THE RELATIONSHIP BETWEEN RISK MANAGEMENT AND FINANCIAL PERFORMANCE OF THE TOP 100 SMALL AND MEDIUM ENTERPRISES IN KENYA

BY

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DECLARATION

This research project is my original work and has not been submitted for any degree award in any other university or for any other award.

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This project has been submitted for examination with my approval as a University supervisor.

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I dedicate this project to my parents (Bengun and Christine) and my grandparents (Kurt and Margaret) for believing in me throughout my academic journey.

ABSTRACT

In today's dynamic commercial environment, risks are increasing and risk management is becoming an integral part of any organization; especially for the Small and Medium enterprises, which due to limited resources and weak structural features are more vulnerable to the harmful effects of risks. The relationship between risk management and financial performance has been explored in other studies with sectors such as banking being covered almost exhaustively; however, few studies have been conducted in the SME sector. This study was therefore an attempt to establish the nature of relationship between risk management and financial performance of the SME sector in Kenya. The study employed risk management practice as a multidimensional construct so as to help provide a relevant trajectory for understanding financial performance of the top 100 SMEs in Kenya. The study therefore attempted to address the following research question: To what extent have the top 100 SMEs in Kenya adopted the various risk management techniques? How do the various risk management techniques employed relate with the financial performance?

To achieve this, the study adopted a descriptive research design. A sample size of 50 SMEs located within Nairobi and its environs were selected from a population consisting of the top 100 SMEs in Kenya for the year 2013 using judge mental sampling. The response rate was 80%, which comprised 40 SMEs. Data was collected using a questionnaire and analyzed using SPSS version 17. The findings revealed that the top 100 SMEs in Kenya applied risk acceptance and risk diversification to a 'great extent' compared with other techniques such as loss prevention, risk avoidance and risk transfer, which were moderately applied by SMEs. The study also found out that risk management techniques ,that is risk avoidance, loss prevention, risk transfer and risk diversification had a negative effect on financial performance (ROA) with beta coefficients of -0.022,-0.029, -0.032 and -0.007 respectively. Risk acceptance according to the study had a positive effect on financial performance (ROA) with a beta coefficient of 0.028.In general the study found out that risk management constructs have a strong positive correlation with the financial performance (ROA) of SMEs with a correlation coefficient of 0.823.

From the findings, the researcher concluded that applied risk management techniques had a positive effect on the financial performance of the SMEs and thus recommended that management, owners and other relevant stakeholders to make risk management a core business process in order to improve returns.

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LIST OF ABBREVIATIONS

APT	Arbitrage Pricing Theory
CAPM	Capital Asset Pricing Model
EPS	Earnings per Share
ERM	Enterprise Risk Management
ICAEW	The Institute of Chartered Accountants in England and Wales
MPT	Modern Portfolio Theory
RM	Risk Management
ROA	Return on Asset
SACCOs	Savings and Credit Cooperative Organizations
SMEs	Small and Medium Enterprises
SMMEs	Small Medium and Micro Enterprises

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

SMEs play a crucial role in the development of a countries economy (Ariyo, 2005). They are of significance importance to the economy of developing countries such as Kenya, where challenges such as poverty eradication and unemployment are considered major issues facing citizens. In Kenya, they account for 45% of the Kenyan G.D.P and employ more than 80% of the total Kenyan work force according to Economic Survey (2009). The Kenyan government and other stakeholders in recognition of the importance of this sector to the economy have directed their efforts towards creating sustainable SMEs. These efforts however have not had the desired effect, as most small firms are short-lived. Research conducted on SMEs in Africa suggests that there are more SMEs closures than establishments, with approximately only 1% of SMEs growing from having five or less employees to ten or more (Mead & Liedholin, 1998; cited in Smith & Watkins, 2012).

In the course of their operations, enterprises encounter many risks such as political, natural disaster, credit and operation risks. SMEs, especially during the start-up and expanding stage consider themselves as a risk. Thus, SMEs regularly confront risks offensively to grow which is in contrast with larger firms that usually take risk defensively in order to ensure operation strength. However, the ability of SMEs to withstand risks is lesser compared to that of the larger firms (Virdi, 2005). In addition, being synonymous with limited resources and weak structural features, SMEs are more likely to be exposed to the harmful effects of risks compared to larger enterprises (Henschel, 2006; Raghavan, 2005).

It is therefore becomes necessary for every small business to manage its risks in order to reduce and minimize the loss exposure. Smith and Watkins (2012) argue that risk management should be a major concern for SMEs particularly because they are more sensitive to business risk and competition. They opine that risk management will assist in the development of contingency plan that can help to stop the erosion of organizational income and consequently improve performance. In this regard, SMEs thus require accessible and standardized tools to help in identification of risks and match them with appropriate techniques.

1.1.1 Risk Management

Head (2009) defines risk management as the process of planning, organizing, directing and controlling resources to achieve given objectives when good or bad events are possible. Vaughan and Vaughan (2001) on the other hand consider risk management as a scientific approach to dealing with pure risks by anticipating possible accidental losses, designing, and implementing procedures that minimize the occurrence of loss or the financial impact of the losses that do occur. Risk management for a business of any size therefore relates to the systematic assessment and strategic response to threats, which may hinder the attainment of both short term and long-term business objectives.

RM is more of a structured approach in managing uncertainties. This approach usually involves assessment of risks, development of strategies and mitigation of the identified risks using available managerial resources .The mitigation strategies employed include but are not limited to transferring to another party, avoiding the risk, reducing the negative

effects of the risk, and accepting some or all of the consequences of a particular risk. In SMEs, however risk mitigation strategies are primarily limited to risk avoidance actions, and to a lesser extent, risk transfer through insurance activities (Smit & Watkins, 2012). Nathane (1995) asserts that SME owners and managers are not versed in the availability and use of risk reduction techniques (that is, elimination, reduction, and transfer or retention) to reduce the adverse effects of risks on the enterprise. Risk retention techniques whereby risks are financed by internal reserves such as current income are little known, and rarely applied in SMEs according to Ntlhane (1995).

Every business needs a strong risk management strategy. The adoption of an RM methodology has several potential benefits. One is that it can lead firms to decrease the risk of failure. RM also ensures that there is continuity in production and trading which leads to promotion of the enterprise's external and internal image. Risk management also helps an enterprise in adequately selecting the type and the level of risk that is appropriate for the firm to take to maximize its value. Finally, the ability to anticipate risks and proactive management of those risks by an enterprise is critical in creating and nurturing core business value by maximizing profits and minimizing costs.

1.1.2 Financial Performance

Lebas and Euske (2002) define performance as doing today what will lead to measured value outcomes tomorrow. The performance of a firm as viewed from several different perspectives, and various aspects can jointly be considered in defining a firm performance. Financial performance is one of the most commonly used indicators of a firm's financial

health over a given period. It can be defined and measured in various different ways; each of these different measures capturing a slightly different aspect of financial performance.

Some measures such as profitability (return on investment, return on Assets) gauge return. Whereas others like sales growth and market share growth, gauge the growth of a firm usually over a given period. Some measure liquidity (quick ratio, current ratio), and still others measure solvency (gearing). Others indicate commercial success (growth, market share) and others indicate financial success (profitability). In this regard, it can also be argued that different firms have differing financial goals and therefore one financial performance indicator need not measure the success rate as perceived by the firm itself.

Operating and financial ratios have long been used as tools for determining the condition and the performance of a firm (Ogilo, 2012). One such financial ratio is the profitability ratio. According to Herrmann (2008) when analyzing a firm's profitability, we are particularly concerned with evaluating a firm's earnings with respect to a given level of sales to assets, owners' investment or share value. Profitability thus refers to the ability of a company to earn income. Net income is one of the single most significant measures of profitability.

Profitability ratios include gross profit margin (given as gross profit/net sales), Net operating income (which is determined as operating income/net sales), Return on total assets (ROA) which is given as net income/average total assets. Return on equity (ROE) which is equal to net income/shareholders' equity. Return on investment (ROI) which is

equal to net income/average total assets. Earnings per share (EPS) which is equal to net income available to common shareholders/weighted average number of common share outstanding (Delta Publishing, 2006).

A firm's performance is an important dependent variable in business research (Rauch, Unger & Rosenbusch, 2007). In this study, financial performance of SMEs will be measured using Return on Asset (ROA). Return of total assets (ROA) takes into consideration the return on investment (ROI) and indicates the effectiveness in generating profits with its available assets, thus the higher the better (Herrmann, 2008).

1.1.3 Effects of Risk Management on Financial Performance

Risk can be broadly defined as any issue that can affect the objectives of a business entity, be it financial, service or commercial. It is the potentiality that both expected and unexpected events may have an adverse impact on the capital and earnings of a business entity. The effective management of risk is therefore essential as it enables the business owner to avoid losses, maximize the potential of opportunities, and achieve the desired outcomes. Therefore, the proactive management of an enterprise to anticipate risks is essential to creating and nurturing core business value.

According to Anderson (2008), risk management also leads to reduction on a firm's average capital expenditure and contract costs as it eases access to resources. These findings seem to suggest that risk management can enhance an enterprise access to credit and consequently improve their financial performance. Arguments advanced by Stulz (1996, 2003), Nocco

and Stulz (2006), Wang and Reuer (2006) and Andersen (2008) have also shown that risk management activities could be value increasing to a firm and its stakeholders in the presence of agency costs, market imperfections and information asymmetries which interfere with the operation of perfect capital markets. Stulz (1996, 2003) argues that risk management can be value creating if it is able to reduce the likelihood of negative earnings shocks, which in turn, would help the firm avoid the direct, and indirect costs commonly associated with financial distress.

Empirically, Alrashidi and Baakeel (2012) undertook a study to measure the operational risk management effects on the financial development and growth in the Saudi Arabian SMEs companies. The result showed that operational risk management has a positive effect on the financial development and growth in the Saudi SMEs companies. Gisemba (2010) also returned that there was a positive relationship between risk management practices and the financial performance of SACCOs, depicting the relationship between risk management practices and financial performance in organizations. He asserts that SACCOs need to management risk effectively to prevent them from failing in their obligation and meeting their objective**,** and thus ensuring that the organization performs better in increasing the return on assets and in attaining maximum financial returns.

1.1.4 Small and Medium Enterprises in Kenya

According to Gray, Cooley and Lutabingwa (1997), there is no generally accepted definition of a small business because classifying businesses as large-scale is a subjective and qualitative judgment. The definition of what is considered a small and medium-sized

enterprise therefore various from one country to another. In Kenya, classification of enterprises is primarily by the number of employees engaged by firms. "micro-enterprises" in Kenyan context are those with 10 or fewer workers. According to the Micro and Small Enterprise Act (2012), a Small Enterprise is a business that has sales of between Ksh.500, 000 – Ksh.1million a year, or has 10–50 people working in it. Those firm that employ 50 to 99 workers are classified as medium-scale enterprises while firms with 100 or more workers are categorized as large-scale enterprises.

The SME Sector has continued to play an important role in the economy of this country. The sector's contribution to the Gross Domestic Product (GDP) increased from 13.8 per cent in 1993 to about 40 per cent in 2008. The sector provided approximately 80% of total employment and contributed over 92% of the new jobs created in 2008 according to the Economic Survey (2009). It is estimated that there are 7.5 million SMEs in Kenya. Due to the important role SMEs play, the government has hinged several development strategies on the sector, some of which include enactment of the Micro and Small Enterprise Act (2012) and establishment of a regulatory body, the Micro and Small Enterprise Authority (MSE Authority), whose aim is to streamline small businesses in Kenya.

Despite the huge potentiality of SMEs in the development of Kenyan economy, their real contribution is relatively low. According to Torres et al (1993) cited in Kagwathi et al (2014), 58% of SMEs started in Kenya hardly grow to become medium or large enterprises; they remain static, while 4% die at an early stage. Though access to credit was identified through a survey as the major course of the trend, establishment of more than 150 credit

schemes NBS (1999) in an attempt to reverse the situation failed to reverse the situation as demonstrated by the closure of over11360 SMEs in the same year (1999).This failure by SMEs has can be attributed to a combination of risks and uncertainties. On the other hand, it is the lack of required skills to handle these risks properly (Watt, 2007) as risk management in most SMEs is the prerogative of the owner whose decisions lack the required professional qualities (Dansu,2013) and as a result have a negative impact to the enterprise.

Smit and Watkins (2012) agree with Watt (2007) by asserting that failure of SMEs can be attributed to lack of management skills. Risk management is one of such skills. In addition, the SMEs sector in Kenya being synonymous with poor funding may find it difficult to invest in a robust risk management program and as a result negatively affect their performance.

1.2 Research Problem

Risk is inherently present in all business actions and in every economic activity. Every business decision or any entrepreneurial act is somewhat connected with risk. Risk is defined as the possibility of something undesirable taking place. It is the possibility of something happening that may affect your business objectives either negatively or positively. The term risk can interchangeably be used with uncertainty with respect to the variability of returns associated with a given investment. Although risk is generally considered the possibility of outcomes deviating from what was expected, primarily firms are concerned with negative outcomes since their negatively affect the business operation and thus require proper management.

Despite the necessity for a comprehensive risk management program, many SMEs rarely carry out detailed risk assessment and management strategies. The mechanism to prevent the harmful effects of risks is also not systematically developed and performed. A Study by ICEAW (2005) returned that SMEs place too little emphasis on risk management. Most small and medium enterprise owners according the study usually consider risk management as an issue relevant only to large companies. The fact that engaging in risk assessment and management also requires a certain budget and human resource also hampers their ability to set up a comprehensive RM program. This is so as SMEs are characterized with scarcity of resources-both financial and human resources. SMEs therefore have little option left and as a result, they have to absorb most uncertainties and risks confronting them. However, the SMEs are unable to absorb most of these uncertainties and risks. This in ability has direct impact on their performance as it weakens their ability to achieve economic sustainability (Dansu, 2013).

As the SME sector in Kenya continues to grow and expand rapidly, creating jobs and enormously contributing to the GDP and attainment of vision 2030. There is need to strengthen their internal capacity to identify and anticipate potential risks to avoid unexpected losses and surprises which may be catastrophic not only to their survival but to the economy in general. Enterprises are therefore required to manage risks and uncertainty, in recognition of the potential benefits that may accrue because of implementing risk management systems. Risk management should thus be a core business process that should be planned accordingly and on a continuing basis. By incorporating risk management, SMEs

are better equipped to exploit their resources profitably (Kirytopoulos et al., 2001; Banham, 2004).

In addition by adopting strong risk management practices the Kenyan SMEs can in effect reduce their exposure to risks, enhance their credibility in the marketplace, and create new opportunities for growth (Berger & Udell 1993). The establishment of risk management system is also essential to the survival of SMEs since it affects their ability to continue to receive credit from banks (Henschel 2006). With the recent financial crisis, banks are becoming increasingly reluctant to give loans to SMEs. They are demanding more information and transparency on management accounting and risk management systems in SMEs (Merna and Al-Thani, 2008; Basel Committee on Banking Supervision, 2005). According to the new Basel II equity regulations, the lending bank has to evaluate the risk management system of an SME. The sophistication of the implemented risk management system will have a direct influence on the lending conditions.

A lot of research has been done locally on the impact of risk management on financial performance (Gisemba, 2010; Mwangi, 2012; Kimari 2013), no study has however been conducted with respect to risk management and financial performance of SMEs in Kenya, despite the importance of this sector to the Kenyan economy. Thus, there exists a gap necessitating this study. The purpose of this study was therefore to test the relationship between risk mitigation strategies adopted by the top 100 SMEs in Kenya and their financial performance. This study employed risk management practice as a multidimensional construct so as to help provide a relevant trajectory for understanding financial performance of the top

100 SMEs in Kenya. This study therefore attempted to address the following research question: To what extent have the top 100 SMEs in Kenya adopted the various risk management techniques? How are the risk management techniques employed relate to financial performance of these SMEs?

1.3 Research Objective

The objective of the study was to examine how the adoption of risk management strategies relates with financial performance of Kenyan top 100 SMEs.

1.4 Value of the Study

The results of the study will beneficial to the following: To SMEs, the study will highlight the effectiveness of the various risk management techniques that SMEs employ in trying to mitigate their exposure. Business owners will also benefit from the study by gaining awareness on the influence of risk management techniques on profitability. The study will also be significant to the financial industry, in particular to insurance sector, in that it will highlight the risk mitigation strategies employed by SMEs and thus and help in development of better and improved products. The government and policy makers will also benefit from the study in pursuance of policies directed toward growth of the SMEs sector and in this regard; economic growth is likely to be stimulated. Finally, the study will contribute to the current existing knowledge and provide useful insights for future studies.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews theoretical literature on risk management including but not limited to: modern portfolio theory, the capital asset pricing model theory and the Arbitrage Pricing Theory. It also includes the discussion on determinants of financial performance of SMEs. Finally, the author undertakes an empirical review of various studies (both local and international) on risk management with respect to the topic under study.

2.2 Theoretical Foundation

The theoretical framework of a research project relates to the philosophical basis on which the research takes place. It forms the link between the theoretical aspects and practical components of the investigation undertaken. The theoretical framework, therefore, has implications for every decision made in the research process (Mertens, 1998). The theoretical framework helps to make logical sense of the relationship of the variables and factors that have been deemed important to the problem. It provides definitions of relationships between all the variables so that the theorized relationship between them can be well understood.

2.2.1 Portfolio Theory

Markowitz (1959) introduced the Modern Portfolio Theory (MPT) or portfolio theory in his paper “Portfolio Selection”. MPT is an important advancement in the mathematical modeling of finance. Essential to the portfolio theory are its quantification of the

relationship between risk and return and the assumption that investors must be compensated for assuming risk. The MPT views risk as the standard deviation of return. That is to what extend is the actual return deviating from the expected return.

The major assumptions in portfolio theory in managing risk are that the investors are rational and the market is efficient and perfect (Chijoriga, 2007).Companies have successfully applied modern portfolio theory to market risk over the years. The consideration of the company's entire risk portfolio in a holistic process is said to contribute to reduced earnings volatility, stock price volatility and external capital Costs as well as higher capital efficiency, where the consideration of risk dependencies further allows companies to exploit synergy effects in the risk management process (Liebenberg and Hoyt, 2003).

The theory encourages asset diversification to hedge against market risk as well as risk that is unique to a specific organization (Omisore, Munirat & Nwufo, 2012).The theory is extension of the old sayings 'don't put all your eggs in one basket'. It explains the risk-reducing effect of spreading investment across a range of financial assets. That means in a portfolio of mixed assets which have low correlation ,an unexpected bad news concerning one asset will be compensated to some extent by expected good news about another asset in the portfolio.

Therefore, portfolio being a combination of assets, the model becomes a weighted combination of these assets' returns. It is important to note that when different assets are

combined and whose returns are not perfectly positively correlated, then portfolio theory leads to reduction of the total variance of such asset combination returns over a given period of investment. This return is computed by getting the change in value of the assets and any distribution received during a given period over which the assets were held, and is then expressed as a fraction of the initial outlay.

2.2.2 Capital Market Theory

The capital market theory has played an important role in modern finance. The most talked about model in Capital Market Theory is the Capital Asset Pricing Model .The CAPM builds on the model of portfolio choice, which was earlier developed by Markowitz (1959). The major attraction of the CAPM unlike other asset-pricing model is that it offers powerful and intuitively pleasing predictions on how to measure risk and the relationship between expected return and risk. According to the CAPM, investors aim to minimize the variance and maximize the expected return of their portfolios. The standard version of the CAPM, as developed by Sharpe (1964) and Lintner (1965), relates the expected rate of return of an individual security to a measure of its systematic risk.

Systematic risk, as measured by beta, captures that aspect of investment risk, which cannot be eliminated by diversification. One property of the CAPM is that investors are compensated with a higher expected return only by accepting systematic risk. In addition to this, the CAPM suggests that higher-beta securities are expected to give higher expected returns than lower-beta securities because they are more risky (Elton & Gruber, 1995).

The inclusion of managing unsystematic risks is however in contrast with the theory of Modigliani and Miller. Modigliani and Miller (1958) proposed in their paper that in a perfect market, financial decisions would not in any way influence the firm value. According to them, there is no need to manage risks or hedge in order to protect the companies against possible losses caused by unsystematic risks. The market does not price such actions. The only thing that is priced is the systematic risk of the companies (Miller & Modigliani, 1958,). This is based on the assumption that the investor is rational and will modify his portfolio according to his risk preference by diversification. Berk (2009) therefore agrees that risk does not need to be managed by the company since in a frictionless capital market with no asymmetric information; risk management at the firm level would result in a negative NPV project.

However, Stulz (1996, 2003), Nocco, and Stulz (2006) present arguments to demonstrate that risk management activities could be value increasing for shareholders. One aspect contrary to Miller & Modigliani assertions is that in reality not all investors are likely to have the opportunity to diversify their portfolios. In addition, under the perfect market assumptions, taxes and transaction costs are neglected despite the fact that these factors are part of reality and might make risk management reasonable (Berk, 2009). This is especially plausible particularly when agency costs, market imperfections and information asymmetries are deemed to have interfered with the operation of perfect capital markets.

Management in such a case can use risk management to decrease the volatility in earnings (Dhanini et al., 2007) in the presence of these market frictions that are assumed to be

absent in the Modigliani-Miller world. The implication of these is that corporate risk management can only be relevant if markets are imperfect (Oosterhof, 2001). This therefore shows that corporate risk management can add additional value to the shareholders despite the financial theory of Modigliani Miller saying it is obsolete (Oosterhof, 2001).

2.2.3 Arbitrage Pricing Theory

A substitute and concurrent theory to the CAPM is one that incorporates multiple factors in explaining the movement of asset prices developed by Ross (1976). The arbitrage-pricing model (APT) approaches pricing from a different aspect. The APT represents portfolio risk by a factor model that is linear, where returns are a sum of risk factor returns. It is however rarely successful in analyzing portfolio risks, which is done by assessing the weighted sum of its components. Equity portfolios are far more diverse and enormously large for separate component assessment, and the correlation existing between the elements would make a calculation as such untrue. Rather, the portfolio's risk should be viewed as a single product's innate risk.

Factors may range from macroeconomic to fundamental market indices weighted by sensitivities to changes in each factor. Factors may be economic factors (such as interest rates, inflation, GDP) financial factors (market indices, yield curves, exchange rates) fundamentals (like price/earnings ratios, dividend yields), or statistical (e.g. principal component analysis, factor analysis.). APT model calculates asset pricing using the different factors and assumes that in the case market pricing deviates from the price

suggested by the model, arbitrageurs will make use of the imbalance and veer pricing back to equilibrium levels.

At its simplest form, the arbitrage-pricing model can have one factor only, the market portfolio factor. This form will give similar results to the CAPM. According to Defusco et al (2007) APT model based on following assumptions: relationship between expected returns and risk-factors is linear; a quantity of securities is close to infinite expectations of investors are identical; Stock markets are perfect (there are no transactions costs and competition is perfect); and finally, there are no arbitrage opportunities in the market among well-diversified portfolios.

2.3 Determinants of Financial Performance in SMEs

Analysis of the determinants of financial performance is essential for all the stakeholders, especially for shareholders. The financial performance of SMEs just as for large companies is dependent on several factors: the current profitability of the enterprise, its risks, and its economic growth are essential in determining future earnings. These are major factors influencing the market value of a company (Chijoriga, 2007). In addition to these factors, SME financial performance is also affected by other factors such the managerial experience of the owner, age and level of education of the owner.

2.3.1 Managerial Experience

Studies have generally found that SME owner/managers with more managerial, sector experience or prior SME experience as owner/manager tend to correlate with greater

growth. Storey (1994) found that there was reasonable evidence indicating a negative relationship between being unemployed before starting a business and subsequent business growth.

2.3.2 Age of Owner/Manager

Age of owner/manager has influence on SME performance. Available theoretical discussion that explain the influence of the age of the owner/manager on performance advocate for the younger owner/manager. The argument is that the younger owner/manager has the necessary motivation, energy and commitment to work and is more inclined to take risks (Storey, 1994; Watkins et al.,2003). The logic is that the older owner/manager is likely to have reached his/her initial aspiration.

2.3.3 Level of Education

It is almost obvious that basic education enhances the overall quality of the owner/manager. Having basic numeric and literacy skills increases the chance of survival (Storey, 1994).Literary discussion on the educational level of the owner/manager tends to be divided into two schools of thought. One side asserts that the fact that a manager has a higher education degree or even a postgraduate degree is likely to stimulate the growth of the firm, thus having an impact on both survival and growth.

2.3.4 Market Position

A company's financial performance is directly influenced by its market position. Profitability can be decomposed into its main components: net turnover and net profit

margin. If a high turnover means better use of assets owned by the company and therefore better efficiency, a higher profit margin means that the entity has substantial market power. Economic growth is another component that helps to achieve a better position on the financial markets, because market value also takes into consideration expected future profits.

2.3.5 Size of the Company

The size of the company can have a positive effect on financial performance because larger firms can use this advantage to get some financial benefits in business relations. Large companies have easier access to the most important factors of production, including human resources. Lack of access to credit/ finance is almost a universally accepted as a key problem for SMEs. Lack of access to long-term credit for small enterprises forces them to rely on high cost short term finance. On the contrary, large organizations often get cheaper funding (Chijoriga, 2007).

2.4 Empirical Literature

Risk is a serious threat to the performance of any business venture. According to ICAEW (2002), it was due to a string of large and highly public corporate failures over the past 10-to15 years that focused investors' and regulators attention worldwide on the way in which company directors and managers are managing risk. Academicians have also developed interest on the subject and many studies, both locally and internationally, have been undertaken. However, most local studies have concentrated on risk management in the financial sector, especially credit risk management. The SMEs sector has largely been

ignored by local researchers with respect to risk management, despite the crucial role it plays in the economy. Therefore, the studies highlighted below are mainly international studies on SMEs risk management and local studies on risk management in the financial sector.

Gisemba (2010) carried out a study on impact of credit risk management practices on financial performance among the SACCOs. He sampled 41 SACCOs and concluded that SACCOs need to manage credit risk effective to prevent them from failing in their obligation and meeting their objective**.** Credit risk management according to the study, led to minimization of loan defaulters, cash losses and ensures the organization performs better by increasing the return on assets and helping the organization in attaining maximum financial returns. The study further concludes that there was a positive relationship between credit risk management practices and the financial performance of SACCOs, depicting the relationship between risk management practices (credit) and financial performance in organizations.

Kimari (2013) undertook a study on the effect of credit risk management on financial performance of deposit taking Savings and Credit Co-operative Societies in Kenya. The researcher adopted a cross sectional survey research design in his study employing a sample of 30. The findings revealed there was positive relationship between financial performance (ROE) and the constructs of credit risk management

In Nigeria, Danse (2013) conducted a study on SMEs that sought to examines the relationship between business risks and the sustainability of SMEs in Nigeria. Primary data for the study was generated from fifty SMEs in Lagos State. Data analysis and hypotheses

testing were done with the use of Chi-square and descriptive statistics. The result of the study revealed that standard risk management strategy employed by SMEs led to improved sustainability. The study recommended that entrepreneurs should consider risk management as an integral part of business management. In addition, regulators should insist on minimum corporate governance standards for SMEs.

Alrashidi & Baakeel (2012) undertook a study to measure the operational risk management effects on the financial development and growth in the Saudi SME companies. Online survey was distributed among 15 users from different SME companies in Saudi Arabia. The result showed that operational risk management has Positive effects of the financial development and growth in the Saudi SME companies.

A study conducted in South Africa by Boubala (2010) using a sample of 150 SME in Cape Metro pole sought to establish risk management techniques as applied by small enterprise. Results showed that very few SMME owners, managers, entrepreneurs or key designated employees made use of risk management tools and techniques within their businesses, to achieve growth and sustainability. However, according to the study the majority agreed to the high importance of risk management in the success of a business enterprise.

Henschel (2008) carried out an investigation into the status of risk management practices in German small to medium-sized enterprises (so-called German “Mittelstand”). In particular, the study sought to establish the possible relationships between risk management and business planning activities. The inquiry was carried out by means of a postal

questionnaire. The results showed that in German SMEs the handling of risks is strongly concentrated on owner-managers. Risk management is carried out in a rather rudimentary way. Only few SMEs have established a comprehensive business planning system, and the link between their risk management and their business planning is in most SMEs not well developed.

Concerning risk mitigation strategies employed by SMEs in Kenya, Kagwathi, et al (2014) sampled 100 SMEs operating within Nairobi and its environs. The study identified capital market, customer relations, operational-economic, global view, and branding risks among others as the major risk faced by SMEs, while the main risk mitigation strategies were diversification, collaboration, insurance, and use of credits scorecards whereby 66% of SMEs used at least one of these strategies.

2.5 Summary of Literature Review

The theoretical and empirical analysis found risk management to be vital in management of any portfolio of assets. However most studies that attempted to analyze the relationship between risk management and financial performance from the empirical review were biased towards credit risk management techniques applied in the financial sector and did not look into risk management holistically. They therefore failed to address the effect of techniques used in enterprise wide risk management on financial performance of the Enterprise. In addition, the studies suggest that risk management can contribute to the financial performance of financial institution but fail to establish a clear multiplicative effect of the various constructs of risk management practices on financial performance.

The theory reviewed also introduced a very important concept in risk and return, and the need for holding portfolio of assets to diversify risk. The theorist's intentions were to address investors of stocks in an equity market that is how to maximize return while minimizing risks. Thus, the theories studied failed to clearly explain the relationship between risk management and financial performance especially within the context of an enterprise. Therefore, from the literature reviewed there were gaps that were identified that necessitated this Study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the framework in which data collection and analysis was carried out. It points out the research design, variables and their measurements, the target population, sampling methods and instruments used in data collection. It also addresses data processing and analysis.

3.2 Research Design

Research design refers to the way the study is designed, that is, the method used to carry out a research. It is important to highlight the two main methods when investigating and collecting data quantitative and qualitative. A quantitative approach is strongly linked to deductive testing of theories through hypotheses, while a qualitative approach to research generally is concerned with inductive testing (Saunders et al, 2003). The focus of this study was quantitative. This is so because the research problem could be best studied using a descriptive research design.

Descriptive research is the investigation in which quantitative data is collected and analyzed in order to describe the specific phenomenon in its current trends, current events, and linkages between different factors at the current time. Descriptive research design was chosen because it enabled the researcher to generalize the findings to a larger population. The design was also appropriate because the study involved an in-depth study

of the various constructs of risk management and the relationship between the two variables i.e. risks management and the financial performance of SMEs.

3.3 Target Population

Target population is that population to which a researcher wants to generalize the results of the study (Mugenda & Mugenda, 2003).The population of the study was the Kenya top 100 SMEs companies for the year 2013 (see appendix 2).

3.4 Sampling Design and Procedure

According to Mugenda and Mugenda (2003), a sample of 10-30% is good enough if well-chosen and the elements in the sample are more than 30. Due to these SMEs being spread out in a large geographical area, a sample 50 SMEs located in Nairobi and its environs were included in the sample from the top 100 SME list of 2013. Judgment (purposive) sampling (a non-probability form of sampling) was used to select the sample. Judgment sampling is a common non-probability method. The researcher selects the sample based on judgment. It is usually an extension of convenience sampling. For example, a researcher may decide to draw the entire sample from one "representative" city, even though the population includes all cities (Statpac, 2011).

3.5 Validity and Reliability

The researcher carried out a pilot study to pretest the validity and reliability of data collected using the questionnaire. According to Berg and Gall (1989) validity is the degree by which the sample of test items represents the content the test is designed to

measure. Content validity, which was employed by this study, is a measure of the degree to which data collected using a particular instrument represents a specific domain or content of a particular concept. Mugenda and Mugenda (1999) contend that the usual procedure in assessing the content validity of a measure is to use a professional or expert in a particular field. The content validity of the research instrument was evaluated using content validity index. The instrument was given to two experts to give their opinions on the relevance of the questions using a four point scale ranging from relevant, quite relevant, somewhat relevant and not relevant. The CVI's computed for the two experts were 0.71 and 0.61 since the CVI was above 0.5, the instrument used was valid.

According to Shanghverzy (2003) reliability refers to the consistency of measurement and is frequently assessed using the test–retest reliability method. Reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures. The researcher selected a pilot group of 10 individuals from the target population to test the reliability of the research instrument. The aim was to correct inconsistencies arising from the instruments, which ensured that they measured what was intended. The survey instrument was subjected to overall reliability analysis using the Cronbach's alpha and resulted in a coefficient of 0.7 implying that there is a high degree of data reliability.

3.6 Data Collection

Primary data on applicability of risk management techniques and financial performance indicators were obtained from management staff and Owners using a closed questionnaire. Management/Owners were purposively selected to provide data because they deal with

policy formulation. The respondents were required to complete a questionnaire voluntarily and the researcher provided assistance in filling up the questionnaires where required.

The questionnaire comprised three major sections. Section A included general questions while Section B comprised questions on risk management. Section C comprised questions on financial performance measure related to the performance of SMEs and over a 5-year period starting from 2009 to 2013. Completed questionnaire were be checked for plausibility, integrity and completeness resulting in all cases being usable.

3.7 Data Analysis

Data collected was analyzed using Pearson correlation and a multiple regression analysis using the following model: $Y= \alpha + \beta_1X_1+\beta_2X_2+ \beta_3X_3+ \beta4X_4+ \beta_5X_5+ e$

Where: Y was the dependent variable (Financial Performance) measured as ROA, given as follows: ROA= Net income/total Assets. Return on asset was calculated by dividing annual net earnings by total assets, to display a ratio. The researcher then used the average return on asset for the five-year period for analysis. The Return on Assets was used in the study since it indicates how profitable SMEs are, relative to total assets. ROA gives an idea on how efficient management is at using its assets to generate earnings.

Alpha,α, represented the constant value which ROA would assume when the loss reduction, risk avoidance, risk transfer, loss financing, and risk diversification were equal to zero (if loss reduction, risk avoidance, risk transfer, loss financing, and risk diversification =0 then α=ROE). The disturbance or error term was presented by ε. The

independent variables were risk management constructs where: X1; loss reduction, X_2; risk avoidance, X_3; the risk transfer, X_4; loss financing, X_5 risk diversification. Finally, β_1, β_2, β_3, $\beta_4$and β_5 were the Coefficients of beta.Each β represented the independent contributions of each independent variable to the prediction of the dependent variable.

This therefore meant that if β coefficient of; loss reduction, risk avoidance, risk transfer, loss financing, and risk diversification was negative, the two variables affect ROA negatively: one unit increase in loss reduction, risk avoidance, risk transfer, loss financing, and risk diversification would decrease the ROA by the coefficient amount. In the same way, if the β coefficient of; loss reduction, risk avoidance, risk transfer, loss financing, and risk diversification was positive; ROA would increase by the coefficient amount. The significance of the risk management practises on financial performance was analysed using the regression analysis SPSS output. Test of significance included coefficient of correlation (R), coefficient of determination (R-squared), and ANOVA.

Table 3.1: Variable Operationalization

Variable	Definition	Measurement scale	Purpose
Return on Asset	The Return on Assets is an indicator of how profitable a company is relative to total assets	Ratio scale: ROA=Net income/total Assets	To determine how profitable a company is relative to total assets
Risk avoidance	Technique of risk management that involves: taking steps to remove a hazard, engaging in alternative activity, or otherwise end a specific exposure	Nominal scale: A 5 point likert scale ranging from a very great extent ,great extent, moderate extent, least extent and not at all was be used	To determine the extent to which adoption of risk avoidance as a technique of risk management affects the financial performance of SMEs.
Risk transfer	Technique of risk management in which an insurable risk is shifted to another party (the insurer) by means of an insurance policy	Nominal scale: A 5 point likert scale ranging from a very great extent ,great extent, moderate extent, least extent and not at all was used	To determine the extent to which adoption of risk transfer as a technique of risk management affects the financial performance of SMEs.
Risk acceptance	Technique of risk management appropriate where the cost of managing the risk is acceptable because the risk level is insufficient to justify the cost of risk avoidance	Nominal scale: A 5 point likert scale ranging from a very great extent ,great extent, moderate extent, least extent and not at all was used	To determine the extent to which adoption of risk acceptance as a technique of risk management affects the financial performance of SMEs.
Risk diversification	A risk management technique that mixes a wide variety of investments within a portfolio. The rationale behind this technique contends that a portfolio of different kinds of investments will, on average, yield higher returns and pose a lower risk than any individual investment found within the portfolio	Nominal scale: A 5 point likert scale ranging from a very great extent ,great extent, moderate extent, least extent and not at all was used	To determine the extent to which adoption of risk diversification as a technique of risk management affects the financial performance of SMEs.
Loss reduction /prevention	A risk management technique that involves putting up measures to prevent losses from occurring or reduce the impact of losses if incurred)	Nominal scale: A 5 point likert scale ranging from a very great extent ,great extent, moderate extent, least extent and not at all was used	To determine the extent to which adoption of Loss reduction/prevention as a technique of risk management affects the financial performance of SMEs.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the analysis, results and discussion of findings from the data collected in the field. The objective of this study was to establish the relationship between the risk management techniques adopted by the top 100 SMEs in Kenya and financial performance. The target population was the top 100 SMEs in Kenya for the year 2013. Data gathered was analyzed using Statistical Package for Social Scientists (SPSS) version 17.

4.2 Descriptive statistics

This section provides simple summaries about the sample and the observations that were made. These summaries form the basis of the initial description of the data that will be followed by a more extensive statistical analysis.

4.2.1 Response Rate

Questionnaires were administered to 50 respondents out of which 40 respondents filled and returned their questionnaires. This translated to 80 % response rate. The response rate satisfies Mugenda (2003) recommendation of an acceptable response rate of more than 60% for a small population size.

4.2.2 Number of Employees Working in the SMEs

The study sought to find out the number of the employees working in the SMEs. From the findings, majority of the respondents indicated that the number of employees in their enterprises ranged from 81-100, which represented 45% of the total enterprises sampled. On the other hand, 32% of the respondents indicated that the number of employees in their firms ranged from 61-80, whereas 12% of the respondents indicated the number of the employees in the firm ranged between 41-60 employees.

Eight percent of the respondents indicated that the number of employees in their firms ranged between 21-40 employees while 3% of the respondents indicated that the number of employees in the firm ranged between 1-20 employees. From the results, most of the companies sampled had more than 50 employees and less than 100 meaning that majority of those sampled were medium enterprises as per the Micro and Small Enterprise Act (2012).The findings are summarized in table 4.1 below.

No. of Employees	**Frequency**	**Percent**
1-20	1	3
21-40	3	8
41-60	5	12
61-80	13	32
81-100	18	45
Total	40	100

Table 4.1: Number of people employed in the SMEs

Source: Research Findings

4.2.3 Adoption of Risk Management Techniques

The study sought to find out the extent to which the top 100 SMEs in Kenya have adopted the various risk management practices. The researcher developed a five point likert scale ranging from: very great extent, great extent, moderate extent, least extent, and not at all to test the extent to which the various risk management practices were adopted. The findings are presented under this section with the aid of pie charts.

4.2.3.1 Adoption of risk avoidance Technique

Majority of the respondent (30%) adopted risk avoidance to a moderate extent. Another 27.5 % of the respondents adopted risk avoidance to a least extent, whereas 22.5 % adopted risk avoidance to great extent.15 % of the respondents according to the findings adopted risk avoidance to a very great extent while 5% did not apply risk avoidance at all. The findings are illustrated in Figure 4.1 below.

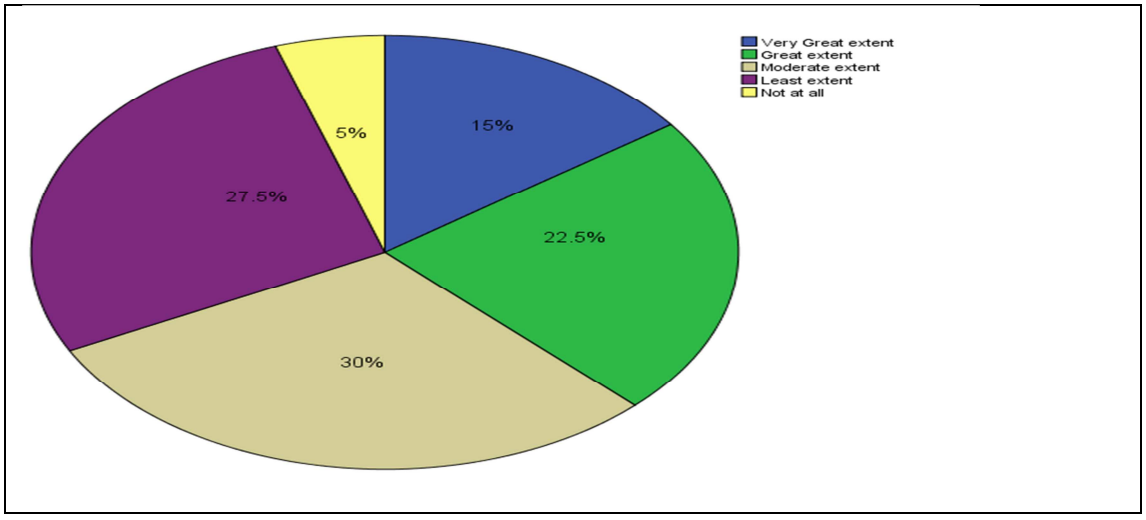

Figure 4.1: Adoption of risk avoidance Technique

Source: Research Findings

4.2.3.2 Adoption of risk transfer Technique

Concerning risk transfer technique, the findings showed that majority of the respondent (40%) adopted risk transfer to a moderate extent. 27.5 % of those sampled adopted risk transfer to a great extent while 22.5 % of the respondents adopted risk transfer to a least extent. Only 10 % of the respondents adopted risk transfer to a very great extent as per the findings. Figure 4.2 shows the extent to which risk transfer is adopted.

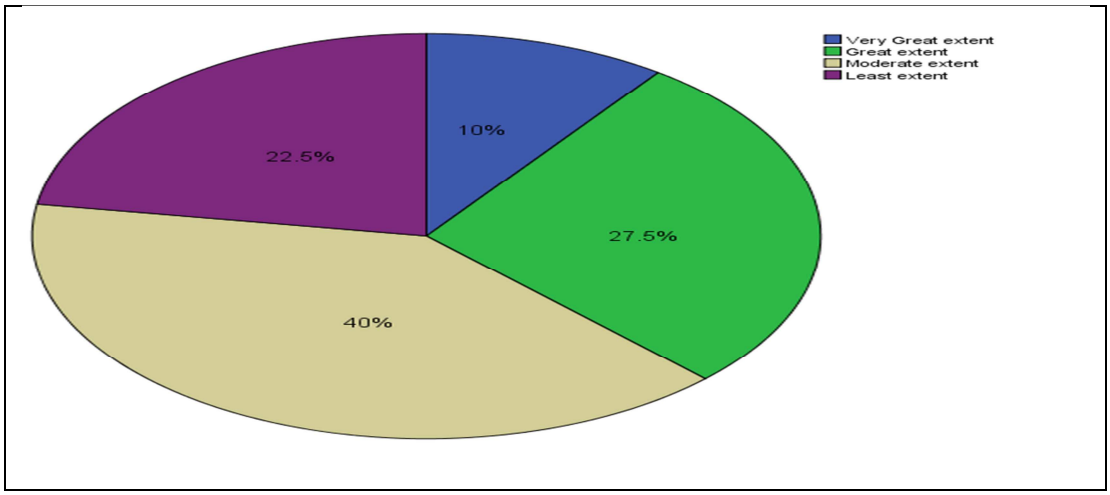

Figure 4.2: Adoption of risk transfer Technique

Source: Research Findings

4.2.3.3 Adoption of risk acceptance Technique

According to the findings, majority of the respondent (40%) adopted risk acceptance to a great extent followed by 32.5 % who adopted risk acceptance to a moderate extent. 10 % of the respondents adopted risk acceptance to a least extent. 12.5 % of the respondents adopted risk acceptance to a very great extent. Results also revealed that 5 % of the respondents did not adopt risk acceptance at all. Figure 4.3 below shows the extent to which risk acceptance is adopted.

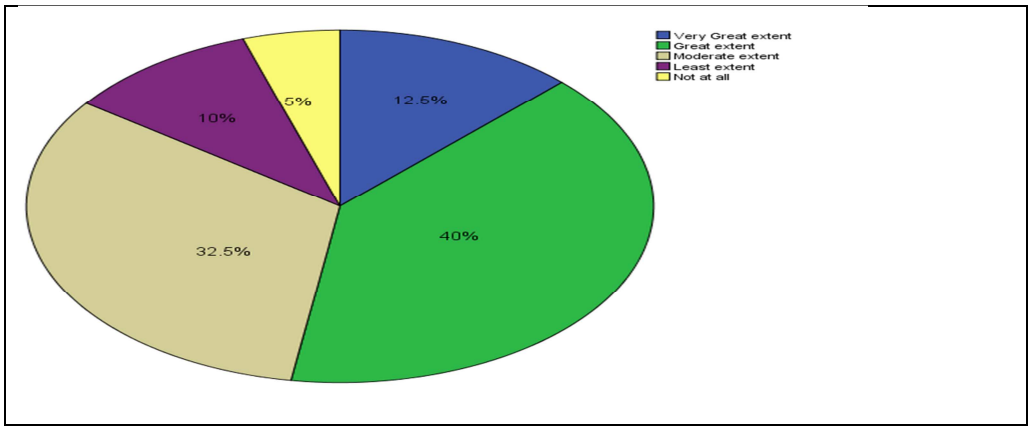

Figure 4.3: Adoption of risk acceptance Technique

Source: Research Findings

4.2.3.4 Adoption of risk diversification Technique

The findings presented in figure 4.4 below showed that majority of the respondent (37.5%) adopted risk diversification to a great extent. 27.5 % of the respondents adopted risk diversification to a moderate extent whereas 20 % of the respondents adopted risk diversification to a least extent. 15 % of the respondents adopted risk diversification to a very great extent.

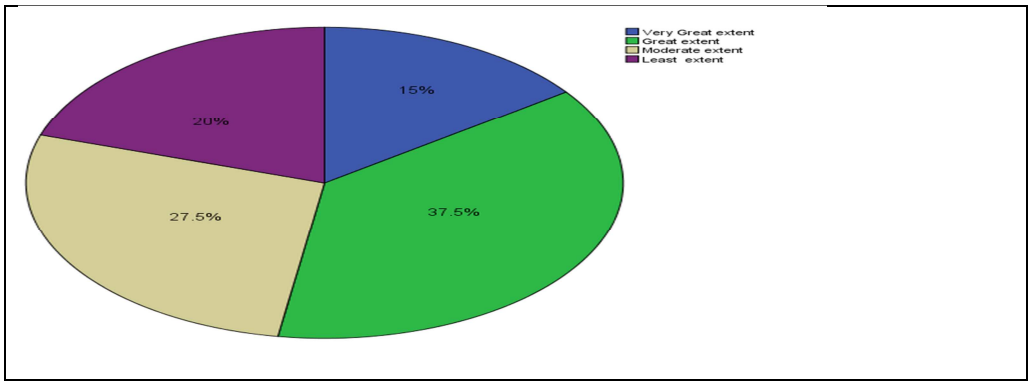

Figure 4.4: Adoption of risk diversification technique

Source: Research Findings

4.2.3.5 Adoption of loss prevention Technique

According to the findings, majority of the respondent (50%) adopted loss prevention at a moderate extent. 27.5 % of the respondents adopted loss prevention to a great extent, whereas 10 % of the respondents adopted loss prevention to a least extent.5 % of the respondents did not adopt loss prevention at all. 12.5 % of the respondents adopted loss prevention to a very great extent. Figure 4.3 shows the extent to which loss prevention is adopted.

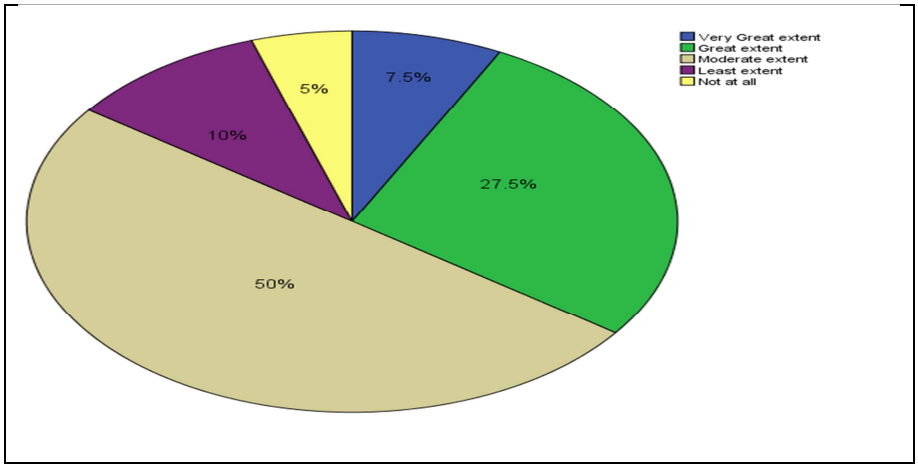

Figure 4.5: Adoption of loss prevention technique

Source: Research Findings

4.3 Correlation Analysis

The strength of relationship between variables under study was determined using Pearson Correlation analysis. Pearson correlation matrix is useful for analyzing data that is non-categorical in nature and uses interval measurement scale (Field, 2009). The results are summarized in table 4.2 as shown below.

Table 4.2: Correlation matrix of risk management techniques and performance

	Return On Asset	The extent to which risk avoidance is adopted	The extent to which risk transfer is adopted	The extent to which risk acceptance is adopted	The extent to which risk diversification is adopted	The extent to which loss prevention is adopted
Return On Asset	1					
The extent to which risk avoidance is adopted	-.441**	1				
The extent to which risk transfer is adopted	-.583**	.194	1			
The extent to which risk acceptance is adopted	.341*	.225	-.116	1		
The extent to which risk diversification is adopted	-.103	.255	-.032	.210	1	
The extent to which loss prevention is adopted	-.556**	.286	.280	-.115	.039	1

Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

According to the correlation matrix table 4.2 above, risk avoidance has a negative significant relationship with return on asset as shown by the Pearson correlation value of -0.441 at 99% confidence interval level. Risk transfer according to the findings has a negative significant relationship at 99% confidence interval level with return on assets as shown by the Pearson correlation value of -0.583.

Risk acceptance as per the findings has a positive significant relationship with return on asset as shown by the Pearson correlation value of 0.341 at 95% confidence interval level. Risk diversification has a less significant negative relationship with return on assets as shown by the Pearson correlation value 0f -0.103. The results show that Loss prevention has a negative significant relationship with the return on assets as shown by the Pearson correlation value of -0.556 at 99% confidence interval level. Multicollinearity was also tested and the findings showed that there was no multicollinearity among the variables.

4.4. Regression Analysis

Regression analysis was performed to determine the predictability of financial performance of the top 100 SMEs in Kenya. The relationship between financial performance (ROA) and risk management practices (loss reduction, risk avoidance risk, transfer, risk acceptance, and risk diversification) was summarized into a model represented by the following linear equation shown below:

$Y= \alpha + \beta_1X_1+\beta_2X_2+ \beta_3X_3+ \beta4X_4+ \beta_5X_5+ e$. Where: Y = Dependent variable (Financial Performance) measured as ROA. α = Constant; X_1= loss prevention; X2=risk avoidance; X3= risk transfer; X_4= risk acceptance; X5 =risk diversification; $\beta1$, β_2, β_3, $\beta_4$and β_5 are the Coefficients of beta and e=error term

4.4.1 Model Summary – Goodness of Fit

Table 4.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.823[a]	.678	.630	.04792

a. Predictors: (Constant), The extent to which loss prevention is adopted, The extent to which risk diversification is adopted, The extent to which risk acceptance is adopted, The extent to which risk transfer is adopted, The extent to which risk avoidance is adopted

Source: Research Findings

Table 4.1 shows the output for model fitness. The R coefficient of 0.823 indicates that the predictors of the model which are; loss reduction, risk avoidance risk, transfer, risk acceptance, and risk diversification techniques have a strong positive correlation of 0.823 with the dependent variable (return on asset). The R square also called coefficient of determination of 0.678 indicates that the model can explain 67.8% of the variations in the return on assets of the top 100 SMEs in Kenya while other factors not captured in the model account for 32.2% of the variations in return on assets.

4.4.2 Analysis of Variance – ANOVA

Table 4.2 Analysis of Variance – ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.164	5	.033	14.290	.000[b]
Residual	.078	34	.002		
Total	.242	39			

a. Dependent Variable: Return On Asset

b. Predictors: (Constant), The extent to which loss prevention is adopted, The extent to which risk diversification is adopted, The extent to which risk acceptance is adopted, The extent to which risk transfer is adopted, The extent to which risk avoidance is adopted

Source: Research Findings

Table 4.2 shows that variations in financial performance (return on assets) can be explained by the model to the extent of 0.164 out of 0.242 or 67.8% while other variables not captured by this model can explain of the 32.2% (0.078 out of 0.242) of the variations in financial performance. The F value of the model produces a p-value of 0.000, which is significantly the same as zero. A p-value of 0.000 is less than the set level of significance of 0.05 for a normally distributed data. This therefore means that the model is highly significant in explaining the relationship between financial performance and risk management techniques adopted by SMEs, and can thus be relied in predicting return on asset.

4.4.3 Regression Coefficients

Table 4.3 Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.343	.042		8.177	.000
The extent to which risk avoidance is adopted	-.022	.007	-.333	-3.047	.004
The extent to which risk transfer is adopted	-.032	.008	-.395	-3.825	.001
The extent to which risk acceptance is adopted	.028	.008	.354	3.411	.002
The extent to which risk diversification is adopted	-.007	.008	-.093	-.910	.369
The extent to which loss prevention is adopted	-.029	.010	-.306	-2.885	.007

Source: Research Findings

The established regression equation using the unstandardized beta coefficients is as follows: $Y= 0.343 -0.029X_1 -0.20X_2 -0.22X_3+ 0.028.X_4-0.029 X_5$. From the regression equation, the coefficient for the intercept is 0.343. This means that if other factors are equated to zero, then the ROA will be 0.343. The beta coefficient for risk avoidance is -.022, meaning that an increase in the adoption of risk avoidance by I unit will lead to a corresponding decline in ROA by a factor of 0.022.

In the case of risk transfer, the beta coefficient is -.032 implying that an increase in the adoption of risk transfer by I unit will lead to a corresponding decline in ROA by a factor of 0.032.Risk acceptance has a beta coefficient of 0.028 which means that an increase in the adoption of risk acceptance by 1 unit will lead to a corresponding increase in ROA by a factor of 0.028. The beta coefficient for risk diversification is -.029, meaning that an increase in the adoption of risk diversification by I unit will lead to a corresponding decline in ROA by a factor of 0.007.Finally the beta coefficient for loss prevention is -.029, meaning that an increase in the adoption of loss prevention by I unit will lead to a corresponding decline in ROA by a factor of 0.029.

4.5 Summary of Findings

Research findings above indicated that the model had accounted for 67.8% variations in financial performance (return on assets) of the top 100 SMEs in Kenya over the study's period, which is 2009-2013. Other variables not captured by the model accounted for 32.2% of the variations in financial performance as measured by ROA.

Findings also showed that the model was highly significant in explaining the relationship between financial performance and risk management techniques adopted by SMEs, and can thus be relied in predicting return on asset as it was significant at the 99% confidence interval level.

Moreover the predictors of the model which were; loss reduction, risk avoidance risk, transfer, risk acceptance, and risk diversification techniques were found to have a strong positive correlation, of 0.823, with the dependent variable (return on asset). These findings are in support of previous study by Gisemba (2010) who returned that there was a positive relationship between risk management practices and the financial performance of SACCOs, depicting the relationship between risk management practices and financial performance in organizations.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives a brief summary of the findings, conclusions, recommendations as well as areas suggested for further research. Finally, the chapter highlights the limitations encountered in carrying out the study and explanations on how the researcher overcame some of the limitations.

5.2 Summary

The study's objective was to examine the relationship between risk management techniques and financial performance of the top 100 Kenyan SMEs. The population for this study was the top 100 SMEs for year 2013. A descriptive research design was adopted for the study. A sample size of 50 SMEs (located within Nairobi and its environs) were selected using Judgmental (purposive) sampling (a non-probability form of sampling) method.

The response rate was 80 percent, which comprised of 40 SMEs out of the 50 sampled. Primary data was collected using a questionnaire and was analyzed using SPSS version 17. Pearson correlation analysis and multiple regression analysis were performed on the data gathered. The variables used in the regression model were; financial performance of SMEs measured by return on asset (dependent variable) and risk management constructs, which included risk avoidance, risk acceptance, risk transfer, risk diversification and loss prevention techniques as the independent variables.

The findings indicated that the model had accounted for 67.8% of the total variance in Return on Asset (ROA) of the top 100 Kenyan SMEs over the 5-year study's period, that is 2009 - 2013.From the findings 32.2% of Kenyan SMEs' financial performance was accounted for by other factors (variables) that were not tested in the study's model. Findings also indicated that there was sufficient evidence that the model was useful in explaining the financial performance (ROA) of the top 100 Kenyan SMEs; as it was significant at the 99% confidence level (p=0.000).

According to the findings, risk avoidance had a negative significant relationship with return on asset Pearson correlation value of -0.441 at 99% confidence interval level. Risk transfer also has a negative significant relationship with return on assets as shown by the Pearson correlation value of -0.583 and p value of 0.000. Risk acceptance has a positive significant relationship with return on asset shown by Pearson correlation value of 0.341 and a p value of 0.032. Risk diversification has a less significant negative relationship with return on assets with a Pearson correlation value 0f -0.103 and a p value of 0.527 .Loss prevention has a negative significant relationship with the return on assets shown by a Pearson correlation value of -0.556 and p value of 0.000. The study found out that risk management constructs have a strong positive correlation with financial performance (ROA) of SMEs with a correlation coefficient of 0.823.

5.3 Conclusion

The study concludes that majority of SMEs moderately applied risk avoidance, risk transfer and loss prevention when dealing with potential significant risks which their

business encountered; risk acceptance and risk diversification on the other were adopted to a ‘great extent’ by most SMEs.

Even though risk management as a whole positively relates with financial performance, the study concludes that caution should be exercised when adopting the various risk management practices since it has been established from the study that each one of them affects financial performance differently.

Risk management techniques such as loss prevention, risk transfer, and risk avoidance have a negative effect on financial performance. This therefore means that an increase in the adoption of these techniques will negatively affect the financial performance of SMEs. SMEs should therefore consider reducing the extent to which they have adopted these strategies in order to enhance financial performance.

On the other hand, an increase in adoption of risk acceptance technique (which has a positive significant relationship with financial performance as per the study) will positively affect return on asset and thus by accepting more risks, SMEs are likely to register improve returns.

Finally, the researcher concludes from the findings that effective management of risk is essential for any enterprise since it positively affects financial performance. This is in agreement with arguments presented by Nocco, and Stulz (2006) who argued that risk management activities could be value increasing to the shareholders. Therefore, the proactive management of risk is essential to creating and nurturing core business value.

5.4 Recommendation

From the finding and conclusions, the study recommends that organizations should carefully consider the extent to which they adopt the various risk management practices, since it has been established from the study that they affect financial performance of SMEs differently. The study therefore recommends that risk management should be made a core business process by SMEs; and should be planned systematically and accordingly, as the study has established that there exists a positive relationship between risk management practices and financial performance of SMEs.

5.5 Areas for Further Research

The researcher suggests that further studies should be undertaken with an increased sample size that includes SMEs from other Counties. The increased sample size might give a better representation of the SME sector in Kenya and could lead to more insightful findings.

Further research on the influence of other factors, which not studied in the model, on financial performance of SMEs would help in gaining a better understanding with respect to variability of returns of SMEs in Kenya. Such factors include: quality of management of SMEs, Age of owner/manager, and level of education of owner/manager, size and market position.

The researcher suggests a comparative study on the effects of risk management on financial performance of large enterprise and SMEs. This study might help in furthering

our understanding with respect to variability in financial performance between large enterprises and SMEs.

5.4 Limitations of the Study

The researcher faced several limitations one of them was delayed response from the targeted respondents. This was because the researcher targeted management and owners who had busy Schedules. The researcher however, overcame this wring remainders to the companies encouraging them to complete filling their questionnaire as soon as possible.

Some of the respondents were found to be uncooperative given the sensitivity of the information required from them. The researchers overcome this by reassuring the respondents that the information they provided was to be held confidential and that it was only for academic purpose only.

The study also faced a time challenge; particularly where the respondent delayed in filling the questionnaire and the time spend travelling to collect the filled questionnaire given that the sampling units were scattered and the distance between them was quite far. The researcher overcame this challenge by requesting the respondents to email back the filled questionnaire.

The Researcher also faced financial constraints .Limited financial resources forced the researcher to narrow down the sample size to 50 SMEs located within Nairobi and its environs since it was not possible given the financial resources to include SMEs outside Nairobi County.

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APPENDIX I: QUESTIONNAIRE

QUESTIONNAIRE FOR OWNERS AND MANAGEMENT STAFF

THE UNIVERSITY OF NAIROBI (SCHOOL OF BUSINESS)

(A Questionnaire on the adoption of risk management techniques and financial performance of the SMEs sector in Kenya)

Dear respondent,

This questionnaire is intended to facilitate a study on adoption of risk management techniques and its effect on financial performance of SME sector in Kenya. The study is for academic purpose and is carried out as a partial fulfillment in the award of a master's of science (finance) degree from the University of Nairobi. In order to complete the study, you are requested to complete this questionnaire. Your response will be highly appreciated and information provided will be treated with utmost confidentiality. In case you are interested in receiving the outcome of this study, please indicate your contact address.

SECTION A: GENERAL INFORMATION

1. Name of organization……

2. Industry…….

3. What is the number of staff in your firm?

1 – 20 [ ] 21 – 40 [ ] 41 – 60 [ ] 61 – 80 [ ] 81 – 100 [ ]

SECTION B: RISK MANAGEMENT

Risk Management Techniques Defined

Risk avoidance (Technique of risk management that involves: taking steps to remove a hazard, engaging in alternative activity, or otherwise end a specific exposure)
Risk transfer (Risk management strategy in which an insurable risk is shifted to another party (the insurer) by means of an insurance policy)
Risk acceptance (management technique appropriate where the cost of managing the risk is acceptable because the risk level is insufficient to justify the cost of risk avoidance
Risk Diversification (A risk management technique that mixes a wide variety of investments within a portfolio. The rationale behind this technique contends that a portfolio of different kinds of investments will, on average, yield higher returns and pose a lower risk than any individual investment found within the portfolio)
Loss reduction/prevention measures(A risk management technique that involves putting up measures to prevent losses from occurring or reduce the impact of losses if incurred)

4. To what extent, has your company adopted the following risk management practices when dealing with risks facing your enterprise?

	Very great extent	great extent	Moderate extent	Least extent	Not at all
Risk avoidance					
Risk transfer					
Risk acceptance					
Risk diversification					
Loss reduction/prevention					

SECTION C

Financial performance

5. Please provide the Net income and Total Assets for the following 5-year periods.

Year	Net income (Ksh.)	Total Assets (Ksh.)
2009		
2010		
2011		
2012		
2013		

Kindly check that you have answered all the questions.

APPENDIX II: TOP 100 SMEs FOR THE YEAR 2013

1 LEAN ENERGY SOLUTIONS LTD.
2 EAST AFRICAN CANVAS CO. LTD
3 DIGITAL CITY LTD
4 PLENSER LTD
5 ALLWIN AGENCIES (K) LTD
6 PROPACK KENYA LTD
7 VIVEK INVESTMENTS LTD
8 POWERPOINT SYSTEMS (EA) LTD
9 CONINX INDUSTRIES LTD.
10 SYNERMEDICA PHARMACEUTICALS (KENYA) LTD
11 COAST INDUSTRIALS & SAFETY SUPPLIES LTD
12 ISOLUTIONS ASSOCIATES
13 WOTECH KENYA LIMITED
14 AVTECH SYSTEMS LIMITED
15 KENYA BUS SERVICE
16 MURANGA FORWARDERS
17 SYNERMED PHARMACEUTICALS (K) LTD
18 TISSUE KENYA LTD
19 KENYA HIGHLAND SEED CO LTD
20 FAMIAR GENERATING SYS LTD
21 ALEXANDER FORBES
22 CHEMICALS & SCHOOL SUPPLIES LTD.
23 CHARLSTONE TRAVEL LIMITED
24 ONFON MEDIA LTD
25 ELITE TOOLS LTD
26 EUROCON TILES PRODUCTS LTD
27 ENDEVOUR AFRICA LIMITED
28 RONGAI WORKSHOP & TRANSPORT LTD
29 R & R PLASTICS LTD
30 CHIGWELL HOLDINGS LTD
31 CLASSIC MOULDINGS LIMITED
32 PEWIN CABS LIMITED
33 NOVEL TECHNOLOGIES EA LTD
34 XTREME ADVENTURES LTD
35 VINTAGE AFRICA LIMITED
36 PUNJANI ELECTRICAL AND INDUSTRIAL HARDWARE LIMITED
37 SPRY ENGINEERING CO. LTD
38 GENERAL CARGO SERVICES LTD
39 PINNACLE (K) TRAVEL & SAFARIS
40 PANESARS KENYA LIMITED
41 SPECIALIZED ALUMINIUM RENOVATORS LTD.
42 CUBE MOVERS LIMITED
43 BROGIIBRO COMPANY LTD
44 TOTAL SOLUTIONS LTD
45 TYREMASTERS LTD
46 XRX TECHNOLOGIES LIMITED
47 SENSATION LTD
48 EUREKA TECHNICAL SERVICES LTD
49 PALBINA TRAVEL LIMITED
50 WAUMINI INSURANCE BROKERS LTD
51 ASL CREDIT LIMITED
52 ZAVERCHAND PUNJA LIMITED
53 CANON CHEMICALS LTD
54 PACKAGING MANUFACTURERS(1976) LTD
55 TRIDENT PLUMBERS LTD
56 TYPOTECH
57 KINPASH ENTERPRISES LTD
58 VEHICLE & EQUIPMENT LEASING LTD
59 SHEFFIELD STEEL SYSTEMS
60 COMPLAST INDUSTRIES LTD
61 DUNE PACKAGING LIMITED
62 HEBATULLAH BROTHERS LIMITED
63 SPICE WORLD LIMITED
64 MUSEUM HILL WINES LTD
65 YOGI PLUMBERS LTD
66 VAJRA DRILL LTD
67 MELVN MARSH INTERNATIONAL LTD
68 KANDIAFRESH PRODUCE SUPPLIERS LTD
69 FAYAZ BAKERS LIMITED
70 SPECICOM TECHNOLOGIES LIMITED
71 MOMBASA CANVAS LTD
72 SILVERBIRDTRAVEL PLUS LTD
73 IRON ART
74 RADAR LIMITED
75 MASTER POWER SYSTEMS
76 HARDWARE & WELDING SUPPLIES
77 MASTERS FABRICATORS LTD
78 SOFTWARE TECHNOLOGIES LTD
79 HERITAGE FOODS KENYA LTD
80 AFRICA TEA BROKERS LTD
81 RAEREX (EA) LIMITED
82 TRAVELSHOPPE COMPANY LTD
83 ORIENTAL GENERAL STORES LTD
84 CHUMA FABRICATORS LTD
85 STATPRINT LTD
86 SOLLATEK ELECTRONICS LTD
87 SMARTBRANDS LTD
88 DE RUITER EAST AFRICA LTD
89 KISIMA DRILLING (EA) LTD
90 CARE CHEMISTS
91 BROLLO KENYA LTD
92 CANON ALUMINIUM FABRICATORS LTD
93 SATGURU TRAVEL & TOURS LTD
94 KUNAL HARDWARE AND STEEL
95 DEEPA INDUSTRIES LIMITED
96 SKYLARK CREATIVE PRODUCTS LTD.
97 UNEEK FREIGHT SERVICES LTD
98 BBC AUTO SPARES LTD
99 LANTECH (AFRICA) LIMITED.
100 POLYTANKS LIMITED