# ENTERPRISE RISK MANAGEMENT AND FIRM PERFORMANCE AMONGST FINANCIAL FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

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**A PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT OF THE AWARD OF MASTERS OF BUSINESSADMINISTRATION, UNIVERSITY OF NAIROBI**

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# DECLARATION

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

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# DEDICATION

Dedication goes to my late mother, Margaret AkeyoYienya.

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# LIST OF ABBREVIATIONS

**BOD –** Board of Directors

**CMA** – Capital Markets Authority

**COSO** – Committee of Sponsoring Organizations of the Tradeway Commission

**CRO** – Chief Risk Officer

**EPS** – Earning Per Share

**ERM** – Enterprise Risk Management

**ISO** – International Organization for Standardization

**MM** – Modigliani and Miller

**MPT** – Modern Portfolio Theory

**NPL –** Non Performing Loans

**NSE** – Nairobi Securities Exchange

**ROA** – Return on Asset

**ROE** – Return on Equity

**SPSS** – Statistical Package for Social Science

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## ABSTRACT

In the recent past, there has been an approach to risk management where risk is consolidated and managed for the entire organization at once unlike previously where risk were managed per departments or per projects. Enterprise risk management thus brings all the factors together to mitigate risks at once for the firm. Firm performance on the other hand allows for measurement of growth on the shareholders' value. The study adopted two objectives of finding out the existence of ERM practices amongst financial firms listed at the NSE and determining whether there was a relationship or not between ERM and firm performance amongst financial firms listed at NSE. The study used descriptive research design and considered the entire population of the seventeen financial firms listed at the NSE for a period of two years, 2017 and 2018. The study used secondary data. The data collected was analyzed by SPSS using descriptive statistics and Pearson's correlation analysis. The study findings revealed that whereas most firms adopted and disclosed the ERM practices in their annual integrated reports, there was no significant correlation coefficient between ERM and firm performance amongst financial firms listed at NSE.The study thus recommends that the management of the financial firms listed at the NSE should allocate very minimal resources in ERM implementation given that ERM has no influence at all on firm performance.

# CHAPTER ONE: INTRODUCTION

## 1.1 Background to the Study

A firmmight be exposed to various risks and the best method of mitigating this is through risk management. This is geared towards safeguarding the business from acute financial disruptions arising from unintended losses, and does this at a reasonable and predictable cost, (TRCP Synthesis13, 1995).There is an increasing debate on enterprise risk management where risk takes a corporate –wide view approach hence deviates from 'silo' system of managing risk individually.

The most persistent risk in banking sector has been high level of NPLs and low credit to private sector, reflecting elevated credit risks. Also,delayed payments by governments to contractors and suppliers as well as unfavorable business environment explain the elevated credit risk. High exposure to government bonds by banks posed both sovereign and liquidity risks. Adoption of financial technologies by banks brought with it heightened operational risks reflected in increased fraud (cybercrime) in 2018. The industry was also exposed to reputational risks in 2018 following incidences where some banks were penalized and others placed under investigations for processing money for persons linked to corruption, money laundering and terrorism financing(Financial Sector Regulators, 2019).

The study was underpinned by varioustheories which advances the concept ofERM and firm performance. The theories that were considered were theory of

enterprise risk management, Modern portfolio theory (MPT), corporate risk management theory and Modigliani and Miller Theory. The theory of ERM was advanced by Jankensgard, (2019). He suggests that firms' operations are conducted on behalf of shareholders independently by agents with motivations or behavioral prejudices leading to sub optimization of decisions on risk management. MPT which was advanced by (Markowitz, 1952) and aims at maximizing returns and minimizingrisk by cautiously choosing different asset.The third theory is corporate risk management theory which works best when the financial market is not perfect. However, it has been ascertained that firms that adopt mitigation measures to respond to areas where the market is not in most cases to ensure that the firm's value ismaximizedhence there is motivation to manage risks (Cummins, Phillips, & Smith, 1999).The fourth theory is Modigliani and Miller theory which advances the irrelevance of risk management to the firm. They further posit that under market perfections, the corporate capital structure is also irrelevant. The argument is, when there is value creation on the financing side of the statement of financial position when there are favorable returns on investment, then automatically operating cash flow increases, (Spricic, 2013).

By virtue of being under the supervision of CMA, Nairobi Securities Exchange (NSE) listed financial companies are required to implement robust ERM programs with the objective of guaranteeing its sustainability and improving the corporate value of the company over time(Oketch, 2019). This study was based on financial firms listed atNSE as this gives the apex of the firms in Kenya which have both access to internal and external financing. According to Okumu, (2013) just like

other securities markets, NSE enable firm to easily raise finance, while ensuring efficient capital allocation in an economy. They also contribute to price discovery, provide liquidity, assist in risk transfer, facilitate corporate governance, and a measure of company performance and this gives a better source of firms for this study owing that other studies in different countries have also been based on the listed firms in those countries.

Managing risk is becoming a significant business determinant and the shareholders have become more sensitive to risk. Risk may be a determinant of strategic decisions or simply included in the activities of the organization or it would be a leading factor of uncertainties in the organization.ERM gives a firm an opportunity to consider possibilities of all risk on all stakeholders, activities, product and services and processes, (The Public Risk Management Assosiation, 2010). Moreover, ERM gives the management of the firms' opportunity to align their strategic goals with enhancing the shareholders' value thus coming up with implementation plans and constant reviews to ensure that the results are achieved to the optimal at minimal cost.

### 1.1.1Enterprise Risk Management

Enterprise risk management is "a process effected by the 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 risk to be within the risk appetite, to provide reasonable assurance regarding the achievement of entity objectives"(Moeller, 2007). According to Casualty Actuarial Society, (2019), ERM is a practice in which organizations have

the opportunity to recognize and prioritize serious risks that affects them, being able to quantify the extent to which these risks have on financial and futuristic and long term objectives, and implementing financial and organizational solutions to address them. ERM can also be defined as the aspect where firms in whatever industry can make an assessment, conduct control activities including exploitation of possible financing mechanisms andmonitors the risksarising from different dimensions with an intention of enhancing the strategic plansof the organization's short term and long-term values to its stakeholder.(Casualty Actuarial Society Forum, 2003).From the foregoing definitions, it is clear that ERM coagulate all the risk together, explore the extent to which those risks would affect the firm thereby crafting adequate measures to curb them and then setting strategies at reasonable cost to mitigate all the risk at a go. While doing this, the process should be run concurrently with monitoring events so that any deviations are corrected early enough.

ERM framework is aimed towards achieving organization risk objectives through the eight risk component which include; internal environment which outlines the background from where other components in an organization's ERM modelis underpinned by providing a mix which is beneficial and sustainable, providing a step by step strategies and objectives guiding the establishment of how these should be done, how risk-related business activities are structured such that the firm value is optimized, and the means by which identification of risks is done and corrective actions taken by the management and all other parties involved in risk management. (Moeller, 2007). Another component of risk framework is objective

setting which defines the prerequisites that needs to be put up first before management can establish an effective ERM environment. Event identification which encompasses all those things that happen either externally or internally to the organization, that influences how the execution of the ERM futuristic plans or the achievement of its objectives.

Risk assessment allows an organization to make consideration to which extent potential risk-related events may have on how an organization has achieved its objectives(COSO, 2004). In risk assessment, the management of the firm need to ask "what if" questions so that they are able to review adequately the planned path of action and the ultimate outcome. Risk response is a management responsibility where by it conducts critical review of potential risk likelihood and probable impacts while at the same time keeping in mind cost benefits outcomes to enable the firm develop the most suitable strategies for risk response. Control activities are the guidelines and procedures that are essential to carry out the risk responses which have been identified.In this, the management need to keep on realigning the deviations to fit in the planned operations. The information and communication component of COSO, ERM is the progression of the framework that joins together each of the other components and lastly, the monitoring component that is critical in determiningwhichparts of the ERM implemented by a firm progressively work effectively.

ERM deviates from silo approach of risk management as it considers risks from a firm's view pointas opposed to concentrating on the individual risk at different business or functional levels, ( Risk and Insurance Management Society, Inc.,

2010).Measuring ERM entails review of the proportions of key risks being monitored, areas involved in risk assessment, risk mitigated and systematic risks identified therefrom,(Minsky, 2012). ERM vouches for a universal view of managing risk, risk management understanding options and being on the lookoutso that there is an assurance that any risk information is utilized to support decision making and best management practices. The belief is that, ERM will assist the firm in focusing in the most relevant risk thus achieving both strategic and operational organization's objectives. This study took an investor's point of view thereby exclusively relied on the published financial reports to assess disclosure of risk management practices.

### 1.1.2FirmPerformance

Financial performance iswherefinancial activities in a firm are conducted. Elaborately, it indicates how far a firm's fiscal and economicgoals are directed towards being or has been fulfilled,(Trivedi 2010). It's a process that involves measuring firm's operations and policies in monetary terms thereby measuring the overall health of financial position of a company over a particular period of time while at the same time it can also be used to cross-sectionally or longitudinally compare firms or sectors in aggregation.Aktan and Bulut (2008) define financial performance as "a firm's ability to generate new resources from day to day operations over a given period of time. They add that the financial performance measures can be divided into two major types: traditional measures based on accounting/financial data (i.e. the effect of actions on one year's profits, ROI, ROE, etc.) which reflect a firm's past performance and market-based measures

derived from stock market values (i.e. Economic Value Added [EVA] and Market Value Added [MVA] approaches) which are based on valuation principles". Aleem et al. (2011) on their part considered financial performance from the perspective on how best a firm is putting into use its available resources to generate income, profits or how an organization has successfully achieved its financial objectives.

Having a well-structured working and reliable ERM program in an organization is viewed from the point of it giving the firm a competitive advantage thus leading to value maximization and a positive progress of the firm's goals.Augustina and Baroroh, (2016) postulate that when firm performance goes up,this is as a result of increase in shareholders fund which in most cases valued by price to book value. It is noted that the higher the firm performance, the more successful the owners are as this ratio shows the willingness of investors to buy stocks with price at above or below the face value. Moreover, firm performancein the perspective of creditors and investors is very essential as this provides guidance in selecting and providing credit to the firm.

Different scholars adopted different ways in their studies to measure firm performance. Wu et. al., by using least square regression on firm's debt level, size and growth opportunities. While Manab and Ghazali, (2013) used earning per share (EPS) and regression analysis. Augustina and Baroroh, (2016) adopted a ration of price to book value in emphasizing that the firm perfomance is reflected in the stock market prices. The firm performance in this research wasmeasured using return on assets whichSofyan, (2001) explains to be a proportion ofnet

income to total assets. The greater the ratio, the better the firm's return resulting into a better performance for the firm. The firm managers should thus aim at putting in place the ERM practices that will enhance this ratio while at the same time still operating at the firm's reasonable capacity.

### 1.1.3 Enterprise Risk Management and Firm Performance

ERM concept is that all firms - profit, nonprofit and government agency adds value to its holders (COSO, 2004). Although shareholders' value has been emphasized as the most momentous influence on ERM execution by many scholars, (Kimotho, 2015); (Cheplel, 2013); (Roba, 2013), the increase in shareholders' value doesn't automatically denote that firm's risk management program has been magnificently implemented and the set goals achieved. Moreover,ERM contributes to shareholders value and consequently offer opportunities for competitive advantage to companies enabling them to achieve superior ratings and adherence to solvency regulation(McShane, Nair, & Rustambekov, 2011).

AccordingtoBartram (2000), the role of risk management on performance to the firm owners has been discussedwidely.Wu, et.al., (2014) study results showed the association between ERM and firm value falls below statistical significance. Consequently, Quona, Zeghala and Maingota, (2012) study results were not statistically significant for all the eight parameters hence one could not make a conclusion that the evaluated economic status and risk exposure which affects the market have an association with firm performance.Nickmanesh, et.al, (2013)showed that ERM has significant and positive impacts on firm value and

further revealed that the relationship between risk management committee and firm value was significantly negative.Akpan,Obalola and Olufemi, (2014) reported a differing individual association of the ERM indicatorsand firm performance but there was a replica effects amongst the study parameters and ERM.Mugenda, Momanyi and Naibei, (2012) indicated a higher positive relationship between risk management practices and performance.Nyagah, (2014) concluded that in Kenya, there is a substantial influence of ERM practices on pension funds financial performance.Yegon, Mouni, and Wanjau, (2014) and Waweru and Kisaka, (2013) indicated a substantialconnection between ERM execution and the firm's value.

### 1.1.4 Financial Firms Listed at Nairobi Securities Exchange

This research subjects were the financial firms listed at the NSE which include those in both banking and insurance sectors. These sectors had seventeen listed companies, eleven in banking and six in insurance sector(Nairobi Securities Exchange, 2019).

The central bank of Kenya as the regulatory authority, non-bank financial institutions, deposit taking micro-finance institutions (MFIs), commercial banks and foreign exchange bureaus constitutes the banking sector in Kenya,(Central Bank of Kenya, 2018). Central Bank of Kenya is tasked with formulation and implementation of monetary and fiscal policies that guides the operations within the industry.The sector thus boasts of a very robust system under highly regulated framework with checks and balances that ensures customers funds are adequately safeguarded and utmost integrity maintained.

The insurance regulatory authority (IRA) is the regulator of insurance sector in Kenya. IRA's mandate is tofoster growth in the insurance sector in Kenya together with regulating and supervising the industry in the country. Other than insurance firms, IRA oversees the operations of other key players such as reinsurance companies, insurance brokers, insurance agents, motor assessors, insurance investigators, insurance surveyors, loss adjustors, claim settling agents and risk managers(Insurance Regulatory Authority, 2019). Insurance sector plays a pivotal role in the economy of indemnification whenever there is an insured loss. This keeps the businesses and other customers going should a misfortune befall them.

Nairobi securities exchange provides a trading platform and oversees the operations of its listed firms. The listed firms through CMA, have been issued with guidelines which ensures that listed companies comply to good corporate governance practices which includes ERM.The listed companies are required by the guidelines to establish effective ERM policies and processes that are monitored by a risk management function comprising of experienced and suitable qualified professionals (Capital Markets Authority, 2012).

## 1.2 Research Problem

The survival, sustainability and achievement of any firmdepend on its capacity to effectively identify, manage and control its risk. Although shareholders' value has been emphasized as the most momentous influence on ERM execution by many scholars,(Kimotho, 2015; Cheplel, 2013; Roba, 2013), the improvement in firm performance does not necessarily mean that the organizational risk management

program has been successfully implemented and has achieved the objectives. Moreover, ERM contributes to firm's performance and similarly offer opportunities for competitive advantage to companies enabling them to achieve superior ratings and adherence to solvency regulation (McShane, Nair, & Rustambekov, 2011). The contribution of ERM to firm performance has been discussed widely, hypothetically, ERM has value additive to a firm, nevertheless there is divergenceviews among researchers on whether ERM adds value to an organization that implement it or not. The scholars that advance that ERM influences firm's performance positively include (Yegon, Mouni, & Wanjau, 2014; Nyagah, 2014; Waweru and Kisaka, 2013; Hoyt, Moore, & Liebenberg, 2008 and Mugenda, Momanyi, & Naibei, 2012). The second group of scholars establishedan inverserelationshipof ERM on firm performance and they are, (Quon, Zeghala, & Maingota, 2012 and Tahir & Razali, 2011). Another group presented mixed and inconclussive results on the association of ERM and firm performance lead by Nickmanesh, et.al., 2013; Wu, et.al, 2014; and Obalola, Akpan, & Olufemi, 2014.

The firms in financial sector, by virtue of being under the supervision of CMA, CBK, IRAare required to implement robust ERM programs with the objective of guaranteeing its sustainability and improving the corporate value of the company over time (Oketch, 2019). ERM in Kenya has been reported to be ineffective or inadequate as most organizations have felt that due to evolving nature of risk, their organizational risks are increasing (Deloitte and Touche, 2012). The study was based on financial firms listed at NSE as this gave the apex of firms in Kenya

which function under a regulatory framework.ERM implementation has been undertaken in Kenya due to legislation and regulatory drive like, CMA legal notice No. 3362 of 2020 on corporate governance, Treasury Circular No. 03 of 2009 standards and best practices, technology and skills. Despite this progress, there is still mixed results on whether implementation of ERM would improve firm performance.

Various researches have been done and these includes a study by (Mugenda, Momanyi, & Naibei, 2012) on “implications of risk management practices on financial performance of Kenyan sugar manufacturing firms”whose results indicated a positive relationship between risk management practices and performance. This study however was not able to address the all-inclusivemethod to risk and the firm performance as it only selected a particular category. Yegon, Mouni, & Wanjau, (2014)subsequently conducted a study on how ERMis affected by the firm size of firms listed in Kenya and their result indicated a direct correlation between firm size and improvement in efficiency of ERM. This study though was done within the NSE listed firms missed out on the firms’ performance, consequently they had ERM as their dependent variable while this research’s independent variable will be ERM.Waweru and Kisaka, (2013) conducted a study which used size of the firm, industry in which the firms operated, independence of the board, appointment of CRO as its variables found a significant relationship between a company’s level of ERM implementation and the firm’s value. The studies by Yegon, Mouni, & Wanjau, (2014) and Waweru and Kisaka, (2013) even though conducted within the NSE listed firms, significant

research period has elapsed resulting into diferrent economic times and ERM implementation levels, thus this creates an academic void that needs to be filled. With the studies above, it is evident that there is a void that this researchsought to fill, therefore the research sought to respond to the research question: “What is therelationship between ERM andfirms’ performance amongstfinancial firms listed at NSE?”

## 1.3 Research Objectives

This study’s objectives were:

i. To find out the existence of ERM practices amongst financial firms listed at the NSE.

ii. To determine whether there is arelationship or not between ERM andfirm performanceamongst financial firms listed at NSE.

## 1.4 Value of the Study

The outcome of the study should enable other related researchers to adopt strategies for effective social research. Outcome of the research can be used as reference and also use the data as a source of secondary data while conducting research within the same field. The study findings may affirm or contradict the results of some previous studies while at the same time it’s hoped that it will generate new knowledge in the area of ERM among the listed financial firms at the NSE.

The research findings were expected to help the firms’ management allocate resources appropriately depending on how ERM would influencethe firm

performance. If the results indicate a positive relationship, then more resources would be allocated towards the ERM implementation, otherwise very minimal resources would be allocated if the ERM implementation has a negative or no influence at all on firm performance. The study findings were expected to help the investors understand the influence ERM would have on the firm performance. This is key to the investors as the return on their investment is in the firm performance hence would vouch for enactment of ERM depending on the value added.

There was anticipationthat the results of this research would be important to the government of Kenya in establishing papers that guide policy administration, information surrounding taxation and additionalrelevant regulatory requirements of firms in Kenya. Depending onthe outcome, those in charge of formulating policies would gain intuition on how best to integratedifferent sectorssuccessfully to ensure effective prevention of risks for the well-functioning of the economy in Kenya with an aim of improving the performance of the individual investors in the firms thus improving the Kenyan economy at large.

# CHAPTER TWO:LITERATURE REVIEW

## 2.1 Introduction

The sectionthat follows illustrated the literature associated with the topic of such and in particular discussed related study theories, prior literature on the topic and finally summary of the literature and research gap.

## 2.2 Theoretical Review

This segment of theresearch elaborated on the literature on the enterprise risk management and firm performance amongstfinancial firms listed at the NSE. The focus of this sectionwas to institute a solid foundation for the prior study, illustrating the basic problems of the analysis. The study was underpinned by various theories that advance the concept of ERM and firmperformance. These theories were;theory of enterprise risk management, Modern Portfolio Theory (MPT), corporate risk management theory and Modigliani and Miller theory.

### 2.2.1 Theory of Enterprise Risk Management

This theory was advanced by Jankensgard, (2019). He suggests that firms' operations are run independently by agents who have motivations or behaviourial prejudices leading to sub optimization of risk management decisons resulting into either over-management or under-management.However, in the firms, there exist management board who ideally should be risk neutral, have shareholders interest and work towards achieving the objective of maximizing owners' interest.The directors should be educated about the risk and understand the risk management

where powers and responsibilities are delegated. However, due to the centralizeddecision making by the firm management, the boardis insufficiently informed about the risk that the individual departments are exposed to and possible ways of overcoming the risks, and therefore cannot assess the overall risk outline of the firm –this is known as corporate risk management information problem. Whereas the management implement the holistic potential risk the organization might be exposed to, the board will embrace checking mechanisms and motivation systems so that the agency problem is addressed. Due to these circumstances in order to conduct both risk governance and risk management, the board will employ different strategies for risk management equivalent to the agency cost and information risk managemnet problems in the firm. The board will ensure cost effectiveness so as to have a trade off between the economic cost of capital employed to mitigate the risk and the various costsrelated to financial distress.

Enterprise risk management theory thus tries to solve the agency problem which was illustrated by Jensen and Meckling (1976) by introducing the risk governance. Risk governance is defined as "a set of mechanisms by which the board of directors ensures that managers, at all levels of a decentralized organization, undertake the risk management decisions that are in the best interest of the company", (Jankensgard, 2019, p.20). In order to achieve successful risk governance, the motivations and behavioural prejudices of managers should not overide the long term objectives of firm's performance.

### 2.2.2 Modern Portfolio Theory

MPT is a theory that endeavours to ensure maximumanticipated returns froma portfolio for a particular amount of basket of investments risk or ensures that the risk is at its lowest point for any expected returns at whatever levelby picking the parts of different investments(Christopher,Omisore & Yusuf 2012).This theory was advanced by Harry Markowitz in 1952 and it offers answers to risk-averse investors in portfolio choices. According to Reilly and Brown, (2011) optimal portfolios have mean-variance-efficient and they always have the least risk for a particular return.

Enterprise risk management brings forth the theoretical concept of MTP beyond financial risk to include all other risks that a firm may face. Aziz, Manab, and Othman (2015) recognized that there is a connection between ERM and MPT and further argued by Miccolis (2003) that the discipline and practiceof ERM is deeply derived from MPT and that the principle of ERM is very much the manipulation of the 'portfolioeffect' described by MPT.The MPT however contradicts ERM in that investors are not concerned with firms' specific risk since these risks within a portfolio can be easily eliminated through diversifying the assets in the portfolio, and this the investors can do by themselves and do not need the firm to do for them.Additionally, ERM vouches for additional spending in setting up ERM system and process and this erodes the investors' value.

### 2.2.3 Corporate Risk Management Theory

Corporate risk management theory is elucidated when the financial markets are not perfect. When the market is not perfect, some firms take steps to manage risk

in order to enhance the shareholders' value hence there exist aninspirationin such circumstances to manage risks (Cummins, Phillips, & Smith, 1999). However, some managers would want to capitalize on theirpersonal efficacy instead of making the most benefit for the entity. Firms which are not in the financial sector but want to maximize their values participate in hedging activities for risk management and get this encouragement from the corporate risk management theory.

ERM provides an opportunity for management to excellently deal with risk thus identifying associated opportunities, allowing a utility to realize operational efficiencies, reap financial gains and achieve lasting competitive advantages.

### 2.2.4Modigliani and Miller Theory

This was developed by Modigliani and Miller (1958) in theirprominent and highly talked about theorem where they proposed that, in a perfect market universe with complete information, decisions on financial matters are irrelevant since they don't change the value of investors wealth in the firm and that the only way of increasing shareholders' wealth is by increasing the firm's asset value through increased net cash inflows. They assert that neither the risk management decisions nor the capital structures have an influence on investor's wealth. This concept is however contradicted by (Gossy, 2008;Mozumdar, 2001) who asserts that when all risks can be interchanged perfectly with one another, the firm maximizes shareholder value by completelyadopting hedgingpractices.

According to this theory, corporate financial decision does not influence firm performanceas such decisions would re-distribute the income streams amongst various shareholders. Provided that all the investors can act simultaneously on the new information provided in the capital market as the firm itself, firm performance can only then be influenced by the expected cash flow levels. Given that ERM is included in the overall financing policy of a firm, we can conclude that the results by MM have a vital implication for the firm ERM strategy.It is worth noting however that under the MM preposition, investors' wealth status is not affected by the activities conducted by the organization to manage risk. Since risk management involves purely financial transactions, MM followers would not allocate resources for risk management (Gossy, 2008).There are numerous circumstances under which corporate risk management would make more economic sense; these circumstances when adopted as points of reference while at the same time acknowledging the factors surrounding the firm, then MM preposition becomes very relevant.

## 2.3 Empirical Literature Review: Enterprise Risk Management and Firm Performance

Several publications on risk management in generalhave been done. Nevertheless, most of these empirical studies on enterprise risk management practices have been in different sectors in different geographical areas over varied time period. The following is a summary of selected studies' main conclusions.

The studies that have been conducted as regards enterprise risk management in various parts of the world have shown mixed and inconclusive results. When

using ROE as proxy for firm value, Wu, et.al, (2014) conducted a research on insurance industry in China investigating how firm values relates with ERM.On a Pearson correlation matrix, the results initially indicated statistically significant association between ERM and firm value but later fell below statisticallysignificance on a closer analysis through regression analysis.This study's findings were similar to those of (Nickmanesh, et.al., 2013) and share contextual similarities with Hoyt, Moore and Liebenberg (2008).

Quon, Zeghala andMaingota, (2012) study entitled enterprise risk management and firm performance in Canada in 159 non-financial firms between years 2007 and 2008.The results were not statistically significant for all the eight parameters hence one could not conclude that the assessed consequences, economic levels and market risk exposures are related to firm performance. Even though this was not in financial sector, it further showed mixed and unexpected results.

Another study which was conducted in Vietnam by (Kommunuri, Narayan, Wheaton, & Jandug, 2016) with the objectives to find out if Vietnamese firms have adopted adequate ERM practices, and if these firms carry out these implementations and at organizational level and to ascertain if the ERM implementation has any means of improving firms performance and value. Their findings showed that the statistical results werestrongerfor the benefits of effective ERM implementation in the country. The findings also noted that some firms incurred high cost in implementing ERM thus resulting to a negative impact on performance.Consequently, (Altanashat, Dubai, & Alhety, 2019) findingindicated that the improvement of firm performance of Jordan extractionpublic shareholding

companies were influenced by an elaborate enterprise risk management activities put forth by these firms and further showed that ERM implementation had influenced organization performance significantly.

Hoyt, Moore and Liebenberg, (2008) conducted studyentitled"the Value of Enterprise Risk Management: Evidence from the U.S. Insurance Industry" revealed that there exists a positive relationship between firm value and the use of ERM. This study results were consistent with those of Nickmanesh, et.al, (2013) conducted a research on enterprise risk management influences performance in Malaysia amongst 175 companies that are listed in Bursa Malaysia. The study used descriptive statistic, Pearson correlation and regression analysis. The findings showed no significance on size of the board and board members financial background on ROA. However, there was a positive and significant relationship on the number of non –executive board members on ROA. Additionally, this study showed a significantly inverse relationship between the two parameters. Evidently, with these mixed results on different parameters, a further research is required.Gordon, Loeb, and Tseng, (2009) study findings emphasized that the relationship between ERM and firm performance majorly rely on the circumstances under which best mixes between ERM and the factors that would impact on the firm's implementation of the ERM. This however should be undertaken within the firm's contextual surrounding the firm.

Wan, Norhayate, and Yazid, (2010)research entitled "the effect of chief risk officer on enterprise risk management practices: evidence from Malaysia" was interested in finding out how much ERM has been adopted amongst the listed

firms in Malaysia studying 500 firms. This study finding revealed that only less than half of the firms have completed adoption of ERM. Further results showed that quality of ERM has a strong influence on the level of ERM implementation within the firm. Another aspect of ERM was conducted by Daud, Haron, and Ibrahim, (2011); the study was to evaluate the relationship between the qualities of board of directors in comparison with the level of ERM adoption within the participating firms in Malaysian Bourse. The study returned a positive correlation between the qualities of BOD on the level of ERM adoption. The study findings affirmed that whenever there exist a strong board of directors with good insight in risk management, then that would translates to a better ERM implementation and adoption of the firms strategies.

Tahir andRazali, (2011) investigated on “the relationship between enterpriserisk management and firm value: evidence from Malaysian public listed companies”. This study was based on 207 out of 528 companies. The results did corroborate the proposition that firms which implement ERM tend to show a higher Tobin’s Q ratio than firms which are not. In performance measurement, this study is consistent with Waweru and Kisaka, (2013) and Smithson and Simkins (2005). Another study conducted in Malasyia by (Rasid & Golshan, 2017) revealed a contrary results to this of Tahir and Razali (2011) as they found out that ERM adoption does not positively influence organizational perfomance.

In Indonesia, (Iswajuni & Manasikana, 2018) found out that firm value increases as firm size, ROA and ERM improves. This investigation was conducted amongst thelisted firms in the Indonesian Stock Exchange between years 2010 and

2013.This study results conforms with those of (Saiful, 2017) entittled “Enterprise Risk Management, Corporate Governance and Firm Value: Empirical Evidence from Indonesian Public Listed Companies” which was conducted over the same period amongst 110 companies in Indonesiaconcluded that implementaion of ERM had a positive influence on the firm value. However, a study in the same country by (Augustina & Baroroh, 2016) showed a contrary results that there was no major impact of ERM implementation on the firm’s profitability and value. Effectively, these findings sent a signal to the managemnet of the firms that even though ERM is a good practice, they should be cautios on its implementaion so as to safeguard the shareholders’ value.

Anton, (2018)did a study within the non-financial firms in Romania investigating how enterprise risk management impacts on firm value andfound mixed results on ERM implementation. The study was conducted between 2001 and 2011. The results of the initial set of data 2001 – 2007 revealed that the firm value as measured by Tobin’s Q was higher at a premium of roughly 46.5 %, for the firms that hadimplemented ERM. However, when the period was extended to 2011, the findings showed that ERM had noeffect on the firm value in any significant manner. This was echoed by (Alawattegama, 2018) whose study results indicated when the eight ERM parameters were analyzed, not even one of them impacted on the firm value significantly.

Florio and Leoni, (2017) conducted a study in Italy entitled “Enterprise risk management and firm performance: The Italian case” and the results showed that higher performance is present in firms that have advanced levels of ERM

implementation. According to this study, there is motivation to implement ERM practice. The resources that a firm would put in would not go in vain as it is viewed that the more advance the implementation is, the better and higher the firm performance. This further portrays the mixed and inconclusive results on whether there exist a relationship between ERM and firm performance.

Obalola, Akpan and Olufemi, (2014)in their study on "the relationship between enterprise risk management and organizational performance: evidence from Nigerian insurance industry" by selecting ten general insurance companies from 49 firms whose operations is in Nigeria adopting a panel data for a ten-year period of 2001 to 2010. The findings of their research showed that when the parameters were analyzed togetherthere was relationship among ERM variables and organizational performance though;there was a difference on the individual relationship components. Since the study was entirely based on insurance companies, it adopted loss ratio as a measure of performance for the firms.

In the local arena, some studies have been conducted and these include a study by Mugenda, Momanyi and Naibei, (2012) who aimed at looking at how financial performance of firms that manufacture sugar in Kenya would be affected by the risk management practices. The results indicated a strong positive relationship between risk management practices and firm performance.These findings thus assert the necessity for implementing ERM.

Gachanja, (2017) studied enterprise risk management practice and performance of selected commercial state corporations in Kenya. The findings of this study

indicated that ERM practice was popular among commercial state corporations and which was practiced most in identification of key risk indicators.This study portrays an increasing interest in ERM implementation not only amongst the private sector but also in the governmental sectors. Despite this move, the benefits of ERM implementation is still varied as the researcher sighted weak framework. This study however will major on the firms listed at the NSE.

Nyagah, (2014) conducted a study to determine the level of implementation of enterprise risk management by pension fund management firms in Kenya amongst the 19 registered pension fund management firms in Kenya by July 2014. The research findings established that enterprise risk management practices influence the financial performance of pension fund management firms in Kenya to a very large extent. In her study she measured firm performance using return on asset which is a ratio of income to total assets; this is consistent with my study, however this research concentrated on banking and insurances firms listed at the NSE.

Yegon, Mouni, andWanjau, (2014) subsequently conducted a study on effects of firm size on enterprise risk management of 33 listed firms in Kenya.The result indicated that there was a high correlation between firms' characteristics and enterprise risk management revealing that there was a proportionate increase in firm size to the efficiency of ERM. These resultswere consistent with those of Gordon, Loeb and Tseng (2009) who concluded that there was a relationship between ERM implementation and the firm size. However, they used ERM as a dependent variable while my study used it as independent variable.

Waweru and Kisaka, (2013) conducted a study which used size of the firm, industry of operation, board independence, appointment of Chief Risk Officer as its variables amongst a sample of 22 firms listed at the NSE. The study findings indicated a significant relationship betweenorganization's level ofenterprise risk management implementation and the company's value. The findings of this research further showed that companies that had a positive impact on their values had shown an increase in implementation of ERM.In their study, they adopted Tobin's Q as a proxy for firm value and used different elements for ERM. This study will adopt proxies for disclosures of ERM practices in the financial reports and ROA as a measure of the firm performance.

## 2.4 Summary of Literature and Research Gap

As per the reviewed literature above, it is clear that ERM has been used interchangeably both as dependent (Yegon, Mouni, & Wanjau, 2014)and independent variable(Wu, et. al., 2014; Quon, Zeghala, & Maingota, 2012; Nickmanesh, et.al., 2013). ERM has also been used in different context, for instance (Hoyt, Moore, & Liebenberg, 2008; Obalola, Akpan, & Olufemi, 2014), conducted a study in the financial sector specifically insurance industry while (Nyagah, 2014) did her study on pension funds in Kenya. Mugenda, Momanyi, and Naibei, (2012) conducted their research on sugar manufacuring firms in Kenya. Where as these different contexts might experience similar risk across board, they at the same time have unique risk to their respective industries thus resulting to inconclussive and mixed results.

# CHAPTER THREE: RESEARCH METHODOLOGY

## 3.1 Introduction

This section discussed the methodology the researchused, which includes the research design adopted, populationof the study, data collection instruments and procedures and finally data analysis.

## 3.2 Research Design

Descriptive research design was used in this study. According to Mugenda and Mugenda, (2008), this type of design is useful as it completes the description of the situation thus ensuring minimum prejudice in the data collectionand also reduces errors in interpreting data collected. This research useddescriptive research design since it provided adequate and reliable data for analysis. In order to establish the relationship between ERM and firm performance, the study adopted inferential statistics by use of Pearsons correlation.

## 3.3 Population

All the listed financial firms at the NSE as at December 2018 were the target population for this research. These wereseventeen firms in total. The whole population was selected thus the research was a census study.

## 3.4 Data Collection

The research data was from the secondary datain thisstudy. These data were collected by use of secondarydata capture form as attached in appendix Ifrom published financial reports and other documents from thefinancial firms listed at

the NSE for two years; year 2017 and 2018. The researcher did a desk review of the financial reports together with any other relevant documents obtained from the website of those firms. The secondary data was considered most suitable for the study since the study took an investor's point of view where such an investor would exclusively rely on the published financial statement to make decision based on whether a firm practices ERM or not.

## 3.5 Data Analysis

Descriptive statistics was adopted in this study to analyze raw data for measurements of central tendency and measures of variations likestandard deviation, mode, frequencies and mean.The study also used inferential statistic thus adopting Pearson's Correlation Coefficient to establish the relationship between ERM and firm performance amongst financial firms listed at NSE. SPSS was employed for data analysis. The research was assigned proxies for different variables which were assigned one (1) for disclosure and zero (0) for non-disclosure through a dichotomous key.

# CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

## 4.1 Introduction

This chapter contains the empirical results of this study. First, by using the descriptive statistics of the variables and based on the research objectives, the variables are discussed. The results are presented using tables, pie charts and graphs.

## 4.2 Industry

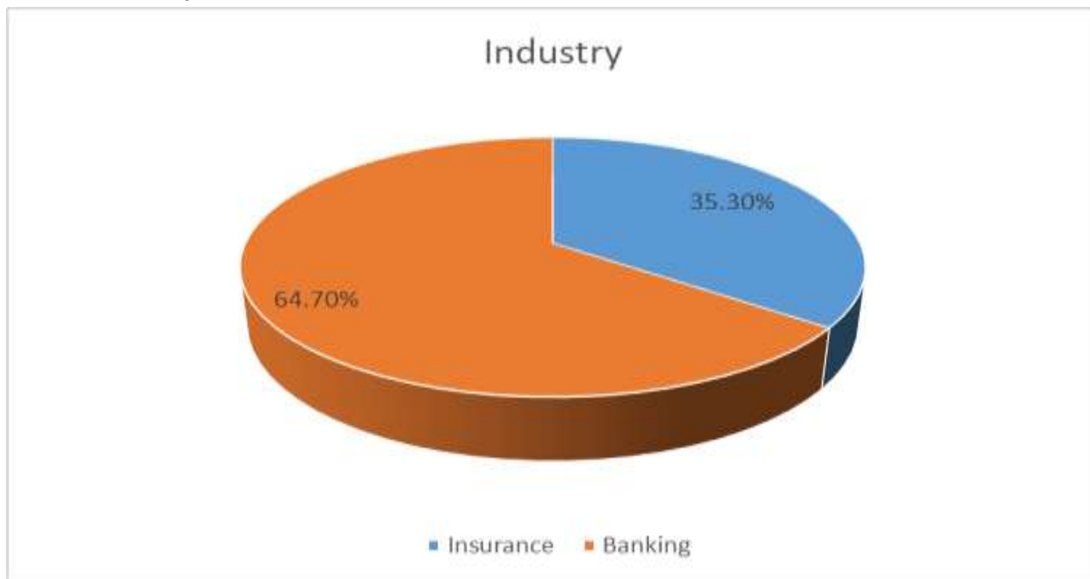


*Figure 4.1:.Industry*

Source: Author 2020

The study collected data from the 17 firms in the financial sector both in insurance and banking. Insurance had 6 firms denoting 35.3% while banking had 11 firms representing 64.7%. The study thus achieved 100% data collection given that the secondary instruments were used.

## 4.3 Existence of Chief Risk Officer

Table 4.1: Existence of CRO

| | Year 2017 | | Year 2018 | |
|---|---|---|---|---|
| | Frequency | Percent | Frequency | Percent |
| Not Disclosed | 6 | 35.3 | 5 | 29.4 |
| Disclosed | 11 | 64.7 | 12 | 70.6 |
| Total | 17 | 100 | 17 | 100 |

Source: Author 2020

The study findings revealed that in the year 2017, 35.3% of the financial sector firms listed at the NSE did not disclose in their annual integrated report whether there waschief risk officer, this is comparable to only 29.4% in the year 2018 who did not disclose. However, 64.7% and 70.6% disclosed the existence of chief risk officer in their annual integrated report for years 2017 and 2018 respectively.According to Daud, (2010) the existence of CRO has a strong influence on ERM implementation, this strengthen the COSO (2004) report that had indicated that it's much better to have an individual to give direction and supervise the ERM implementation.These two findings were however contradicted by (Ogeng'O & Omar, 2015) whose findings showed non-reactive of the market to the announcement of the CROs.

## 4.4 Existence of Risk Reporting Structure

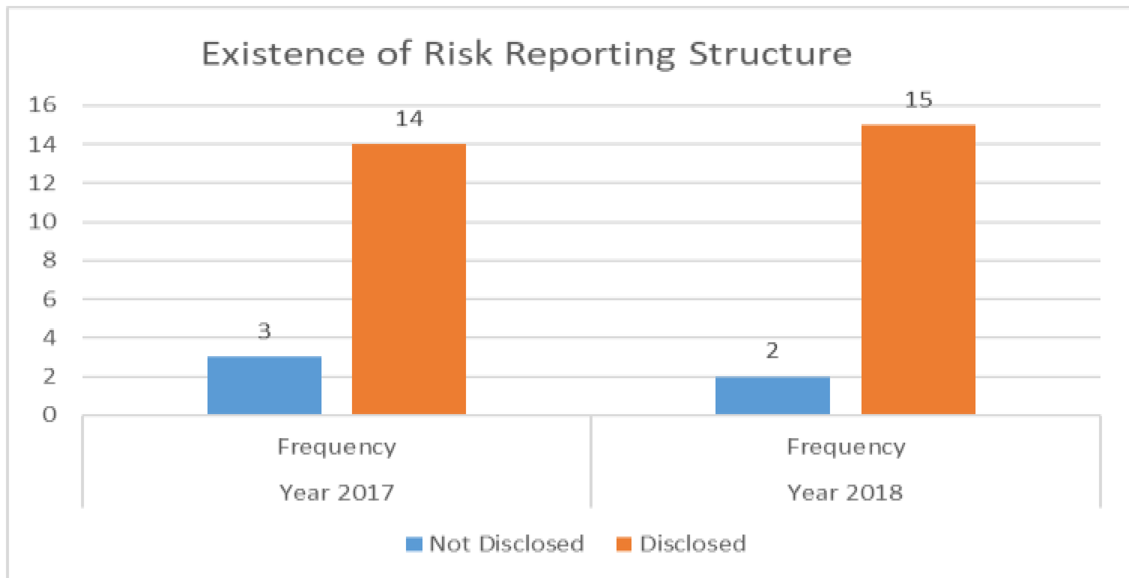


*Figure 4.2: Existence of Risk Reporting Structure*

Source: Author 2020

On the existence of risk reporting structure, 3 firms did not have that disclosure in the year 2017 while this reduced to 2 in the year 2018. On the flip side, 14 and 15 firms disclosed the existence of the risk reporting structure in their annual integrated report in the year 2017 and year 2018 respectively. This shows a high level of belief in risk reporting structure in enhancing ERM implementation as affirmed (Kanhai, 2014) who found out that there wasan association between the implementation of ERM and the effectiveness of governance structure as regards risk management. From those findings, one can thus conclude that in firms where the board has incorporated the risk governance structure, the ERM implementation would be affected.

## 4.5 Involvement of Board of Directors in ERM Processes

Table 4.2:Involvement of BoD in ERM processes

| | Year 2017 | | Year 2018 | |
|---|---|---|---|---|
| | Frequency | Percent | Frequency | Percent |
| Not Disclosed | 3 | 17.6 | 1 | 5.9 |
| Disclosed | 14 | 82.4 | 16 | 94.1 |
| Total | 17 | 100 | 17 | 100 |

Source: Author 2020

In the year 2017, the study findings showed that 17.6% of the firms did not disclose whether the boards of directors were taking part in the ERM processes while 82.4% disclosed. However, this figure changed to 5.9% and 94.1% for non-disclosure and disclosure respectively in the year 2018. Advance disclosure ascertains that the board of directors greatly take part and follow through in the ERM activities which according to(Daud, Haron, & Ibrahim, 2011)indicated an affirmative relationship between quality of BOD and level of ERM adoption. It is worth noting that when BOD quality is high, then the ERM implementation would also be high leading to a better firm performance.

## 4.6 Corporate Wide Common Language on Communicating Types of Risk Exposure

On establishing whether the financial firms had a structured way within their organization on how to communicate different types of risk exposures, the study findings showed that 76.5% disclosed this in the year 2017 but this percentage increased to 88.2% in the following year 2018. However, the firms that did not have this disclosure were 11.8% in year 2018 compared to a higher percentage of 23.5% in the previous year 2017 as illustrated on figure 4.3 below. Return on findings by Ogeng'o& Omar, (2015) indicated a low positive correlation between corporate wide common language risk exposure and ERM implementation however, Nyagah, (2014) found that communication had a negative and significant effect on financial performance. Communication, though a key aspect

is thus seen to erode firm value when resources are employed in ERM implementation which is geared on corporate wide common language.

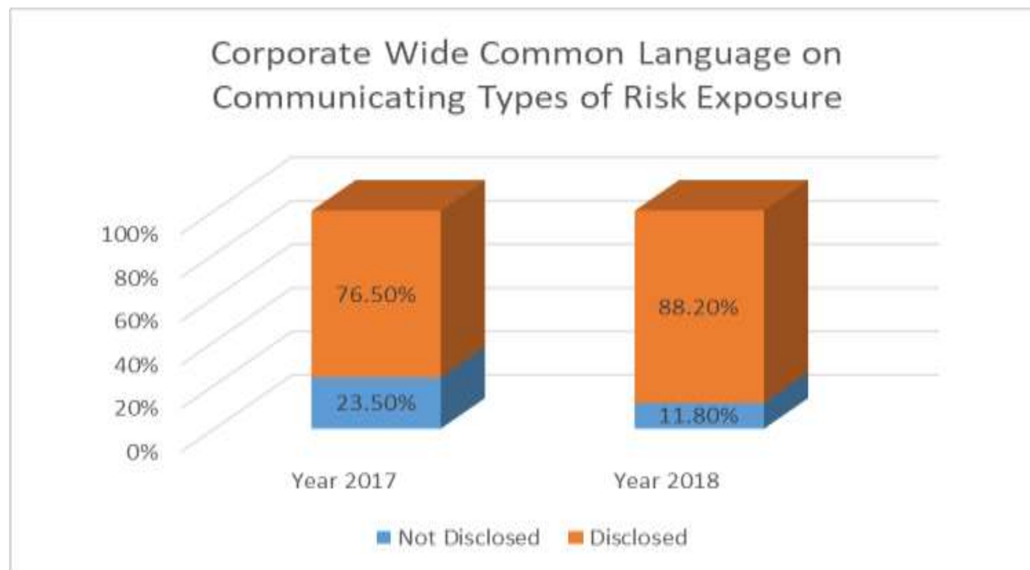


*Figure 4.3: Corporate Wide Common Language Risk Exposure*

Source: Author 2020

## 4.7 Adherence to Regulatory Framework

Table 4.3: Adherence to Regulatory Framework

| | Year 2017 | | Year 2018 | |
|---|---|---|---|---|
| | Frequency | Percent | Frequency | Percent |
| Not Disclosed | 3 | 17.6 | 1 | 5.9 |
| Disclosed | 14 | 82.4 | 16 | 94.1 |
| Total | 17 | 100 | 17 | 100 |

Source: Author 2020

The study finding further revealed that 3 firms did not disclose their adherence to the regulatory framework in the year 2017 while majority 14 firms had this disclosure. In the year 2018, only 1 firm did not have this disclosure though almost all firms disclosed their adherence to the regulatory framework.This high returns on regulatory compliance corroborates the finding by (Yegon, Mouni,

&Wanjau, 2014) which indicated that regulatory framework on ERM had an effect on financial performance of the NSE listed firms.

## 4.8 Return on Asset

The study findings revealed a mean return on asset of 2.4 for year 2017 and 1.5 for 2018. This showed a decline in return of asset despite increased disclosure on the ERM practices.The firm performance in this research was measured using return on assets which according to Sofyan, (2001) is a proportion of net income to total assets. The greater the ratio, the better the firm’s return resulting into a better performance for the firm. From this finding, one cannot conclude that ERM practices have a relationship with firm performance which conforms with Anton (2018) results when the period was extended to 2011, the findings showed that ERM had no effect on the firm value in any significant manner. This was echoed by (Alawattegama, 2018) whose study results indicated when the eight ERM parameters were analyzed, not even one of them impacted on the firm value significantly. However, this finding is contrary to the one of Nickmanesh, et.al, (2013) whose study revealed that there was a significant and negative relationship between the existence of risk management committee and ROA.Study findings also contradict those of (Oketch, 2019) who found a positive association between enterprise risk management and firm performance amongst firms listed at the NSE.

## 4.9 Existence of ERM Practices

Enterprise risk management practices in the financial services sector focus on ascertaining, quantifying and evaluating those threats to reduce material, reputation, opportunity and other costs. In ERM implementation, there are a number of practices that different firms do to mitigate the risks. This study looked at five areas which are; existence of CRO, existence of risk reporting structure, involvement of Board of Directors in ERM process, corporate wide common language on communicating risk and adherence to regulatory framework.

Table 4.4: Existence of ERM practices

| ERM practices | Disclosure in 2017 | Disclosure in 2018 |
| --- | --- | --- |
| Existence of CRO | 64.7% | 70.6% |
| Existence of Risk Reporting Structure | 82.4% | 88.2% |
| Involvement of BoD in ERM process | 82.4% | 94.1% |
| Corporate wide Common language on communicating Risk | 76.0% | 82.0% |
| Adherence to Regulatory Framework | 82.4% | 94.1% |

Source: Author 2020

The first objective of the study was to establish the existence of ERM practices amongst financial firms listed at the NSE. The study looked at five ERM practices for both years 2017 and 2018. The findings revealed that ERM practices existed amongst these firms as indicated by higher percentages as shown in table 4.4 above of firms disclosing these practices in their integrated financial reports.

## 4.10 Pearson Correlation

Table 4.5: Pearson Correlation analysis

| | | RoA 2017 | RoA 2018 |
|---|---|---|---|
| Existence of CRO | Pearson Correlation | 0.090 | 0.145 |
| | Sig. (2-tailed) | 0.732 | 0.579 |
| Existence of Risk Reporting Structure | Pearson Correlation | 0.049 | -0.063 |
| | Sig. (2-tailed) | 0.853 | 0.809 |
| Involvement of Board of Directors in ERM process | Pearson Correlation | 0.049 | 0.000 |
| | Sig. (2-tailed) | 0.853 | 0.999 |
| Corporate wide Common language on communicating Risk | Pearson Correlation | -0.044 | -0.133 |
| | Sig. (2-tailed) | 0.868 | 0.610 |
| Adherence to Regulatory Framework | Pearson Correlation | -0.020 | 0.000 |
| | Sig. (2-tailed) | 0.939 | 0.999 |

Source: Author 2020

One of the study objectives was to find outwhether there was or not a relationship between ERM and firm performance amongst financial firms listed at NSE between years 2017 and 2018. At a confidence level of 95% level (α=0.05), Pearson's correlation was used to obtain this objective. The table 4.5 above shows that there were no significant correlation coefficients between ERM and firm performance following disclosure or non-disclosure of the ERM practices in the integrated annual financial statements. Existence of CRO (R=0.09, p=0.732 in year 2017 which changed to (R=0.145, p=0.579) in year 2018; Existence of risk reporting structure (R=0.049, p=0.853) in year 2017 but this changed to a negative correlation of (R=-0.063, p=0.809); involvement of board of directors in ERM process in year 2017 showed (R=0.049, p=0.853) and no significant at all in year 2018 (R=0.000, p=0.999). Corporate wide common language on communicating risk showed a negative correlation coefficient in year 2017 (R=-0.044, p=0.868)

and (R=-0.133, p=0.610) in year 2018; on adherence to regulatory framework, the study finding showed a negative weak significant in year 2017 (R=-0.020, p=0.939) and no correlation in year 2018 (R=0.000, p=0.999).

This finding conforms with the Modern Portfolio Theory which contradicts ERM in that investors are not concerned with firms' specific risk since these risks within a portfolio can be easily eliminated through diversifying the assets in the portfolio, and this the investors can do by themselves and do not need the firm to do for them. In line with this, MM theory which asserts that corporate financial decision does not influence firm performance as such decisions would re-distribute the income streams amongst various shareholders. Provided that all the investors can act simultaneously on the new information provided in the capital market as the firm itself, firm performance can only then be influenced by the expected cash flow levels. The study findings arehowever inconsistent with the findings of (Hoyt, Moore, & Liebenberg, 2008); (Mugenda, Momanyi, & Naibei, 2012) and (Quon, Zeghala, & Maingota, 2012) whose finding revealed a positive relationship between ERM and firm performance which was asserted by corporate risk management theory that ERM provides an opportunity for management to excellently deal with risk thus identifying associated opportunities, allowing a utility to realize operational efficiencies, reap financial gains and achieve lasting competitive advantages.

# CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter presents the summary of the study findings, conclusions therefrom, recommendations for both policy and practice and for further research.

## 5.2 Summary of the Findings

The study sought to establish the relationship between ERM and firm performance amongst financial firms listed at NSE between years 2017 and 2018 andthe study findings are summarized as below;

Majority of the firms disclosed the existence of the chief risk officer in their integrated annual report; while at the same time, most of the firms had a risk reporting structure;Majority of the firms disclosedthat the board of directors actively took part in ERM processes 82.4% and 94.1% in the year 2017 and 2018 respectively;Most firms had a structured way of communicating different types of exposures.Almost all firms adhered to the regulatory framework.

There was an increased disclosure on ERM practices in the year 2018 as compared to the previous year 2017. However, there was no significant correlation coefficient between ERM and firm performance as the highest correlation coefficient for all parameters for both years was 0.145.

## 5.3 Conclusion

Given the results from the study, it can be concluded that almost all the financial firms listed at the NSE had CRO, had a risk reporting structure while at the same time involved their board of directors in ERM processes. The study also concludes that these firms had a structured way of communicating different types of exposureswithin the firm and that they adhered to the regulatory framework.

From the study findings, the study concludes that financial firms listed at NSE implement ERM whose practices are equally disclosed in the firms' integrated annual reports. However, given that the study did not reveal significant correlation coefficient, the research concludes that there is no relationship between ERM and firm performance amongst financial firms listed at NSE.

## 5.4 Recommendation

Based on the findings, the study made the recommendations as below;

That management of the financial firms listed at the NSE should allocate very minimal resources in ERM implementation given that ERMhas no influence at all on firm performance. Further, the study findings have revealed that ERM does not influence firm performance thus ERM implementation should not be a factor to be considered by investors as this is not key to the investors return on investment as measured by the firm performance.

The government in its attempts to enhance corporate governance through the development ofadministration procedures and blue prints, formulation of policies that affects taxation and other legislatives and regulatory requirements of firms in

the country, ERM, though a best practice, shouldn't be considered for any possible tax incentives as the cost incurred would be more of value erosion than helping firms generate more income that would translate to better income to the government through taxation. Moreover, a requirement that all the financial firms listed at NSE should disclose in their annual integrated reports which ERM practices they are implementing should be discretional.

That other related researchers too could adopt strategies here for further effective social research. The outcome of this research can be used as reference and also use the data as a source of secondary data while conducting research within the same field. The study findings have affirmed and contradicted the results of some previous studies while at the same time it has generated new knowledge in the area of ERM among the listed financial firms at the NSE. This has further inconclusively portrayed importance of the ERM implementation on firm performance thus warranting further studies.

## 5.5 Limitations

The research used a dichotomous key by assigning proxies for different variables for either disclosure or non-disclosure. This did not sufficiently interrogate the firms as some financial firms listed at the NSE seems to have implemented ERM but did not disclose those in their integrated financial statements. It is uncertain how the results would be had the study adopted a primary data collection through a questionnaire.

The study only interrogated the financial firms listed at the NSE which included banking and insurance sectors, however there are other sectors such as energy and

petroleum sector, agricultural sector and manufacturing sector among others which also require ERM, we cannot tell how the results would have been had all these sectors been considered in the study.

## 5.6 Areas for Further Research

The study concentrated on financial firms listed at the NSE. These firms include the banking and insurance firms which are highly regulated by central bank of Kenya and Insurance regulatory authority. Further regulations come from CMA and monitoring by Kenya Bankers Association. With this kind of stringent regulation, ERM implementation might be a normal practice thus its impact might not be felt on the firm performance. Maybe the results would be different if firms in other sectors were to be studied.

The study through the adoption of Pearson's correlation coefficient left out the possible outcome that would have arose were the multiple regression analysis and ANOVA used. There is room for further study to adopt multiple regression analysis and even combine both secondary data and primary data that would capture expanded variables.

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## APPENDICES

### APPENDIX I: SECONDARY DATA CAPTURING FORM

### PART A: GENERAL INFORMATION

1) Name of the organization and industry………………………………….

2) Disclosure of proxies in the financial reports; assign one (1) for disclosure and zero (0) for non-disclosure.

| Proxy Parameters | 2017 | 2018 |
|---|---|---|
| Existence of Chief risk Officer | | |
| Existence of risk reporting structure | | |
| Involvement of Board of Directors in ERM processes | | |
| Has a corporate wide common language for communicating risk type exposures | | |
| Adherence to regulatory framework | | |

### PART B: FINANCIAL DATA FOR YEAR 2017 AND 2018

| PARTICULARS | KES 2017 | KES 2018 |
|---|---|---|
| NET INCOME | | |
| TOTAL ASSETS | | |