ecker & Qaim, 2018).

The studies that have been done have therefore yielded different findings on the effect of ERM on financial performance. In spite of the critical role and positive outcomes that ERM play on organizational performance (Wanjiru & Gongera, 2015), retail supermarkets in Kenya have experienced mixed patterns of positive and negative growth, leading to lower profits, despite high volumes, and the result has been two thirds of the firms dropping out of the growth curve, hence, their deaths in the volatile competitive retail markets (Ouma, Mwangi & Oduk, 2018). This has turned it to be more difficult for the existing firms to maintain market share and achieve growth (Janet, Wilbrodah & Douglas, 2018) resulting in some of the leading supermarkets going into receivership or/and closure. To this end, it is not clear on the effect that ERM has on financial performance of supermarkets in Kenya. This study therefore sought to fill the research gap by assessing the effect of ERM on financial performance of supermarkets in Nairobi County.

1.3 Objectives of the Study

The general objective of this study is to establish the effect of Enterprise Risk Management on financial performance of supermarkets in Nairobi County.

1.3.2 Specific Objectives

The specific objectives of the study was to:

i. To explore the effect of risk identification on financial performance of supermarkets in Nairobi County.
ii. To determine the effect of risk monitoring on financial performance of supermarkets in Nairobi County.
iii. To investigate the effect of risk response on financial performance of supermarkets in Nairobi County.
iv. To evaluate the effect of risk mapping on financial performance of supermarkets in Nairobi County.

1.4 Research Hypotheses

The study makes the following research hypotheses:

H_{01}: Risk identification has no statistical significance on the financial performance of supermarkets in Nairobi County.

H_{02}: Risk monitoring has no statistical significance on the financial performance of supermarkets in Nairobi County.

H_{03}: Risk response has no statistical significance on the financial performance of supermarkets in Nairobi County.

H_{04}: Risk mapping has no statistical significance on the financial performance of supermarkets in Nairobi County.

1.5 Significance of the Study

1.5.1 Managers of Supermarkets in Nairobi County

The findings will establish the effects of risk management on performance of supermarkets in Nairobi County. Therefore, the result will be significant to the management of the supermarkets in Nairobi County in providing them with insights into the various approaches towards risk management techniques, the effects of ERM on financial performance, how to effectively handle the issues of risk management and how to reduce exposure to the risk.

1.5.2 Management of Institutions in the Retail Sector

Other supermarkets and other institutions in the retail sector in Kenya will also benefit greatly as the study results will directly reflect their performance and recommendations deduced from the study will be very relevant. By extension, other businesses in Kenya will benefit from results of the study. Business firms in various sectors of the economy will also benefit from the research findings as they will implement them in making informed decisions.

1.5.3 Policy Makers

To regulators and policy makers, the research will provide the basis for control policy framework to mitigate the enterprise risks associated with the retail sector in Kenya. The insights provided by the study will be instrumental in the development and implementation of enterprise risk management frameworks necessary for the organizations in the retail sector as well a other related sectors. The study would therefore assist the Government of Kenya in assessing the various aspects of ERM implementation in the local enterprises and give optimal directions for their effective use.

1.5.4 Researchers, Academicians and Scholars

The study will also form a good literature base upon which further studies and references will be drawn. The study would provide academicians with knowledge regarding the effect of ERM on financial performance of supermarkets in Kenya. The findings of the study would also help identify existing gap in the area of enterprise risk management and suggest further areas of study. Academicians, scholars and researchers will, thus, benefit from the findings of this study as it will add to the body of existing knowledge in enterprise risk management and financial performance of supermarkets in Kenya.

1.6 Scope of the Study

The main objective of the study is to establish the effect of ERM on financial performance of supermarkets in Nairobi County Kenya. Conceptually, the study sought to establish the enterprise risk management practices, risk identification, risk monitoring, risk response and risk mapping on the financial performance of supermarkets in Nairobi County. Contextually, this study was conducted in Kenya and particularly Nairobi County which has the highest concentration of supermarkets in the Country. Geographically, the study concentrated on the supermarkets with active operations within Nairobi County. Methodologically, the study adopted a descriptive

research design with a population comprising of the major supermarkets in Nairobi. Primary data was gathered for the study using structured questionnaires. The primary data was collected from the management staff of these supermarkets.

CHAPTER TWO

LITEREATURE REVIEW

2.1 Introduction

This chapter explores literature relating to Enterprise Risk Management and financial performance of firms. The first section discusses the theories informing the study and their applicability to the financial Performance and Enterprise Risk Management. The second section deals with the empirical review which looks in to the studies that have done before on enterprise risk management and financial performance. The third section explores the conceptual framework, which explains the relationship between the independent variable and the dependent variable identified in the study.

2.2 Theoretical Review

This section discusses the theories on which this study was anchored on. Theories are used by scholars when performing research studies to form a foundation for the parameters, or boundaries of a study. This study was anchored on Risk Management Theory. Other theories include, Agency theory, Prospect Theory, contingency planning theory.

2.2.1 Risk Management Theory

Risk Management Theory was proposed by Vaughan (1997) and proposed that risk involves elements of the individual or the organization who is exposed to loss, the asset or income whose destruction or dispassion will cause financial loss, and a peril that can cause the loss. This can be averted by risk management model which consists of risk identification, risk monitoring, 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 (Koulafetis, 2017). Risks can come from uncertainty in financial markets, project failures, legal liabilities, credit risk, accidents, natural causes and disasters as well as deliberate attack from an adversary, or events of uncertain or unpredictable root-cause. The vulnerability of modern supermarket retail chains increases with increasing supermarket chains exposure to risk and uncertainty (Jarrow, 2017).

In support of the risk management theory, several risk management standards have been developed including the Project Management Institute, the National Institute of Science and Technology, actuarial societies, and ISO standards. Methods, definitions and goals vary widely according to whether the risk management method is in the context of project management, security, engineering, industrial processes, financial portfolios, actuarial assessments, or public health and safety (Beasley *et al*, 2016).

The strategies to manage risk typically include transferring the risk to another party, avoiding the risk, reducing the negative effect or probability of the risk, or even accepting some or all of the potential or actual consequences of a particular risk. Effective risk management can bring far reaching benefits to all organizations, whether large or small, public or private sector (Fan & Stevenson, 2018). 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 (Krause & Tse, 2016).

Effective risk management structure supports better decision making through a good understanding of the risks and their likely impact. In practicing Risk Management (RM), if risks are left unmanaged, they can cause a negative impact on stake holder's value. It therefore means that good risk management enhances shareholders value (Koulafetis, 2017). By creating a good discipline in risk management, it helps improve governance process and therefore improves effectiveness. According to Bogodistov and Wohlgemuth (2017), ensuring that an organization makes cost effective use of risk management first involves creating an approach built up of well-defined risk management and then embedding them. These risk management include financial risks management, operational risk management, governance risk management, and strategic risk management.

This study was anchored on Risk Management Theory. The relevance and application of Risk Management Theory is to inform the variables on risk identification, risk monitoring, risk response and risk mapping to determine the effects of enterprise risk management on financial performance of retail firms in Kenya.

2.2.2 Contingency Planning Theory

Contingency Planning Theory was developed by Fiedler (1978), posits that no single planning style can be effective without parallel input from complementary or countervailing traditions. The theory combines ideas about risk and uncertainty in the environment and external factors influencing work with context-specific features of leadership and decision-making. Fiedler believed there was a direct correlation to the traits of a leader and the effectiveness of a leader. According to Fiedler, certain leadership traits helped in a certain risks, crisis and so the leadership would need to change given the new set of circumstances.

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 (Lexander, 2017). Contingency theory argues that managers should adjust their leadership styles to match the situations at hand. Ni, Rong, Wang and Cao (2019) summarizes the theory as the best way to organize depends on the nature of the environment to which the organization must relate. Contingency approaches to organizational structure are those which are based on the idea that the performance of an organization depends on having a structure that is appropriate to its environment (Otley, 2016).

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 (Hisnson & Kowalski, 2018). In the context of this study, contingency planning is defined as the totality of activities, controls, processes, plans 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 (McAdam, Miller & McSorley, 2019). Contingency implies that the activities and resources that was 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.

The Contingency Planning Theory relevance and application is hinged on risk management for an exceptional risk that, though unlikely, would have catastrophic consequences for the supermarkets if not identified, monitored and responded to. Thus, the theory informs the variables on risk identification, risk monitoring and risk response.

2.2.3 Agency Theory

Agency theory was initially an idea initiated by Fama and Miller (1972) and expounded by Jensen and Meckling (1976) of who concentrated on agency costs. Agency cost, also known as costs of conflict of interest suggest that within a firm, the agency cost is spread in different levels and the most concerned is the conflict between shareholders and managers (Jensen & Meckling, 1976). Jensen and Meckling (1976) describe two types of agency costs that arise due to conflict of interest between principals and agents. One is agency cost of equity between equity-holders and managers and the other is agency cost of debt between debtholders and shareholders.

Agency theory resolves problems that arise within agency relationships; that is, the relationship between principals and agents (Jensen & Meckling, 1976). Agency theory addresses two problems, one that occurs when the principal and agent do not share the same interests or objectives for the business, and the other occurs when the principal and agent have different approaches towards risk. Therefore, due to the above differences, the principal and agent may both be inclined to take different approaches. The theory also tries to resolve the problems that may arise when the principal and the agent have different risk appetites which has an influence on the actions that may be preferred (Maestrini, Luzzini & Ronchi, 2018). Where market imperfections exist, risk management at the enterprise level is appropriate to increase the firm's value to shareholders by reducing costs associated with agency conflicts, external financing, financial distress, and taxes (Aretz, Bartram, & Dufey, 2017).

Agency Theory is therefore, useful in this study in evaluating the effect of risks controls on the effect of financial performance of supermarkets. Internal checks involve making certain that the goals and needs of the shareholders are met through proper operations of the supermarkets and hence, when the principal and agent agree on achieving the same objective then the supermarkets will flourish. According to Agency theory, risk management intervention aid to uphold cost-effective relationships between the principal and agent. Agency theory aids in explaining the existence of internal risk in organizations, for instance it can be used to assess whether cross-

sectional disparity between internal risks controls reflect the different agency relationships arising from the differences in financial performance of supermarket chains in Nairobi County.

2.3 Empirical Review

This section focuses on establishing the existing empirical studies on enterprise risk management and financial performance. As such, the key sub-sections highlighted include risk identification, risk monitoring, risk response and risk mapping.

2.3.1 Risk Identification and Financial Performance

Rostami, Sommerville, Wong and Lee (2015), investigated the efficacy of different tools and techniques of risk identification in SMEs in the UK. It was established that the complexity of detecting the appropriate tools and techniques in organizations are the key barriers that obstruct the practice of risk management. The results highlight: Documentary review; expert judgment; checklist and information gathering as the most significant techniques within risk identification. These are executed for their valuable results, simple processes and easy-to-comprehend factors of the structure. In opposition, brainstorming and Delphi, owing to SMEs' insufficient knowledge and resources are less practised. However, RI was considered to be significant for projects' success; and it was established that it has a positive effect on the key parameters.

Okogbuo *et al*., (2015) finds that risk identification is the process of determining risks that could potentially prevent the program, enterprise, or investment from achieving its objectives. It includes documenting and communicating the concern. Risk identification process attempts to identify the source and type of risks. Risk identification involves the recognition of potential risk event conditions in the construction project and the clarification of risk responsibilities (Wang, Dulaimi, & Aguria, 2016). Risk identification is the basis for analysis and control of risk management and ensures risk management effectiveness.

Maseko (2017) indicated that the objective of risk identification is the early and continuous identification of events that, if they occur, will have negative impacts on the project's ability to achieve performance or capability outcome goals. They may come from within the project or from external sources. Tchankova (2017) posits that if appropriately performed, risk identification ensures successful risk management as unknown sources of losses escalate into unmanageable occurrences with unforeseen outcomes. The emphasis is not only aimed at the incapability to

identify loss causing risks but also includes the incapacity to determine opportunistic events. The effect of the non-identification of positive risks equates to the effect of non-identification of negative risks.

Renault, Agumba and Ansary (2016) conducted a theoretical review of risk identification in the construction industry. Their research was mainly a literature review and was conducted through accredited academic and Professional journals, books, the internet, theses, and dissertations. The reviewed literature revealed that the entire risk management process is not only limited to solving problem in advance but also for the occurrence of any unexpected future problems. The study further shown that issues with possible threats envisaged in a project are not only a means to reduce losses within the project, but also a means to transfer risks into opportunities, which can lead to economic profitability, environmental and other advantages.

According to Kishan *et al*., (2014) risk identification entails the identification of all possible risks and opportunities which may affect the organization, as well as the conditions giving rise to these risks and opportunities. At the identification phase, the sources, features, causes and effects of risk on a project are established. Once risk is identified in a project, it may be apparent that the problems associated with the said risk are half solved because it is almost impossible to access or respond to an unidentified risk.

The study by Renault, Agumba and Ansary (2016) finds that ERM is beneficial to an organization as it helps firms to effectively report and comply with laws and regulations, and also guards a company from the damages associated with poor reputation. Generally ERM assists entities to get to where it wants to be while avoiding pitfalls and surprises along the way. The discipline of ERM has evolved over the years going beyond buying insurance policies and hedging of financial exposures to include other risks like operational risks, reputational risk and strategic risk. Companies that adopt ERM have more competitive advantage over the ones that manage risk in silos. In conclusion risk identification, risk monitoring, risk response ad risk mapping have had significant effects on the financial performance of firms in various contexts. This study sought to ascertain whether the same results can be replicated around the same aspects within the retail firms in Kenya.

2.3.2 Risk Monitoring and Financial Performance

According to Annamalah *et al.,* (2018) risk monitoring activities implement the risk monitoring strategy by gathering information through automated or manual means, alerting or reporting on information relevant to intended purposes for risk monitoring, and providing inputs to ongoing risk assessment and response processes. The purpose of risk monitoring is to address how risk will be monitored. This includes verifying compliance with the risk response decisions by ensuring that the organization implements the risk response measures, determines the ongoing effectiveness of risk response measures, and identifies any changes that would impact the risk posture. Risk monitoring activities at the various levels of the organization should be coordinated and communicated. This can include sharing risk assessment results that would have an organization-wide impact to risk responses being planned or implemented.

Mburu, Ngugi and Ogolla (2017) in their study on relationship between risks monitoring and control management strategy and supply chain performance among manufacturing companies in Kenya pointed that depending on risk assumptions, constraints, priorities, and tolerance levels, the set of risk monitoring practices actually implemented at any one time may differ from what is documented in the risk monitoring strategy. Organizations monitor risk factors of importance on an ongoing basis to ensure that the information needed to make credible, risk-based decisions continues to be available over time. Monitoring risk factors (e.g., threat sources and threat events, vulnerabilities and predisposing conditions, capabilities and intent of adversaries, targeting of organizational operations, assets, or individuals) can provide critical information on changing conditions that could potentially affect the ability of organizations to conduct core missions and business functions.

Ashraf *et al*., (2017) indicated that information derived from the ongoing monitoring of risk factors can be used to refresh risk assessments at whatever frequency deemed appropriate. Organizations can also attempt to capture changes in the effectiveness of risk response measures in order to maintain the currency of risk assessments. The objective is to maintain an ongoing situational awareness of the organizational governance structures and activities, mission/business processes, information systems, and environments of operation, and thereby all of the risk factors that may affect the risk being incurred by organizations. In applying the risk assessment context or risk

frame (i.e., scope, purpose, assumptions, constraints, risk tolerances, priorities, and trade-offs), organizations consider the part risk factors play in the risk response plan executed.

Hampton (2015) study identified benefits of ERM as helping organizations to concentrate on the bigger picture since some risks are critical while others are unimportant, pursuit of upside of risk since many possible losses are accompanied by possible gains. A firm that does not only focus on profit maximization but also focuses on proper risk management is likely to be successful because profit maximization is constrained by risk. Systematic risk which can be diversified according to the portfolio theory should be controlled through proper identification of its determinants which is a critical component of proper risk management and investment decision.

Muchelule *et al*., (2017) found that in risk situations, monitoring only the security posture of information systems would likely not provide sufficient information to determine the overall risk being incurred by organizations. Highly capable, well-resourced, and purpose-driven threat sources can be expected to defeat commonly available protection mechanisms such as by bypassing or tampering with such mechanisms. For instance, if is expected to be quite common for the security posture of information systems such as the risk factors measured within those systems to reflect only a part of the organizational risk response, with response actions at the organization level or mission/business process level providing a significant portion of that response. Thus, process-level risk response measures such as reengineering mission/business processes, wise use of information technology, or the use of alternate execution processes, in the event of compromised information systems, can be major elements of organizational risk response plans.

Nyaga (2014) found that, risk monitoring as part of ERM affects the performance of pension fund management firms in Kenya. The study also established that, risk response as an enterprise risk management practice does not affect the financial performance of pension fund management firms in Kenya. On the internal environment as a risk management practice, the study established a positive and a significant effect on financial performance. Enterprise risk management can reduce the corporate tax burden in the presence of convex tax schedules. Risk management is a critical element of business management though the benefits that it generates are often unseen.

2.3.3 Risk Response and Financial Performance

According to Aloini, Dulmin and Ponticelli (2012), risk response entails formulating a mitigating plan to reduce efficiently the impacts of the identified risks. Risk response infers to determination of how to deal will with risks, select the appropriate strategies, determine the required resources and time to deal with those risks. Risk response is considered to be a very important stage in risk management because if it's finding the projects lead to create opportunities and decrease the threats that indicate how well are the managers. To be specific, the plan of risk response has the possibility to make the conditions which considered to be essential for optimal identification of risk and evaluation, hence, the action of risk response should be designed, classified and justified on systematic principle.

Yevgen and Wohlgemuth (2017) posited that the ultimate objective these decisions are either desired benefit maximization or to the effort required minimums Organizations can facilitate consistent responses to risk in alignment with risk tolerance levels by identifying default or preferred responses and formalizing or standardizing the approaches with which the organization evaluates and selects responses to different types of risk.

Yao Zhang and Zhi-Ping Fan (2016) study provided an approach to solve the selection problem of risk response strategy in PRM. In the approach, they developed an optimization model, which combine three critical elements that are the project cost, project quality, and project schedule. When the model solved, the optimal solution might be obtained so that the most required risk response strategies to overcome the risk events can be determined. If this method doesn't satisfy the manager another method used which cakes tradeoff.

The study by Marchwicka and Kuchta (2017) found that selecting the proper plan can minimize risks and maximize benefits. There are three ways of responding to risk, namely: risk retention risk reduction and risk transfer. The first entails acknowledging and managing the risk; the second involves actions that reduce the possibility of the risk arising or the severity of the effect if the risk does arise. The third is about shifting the risk to the party capable of dealing with the identified risk. Organizations determine the appropriate response to risk identified through risk assessment or risk monitoring activities. The process identifies potential courses of action for responding to risk, evaluates alternatives to determine viable responses, considers each alternative in light of organizational priorities and risk tolerance levels established during risk framing, and selects and

implements the chosen courses of action. Optimization considers one of the toll to select the risk response strategy which can be defined as the process of earning the result that regards the best under given conditions.

Rahman Soofifard, Morteza Khakzar Bafrue (2017), presented a mathematical model that study the effect of the risk response reduction measures and the effect on each other, and also the capability of optimizing different criteria regarding the objective function depending on the type of project. Soofifard and Gharib (2017) proposes a model for the selection of proper risk response from the responses portfolio with the objective of optimization of defined criteria for projects. This research has taken into consideration the relationships among risk responses; especially the relationships between risks, which have been infrequently considered in previous works.

2.3.4 Risk Mapping and Financial Performance

Lagat (2017) conducted a study on the effect of risk mapping on performance of retail chains. The study used explanatory research design. The study used stratified random sampling to select respondents from target population comprising of managers. Data was collected using questionnaires. Descriptive statistics was presented, while inferential statistics was done using Pearson product moment correlation. There was a positive influence of risk mapping on the performance of retail chains was obtained. The risk evaluation positively influenced the performance of retail chains. The risk evaluation had positive relationship with performance of retail chains. The null hypothesis stating that there is no significant effect of risk mapping on performance of retail chains was rejected. This indicates that for each increase in the risk evaluation, there is 0.821 increase in performance of retail chains.

Keitany (2016), in his study on the internal audit control function and its implication on risk mapping by external auditors, established that the extent of dependence on internal controls were insensitive to the strength of internal audit departments. A study on the impact of risk-based audit on financial performance in Kenya's insurance companies conducted by Kasiva (2012) among 44 respondents that included finance officers, internal auditors, credit officers, relationship officers, and accountants found out that risk-based auditing through risk management should be enhanced to enable the organization concerned to detect risks on time.

According to McCord (2018), risk mapping of material misstatement at the financial statement level and also at the planning stage, clarifies the direction on performing a combined assessment

of inherent and control risk, thus leaving the ability for the auditors to assess other risk factors in an audit. In their examination of the effects of the role of the board of directors in assisting in the formulation of corporate strategies on the auditors' planning judgments, they established that auditors respond to the role of the board when making judgments with respect to control risk assessments.

Armeanu *et al*., (2017) asserted that risks are assessed against the potential negative impact on enterprise goals. Using risk management tools for the enterprise and its components can help with the consistency of risk determination. This consistency is similar to the scale example shown below, except that the assessment would be done at the enterprise level. Depending on the criticality of a component to enterprise success (e.g., risk of using commercial communications to support a military operation and the impact of the enterprise to mission success, versus risk of using commercial communications for peacetime transportation of military equipment), the risks may be viewed differently at the enterprise level even when the solution sets are the same or similar. One way management plans for engineering an enterprise is to create capability portfolios of technology programs and initiatives that, when synchronized, will deliver time-phased capabilities that advance enterprise goals and mission outcomes. A capability portfolio is a time-dynamic organizing construct to deliver capabilities across specified epochs; a capability can be defined as the ability to achieve an effect to a standard under specified conditions using multiple combinations of means and ways to perform a set of tasks.

Flage *et al*. (2014) provides a recent perspective on concerns, challenges and directions of development for representing and expressing uncertainty in risk mapping. Probabilistic analysis is the predominant method used to handle the uncertainties involved in risk analysis, both aleatory (representing variation) and epistemic (due to lack of knowledge). For aleatory uncertainty there is broad agreement about using probabilities with a limiting relative frequency interpretation. However, for representing and expressing epistemic uncertainty, the answer is not so straightforward. Bayesian subjective probability approaches are the most common, but many alternatives have been proposed, including interval probabilities, possibility measures, and qualitative methods.

According to Aven (2016), are-thinking of the rationale for the uncertainty importance measures is provided. It is questioned what information they give compared to the traditional importance measures such as the improvement potential and the Birnbaum measure. A new type of combined

sets of measures is introduced, based on an integration of a traditional importance measure and a related uncertainty importance measure. Risk mapping considers how the event could impact cost, schedule, or technical performance objectives. Impacts are not limited to these criteria, however; political or economic consequences may also need to be considered. The probability (chance) each risk event will occur is also assessed. This often involves the use of subjective probability assessment techniques, particularly if circumstances preclude a direct evaluation of the probability by objective methods.

According to Wanjiru (2017), Enterprise Risk Management is also gaining popularity to certain catastrophic incidences that have happened to organizations like the collapse of Enron. Companies can therefore enhance their survival by embracing risk management. Corporate hedging which is a risk management practice can alleviate under investment and asset substitution problems by reducing the volatility of cash flows, and it can accommodate the risk aversion of un-diversified managers and increase the effectiveness of managerial incentive structures through eliminating unsystematic risk.

2.4 Conceptual Framework

A conceptual framework is a concise description of the phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study. The conceptual framework for the study shows the effect of enterprise risk management on financial performance of supermarkets in Nairobi. The dependent variable was financial performance while the independent variables are risk identification, risk monitoring, risk response and risk mapping.

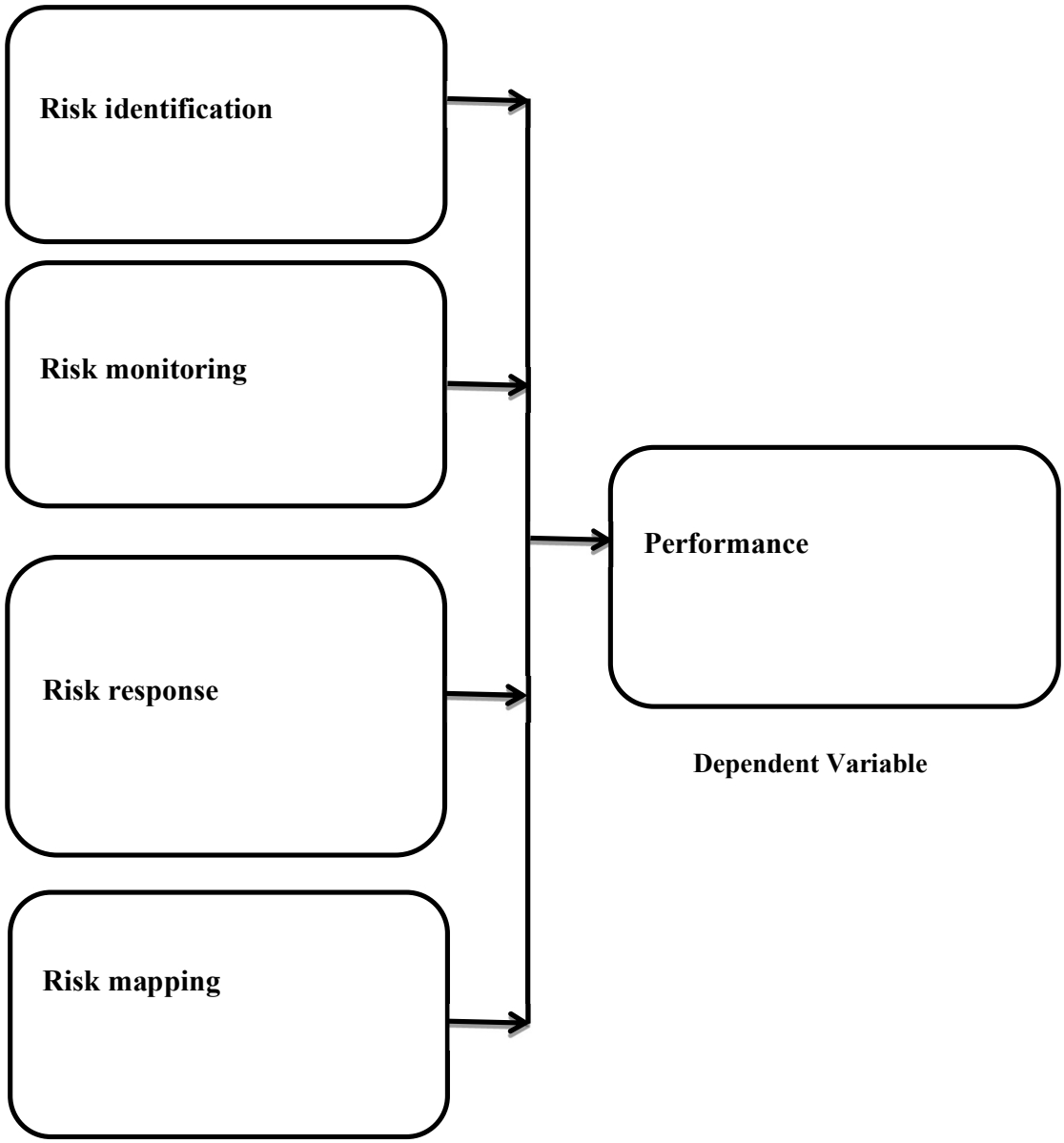

Figure 2.1: Conceptual Framework

2.5 Measurement of Study Variables

The measurement of the independent and the dependent variables is as shown in the operationalization Table 2.1

Table 2.1: Operationalization of Variables

Variables	Operational Indicators	Measure	Type of Scale
Risk Identification	• Operational risk • Regulatory risk • Strategic risk • Credit risk	5-point Likert Type Scale	Interval Scale
Risk Monitoring	• Monitoring tools • Surveillance • Risk tracking • Risk Communication	5-point Likert Type Scale	Interval Scale
Risk Response	• Developing strategic options • Determining response actions • Threat reduction • Risk transfer	5-point Likert Type Scale	Interval Scale
Risk Mapping	• Risk classification • Risk probability • Risk assesment • Risk prioritazation	5-point Likert Type Scale	Interval Scale
Performance	• Sales Performance • Operational efficiency • Organizational growth	5-point Likert Type Scale	Interval scale

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology refers to the rationale and philosophical assumptions that underlie the use of a set of methods; the method sections describe the procedures followed in carrying out the study. This chapter describes the methods used to gather information on the area of the study. The chapter guided the research methodology used in carrying out the study. It discussed and described the data collection instruments, data collection procedures, sampling, data gathering and analysis of the data collected.

3.2 Research Design

Research design is the principal plan for collection and analysis of data which helps in answering the research questions. Research design is a plan and structure of investigation formulated to find solutions or answers to a problem (Johnson & Christensen, 2019). The Selection of the most appropriate research design is determined by the type of research problem under study, the researchers' personal experiences, and the particular study population. The study applied a descriptive research design. According to Cooper and Schindler (2017), a descriptive research collects data from members of a population and helps the researcher get the descriptive existing phenomena by asking individuals about their perceptions, attitudes, behavior or values. Descriptive research is the most suitable design for this study because it describes phenomena without influencing it in any way; with the intent of answering research questions. A descriptive design was adopted since it gives an accurate portrayal of the characteristics, beliefs, knowledge and opinions on a certain individual, group or situations. The method applied quantitative techniques to collect, analyze and summarize data.

3.3 Target Population

A population refers to the total collection of elements about which one wishes to make inferences (Cooper & Schindler, 2017). In accordance, research population is a group that the researcher wants to generalize as the group of people that are selected to be in the study. Target population refers to the collection of elements about which one wishes to make some inferences (Cooper &

Schindler, 2017). This is the specific population about which information is desired. The target population of this study comprised 10 major supermarkets that include Tuskys, Naivas, QuickMart, Cleanshelf, The Game Store, Ukwala, Chandarana, Eastmatt, Shoprite and Carrefour.

A top manager, 2 middle managers and 5 supervisors was considered owing to their positioning to respond effectively in this study. From these supermarkets, the responses were gathered from the various departments to ensure representation of the results. The study focused more on the section and particularly on the top, middle and supervisors who are directly dealing with the day to day management of the company. The target size of the population was 80 top, middle and supervisors working in these sections in the supermarkets in Nairobi County. The target population is as shown in Table 3.1.

Table 3.1: Target Population

Supermarket	Senior Management	Middle management	Supervisors	Total
Tuskys	1	2	5	8
Naivas	1	2	5	8
Quickmart	1	2	5	8
Cleanshelf	1	2	5	8
Game Store	1	2	5	8
Ukwala	1	2	5	8
Chandarana	1	2	5	8
Eastmatt	1	2	5	8
Shoprite	1	2	5	8
Carrefour	1	2	5	8
Total	10	20	50	80

3.4 Sampling and Sampling Procedure

Sampling refers to the process of obtaining information about an entire population by examining only a part of it. A sample is the segment of the population that is selected for investigation (Bryman & Bell, 2018). The study adopted census approach for the senior management, middle management, lower management and thus 80 respondents was used to conduct the study. Census was used in the study since the target population is small and thus census made the sample more

representative since all the population was used. In addition, stratified sampling technique was used to select the respondents.

3.5 Research Instrument

Primary data was collected by means of a structured questionnaire. The questionnaires were self-administered through the use of online questionnaires, email, drop and pick later method to the managers and supervisors in the organization. According to Cooper and Schindler (2017) the use of structured questions on the questionnaire allowed for uniformity of responses to questions. The questionnaire was in 2 sections. Section A contained demographic information and section B was a series of statements to capture perception on innovative strategies. The key variables include the independent variables, which are risk identification, risk monitoring, risk response, risk mapping and the dependent variable as performance. The use of questionnaire ensured collection of data from many respondents within a short time and respondents were free to give relevant information because they were assured of their anonymity (Mugenda & Mugenda, 2010).

3.6 Pilot Study

The purpose of the pilot test is to refine the questionnaire so that respondents have no problems in answering the questions and thus eliminate problems in recording the data. In addition, it enables obtain some assessment of the question's validity and the likely reliability of the data that was collected. Preliminary analysis using the pilot test data can be undertaken to ensure that the data collected enables the investigative questions to be answered (Saunders, Lewis & Thornhill, 2016). According to Hair, Page and Brunsveld (2019). A pretest sample ranges from 1% to 10% depending on the sample size. In this study, 10% of the sample size was used for the pilot test. Therefore, 8 questionnaires were piloted by issuing them to respondents who were not included in the final study sample.

3.7 Validity and Reliability of Research Instrument

Yeomans (2017) states that validity is the accuracy and meaningfulness of inferences, which are based on the research results. The validity of the questionnaire was tested on questionnaire, 13 questionnaires was pilot tested and reviewed with a view to improve validity of the data that was collected (Kothari, 2017). Cronbach's alpha coefficient was generated to assess reliability. The closer Cronbach's alpha coefficient was to 1, the higher the internal consistency reliability (Bougie

& Sekaran, 2016). A coefficient of 0.7 was used as recommended by Cronbach (1951). The results are as shown in Table 3.2.

Table 3.2: Reliability Test

Variables	Items	Cronbach Alpha
Risk Identification	5	0.783
Risk Monitoring	5	0.845
Risk Response	5	0.811
Risk Mapping	5	0.792
Performance	5	0.836

The results indicated that the statements under risk identification (0.783), risk monitoring (0.845), risk response (0.811), risk mapping (0.792) and performance (0.836) had a Cronbach alpha of above 0.7 and thus the statement were considered reliable**.**

3.8 Data Collection Procedure

The researcher obtained authority to conduct research from the School of Graduate Studies of KCA University. Ethical authority was obtained from KCA University. A permit to collect data was obtained from the National Commission for Science, Technology and Innovation (NACOSTI) for the purpose of data collection. The research instrument was a self-administered research questionnaire and was taken to the respondents through the drop and pick technique. The study is concerned with variables that cannot be directly observed such as views and opinions, perceptions and feelings of the respondents, as such this kind of information is best collected through questionnaires. The researcher approached each respondent, introduce himself to the respondents by explaining to them the nature and purpose of the study and then leave the questionnaires with the respondents to be completed and be picked later within two to three weeks' time. A covering letter explaining the objectives of the study and assuring the respondents' confidentiality and requesting them to participate in the study accompanied the questionnaire.

3.9 Diagnostic Tests

The study conducted normality test, multicollinearity and heteroscedasticity. These diagnostic tests were conducted to avoid spurious regression results.

3.9.1 Multicollinearity

Multicollinearity was tested using variance inflation factor VIF. Multicollinearity was detected where the VIF value is above 10 according to Myres (1990) who indicated that where VIF ≥ 10 indicate presence of Multi-collinearity.

3.9.2 Heteroscedasticity

In regression models, the error term difference or variance is assumed to be constant across observations. If this assumption is violated, the random variable is called heteroscedastic. If the control model is heteroscedasticity, then the analysis is not correct. According to Williams (2016), heteroscedasticity gives equal weight to all observations and causes the standard errors to be discriminated and consequently results in an incorrect conclusion when testing the hypothesis. Breusch-Pagan was used to check for existence of heteroscedasticity in the data collected.

3.9.3 Normality test

The assumption of normality is very important as it enables one to make accurate statistical inferences from test of hypothesis (Field, 2009). This study used the Jarque-Bera test statistic (Bera & Jarque, 1982) to test for the normality of the residuals.

3.10 Data Processing and Analysis

The statistics to be generated was descriptive statistics and inferential statistics using SPSS. The specific descriptive statistics included percentages and frequencies while the inferential statistics included multiple linear regression models. The test for significance was at 0.05. The multiple regression model before moderation was as follows;

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$$

Where:

Y = Performance of Supermarket Chains.

X_1 = Risk Identification

X_2 = Risk Monitoring

X_3 = Risk Response

X_4 = Risk Mapping

$\beta_{1....4}$= Coefficients of the variables

ε= Error term

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

This chapter focused on data analysis, findings and interpretation. Results were presented in tables and diagrams. The analyzed data was arranged under themes that reflected the research objectives.

4.1 Response Rate

The response rate was analyzed to show the representative from the sample size. A response rate is very important to the credibility of the research results. A low response rate may decrease the statistical power of the data collected and undermine the reliability of the results. It may also undermine the ability of the researcher to generalize the results to the larger target audience. This is further complicated by the fact that a low response rate can be indicative of a non-response bias within the sample. A low response rate can give rise to sampling bias if the non-response is unequal among the participants regarding exposure and/or outcome.

The study administered 80 questionnaires and the results are as shown in Table 4.1.

Table 4.1: Response Rate

Response	Frequency	Percent
Returned	68	85%
Unreturned	12	15%
Total	80	100%

According to Mugenda and Mugenda (2003) and Kothari (2004), a response rate of above 50% is adequate for a descriptive study. Babbie (2004) also asserted that return rates of above 50% are acceptable, 60% is good and 70% is very good. Thus, the response rate of 85% under this study was very good for study.

4.2 Demographic Characteristics

This section consists of information that describes basic characteristics including gender, age, highest level of education, position in the organization, and duration in the retail sector.

4.2.1 Gender

The respondents were asked to indicate their job position in their gender and the results are as shown in the Table 4.2.

Table 4.2: Gender of Respondents

Gender	Frequency	Percent
Male	36	52.9%
Female	32	47.1%
Total	68	100

The results show that majority of the respondents were men who represented 52.9% of the sample while 47.1% were female. This indicated that the composition of the staff in the supermarkets had more male than female staff representation.

4.2.2 Age

The respondents were asked to indicate their age bracket and the results are as shown in Table 4.3.

Table 4.3: Age of Respondents

Age Bracket	Frequency	Percent
Below 20 years	8	4%
21 -30 years	23	34%
31- 40 years	32	47%
41 -50 years	3	12%
Over 50 years	2	3%
Total	68	100

Results indicated that most of the respondents were aged above 31-40 years represented by 47% and they were followed by 21 - 30 years at 34%. Those with 41- 50 years were at 12% while least below 20 years was at 4%. The least was over 50 years with 3%. This indicated that the employees at the risk sector in the supermarket were middle aged level.

4.2.3 Level of Education

The respondents were asked to indicate their highest level of education and the results are as shown in the Table 4.4.

Table 4.4: Highest Level of Education

Education	Frequency	Percent
Diploma	13	19
Bachelor's	36	53
Master	15	22
PhD	4	6
Total	68	100

The results indicated that most of the respondents had attained a bachelor's degree and this was represented by 53% followed by those with masters at 22 %. Further, those who had diploma were at 19%. The respondents who had PhD was the least with 6%. The level of education outcomes suggests that, the respondents were able to comprehend to the questions raised and give substantial reaction since they would be advised to understanding as guided by their level of instruction which for this situation majority share having graduate as their education level.

4.2.4 Job Position

The respondents were asked to indicate their job position in the place of service and the results are as shown in the Table 4.5.

Table 4.5: Job Position

Position	Frequency	Percent
Senior level manager	6	9
Middle level manager	26	38
Staff	36	53
Total	68	100

The results show that majority of the respondents were staff who represented 53% of the sample followed by middle level managers 38%%. The least was senior level managers who were at 9%. This indicated that the respondents were adequately distributed in the supermarkets.

4.2.5 Duration

The respondents were asked to indicate their job duration in the supermarkets service and the results are as shown in the Table 4.6.

Table 4.6: Duration

Duration	Frequency	Percent
Less than 1 year	10	15%
1-2 years	2	3%
3 -4 years	33	49%
5 years and above	23	34%
Total	68	100

The results indicated that most has worked in the supermarkets sector for 3-4 years as represented by 49% and followed by more than 5 years represented by 34%. Those who had worked in the supermarkets for less than 1 year were rated at 15% and the least was 1-2 years at 3%. The more the duration of work in a sector, is likely to reflect more experience.

4.3 Descriptive Statistics

This section presents the descriptive results on risk identification, risk monitoring, risk response, risk mapping and performance. For purposes of presentation, the results for strongly agree (5) and agree (4) were combined as agree while strongly disagree (1) and disagree (2) were combined as disagree.

4.3.1 Risk Identification

The first objective of the study was to explore the effect of risk identification on financial performance of supermarkets in Nairobi County. The study evaluated the respondents' level of agreement with the various statements on the risk identification using a scale of 1 – 5 where 5- strongly agree, 4- agree, 3- neutral, 2- disagree and 1- strongly disagree. The findings are as illustrated in Table 4.7.

Table 4.7: Risk Identification

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	S.D
Our supermarket has an active risk identification mechanism	4%	6%	7%	43%	40%	4.07	1.06
Our supermarket conducts evaluation on operational risks regularly	9%	6%	7%	34%	44%	3.99	1.25
Our supermarket asses regulatory risk in the market often	6%	9%	10%	27%	49%	4.03	1.22
Our supermarket has strategic risk mechanisms in place	6%	4%	12%	40%	38%	4.00	1.11
Our supermarket oversees credit risk regularly	6%	7%	4%	44%	38%	4.01	1.13
Average						4.02	1.15

Under risk identification, the respondents were asked if their supermarket has an active risk identification mechanism and 82% agreed while 10% disagreed with the statement. On whether their supermarket conducts evaluation on operational risks regularly, 78% agreed while 15% disagreed with the statement. The respondents were asked if their supermarket assesses regulatory risk in the market often and 75% agreed while 15% disagreed. On whether their supermarket has strategic risk mechanisms in place and 78% agreed while 10% disagreed with the statement. Lastly, the respondents were asked if their supermarket oversees credit risk regularly and 82% agreed while 13% disagreed with the statement. The overall mean was 4.02 that showed that majority agreed to the statements on risk identification with variations of 1.15.

4.3.2 Risk Monitoring

The second objective of the study was to explore the effect of risk monitoring on financial performance of supermarkets in Nairobi County. The study evaluated the respondents' level of agreement with the various statements on the risk monitoring using a scale of 1 – 5 where 5- strongly agree, 4- agree, 3- neutral, 2- disagree and 1- strongly disagree. The findings are as illustrated in Table 4.8.

Table 4.8: Risk Monitoring

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	S.D
Our supermarket has established adequate risk monitoring tools and techniques	6%	9%	7%	40%	38%	3.96	1.17
Our supermarket conducts surveillance of potential risks in the market	10%	4%	9%	29%	47%	3.99	1.30
Our supermarket conducts risk tracking for any potential market risks	7%	12%	7%	50%	24%	3.71	1.17
Our supermarket communication mechanism to relay information on any identified risk	13%	3%	4%	28%	52%	4.01	1.38
Our supermarket has technological risk evaluation platforms	7%	7%	2%	46%	38%	4.00	1.17
Average						3.93	1.24

On risk monitoring, the respondents were asked if their supermarket has established adequate risk monitoring tools and techniques and 78% agreed to the statement while 15% disagreed with the statement. On whether their supermarket conducts surveillance of potential risks in the market, 77% agreed while 15% disagreed to the statement. The respondents were asked if their supermarket conducts risk tracking for any potential market risks and 74% agreed while 19% disagreed. On whether their supermarket communication mechanism to relay information on any identified risk, 79% agreed while 16% disagreed. Lastly, the respondents were asked if their supermarket has technological risk evaluation platforms and 84% agreed while 15% disagreed to the statement. The overall mean was 3.93 that showed that majority agreed to the statements on risk monitoring with variations of 1.24.

4.3.3 Risk Response

The third objective of the study was to explore the effect of risk response on financial performance of supermarkets in Nairobi County. The study evaluated the respondents' level of agreement with the various statements on the risk response using a scale of 1 – 5 where 5- strongly agree, 4- agree, 3- neutral, 2- disagree and 1- strongly disagree. The findings are as illustrated in Table 4.9.

Table 4.9: Risk Response

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	S.D
Our supermarket has developed strategic options for risk response	4%	7%	9%	47%	32%	3.96	1.06
Our supermarket is able to precisely determine risk response actions	6%	9%	7%	43%	35%	3.93	1.15
Our supermarket has a threat reduction methodology to mitigate loss	3%	9%	2%	35%	52%	4.24	1.05
Our supermarket has expertise partners that are able to transfer risk out of the organization	12%	4%	7%	44%	32%	3.81	1.27
Our supermarket has risk response strategies guided by the types of risk	2%	9%	7%	52%	31%	4.01	0.94
Average						3.99	1.09

Under risk response, the respondents were asked if their supermarket has developed strategic options for risk response and 80% agreed to the statement while 12% disagreed. On whether their supermarket is able to precisely determine risk response actions, 78% agreed while 15% disagreed. The respondents were asked if their supermarket has a threat reduction methodology to mitigate loss and 87% agreed while 12% disagreed. On whether their supermarket has expertise partners that are able to transfer risk out of the organization, 77% agreed while 16% disagreed. Lastly, the respondents were asked if their supermarket has risk response strategies guided by the types of

risk and 82% agreed while 10% disagreed to the statement. The overall mean was 3.99 that showed that majority agreed to the statements on risk response with variations of 1.09.

4.3.4 Risk Mapping

The fourth objective of the study was to explore the effect of risk mapping on financial performance of supermarkets in Nairobi County. The study evaluated the respondents' level of agreement with the various statements on the risk mapping using a scale of 1 – 5 where 5- strongly agree, 4- agree, 3- neutral, 2- disagree and 1- strongly disagree. The findings are as illustrated in Table 4.10.

Table 4.10: Risk Mapping

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	S.D
Our supermarket conducts risk classification regularly	3%	2%	9%	49%	38%	4.18	0.88
Our supermarket is able to assess the probability of risk occurrence	10%	6%	7%	34%	43%	3.93	1.30
Our supermarket has a risk assessment platform for risk response	4%	9%	7%	37%	43%	4.04	1.13
Our supermarket has a priority schedule in addressing potential and existing risk	12%	4%	10%	40%	34%	3.79	1.29
Our supermarket has risk response mapping guided by the types of risk	19%	19%	13%	24%	25%	3.16	1.48
Average						3.82	1.21

On risk mapping, the respondents were asked if their supermarket conducts risk classification regularly and 87% agreed to the statement while 4% disagreed. On whether their supermarket is able to assess the probability of risk occurrence, 76% agreed to the statement while 16% disagreed. The respondents were asked if their supermarket has a risk assessment platform for risk response and 79% agreed while 13% disagreed. On whether their supermarket has a priority schedule in addressing potential and existing risk, 74% agreed while 16% disagreed to the statement. Lastly,

the respondents were asked if their supermarket has risk response mapping guided by the types of risk and 49% agreed while 38% disagreed. The overall mean was 3.82 that showed that majority agreed to the statements on risk mapping with variations of 1.21.

4.3.5 Performance

The dependent objective of the study was financial performance of supermarkets in Nairobi County. The study evaluated the respondents' level of agreement with the various statements on the performance using a scale of 1 – 5 where 5- strongly agree, 4- agree, 3- neutral, 2- disagree and 1- strongly disagree. The findings are as illustrated in Table 4.11.

Table 4.11: Performance

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	S.D
Our supermarket has increased Sales Performance over the last five years	2%	6%	41%	38%	13%	3.56	0.85
Our supermarket has increased Operational efficiency over the last five years	9%	6%	43%	35%	7%	3.26	1.00
Our supermarket has experienced improved customer service delivery over the last five years	13%	4%	29%	43%	10%	3.32	1.15
Our supermarket has experienced an increased market share over the last five years.	15%	2%	32%	43%	9%	3.29	1.15
Our supermarket has experienced increased customer base over the last five years.	6%	4%	41%	38%	10%	3.43	0.95
Average						3.37	1.02

Under performance of the supermarkets, the respondents were asked if their supermarket has increased sales performance over the last five years and 51% agreed while 7% disagreed. On whether their supermarket has increased operational efficiency over the last five years, 43% agreed while 15% disagreed. The respondents were asked if their supermarket has experienced improved

customer service delivery over the last five years and 53% agreed while 8% disagreed with the statements. On whether their supermarket has experienced an increased market share over the last five years, 51% agreed while 16% disagreed with the statement. Lastly, the respondents were asked if their supermarket has experienced increased customer base over the last five years and 49% agreed while 10% disagreed to the statement. The overall mean was 3.37 that showed that the respondents leaned towards neutral on the statements on performance with variations of 1.02.

4.5 Correlation Analysis

Correlation analysis was conducted to establish the relationship between the independent and dependent variables. The correlation matrix is presented in Table 4.11.

Table 4.11: Correlation Matrix

	Performance	Risk Identification	Risk Monitoring	Risk Response	Risk Mapping
Performance	1.000				
Risk Identification	.755** 0.000	1.000			
Risk Monitoring	.783** 0.000	.614** 0.000	1.000		
Risk Response	.716** 0.000	.573** 0.000	.666** 0.000	1.000	
Risk Mapping	.745** 0.000	.662** 0.000	.607** 0.000	.597** 0.000	1.000

The results in Table 4.11 revealed that risk identification and financial performance of supermarkets in Nairobi County are positively and significantly related (r= .755**, p=0.000). The results further indicated that risk monitoring and financial performance of supermarkets in Nairobi County are positively and significantly related (r= .783**, p=0.000). Risk Response and financial performance of supermarkets in Nairobi County are positively and significantly related (r= .716**, p=0.000). Lastly, results showed that Risk Mapping and financial performance of supermarkets in Nairobi County are positively and significantly related (r= .745*, p=0.000). This implies that an increase in risk identification, risk monitoring, risk response and risk mapping leads to an increase on performance of supermarkets in Nairobi County.

4.6 Diagnostic Tests

The diagnostic tests conducted included Multicollinearity Test, Test for Heteroscedasticity and Normality Test.

4.6.1 Multicollinearity Test

Multicollinearity test was conducted to determine if two or more of the predictor (independent) variables in the regression model was highly correlated. Variance inflation factor (VIF) were used to test multicollinearity and VIF of below 10 indicated acceptable limits. If the VIF value of exploratory variables are greater than 10, then variables were regarded as highly collinear.

Table 4.12: Multicollinearity Test Using Tolerance and VIF

	Collinearity Statistics	
	Tolerance	**VIF**
Risk Identification	0.479	2.087
Risk Monitoring	0.456	2.191
Risk Response	0.486	2.057
Risk Mapping	0.471	2.121
Average	0.473	2.114

From the findings above all the variables had tolerance values >0.2 and VIF values <10 as shown in Table 4.12 and thus according to Myres (2015) who indicated that where VIF ≥ 10 indicate presence of Multicollinearity, there was no multicollinearity among the independent variables.

4.6.2 Test for Heteroscedasticity

Heteroscedasticity is the circumstance in which the variability of a variable is unequal across the range of values of a second variable that predicts it. Running a regression model without accounting for heteroscedasticity would lead to unbiased parameter estimates. To test for heteroscedasticity, the Breusch-Pagan/Godfrey test was used. Heteroscedasticity test was run using Breusch-Pagan / Cook-Weisberg test in order to test whether the error terms are correlated across observations in the cross sectional of the data (Long & Ervin, 2000). The hypothesis was that;

H_1: The data is Homoscedastic.

If the p-value is less than 0.05, the hypothesis is rejected. Results are presented in Table 4.14.

Table 4.13: Heteroscedasticity Results

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity **Ho: Constant variance** **Variables: fitted values of Performance**		
chi2(1)	=	0.050
Prob > chi2	=	0.8254

Results in Table 4.13 show that the p-value is greater than the 5%. Then the hypothesis was not rejected at a critical p value of 0.05 since the reported Chi2 (1)= 0.050 and p-value was 0.8254>0.05 and thus the data did not suffer from heteroscedasticity.

4.6.3 Normality Test

Test for normality determines if the data is well modeled and normally distributed (linear). To test the normality of the variables, Shapiro–Wilk test was used as it has the highest power among all tests for normality. The hypothesis was tested at a critical value at 0.05, where the rule is that reject H_0 if the probability (P) value is less than 0.05 or else do not reject. The dependent variable should be normally distributed because the study was analyzed using a multiple regression model where the condition of normality must be satisfied (Quataroli & Julia, 2012). The hypothesis was that;

H_1: The data is normal.

The results for normality are as shown in Table 4.14.

Table 4.14: Normality Outputs

	Shapiro-Wilk		
Variables	**Statistic**	**df**	**Sig.**
Performance	0.980	113	0.339
Risk Identification	0.888	113	0.021
Risk Monitoring	0.960	113	0.300
Risk Response	0.950	113	0.091
Risk Mapping	0.939	113	0.252

The results indicate that using the Shapiro-Wilk test of normality, the data is normal since the p-values are above 0.05 for all the variables and thus we do not reject the alternative hypothesis (H_1).

Therefore, the variables on performance, risk identification, risk monitoring, risk response and risk mapping are normal in distribution and hence subsequent analysis can be carried out.

4.7 Regression Analysis

The study sought to carry out regression analysis to establish the statistical significance relationship between risk identification, risk monitoring, risk response and risk mapping on performance of supermarket chains in Nairobi County, Kenya. According to Chatterjee and Hadi (2015), regression analysis is a statistical process of estimating the relationship among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent and one or more independent variables. More specifically, regression analysis helps one to understand how the typical value of the dependent variable changes when any one of the independent variable is varied, while the other independent variables are held fixed (Gunst, 2018).

The results presented in Table 4.15 present the fitness of model used of the regression model in explaining the study phenomena.

Table 4.15: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.889a	0.791	0.778	0.30678

The variables risk identification, risk monitoring, risk response and risk mapping were found to be satisfactory variables in explaining performance of supermarket in Nairobi County, Kenya. This is supported by coefficient of determination also known as the R square of 0.791. This means that risk identification, risk monitoring, risk response and risk mapping explain 79.1% of the variations in the dependent variable, which is performance of supermarket. This results further means that the model applied to link the relationship of the variables was satisfactory.

The Analysis of Variance (ANOVA) results are shown in Table 4.16.

Table 4.16: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	22.433	4	5.608	59.59	.000
Residual	5.929	63	0.094		
Total	28.362	67			

The findings further confirm that the regression model of is significant and supported by F= 59.59, p<0.000) since p-values was 0.000 which is less than 0.05.

The study conducted a regression of coefficient analysis to establish the statistical significance relationship between the independent variables notably risk identification, risk monitoring, risk response and risk mapping on the dependent variable that was performance of supermarket.

The regression of coefficient results are as shown in Table 4.16.

Table 4.16: Regression of Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	1.082	0.147		7.342	0.000
Risk Identification	0.143	0.043	0.278	3.343	0.001
Risk Monitoring	0.251	0.062	0.343	4.027	0.000
Risk Response	0.132	0.059	0.183	2.218	0.030
Risk Mapping	0.150	0.052	0.243	2.895	0.005

$Y = 1.082 + 0.143X_1 + 0.251X_2 + 0.132X_3 + 0.150X_4$

Where:

Y = Performance of Supermarket Chains.

X_1 = Risk Identification

X_2 = Risk Monitoring

X_3 = Risk Response

X_4 = Risk Mapping

$\beta_{1....4}$= Coefficients of the variables

ε= Error term

The constant of 1.082 showed that when risk identification, risk monitoring, risk response and risk mapping are held constant, financial performance of supermarkets in Nairobi County will remain at 1.082 units. The regression of coefficients results shows that risk identification and financial performance of supermarkets in Nairobi County, Kenya is positively and significantly related (β=0.143, p=0.001). The results further indicated that risk monitoring and performance of financial performance of supermarkets in Nairobi County, Kenya are positively and significantly related (β= 0.251, p=0.000). The results further indicated that risk response and financial performance of supermarkets in Nairobi County, Kenya are positively and significantly related (β= 0.132, p=0.030). Lastly, results showed that Risk Mapping and financial performance of supermarkets in Nairobi County, Kenya were positive and significant (β =0.150, p=0.005).

4.8 Discussion of Findings

The objective of this study was to establish the effect of Enterprise Risk Management on financial performance of supermarkets in Nairobi County. The variables of interest were risk identification, risk monitoring, risk response and risk mapping on performance of supermarket in Nairobi County, Kenya. The pre-estimation tests conducted on Multicollinearity Test, Test for Heteroscedasticity, and Normality Test indicated that the underlying assumptions were fit for regression analysis.

The first objective of the study was to explore the effect of risk identification on financial performance of supermarkets in Nairobi County. Correlation results revealed that risk identification and financial performance of supermarkets in Nairobi County are positively and significantly related (r= .755**, p=0.000). Further, regression of coefficients results showed that risk identification and financial performance of supermarkets in Nairobi County, Kenya is positively and significantly related (β=0.143, p=0.001). This implies that a unitary increase in risk identification leads to performance of supermarket in Nairobi County, Kenya by 0.143 units holding other factors constant. The null hypothesis was therefore rejected that risk identification has no statistical significance on the financial performance of supermarkets in Nairobi County. The findings are similar to Rostami, Sommerville, Wong and Lee (2015) who investigated the

efficacy of different tools and techniques of risk identification and risk identification was found to be significant for projects' success; and it was established that it has a positive effect on the key parameters. Okogbuo *et al*., (2015) finds that risk identification is the process of determining risks that could potentially prevent the program, enterprise, or investment from achieving its objectives. Tchankova (2017) posits that if appropriately performed, risk identification ensures successful risk management as unknown sources of losses escalate into unmanageable occurrences with unforeseen outcomes.

The second objective of the study was to explore the effect of risk monitoring on financial performance of supermarkets in Nairobi County. Correlation results revealed that risk identification and financial performance of supermarkets in Nairobi County are positively and significantly related (r= .783**, p=0.000). Further, regression of coefficients results showed that risk monitoring and financial performance of supermarkets in Nairobi County, Kenya is positively and significantly related (β=0.251, p=0.000). This implies that a unitary increase in risk monitoring leads to performance of supermarket in Nairobi County, Kenya by 0.251 units holding other factors constant. the null hypothesis was therefore rejected that risk monitoring has no statistical significance on the financial performance of supermarkets in Nairobi County. The findings are in line with Mburu, Ngugi and Ogolla (2017) in their study on relationship between risks monitoring and control management strategy and supply chain performance among manufacturing companies in Kenya and established a positive significant relationship. Organizations monitor risk factors of importance on an ongoing basis to ensure that the information needed to make credible, risk-based decisions continues to be available over time. Ashraf *et al*., (2017) indicated that information derived from the ongoing monitoring of risk factors can be used to refresh risk assessments at whatever frequency deemed appropriate. Hampton (2015) study identified benefits of ERM as helping organizations to concentrate on the bigger picture since some risks are critical while others are unimportant, pursuit of upside of risk since many possible losses are accompanied by possible gains. A firm that does not only focus on profit maximization but also focuses on proper risk management is likely to be successful because profit maximization is constrained by risk.

Muchelule *et al*., (2017) found that in risk situations, monitoring only the security posture of information systems would likely not provide sufficient information to determine the overall risk being incurred by organizations. Thus, process-level risk response measures such as reengineering mission/business processes, wise use of information technology, or the use of alternate execution

processes, in the event of compromised information systems, can be major elements of organizational risk response plans.Nyaga (2014) found that, risk monitoring as part of ERM affects the performance of pension fund management firms in Kenya. The study also established that, risk response as an enterprise risk management practice does not affect the financial performance of pension fund management firms in Kenya. On the internal environment as a risk management practice, the study established a positive and a significant effect on financial performance. Enterprise risk management can reduce the corporate tax burden in the presence of convex tax schedules. Risk management is a critical element of business management though the benefits that it generates are often unseen.

The third objective of the study was to explore the effect of risk response on financial performance of supermarkets in Nairobi County. Correlation results revealed that risk response and financial performance of supermarkets in Nairobi County are positively and significantly related (r= 0. 716**, p=0.000). Further, regression of coefficients results showed that risk response and financial performance of supermarkets in Nairobi County, Kenya is positively and significantly related (β=0.132, p=0.030). This implies that a unitary increase in risk response leads to performance of supermarket in Nairobi County, Kenya by 0.132 units holding other factors constant. The null hypothesis was therefore rejected that risk response has no statistical significance on the financial performance of supermarkets in Nairobi County. The findings are consistent Aloini, Dulmin and Ponticelli (2012) who found risk response positively and significantly influenced performance. Yevgen and Wohlgemuth (2017) posited that the ultimate objective these decisions are either desired benefit maximization or to the effort required minimums Organizations can facilitate consistent responses to risk in alignment with risk tolerance levels by identifying default or preferred responses and formalizing or standardizing the approaches with which the organization evaluates and selects responses to different types of risk. Yao Zhang and Zhi-Ping Fan (2016) study provided an approach to solve the selection problem of risk response strategy in PRM. Marchwicka and Kuchta (2017) found that selecting the proper plan can minimize risks and maximize benefits. There are three ways of responding to risk, namely: risk retention risk reduction and risk transfer. Rahman Soofifard, Morteza Khakzar Bafrue (2017), presented a mathematical model that study the effect of the risk response reduction measures and the effect on each other, and also the capability of optimizing different criteria regarding the objective function depending on the type of project.

The fourth objective of the study was to explore the effect of risk mapping on financial performance of supermarkets in Nairobi County. Correlation results revealed that risk mapping and financial performance of supermarkets in Nairobi County are positively and significantly related (r= 0.745**, p=0.000). Further, regression of coefficients results showed that risk mapping and financial performance of supermarkets in Nairobi County, Kenya is positively and significantly related (β=0. 0.150, p=0.005). This implies that a unitary increase in risk mapping leads to performance of supermarket in Nairobi County, Kenya by 0.150 units holding other factors constant. The null hypothesis was therefore rejected that risk mapping has no statistical significance on the financial performance of supermarkets in Nairobi County. The findings are in line with Lagat (2017) who conducted a study on the effect of risk mapping on performance of retail chains and established a positive influence of risk mapping on the performance of retail chains was obtained. The risk evaluation positively influenced the performance of retail chains. The risk evaluation had positive relationship with performance of retail chains. The null hypothesis stating that there is no significant effect of risk mapping on performance of retail chains was rejected. Keitany (2016), in his study on the internal audit control function and its implication on risk mapping by external auditors, established that the extent of dependence on internal controls were insensitive to the strength of internal audit departments. McCord (2018), risk mapping of material misstatement at the financial statement level and also at the planning stage, clarifies the direction on performing a combined assessment of inherent and control risk, thus leaving the ability for the auditors to assess other risk factors in an audit.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study findings, its conclusions and recommendations, presented in consideration to the study objectives used to the effect of Enterprise Risk Management on financial performance of supermarkets in Nairobi County.

5.2 Summary of Findings

5.2.1 Risk Identification and Performance of Supermarkets

The first objective of the study was to explore the effect of risk identification on financial performance of supermarkets in Nairobi County. The overall mean for the descriptive statistics on risk identification showed that majority agreed to the statements on risk mapping. Correlation results revealed that risk identification and financial performance of supermarkets in Nairobi County are positively and significantly related. Further, regression of coefficients results showed that risk identification and financial performance of supermarkets in Nairobi County, Kenya is positively and significantly related. This implies that a unitary increase in risk identification leads to performance of supermarket in Nairobi County, Kenya. The null hypothesis was therefore rejected that risk identification has no statistical significance on the financial performance of supermarkets in Nairobi County.

5.2.2 Risk Monitoring and Performance of Supermarkets

The second objective of the study was to explore the effect of risk monitoring on financial performance of supermarkets in Nairobi County. The overall mean for the descriptive statistics on risk monitoring showed that majority agreed to the statements on risk monitoring. Correlation results revealed that risk identification and financial performance of supermarkets in Nairobi County are positively and significantly related. Further, regression of coefficients results showed that risk monitoring and financial performance of supermarkets in Nairobi County, Kenya is positively and significantly related. This implies that a unitary increase in risk monitoring leads to performance of supermarket in Nairobi County, Kenya. The null hypothesis was therefore rejected

that risk monitoring has no statistical significance on the financial performance of supermarkets in Nairobi County.

5.2.3 Risk Response and Performance of Supermarkets

The third objective of the study was to explore the effect of risk response on financial performance of supermarkets in Nairobi County. The overall mean for the descriptive statistics on risk response showed that majority agreed to the statements on risk response. Correlation results revealed that risk response and financial performance of supermarkets in Nairobi County are positively and significantly related. Further, regression of coefficients results showed that risk response and financial performance of supermarkets in Nairobi County, Kenya is positively and significantly related. This implies that a unitary increase in risk response leads to performance of supermarket in Nairobi County, Kenya. The null hypothesis was therefore rejected that risk response has no statistical significance on the financial performance of supermarkets in Nairobi County.

5.2.4 Risk Mapping and Performance of Supermarkets

The fourth objective of the study was to explore the effect of risk mapping on financial performance of supermarkets in Nairobi County. The overall mean for the descriptive statistics on risk response showed that majority agreed to the statements on risk mapping. Correlation results revealed that risk mapping and financial performance of supermarkets in Nairobi County are positively and significantly related. Further, regression of coefficients results showed that risk mapping and financial performance of supermarkets in Nairobi County, Kenya is positively and significantly related. This implies that a unitary increase in risk mapping leads to performance of supermarket in Nairobi County, Kenya. The null hypothesis was therefore rejected that risk mapping has no statistical significance on the financial performance of supermarkets in Nairobi County.

5.3 Conclusions

The study sought to effect of enterprise risk management on financial performance of supermarkets in Nairobi County. The study concluded that risk identification has a positive and significant coefficient with performance of supermarket. This positive coefficient for risk identification implied that an increase in risk identification will led to a significant increase on performance of supermarket. The study concluded that risk monitoring has a positive and significant coefficient

with performance of supermarket. This positive coefficient for risk monitoring implied that an increase in risk monitoring will led to a significant increase on performance of supermarket. The study also concluded that risk response has a positive and significant coefficient with performance of supermarket. This positive coefficient for risk response implied that an increase in risk response will led to a significant increase on performance of supermarket. Lastly, the study concluded that risk mapping has a positive and significant coefficient with performance of supermarket. This positive coefficient for risk mapping implied that an increase in risk mapping will led to a significant increase on performance of supermarket.

5.4 Recommendations

Based on the study findings, the following recommendations were made;

5.4.1 Recommendations for Policy

The study recommends that supermarkets should institute and nurture good enterprise risk management programmes. The programmes should encompass the design and institutionalization of appropriate risk management structures to effectively provide direction and oversight over the management of risks that affect such supermarkets. Enterprise risk management frameworks and policies should be defined and communicated across the supermarkets to widen the ownership and enhance responsibility and accountability for all staff in the management of risks within the supermarkets. A sustained campaign to improve on risk culture should be introduced in supermarkets coupled with regular risk management practices of risk identification, risk monitoring, risk response and risk mapping. The campaign should encourage communication of risks in an open, timely, and transparent manner and provide all key stakeholders with the relevant information that informs the decisions and norms of the supermarkets.

5.4.2 Recommendation for Practice

Enterprise risk management programmes should be supported by the top leadership team in the supermarkets. The support should be in the form of budgetary allocation and human capacity enhancements. Regular risk management trainings should be conducted to all staff of the supermarkets. The risk management programme should be monitored and assessed for progress on a continual basis to ensure the envisaged benefits are realized and sustained.

5.5 Limitations of the Study

The Coronavirus (COVID ’19) pandemic was a big threat to the researcher and this called for a change of approach of data collection. The use of an online questionnaire was affected especially in supermarkets due to their busy schedules.

5.6 Areas for Further Research

The study targeted large supermarkets in Nairobi County. Such companies due to enhanced public scrutiny and stiff regulatory requirements, are expected to have robust enterprise risk management programmes and may be inclined to positively affirm its benefits on performance. The assertion could be different for supermarkets without large chains. Therefore by expanding the target respondents to include smaller supermarkets can form an area for further research. The study considered enterprise risk management in totality as an independent variable; however there are a number of subsets of enterprise risk management such as corporate governance risk, strategic risk management, operational risk, business continuity risk, reputational risk, political risk, information technology and communication risk and regulatory risk. These subsets present an opportunity for further research to assess their influence on performance of supermarkets.

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APPENDICES

Appendix I: Questionnaire

Dear Respondent,

I am a researcher from the KCA University undertaking a study to examine the *EFFECT OF ENTERPRISE RISK MANAGEMENT ON FINANCIAL PERFORMANCE OF SUPERMARKETS IN NAIROBI COUNTY* as a requirement to fulfil my master's degree. The study is purely for educational purposes and any responses you give will be treated confidentially. You will be required to respond to the questions from Section A Section to D. Your honest response will be highly appreciated.

Section A: Background of Respondents

Kindly tick in the boxes as appropriate

1. What is your gender?

   I. Male_[ ]
   II. Female_[ ]

2. What is your age?

   I. Below_20 years
   II. 21years to 30years
   III. 31years to 40years
   IV. 41years to 50years
   V. Over 50years

3. What is your highest level of education?

   a. Secondary [ ]
   b. Diploma [ ]
   c. Bachelor's [ ]
   d. Master [ ]
   e. PhD [ ]

4. What is your position in the organization?

   a. Senior managers [ ]

b. Supervisors [ ]

c. Staff [ ]

5. How many years have you been in the retail sector?

a. Less than 1 years [ ]

b. 1-2years [ ]

c. 3-4 years [ ]

d. 5 years and above [ ]

Section A: Risk Identification

This section contains statements on risk identification in supermarket at Nairobi County, Kenya. Please express your agreement and disagreement by marking the appropriate box.

Use the scale where; 1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree 5= Strongly_ Agree

Statement	**1**	**2**	**3**	**4**	**5**
Our supermarket has an active risk identification mechanism					
Our supermarket conducts evaluation on operational risks regularly					
Our supermarket asses regulatory risk in the market oftenly					
Our supermarket has strategic risk mechanisms in place					
Our supermarket oversees credit risk regularly					

Section B: Risk Monitoring

This section contains statements on risk monitoring in supermarket at Nairobi County, Kenya. Please express your agreement and disagreement by marking the appropriate box.

Use the scale where; 1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree 5= Strongly_ Agree

Statement	**1**	**2**	**3**	**4**	**5**
Our supermarket has established adequate risk monitoring tools and techniques					
Our supermarket conducts surveillance of potential risks in the market					
Our supermarket conducts risk tracking for any potential market risks					
Our supermarket communication mechanism to relay information on any identified risk					
Our supermarket has technological risk evaluation platforms					

Section C: Risk Response

This section contains statements on risk response in supermarket at Nairobi County, Kenya. Please express your agreement and disagreement by marking the appropriate box.

Use the scale where; 1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree 5= Strongly_ Agree

Statement	1	2	3	4	5
Our supermarket has developed strategic options for risk response					
Our supermarket is able to precisely determine risk response actions					
Our supermarket has a threat reduction methodology to mitigate loss					
Our supermarket has expertise partners that are able to transfer risk out of the organization					
Our supermarket has risk response strategies guided by the types of risk					

Section C: Risk Mapping

This section contains statements on risk mapping in supermarket at Nairobi County, Kenya. Please express your agreement and disagreement by marking the appropriate box.

Use the scale where; 1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree 5= Strongly_ Agree

Statement	**1**	**2**	**3**	**4**	**5**
Our supermarket conducts risk classification regularly					
Our supermarket is able to assess the probability of risk occurrence					
Our supermarket has a risk assessment platform for risk response					
Our supermarket has a priority schedule in addressing potential and existing risk					
Our supermarket has risk response mapping guided by the types of risk					

Section D: Performance

This section contains statements on performance of supermarket in Nairobi County, Kenya. Please express your agreement and disagreement by marking the appropriate box.

Statement	1	2	3	4	5
Our supermarket has increased Sales Performance over the last five years					
Our supermarket has increased Operational efficiency over the last five years					
Our supermarket has experienced improved customer service delivery over the last five years					
Our supermarket has experienced an increased market share over the last five years.					
Our supermarket has experienced increased customer base over the last five years.					

Appendix II: Data Collection Letter

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KCAU/SGS/MSc/Sep.20/17 *Sep 22, 2020*

To whom it may concern,

Dear Sir/Madam,

RE: EDWIN MWALW'A MUNYALO REG. NO: 14/01260

It is my distinct pleasure to introduce to you Mr. Edwin Munyalo who is a student in our institution pursuing a Master of Science in Commerce at the School of Business and Public Management.

Edwin is conducting a research on a topic titled: "*Effect of Enterprise Risk Management on Financial Performance of Supermarkets in Nairobi County*" which is part of the requirements of the program he is pursuing. The research as well as the data procured thereof shall be used for academic purposes only.

Any assistance accorded to him is highly appreciated.

In case of further inquiry, do not hesitate to contact the undersigned.

Yours faithfully,

Dr. Nyaribo Misuko
Dean, School of Graduate Studies & Research