

MITIGATION OF RISKS BY INSTITUTIONAL EQUITY INVESTORS
AT THE NAIROBI STOCK EXCHANGE

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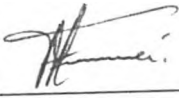
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A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL
FULFILLMENT FOR THE AWARD OF THE DEGREE IN MASTER OF
BUSINESS AND ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY
OF NAIROBI

OCTOBER 2006

DECLARATION

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

Signed:  _____

Date: 23/11/2006

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Admission No.: D/61/P/7521/2002

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

Signed:  _____

Date: 23/11/2006

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DEDICATION

This project is dedicated to my dear wife, Naomi, and our children, Adrian and Cecilia. Your support and forbearance has helped me overcome all the big boulders that obstructed my path, and my view.

ACKNOWLEDGEMENT

I would like to thank the fund managers, the Nairobi University School of Business and above all, my supervisor. Mrs. A. Kithinji, whose efforts and support were essential to the success of this project.

TABLE OF CONTENTS

Declaration.....	i
Dedication.....	ii
Acknowledgment.....	iii
Table of contents.....	iv
List of Tables.....	vi
Abstract.....	vii
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background	1
1.2 Statement of the Research Problem.....	4
1.3 Objectives of the Study.....	4
1.4 Importance of the Study.....	5
CHAPTER TWO: LITERATURE REVIEW.....	7
2.1 Types of Risks.....	7
2.2 Classifications of Financial Risks.....	10
2.3 Nature of Risk and Risk Management.....	13
2.4 Risk Analysis in Finance.....	15
2.5 Mitigation of Risk.....	18
2.6 Business Risk Mitigation.....	20
2.7 Risk Mitigation Approaches.....	200
2.8 Best Practices In Risk Management.....	23
2.9 Emerging Issues in Risk Management.....	25
2.10 Empirical Studies.....	27

2.11	Studies at the Nairobi Stock Exchange.....	258
CHAPTER THREE: RESEARCH METHODOLOGY.....		31
3.1	Research Design.....	31
3.2	Population.....	31
3.3	Data Collection.....	31
3.4	Data Analysis.....	31
CHAPTER FOUR: DATA ANALYSIS AND FINDINGS.....		31
4.1	Introduction.....	312
4.2	General Information.....	312
4.3	Risk Mgt Practices Employed by Fund Managers at the NSE.....	314
4.4	Challenges Faced in Risk Management at the NSE.....	41
CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH...42		
5.1	Summary of Findings and Conclusions.....	42
5.1.1	Introduction.....	42
5.1.2	Risk Mitigation Practices at the Nairobi Stock Exchange	42
5.1.3	Challenges Faced in Risk Mitigation at the Nairobi Stock Exchange.....	46
5.2	Limitations of the Research.....	47
5.3	Recommendations.....	47
5.4	Areas for further Research.....	48
References.....		49
Appendix	1.....	I
Appendix	2.....	II
Appendix	3.....	X

LIST OF TABLES

Table 4.2.1	When fund was incorporated in Kenya	32
Table 4.2.2	Length of involvement in equity investments	33
Table 4.2.3	Market Share	33
Table 4.2.4	Decision Making	34
Table 4.3.1	Frequencies of risk avoidance actions used by the funds	34
Table 4.3.2	Means/Standard Deviations of risk avoidance actions used by the funds	35
Table 4.3.3	Issuer risk acceptance criteria in stock investment decisions	35
Table 4.3.4	Means/standard deviations of issuer risk acceptance criteria	36
Table 4.3.5	Frequencies of importance of risk mitigants	36
Table 4.3.6	Means/standard deviations of importance of risk mitigants	37
Table 4.3.7	Extent of risk diversification or concentration	37
Table 4.3.8	Subjective considerations regarding risk mitigation	38
Table 4.3.9	Means of Subjective considerations regarding risk mitigation	38
Table 4.3.10	Frequencies for hedging against adverse movements	39
Table 4.3.11	Means and Standard Deviation for hedging against listed adversities	39
Table 4.3.12	Reason for managing risks at fund level	40
Table 4.4.1	Challenges faced in risk mitigation	40
Table 4.4.2	Additional risk management instruments required	41

ABSTRACT

The purpose of this study was to determine the risk mitigation practices employed by Fund Managers at the Nairobi Stock Exchange (NSE). To determine the risk mitigation practices employed fund managers at the Nairobi Stock Exchange. The study had two objectives: to identify the risk mitigation practices employed by fund managers at the NSE and to determine challenges faced by fund managers involved in risk mitigation at the Nairobi Stock Exchange.

The population of the study consisted of thirteen Fund Managers and a census study was adopted. Data collection was by means of a semi-structured questionnaire and was analyzed using SPSS software; the findings were presented using tables.

The findings reveal that the risk mitigation strategies adopted by the fund managers include due diligence, portfolio diversification and hedging. Growth potential of the stock, results of ratio analysis and management quality were used to evaluate suitable stock. Important risk acceptance criteria include level of sales, relationship of the stock's owner to government, industry performance, market share of the stockowner and the stocks earning potential. Sophisticated investor activity and attitude were important in aiding risk mitigation.

Challenges encountered in risk mitigation were insider trading and accounting impropriety. The study recommends that additional risk mitigating instruments such as zero coupon bonds, perpetuals and other bond variants, asset backed mortgage securities and debt equity hybrids be introduced to complement the risk mitigation situation at the Nairobi Stock Exchange.

CHAPTER ONE

INTRODUCTION

1.1 Background

Risk is an old concept associated with uncertainty; there has been little consensus on the definition of risk (Li, 2003). In the course of running a business, decisions are made in the face of uncertainty. Some risks are related to the underlying nature of the business (business risks) while others deal with uncertainty of such factors as interest rates, exchange rates, stock prices, credit risks otherwise referred to as financial risks. Risk mitigation is an important organizational function. It is the process an organization puts in place to control its financial exposures.

Financial risks emanate from adverse movements in economic variables that affect a firm's activities. These adverse movements can reduce income, expected profits, reported value of foreign assets, and increase in value of foreign liabilities (Baldoni, 2001). Risk management, from a wider perspective, is identifying, evaluating, controlling and 'roistering' risks. Li (2003) defines financial risk management as the practice of defining the risk level that a firm desires, identifying the risk level that a firm currently has and using derivatives or other financial instruments to adjust the actual risk level to the desired level.

Asaf (2004) indicates that there is no uniform approach to financial risk management among companies today. He notes that many companies that have identified various risks in their businesses do not have formal risk policies or strategies in place to manage these risks within a corporate approved risk policy; many companies lack clear policies for hedging business risk. Glaum (2000) found academic literature and discrepancies between the position of academic literature and corporate risk management practices. He contends further that there are no clear-cut answers to how corporate risk management should be organized. Hull (1998) notes that empirical studies have shown that there is no

formal corporate approved financial risk management practices. The practices adopted depend on the industry of operation and organizational characteristics. The author further argues that what is hedged is what an organization considers to be risk.

Financial risks have been considered to be the most critical of all risk exposures. Crabs (2003) indicates that the aggregation of exchange, interest and inflation risks forms financial risks; the three components are highly correlated. Active financial risk management involves the use of financial instruments, primarily derivative securities to control or manage the financial risks of an organization (Fatemi and Glaum, 2000). Successful financial risk management implementation goes through three distinct phases: identifying risk (this involves clearly identifying the financial risks the organization faces and how they interact with each other), measuring risk (this involves measuring risks in different ways depending on how an organization structures its risk management) and managing risk through adoption of active or passive mitigation techniques (Binder, 1997).

The early views of risk management led to the creation of risk management departments and risk managers with full responsibility for identifying, analyzing and accessing risk to an organization and implementing risk handling options to deal with negative impacts of such exposures. Risk management best practices are a strategy, approach, method, tool or technique that is particularly effective in helping an organization achieve its objective for managing risk (Asaf, 2004). The primary components of a sound risk management process are: comprehensive system for measuring different types of risks; a framework for governing risk taking, individual limits, guidelines and other relevant parameters; and an adequate management information system for monitoring, regulating and controlling risks (Li, 2003).

In mitigating financial exposures, various derivative products have been

developed in the recent past and are widely used by organizations (Bodnar and Gephardt, 1994). The use of derivatives has led to improvements in financial risk management. Turbulence in the economic environment has led to increased focus on risk hence management's need to develop the capacity to accept and mitigate risk effectively (Brucaite and Yan, 2000).

Financial risks can be mitigated through use of derivative instruments or other strategies. Crabb (2003) defines a derivative as any financial contract whose value is dependent upon the value of some underlying asset. Some of the common derivative instruments used include forward contracts, options, futures and swaps. Reckless use of derivatives has cost firms large sums of money; it is erroneous for organizations to speculate with derivatives. In the early 1990s, Procter and Gamble Corporation lost over \$ 100 million through speculative use of interest rate derivatives. In the same year, Gibson Greetings Inc. incurred a \$ 3 million loss as a result of 'unauthorized' interest rate swaps involving "aggressive use of derivatives". In the late 1990's, Nicholas Leeson's bets on the Nikkei Index led to a loss of close to two billion dollars and the fall of Barings Bank. Both very large and medium sized firms incurred large losses from the improper use of derivatives because of two main reasons: derivatives use is often seen as a sophisticated process that requires an advanced degree, usually in mathematics and the cost of deciding upon and setting derivative positions may be high (Crabb, 2003).

There are several fund managers who actively invest in the Nairobi Stock Exchange. At their disposal are a number of risk mitigation instruments and strategies, all of which are targeted at reduced the level of risks assumed by the funds, and maximizing the returns available to the funds. Gephardt G. et al (1994) note that investors can select any of the risk mitigation instruments depending on their level of sophistication.

1.2 Statement of the Research Problem

The Nairobi Stock Exchange (NSE) plays a significant role in the Kenyan economy. Due to the significant role played by NSE, it is important for the exchange to have adequate and appropriate risk management tools and strategies. There has been erosion of investor confidence due to volatility of returns of quoted companies, as has been witnessed in the recent past. The exchange facilitates the mobilization of resources amongst corporate and individual investors; it also facilitates the development of various risk management products. Investing in shares is a risky undertaking because of fluctuation in share prices as well as equity returns.

Due to inter-linkages in the financial markets, collapse of one financial institution can trigger the collapse of others (even though they may not individually be insolvents), leading to a chain reaction, which can have serious consequences for a money-based economy. The purpose of this research is to determine how fund managers mitigate financial risks and the risk management instruments at their disposal.

Empirical evidence has shown that there is a discrepancy between the prescriptions of academic literature on financial risk management and actual corporate practice. A number of studies have been conducted in the Western World to link the two. Due to the fact that great attention has been accorded to the relationship between theory and practice elsewhere, it is important to ascertain whether the risk mitigation practices employed by Fund Managers at the NSE correspond to the recommendations of academic literature.

1.3 Objectives of the Study

1. To determine the risk mitigation practices employed by fund managers at the Nairobi Stock Exchange.

2. To identify challenges faced by fund managers involved in risk mitigation at the Nairobi Stock Exchange.

1.4 Importance of the Study

The findings and deductions of this study will be of interest to:

The Nairobi Stock Exchange

The findings will enable the exchange to come up with more appropriate risk mitigation derivatives for mitigating risks.

Investors

Investors will be able to improve their risk mitigation tools and reduce their risk exposures.

Policy Makers

Policy makers will be able to improve the investment infrastructure provided by the Nairobi Stock Exchange.

Tax Authorities

Enhancement of the stability and growth of investors' income is likely to lead to improved taxable income and thus an increase in revenue generation.

Investment managers

They will use the results of the study in assessing the level of risks to be accepted relative to the instruments available for mitigating the risks

Financial consultants

They will be able to offer enhanced advice to clients on the possible effects, benefits and options in risks mitigation.

Scholars

The results will be useful to those who intend to analyze the development of the NSE and possible effect on the investor's wealth as well as those who may wish to use the findings of this study as a basis for further research on this subject.

CHAPTER TWO

LITERATURE REVIEW

2.1 Types Of Risks

Business risk comes in many forms. Quantitative exposures include treasury risks, currency risks and interest rate risks, while those qualitative by nature include human resource risk, political risk and some categories of strategic and operational risks.

Asaf (2004) indicates that the types of risks companies are exposed to, can be divided into five main groups:

Strategic risks, which include risks of plans failing, poor corporate strategies, weak marketing strategies, poor acquisition strategies, changes in consumer behavior or even adverse political or regulatory change. This group also includes adverse changes in government policies and a broad range of economic, financial, investment and social policies that could affect the financial returns of the firm;

Operational risks include risks of human error or omission, design mistakes, unsafe behavior employee practice risks and sabotage; commercial risks on the other hand, include risks of business interruption, loss of a key executive, supplier failure and lack of legal compliance while technical risks encompasses risks of physical assets failing or being damaged, equipment breakdown, infrastructure failure, fire, explosion and pollution

Financial risks include risks of failure of financial controls, treasury risks, lack of counterparty credit assessment, sophisticated financial fraud and the effect of changes in macroeconomic factors. Interest rate risk and foreign currency risk are the main categories of financial risks.

Two fundamental and complementary approaches are available in controlling financial risk: first is for the board of directors or risk management committees to place detailed limits on the amount and type of risks that CFO's and treasury teams can take and second is for the board of directors or risk management committees to provide incentives to the CFO team to optimize the trade-off between return and risk.

Operational risks arise as a result of risks from business operations, as opposed to financing decisions. Operational risk management is therefore aimed at helping organizations identify and mitigate potentially adverse events ahead of time. Operational risks are unique to each business based on: industry, competitive structure, customer demographics, demand and supply conditions, sensitivity to economic conditions, product elasticity's to various factors, level of complexity in product development and delivery and intangible issues such as intellectual rights and level of human capital intensity (Blumesntein H J, 2000).

Operational risk management is a relatively new management discipline with the goal of enhancing management performance through the early identification and avoidance of business disruption. Its specific focus is on failure of people, processes, systems or external events. By its nature, operational risk management is the integration of risk management with core operations management. In the 1980's and 1990's, much of the focus on corporate risk management revolved around designing and implementing control frameworks, managing insurance portfolios and meeting corporate governance standards. But in the dawn of the twenty-first century, leading companies are rethinking the nature of risk, risk management and operations management (Copeland et. al.

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Challenges encountered in risk mitigation were insider trading and accounting impropriety. The study recommends that additional risk mitigating instruments such as zero coupon bonds, perpetuals and other bond variants, asset backed mortgage securities and debt equity hybrids be introduced to complement the

Operational risks also include the risk that failure in computer systems, internal supervision and control and natural events will impose unexpected losses on a firm's financial or derivative positions. Other operating risks may include excessive operating leverage and legal risks (Dowd, 1998).

Risks should be categorized in accordance with the goals of the organization. Questions must be asked of the organization in order to determine priorities and goals:

1. What is the organizational and legal status of this agency? (For example, profit, non-profit, public, private and cooperative).
2. Who is the organization accountable to?
3. What is the scope and value of the organization's assets?
4. What digital assets does this organization need to preserve?

Emery (1998) notes that risk can be divided into categories, and the risks within each category can be prioritized and/or ranked in terms of probability of occurrence and impact in relation to the organization's needs and operations. The general types of risk faced by all businesses can be grouped into five broad categories:

Market risk refers to unexpected changes in interest rates, exchange rates, stock prices or commodity prices; credit/default risk is the likelihood of organizational debtors being unable to honour their obligations as they fall due; operational risk mainly refers to equipment failure and fraud while Liquidity risk is the inability to pay bills and inability to buy or sell commodities at quoted prices.

Political risk refers to new regulations and expropriation. In addition, the financial future of a business enterprise can be dramatically altered by unpredictable events-such as depression, war, or technological breakthroughs-whose probability of occurrence cannot be reasonably quantified from historical data.

This generalized risk process begins with human or natural activities which give rise to loadings or accident initiating events. These, in turn, lead to exposures and effects, which are then perceived and valued by people. Within each stage of the process, categories of risk can be established and risks within these can then be ranked (Douglas et al, 1982).

2.2 Classifications Of Financial Risks

Translation risk recognizes only those items already on an accounting balance sheet while transaction risk comes from future sales and purchases certain to take place, but before the company will be able to adjust prices in line with exchange rate movements (Kenyon, 1981).

Shapiro (1996) gives a series of definitions that form a good starting point:

Currency risk: The degree to which a company is affected by exchange rate changes;

Accounting exposure: A measure of currency risk arising from the need to convert the financial statements of foreign operations from local currencies to home currency; the restatement of assets, liabilities, revenues and expenses at new exchange rates will result in exchange gains and losses;

Economic exposure: It is another measure of currency risk based on the extent to which the value of the company – as measured by the present value of its

expected future cash flows – will change when exchange rates change. He further subdivides economic exposure into transaction exposure (the possibility of incurring gains or losses upon settlement at a future date on transactions already entered into and denominated in a given foreign currency) and real operating exposure (this arises because currency fluctuations together with price changes can alter the amounts and risk levels of a company's future revenue and cost streams, i.e. operating cash flows);

Foreign exchange exposure comes from international trade and financial activities, such as foreign loans, guarantees etc. It might be broken down into short- and long-term exposures. The former is related to cash flow management while the latter is related to capital investment management;

Exchange rate exposure is the degree to which a company is affected by exchange rate change while translation exposure is simply the difference between exposed assets and exposed liabilities (Shapiro, 1996 p.38). Translation exposure can be seen as a measure of latent risk;

Operating exposure, in some sources of literature, "also known as economic exposure, competitive exposure or strategic exposure," measures the change in the present value of the firm resulting from any change in the future operating cashflows of the firm caused by an unexpected change in the exchange rates; Cash flow exposure might be defined as the extent to which the present value of firm's future cash flow is changed by a given currency appreciation or depreciation;

Transaction exposure arises from purchasing or selling goods or services whose prices are stated in foreign currencies in credit, borrowing or lending funds when repayment is to be made in foreign currency, being a party to an unperformed foreign forward contract and otherwise acquiring or incurring liabilities denominated in foreign currencies (Eiteman et al, 1997). Both transaction and

operating exposure measure the exchange rate change effect on the firm's cash flows.

According to Brucaite and Yan (2000), the main difference between operating and transaction exposures are that operating exposure is more focused on accounting cash flows, while transaction exposure is focused on expected cash flow; operating exposure is usually related to the near future, while transaction is with more foreseen strategies.

According to Brucaite and Yan (2000), operating management hedging strategies include matching (also called "natural hedging" – away to decrease currency exposures by covering cash flows in the same currency), risk sharing (when the seller and buyer agree to share the currency risk in order to keep the long term relationship based on the produce quality and supplier reliability, so they will not destroy the long term relationship just because of the unpredicted exchange rate change) and netting (a system based on re-invoice center establishment, where each separate subsidiary deals only with its own currency, leaving all the transaction exposure to re-invoicing center).

Oxelheim and Whlborg (1997) indicate that financial risks might be broken down into the interest rate, exchange rate and inflation rate risks. Interest rate risk refers to the magnitude and likelihood of unanticipated changes in interest rates that influence both the costs of different capital sources in a particular currency denomination and the demand for the product. Exchange rate risk refers to the magnitude and likelihood of unanticipated changes in exchange rate. Inflation rate risk refers to the magnitude and likelihood of unanticipated changes in inflation rate.

Inflation and exchange rate risk taken together gives currency risk.

Exchange, interest and inflation changes in the market are very interrelated and usually have a high degree of correlation. They lead to the exchange, interest and inflation rates risks respectively, which aggregated form financial risk. All of

the above described financial risks; currency risks and specifically, exchange rate risks have received the most attention (Oxelheim, et al 1997).

The main reason why exchange rate risk has received particular attention is that it, more than any other financial risk, follows changes in the market and, less than the others, depends on on-market economy factors such as government or central bank interference. It is more predictable than others and therefore more manageable. Brucaite & Yan (2000) found exchange rate risk as the most critical among all the financial risk exposures.

2.3 Nature Of Risk And Risk Management

Douglas and Wildavsky (1982) indicate that one of the oldest and most accepted generalizations in decision theory is that people are generally risk averse. They are also assumed to prefer certainty to uncertainty. However, in practice and against established theory, people are not risk averse for negative prospects, only for positive ones; so we actually are creatures who habitually tolerate risk. When closely analyzing how private individuals make choices, the two authors found out that *individuals do choose not to be aware of every danger. The institutions in which they live screen some disasters from them. Their social environment sorts and clips the prospects before them. Therefore, refusing to take all dangers into account is not behaving irrationally.*

Conventional risk analysis assumes that individuals are free to express their will and that there is no such thing as society. This thinking is misleading and potentially harmful, (Douglas and Wildavsky, 1982). 'In risk perception, humans act less as individuals and more as social beings who have internalized social pressures and delegate their decision-making processes to institutions. They manage as well as they do, without knowing the risks they face, by following social rules on what to ignore: institutions are their problem simplifying devices.'

Thus to assume individual preferences as being rational and consistent also ignores the degree of socialization of individual attitudes to risk and the role

institutions play in managing or simplifying these risks. The individual preferences cannot be divorced from ethnical beliefs and value judgments, and if financial risk is to be properly understood, the experts need to go beyond the boundaries of their disciplines (Shah, 2004). In most cases, the probabilities for risk analysis are uncertain, the set of possible outcomes is unclear, and our perception of both is affected by a host of subjective factors i.e. the perception of risk is a complex and subjective process. The fear factor and control factor (the extent to which we are in control of events) are two major components of risk that influence our perceptions.

In making financial decisions, two factors are significant (Pickford, 2001). One major component of risk perception is how we perceive loss and gain. Some individual may emphasize the importance of reputation as well as financial gain. Our perceptions of our current state of loss or gain influence the extent to which we seek or avoid risk. Emanating from the present theory is a principle that people tend to make different choices under different conditions. When people are in a position of gain, they become increasingly risk averse and unwilling to accept gambles because they wish to hold on to their gains. When people are in a position of loss and as losses increase, they become more risk seeking since they have nothing very much to lose. This asymmetry also applies to financial losses and gains. However, what we perceive as loss and gain is not straightforward. We all have internal reference points that determine whether we perceive an outcome as a loss or gain. These reference points also shift over time. The effects of loss and gain can also operate at the group or team level.

Decision making about risk often departs from the prescriptively rational model. Cognitive biases influence much of our everyday thinking (Pickford 2001). These biases often arise out of heuristics that act as short cuts to enable us to process information quickly or simplify complex situations. They act as rules of thumb. Ones own innate disposition can create preferences that underline characteristic ways of perceiving the risk in ones environment and whether the situation is seen

as an opportunity or threat. Therefore, both personal and organizational factors can shape ones perceptions about risk. Illusion of control is a cognitive bias that involves holding beliefs concerning the extent to which we are able to exert control over events in which we are involved and over tasks we undertake. Many of these beliefs arise out of experience. Research has shown that illusion of control may lead to poor risk management. Managers need to be aware of conditions that encourage this bias.

Beck (1992) contends further that many of the risks taken by modern society are unknown. The process of risk evaluation on people can only be studied reliably with people. Society is therefore becoming a laboratory. Beck was particularly critical of the isolation of ordinary people from risk evaluation and the influence of scientists in calculation of acceptable levels. Thus, we should be very skeptical of accepting science-based solutions to the problem of risk. He further argued that it is possible that the globalization of financial markets has led to a proliferation of financial risk. Asaf (2004) also notes that business risk management combines a little of science with a great deal of subjective judgment.

2.4 Risk Analysis in Finance

There are various aspects that address risk in the broader area of Finance (Shah, 2004). These include individual preferences and attitudes to risk and categorize attributes as risk averse, risk neutral and risk seeker. Portfolio Theory analyzes risk in terms of variance of return, risk reduction through diversification, beta risk and the Capital Asset Pricing Model (CAPM). Option volatility and the risk of derivative securities emphasizes on measuring risk using probability theory – state – preference theory. Risk management hedging strategies, bond duration and volatility, portfolio Insurance for different types of asset risk, such as interest rate risk, market risk and credit/default risk, are other major categories of risk.

Stulz (1996) contends that in an efficient market, risk management pays off only if it creates real resource gains for the corporation. What are these gains?

The finance literature has identified four types of gains which include reduction in bankruptcy and distress costs, reduction in expected tax payments, reduction in expected payments to stakeholders and reductions in cost of raising funds.

Crabb (2003) argues that firms that have a lot of capital can make bets without worrying about whether doing so will bring about financial distress. One would therefore not expect these firms to hedge aggressively. In efficient markets, firms do not make money by taking financial positions based on information that is publicly available. Firms should avoid financial positions that could lead them to be financially distressed and unable to implement their overall strategy if they perform poorly. Firms will sometimes hedge some risks so that they can take more of other risks.

There have been a number of explanations put forward in an attempt to explain why firms differ in risk-taking. One answer is that some firms have a comparative advantage and others have none. Incentives also matter. Some firms may have no comparative advantage, yet they take risks because doing so is advantageous for those who take the risks. Peter Tufano, in his paper published in the *Journal of Finance* September 1996 issue, addresses these issues by examining the ability of various hedging theories to predict the exposure to gold prices of gold mining firms. There is little empirical evidence that is convincing on the extent of risk-taking by firms. It would therefore be hard to find enough supportive empirical evidence for a number of explanations of risk taking from scholars because of limited data on such investigations (Shah, 2004).

The VAR is a popular measure of risk among financial institutions, but its use is fast extending beyond financial institutions. This measure captures the nature of bad outcomes in a single number. Although extremely attractive, VAR (the magnitude of loss that occurs with some probability) is not consistent with the

theory of risk management either (Stulz, 1996). Crabb (2003) indicates that both Economic and Finance research attempts to accurately measure risk and determine the appropriate response of firms to risk. In general, the economics literature focuses on the strategic response of the firm to exchange rate risk, while the finance literature focuses on securities and hedging techniques that firms use to lay off exchange rate risk.

Although the classical financial models of Modigliani & Miller suggest that there is no need for firms to control risks since investors can accomplish this task themselves in a perfect market, the practical aspects of the real world create situations where the firm should practice financial risk management. Due to costs of financial distress and managerial risk aversion, Crabb (2003) strongly suggest that firms should take corporate risk management or hedging. If managers are risk averse and their wealth and compensation is primarily driven by the value of the firm, hedging is appropriate. Bergendahl (1985 and 1996): hedging of foreign exchange risk is beneficial when managers are risk averse and their compensation depends on changing values of the firm. However, misdirected management incentives can be costly.

Since we do not live in a perfect world, there exist sound theoretical reasons as to why firms should seek to control financial risk hence a deviation from the ideas of Modigliani and Miller. There exists practical costs that arise from the risk of doing business and hedging and other risk mitigation processes can reduce these costs. Large firms have many ways of mitigating risk as compared to small firms that lack the wide variety of risk management options at the disposal of large firms. By their nature, small firms are unable to diversify extensively. The only Financial risk management practice available to all small firms is the strategy of taking specific financial positions that offset the risk of loss in the firms business and financial operations (Blumenstein, 2000).

Derivatives can be used to hedge against risk. Crabb (2003) defines a derivative

as any financial contract whose value is dependent upon the value of some underlying asset. Reckless use of derivatives has cost firms large sums of money. In the early 1990s, Procter and Gamble Corporation lost over \$100 million through speculative use of interest rate derivatives. In the same year, Gibson Greetings Inc. incurred a \$3 million loss as a result of "unauthorized" interest-rate swaps involving "aggressive firms of derivatives." In the late 1990's, Nicholas Leeson bets on the Nikkei Index led to a loss of close to two billion dollars and the closure of Barings Bank.

Crabb (2003) observes that both very large- and medium- sized firms have incurred large losses from the improper use of derivatives; the small firm could never survive such a loss. Therefore, firms should not speculate with derivatives. Smaller firms with less diversifiable risk choose not to use derivatives because of two main reasons: derivative use is often seen as a sophisticated process that requires an advanced degree, usually in mathematics and the cost of deciding upon and setting derivative positions may be high.

Hull (1989) contends that any risk management program should include the following four steps: a strategic decision for managing financial price risk must exist. Examples of such strategic purposes include the need to create good managerial incentives, supporting research investments, and supporting capital investments; the full economic exposure must be identified; only derivatives that match the risk exposure should be used. The company must choose a specific derivative instrument to manage a specific type of risk. Risks affecting cash flow from operations are often best managed with options because cash flows are hard to predict. More predictable asset positions can frequently be managed with forwards and futures and speculation in derivatives should never take place within the firm.

2.5 Mitigation Of Risk

According to Smithson and Wilford (1995) risk may be viewed as uncertainty that

surrounds future events and outcomes. It is the expression of the likelihood and impact of an event with the potential to influence positively or negatively. Risk is a combination of the probability of an event (usually adverse) and the nature and severity of the event. The main aim in understanding and communicating risk is to identify and impose priorities and take appropriate actions to minimize risks (Asaf 2004). Risk mitigation is therefore actions aimed at reducing the severity/impact of risk. In order to mitigate risks one must first assess the potential impact of risk.

Risk assessment is the problem definition stage of risk management, the stage that identifies, analyzes and quantifies program issues in terms of probability and consequences and possibly other considerations e.g., time to realize the benefit of substation automation (Crabb, 2003). Tools are available to assist evaluators in assessing risk, but none are totally suitable for any program and are often highly misleading if the user does not understand how to apply them or interpret the results. Despite its complexity, risk assessment is one of the most important phases of the risk management process because the caliber and quality of assessments can have a large impact on program outcomes. Accurate evaluation of risks in financial markets is crucial for the proper assessment and efficient mitigation of risk.

Crabb (2003) enumerated three stages to consider in assessing and managing risk which include risk identification which incorporates issues on resources at risk, type of threats, value of resources and organizational vulnerabilities. Identifying risk scenarios should begin with an understanding of how the system should work, while risk analysis deals with levels of acceptable risk, likelihood of risk materializing, direct and indirect costs, consequences of risk materializing and safeguards in place, and risk management which focuses on mitigation options and responses, risk prioritization, management strategies, risk reduction and tradeoffs.

2.6 Business Risk Mitigation

Brealey and Myers (1998) observe that business risk mitigation may be defined as a concept used by stakeholders, management, employees or auditors to express concern about the probable material effects of an uncertain environment on business goals. Business risk mitigation helps us find ways to manage events that will negatively impact the financial, physical or human capital of an organization or institution. Business risk mitigation also recognizes that the purpose of organizations is to deliver services and goods to their respective customers and to meet business goals.

Jalilvand et al., (1997), Organizations and institutions put tangible assets (such as dollars, technology, processes and people) and intangible assets (such as reputation, brand and information) at risk to achieve objectives. Whether the organization is for-profit, not-for-profit or governmental, the task of management is to manage these risks in an uncertain environment. Organizational management becomes synonymous with risk management. The simplest type of risk mitigation is to set limits on exposures in the different risk categories in order to achieve diversification effects. Examples include the sum of market values of collateral per individual custodian, custodian risk referring to sum of market values of derivative transactions with counter parties in individual countries and country risk which is the amount of exchange of payments per transaction and/or amount per time period (i.e. 2 days). Settlement risk refers to the sum of negative market values of OTC derivatives with early termination clauses, further limitation on collateralized trading activity while credit-related liquidity risk is the sum of positive market values of transaction contracted with individual counter parties.

2.7 Risk Mitigation Approaches

Dowd (1998) notes that accepting the notion that the volatility of performance has some negative impact on the value of the firm leads managers to consider risk mitigation strategies which include three generic types, that risks can be

eliminated or avoided by simple business practices, can be transferred to other participants, and can be actively managed at the firm level.

In the first of these cases, the practice of risk avoidance involves actions to reduce the chances of idiosyncratic losses by eliminating risks that are superfluous to the institution's business purpose. Common risk avoidance actions, here, are underwriting standards, hedges or asset-liability matches, diversification, reinsurance or syndication, and due diligence investigation. In each case, the goal is to rid the firm of risks that are not essential to the financial service provided or to absorb only the optimal quantity of a particular kind of risk. Brucaite and Yan (2000) observe that what remain are some portions of systematic risk and the unique risks that are integral to an institution's unique business franchise. In both of these cases, risk mitigation remains incomplete and could be further enhanced. In the case of systematic risk, any systematic risk not required to do business can be minimized. Whether or not this is done is a business decision that can be clearly indicated to stockholders. Likewise, in the case of operational risk, these risks of service provision-including fraud, oversight failure, lack of control and managerial limitations - can be addressed. Aggressive risk avoidance activities in both these areas will constrain risk, while reducing the profitability from the business activity. Accordingly, the level of effort focused on reducing these risks can be communicated to shareholders and cost justified.

There are also some risks that can be eliminated, or at least substantially reduced through the technique of risk transfer. Markets exist for the claims issued and/or assets created by many of these financial institutions. Individual market participants can buy or sell financial claims to diversify or concentrate the risk in their portfolios. To the extent that the market understands the financial risks of the assets created or held by the financial firm, they can be sold in the open market at their fair market value. If the institution has no comparative advantage in managing the attendant risk, there is no reason for the firm to absorb and/or manage such risks, rather than transfer them. In essence, there is

no value-added associated with absorbing these risks at the firm level (Prasanna, 2002).

Baldoni (2001) notes that there is another class of assets or activities where the risk inherent in the activity must and should be absorbed by the firm. In these cases, risk management must be aggressive and good reasons should exist for using further resources to manage firm level risk. These are financial assets or activities that have one or more of the following characteristics. First, the equity claimants or others for whom the institution has a fiduciary interest, may own claims that cannot be traded or hedged easily by the investors themselves.

For example, defined benefit pension plan participants can neither trade their claims nor hedge them on an equivalent after-tax basis. A similar case can be made for policies of mutual insurance companies, which are complex bundles of insurance and equity. Secondly, there are activities where the nature of the embedded risk may be complex and difficult to reveal to non-firm level interests. This is the case in institutions such as banks, which hold complex, illiquid and proprietary assets. Communication in such cases may be more difficult or expensive than hedging the underlying risk (Baldoni, 2001).

Moreover, revealing information about customers or clients may give competitors an undue advantage. Third, moral hazard may exist such that it is in the interest of stakeholders to require risk management as part of standard operating procedures. For example, providers of insurance can insist that institutions with insured claims follow appropriate business policies. A fourth reason for institutional risk management is that it is central to its business purpose. An index fund invests in an index without hedging systematic risk. A security dealer engaged in proprietary trading and arbitrage will generally not be fully hedged. In all of the above circumstances, risk is absorbed and risk management activity requires the monitoring of business activity risk and return. This is part of the cost of doing business since it absorbs management attention (Baldoni, 2001).

With legitimate institutional risk management rationales defined and outlined, non-economic or redundant risk management practices can also be identified. These practices are associated with reducing risks through ill-considered hedges or through inappropriate diversification. Consider a recent example. During the 1980's a number of companies diversified into unrelated businesses. This was an attempt by their managements to break out of the cyclical nature of the profitability inherent in their basic franchise. Regardless of outcome, these investments could not help shareholders unless management had valuable skills in these areas. Clearly, without such skills, owners of the firms' stock could make such investments on their own (Hull, 1989).

2.8 Best Practices in Risk Management

Jalilvand et. Al. (1997) define a best practice as a strategy, approach, method, tool or technique that is particularly effective in helping an organization achieve its objectives for managing risk. There are a number of reported benefits of managing risk: increased accountability of management in the short term, strengthening of the planning process and a way to help management identify opportunities, increased value, achievement of organization objectives, better focus on business priorities i.e. resources are not re-directed to deal with problems, a cultural change that supports open discussion about risks and potentially damaging information and improved financial and operational management by ensuring that risks are adequately considered in the decision-making process.

Taken together, all practices provide the movement to integrate risk management within the organization. The best practices for integrating risk management into management practices include: Promoting an organizational philosophy and culture that says everybody is a risk manager, senior management and governing bodies champion risk management and define and communicate acceptable levels of risk, establishing open communication channels, using teams and committees, using a simple, common business risk language, setting

up a corporate risk management function, communicating risk management performance, internal audit and/or the audit committee assists in implementing risk management and risk management training (risk management training helps integrate risk). Topic areas include: Safety, risk assessment, best practice, legislative requirements and objectives for managing risk. Risk awareness training ensures that all managers consider risk (Jalilvand et. al, 1997).

According to Baldoni (2001), there are a number of approaches, tools and techniques for implementing risk management. Business risk mapping helps identify key business risks to the organization therefore helping the organization understand and address its risks. Examples of these practices are listing the various business risks, developing a risk map that provides a comparative evaluation of all operational, financial, hazards and strategic risks that the organization faces and developing a 'major matrix of risks' that captures the most damaging threats to the corporation; modeling tools (scenario analysis and forecast models) are the predominant tools. These tools enable managers to manage uncertainty.

Examples of using modeling tools are: using scenario analysis-decision makers can see the range of possibilities and consider changes that they would otherwise ignore, assessing technical risks during new product development by identifying, early on in the project, the potential errors, using statistical analysis and value at risk (VAR) techniques, financial models which dynamically simulate the various financial risks and the impact of various scenarios of debt and equity and accumulating past experience and extrapolating it to provide a synthesis of the likely risk impact of a particular project (Dowd, 1998).

Binder (1997) notes that other methods include risk identification and assessment techniques-this helps managers identify where they should be focusing their attention and resources. Various risk identification and assessment techniques include: brainstorming groups-staff from multiple

business units meet to brainstorm issues, risk-focused facilitated workshops that help operating personnel determine and prioritize their objectives and identifying and assess risks, templates given to business units to assist them identify and evaluate risks during their business planning process, operating managers identifying and evaluating risks that are then rolled up at the corporate level, risk quick scan (a technique for presenting risks in such a way that the risks can be easily compared to each other in terms of probability and consequences or control self-assessment). This provides assurance that an end-point business objective will be met, taking into account controls and risks, managers self-assess with support from audit, finance and an external accountant, operating units tasked with completing questionnaires on objectives and risks (based on their rank, the risks are addressed) and use of the internet/intranet. This is used to promote risk awareness and management, obtain information on risk in specific areas, communicating with employees, sharing information on risk management across agencies and communicating risk management objectives.

There may be significant barriers to implementing the best practices. Most government departments operate with traditional organizational structures having a defined reporting and management hierarchy. The environment in which the government departments operate may not welcome bad news or open communication channels (Binder, 1997).

2.9 Emerging Issues in Risk Management

Branding and customer loyalty play an important part in answers to many business questions. Companies have to display products so that customers with strong preferences will have to find what they want; otherwise there is some risk that they might leave the Company. Displays and promotional programs have therefore become necessary in the contemporary business world. Many business enterprises are doomed if they fail to anticipate the impacts of electronic distribution on their weak brands, and do not respond in a way that prevents

online vendors and retailers gaining the advantage. Detailed simulation models can assist in making accurate predictions and formulating strategic responses (Pickford, 2001).

The risk of strategic dependence-resulting from a small number of alternative suppliers and the resulting loss of bargaining power-and the loss of critical expertise-theft of an intellectual asset and the loss of competitive advantage-are key concerns for most firms today. The risks of strategic uncertainty are equally critical. Managers may mislead the market trends and prepare for the wrong future. This can adversely affect long-term strategies. Managers can identify strategic drivers by developing and examining alternative futures for their industry and company using a powerful risk management technique called scenario analysis.

Brand protection has often been viewed as legal issue. Considering the new complex understanding of a brand, brand protection now has to go beyond the legal arena. Companies must actively manage the brand-customer 'relationship'.

A decent reputation helps to sell goods and services, recruit new talent and attract desirable business partners (Pickford, 2001). Social psychology debacles have led to a number of high profile disasters through out the world. Instigated by folly, fantasy and roguery, individuals have made costly errors that have even led to the closure of successful companies. People have lost their grip in highly complex situations due to high individualism when making decisions under uncertainty. Strong motives to succeed, without carefully considering all the relevant variables at play, has led to such huge loses. Research has shown that such biases are more common in males than in females. However, whenever individuals are the main agents of decision making, the potential exists for someone to be exceedingly foolish, unwisely creative or calculatingly corrupt (Beck, 1992).

2.10 Empirical Studies

A number of studies in financial risk management have been carried out both in the public and private sector. Buttimer (2001) carried out two case studies on the implementation of financial risk management by US government agencies. He found out that the first Company was successful in its financial risk management efforts and having both internal and external support for a risk management system was important. In the second case study, he concluded that government can affect financial risk indirectly as well as directly and when the government is using derivatives, it must be careful not 'move' the markets.

Fatemi and Glaum (2001) studied risk management practices of German firms. They found out that the authority and responsibility for risk management was highly centralized in most firms that responded. Bodnar, Matson and Hayt (1998) indicate that risk management is highly centralized in American firms. Fatemi and Glaum (2001) also found out that most of the firms used derivative instruments for hedging purposes. Transaction exposure was the exposure that most of the firms were greatly concerned with. Glaum (1998) studied foreign exchange risk management in German non-financial corporations and found out that most of the firms were concerned with managing their transaction exposure, most of them adopted selective hedging strategies based on exchange rate forecasts, the exposure concept favored by academic literature was of little importance in practice and most managers used forecasting techniques since they believed that most markets were not information efficient.

Brucaite and Yan (2000) conducted a case study on two Swedish firms (SKF and Elof Hanson) with specific reference to financial risk management within the two companies. They found out that forwards were the main instruments used by SKF for exposure hedging, the company's treasury department wholly dealt with financial exposure management while the subsidiaries did not take any exchange risk at all. The organization of the exchange risk management was based on the

centralization principle and was fully centralized for the Swedish divisions of the SKF company, the company used forwards as the main instruments for exposure hedging. The company did not consider translation risk important and therefore did not hedge it. They also found out that transaction exposure was the most important for the two companies.

Doldel (1993) found out that on his extensive survey, 85% of the responding firms used derivatives to manage financial risk. About 90% of the firms that responded said that their view would affect the extent to which they hedged. For the companies surveyed, the focus of risk management was mostly on transaction exposures. He also found out that the use of derivatives was greater for large firms than small firms. Crabb (2003) indicates that the findings of Bailey et al (2003), Gay et al (1998), Cecsny et al (1997), Graham and Rogers (2002) and Nance et al (1993) are consistent that the use of derivatives is positively correlated with firm size.

2.11 Studies At Nairobi Stock Exchange

Most of the studies on mitigation of risk have been conducted on developed stock markets. There is, specifically, no documented literature on risk mitigation by Fund Managers at the NSE. The following is a chronology of some related studies conducted on Companies listed on the NSE.

Gitari (1990) carried out an empirical investigation into the risk-return relationship among firms listed on the NSE. Using market data from 45 listed firms, he sought to determine the return relationship with respect to both systematic risk and unsystematic risk respectively. Using a simple linear regression model he established that there exists a positive relationship between systematic risk and returns, and a negative relationship between unsystematic risk and returns. These findings support the existence of a risk return trade-off phenomenon among companies.

Munywoki (1998), sought to estimate the systematic return risk at the NSE. He was specifically concerned with market risk. He concluded that market risk does not deviate much from the general market interest rates. Odipo (2000), researched on whether accounting numbers can be employed to determine the market risk measure where the stock market risk measure is not easily available. The results from the study suggested that accounting beta had some information content which could be useful for a study in the market risk. There was a theoretical relationship between market-based measure of systematic risk and accounting numbers. He concluded that there was no direct link between accounting numbers of individual companies and the market risk.

Bowa (2001) sought to evaluate the risk reduction benefits of portfolio diversification at the NSE. He estimated risk using variance and standard deviation. The analysis indicated that there is a significant risk reduction at the NSE as a portfolio grows in size. He concluded that the current size at the NSE does not fully diversify specific risk. The policy implication of this is that portfolio diversification is effective in risk reduction. Kamau (2002) investigated the relationship between risk and return of listed companies under the various market segments. Using historical market data collected from the NSE, he revealed that there existed no significant difference in terms of return and risk under the two market segments i.e. the Main Investment Market segment and the Alternative Investment Market segment.

2.12 The Nairobi Stock Exchange

The Nairobi stock exchange is in the very early stages of development. There are only forty-eight quoted companies with only four new listings in the last ten years. Of the forty-eight quoted companies, nine are in the alternative market segment. The majority of the individual shareholders do not actively trade in shares while a significant number of Fund Managers consider the exchange a significant risky

venture. The foreign investor participation is restricted due to political factors as highlighted by the two Breton Woods Institutions, the International Monetary Fund and the World Bank. The impact of their conditionality on local financing has been to keep the participation of foreign direct investment at bay. Another major bottleneck has been the terrorist threats, especially the travel advisories by the US Government on the visits to the country by its citizens. This has led to the local market moving up a few notches on international risk indexes.

To be able to review investor risk mitigation practices, it is therefore necessary to focus attention on the main players in the market, who are expected to reasonably engage in trading activities. An empirical review has shown that fund managers form the bulk of institutional investors at the NSE.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

The research employed an exploratory survey design.

3.2 Population

The population of the study consisted of the thirteen Fund managers registered under Retirement Benefits Authority Act as at 31st December 2005 (see appendix three). Since the total population was small, a census study was adopted.

3.3 Data Collection

Data was collected by means of a questionnaire (see appendix 2), which consisted of open-ended questions and matrix-type questions. The questionnaires were administered to senior management in the concerned institutions working in those investment functions that deal with the NSE

3.4 Data Analysis

Data was analyzed using descriptive statistics, which included frequency distributions, percentages and measures of central tendency. Comparative data analysis (industry analysis) was also done, to determine whether there were Industry differences.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents the study results. Descriptive data has been presented in form of frequencies, percentages, means and standard deviations.

4.2 General Information

Out of the total population of 13 fund managers, 9 responded, 1 did not and 3 declined to respond. The response rate was thus 69.2%. This was considered adequate for the study given that most of the responses were received and the population in question was very small. Thus, statistical analysis will yield meaningful results.

Table 4.2.1 When was fund incorporated in Kenya

Year	Frequency	Percent
1978	1	11.1
1996	1	11.1
1997	2	22.2
1998	1	11.1
2000	1	11.1
2001	2	22.2
2003	1	11.1
Total	9	100

Source: Research Data

Most of the funds were registered in the last 10 years

Table 4.2.2 Length of involvement in equity investments

Number of Years	Frequency	Percent
4	1	12.5
5	2	25
6	1	12.5
8	1	12.5
9	2	25
10	1	12.5
Subtotal	8	100
Non-response	1	
Total	9	

Source: Research Data

All the funds have been involved in equity trading for a substantial number of years (4 years and above).

Table 4.2.3 Market Share

Market share (%)	Frequency	Percent	Cumulative Percent
5	1	16.7	16.7
10	3	50	66.7
23	1	16.7	83.3
25	1	16.7	100
Sub-total	6	100	
Non-response	3		
Total	9		

Source: Research Data

2 fund managers hold about 50% of the market share; the remaining 4 funds hold 15% of the market share. 3 funds did not respond.

From Table 4.2.4 below, 1 fund manager (11.1% of the respondents) had crucial investment decisions made in the country of origin while 55.6% (5 funds) have these decisions being made locally. 33.3% of the funds did not respond to this question.

Table 4.2.4 Decision Making

Decision Origin	Frequency	Percent
Country of origin	1	11.1
Locally	5	55.6
Non-respondent	3	33.3
Totals	9	100

Source: Research Data

4.3 Risk Mitigation Practices Employed by Fund Managers at the Stock Exchange

In the tables below, the following codes have been adopted:

N: Number of respondents; VI: Very Important; I: Important; LoI: Low Importance; LeI: Least Importance; NR: Non Respondents

Table 4.3.1 Frequencies of risk avoidance actions used by the funds

Risk Mgt	N	VI	%	I	%	LoI	%	LeI	%	NR	%	Total
Underwriting	9	2	22.2	1	11.1	4	44.4	1	11.1	1	11.1	100.0
Diversification	9	4	44.4	4	44.4	0	0.0	0	0.0	1	11.1	100.0
Due diligence	9	6	66.7	2	22.2	0	0.0	0	0.0	1	11.1	100.0
Syndication or reinsurance	9	0	0.0	1	11.1	3	33.3	4	44.4	1	11.1	100.0
Hedging/asset-liability matching	9	1	11.1	5	55.6	1	11.1	0	0.0	2	22.2	100.0
Discretionary Vs Non-discretionary	9	1	11.1	0	0.0	0	0.0	0	0.0	8	88.9	100.0

Source: Research Data

Due diligence and diversification were highly rated on the importance scale with rankings by 88.9% and 88.8% of the firms respectively as important or very important, hedging by 55.6%, as important. Syndication or reinsurance had 77.7% of the firms ranking it as being of low or least importance.

Table 4.3.2 Means/std deviations of risk avoidance actions used by the funds

Risk Mgt Practices	N	Mean	Std. Dev.
Underwriting	8	2.5	1.069
Diversification	8	1.5	0.535
Due diligence investigation	8	1.25	0.463
Syndication/reinsurance	8	3.38	0.744
Hedging/asset-liability matching	7	2.00	0.577
Other	4	1.00	

Source: Research Data

Diversification and due diligence had means of 1.5 and 1.25 respectively. Hedging (mean of 2.00) and underwriting (mean of 2.5) were the other notable observations. Syndication had the highest mean of 3.38.

Table 4.3.3 Issuer risk acceptance criteria in stock investment decisions

Issuer Risk Criteria	N	VI	%	I	%	LoI	%	LeI	%	NR	%	Total
Sales level	9	1	11.1	5	55.6	3	33.3	0	0.0	0	0.0	100.0
Mgt quality	9	6	66.7	3	33.3	0	0.0	0	0.0	0	0.0	100.0
Growth potential	9	9	100.0	0	0.0	0	0.0	0	0.0	0	0.0	100.0
Govt relationship	9	1	11.1	5	55.6	2	22.2	0	0.0	1	11.1	100.0
Market share	9	3	33.3	5	55.6	0	0.0	0	0.0	1	11.1	100.0
Ratio analysis	9	6	66.7	2	22.2	0	0.0	0	0.0	1	11.1	100.0
Earnings potential	9	5	55.6	3	33.3	0	0.0	1	11.1	0	0.0	100.0
Industry performance	9	3	33.3	5	55.6	1	11.1	0	0.0	0	0.0	100.0

Source: Research Data

Growth potential of the stocks was rated by all companies as being very important. Quality of management of the company that issues stocks, the results of financial ratio analysis and earnings potential had 100%, 88.9% and 88.9% of the firms respectively rating them as important and very important.

Table 4.3.4 Means/standard deviations of issuer risk acceptance criteria

Risk acceptance criteria	N	Mean	Std. Dev.
Level of sales	9	2.22	0.667
Management quality	9	1.33	0.5
Growth potential	9	1	0
Government relationship	8	2.13	0.641
Market share	8	1.63	0.518
Ratio analysis	8	1.25	0.463
Earnings potential	9	1.67	1
Industry performance	9	1.78	0.667

Source: Research Data

Growth potential had a mean value of 1.00: management quality and ratio analysis had mean values of 1.33 and 1.25. Level of sales and government relationship averaged 2.22 and 2.13 respectively. Earnings potential had high variability of scores (std dev of 1.000) while growth potential had none. Others had standard deviations of between 0.000 and 1.000.

Table 4.3.5 Frequencies of importance of risk mitigants

Variable	N	VI	%	I	%	LoI	%	LeI	%	NR	%	Total
Unsophisticated investor activity	9	0	0.0	1	11.1	2	22.2	5	55.5	1	11.1	100.0
Sophisticated investor activity	9	2	22.2	2	22.2	4	44.4	0	0.0	1	11.1	100.0
Dealer activity	9	1	11.1	2	22.2	1	11.1	3	33.3	2	22.2	100.0
Investor optimism/pessimism	9	2	22.2	2	22.2	3	33.3	1	11.1	1	11.1	100.0

Source: Research Data

Unsophisticated investor activity had rankings that weighted towards the less important end of the scale, dealer activity had rankings that were in the low importance region, and investor optimism/pessimism and sophisticated investor activity followed on the Important rankings in that order.

Table 4.3.6 Means/standard deviations of importance of risk mitigants

Variables	N	Mean	Std. Dev
Unsophisticated investors activity	8	3.50	0.756
Why	4	1.25	0.500
Sosphicated investor activity	8	2.25	0.886
Why	6	2.83	1.169
Dealer activity in the NSE, whether buying or selling.	7	2.86	1.215
Why	7	3.43	1.718
Investor optimism or pessimism	8	2.38	1.061
Why	6	3.33	1.633

Source: Research Data

Unsophisticated investor activity had the highest mean value of 3.50 indicating least importance (when rounded off to 1 decimal place); dealer activity had a mean of 2.86, indicating low importance; sophisticated investor activity and investor optimism/pessimism both had mean values that rounded off to 2.00 (or Important on our ranking scale). Score variability for unsophisticated and sophisticated investor activity was relatively low, as seen from the low standard deviation values.

From Table 4.3.7 below, regarding selling or buying of claims issued and/or assets created to diversify or concentrate the risk in portfolios, 33.3% did not do this, 44.4% did it to a mild extent, 11.1% to a fairly high extent and 11.1% (or 1 fund) did not respond.

Table 4.3.7 Extent of risk diversification or concentration

Response Categories	Frequency	Percent
No extent	3	33.3
Mild Extent	4	44.4
Fairly High extent	1	11.1
No Response	1	11.1
Total	9	100.0

Source: Research Data

Table 4.3.8 Subjective considerations regarding risk mitigation

Subjective Parameters	N	VI	%	I	%	LoI	%	LeI	%	NR	%	Total
Preference for known brands	9	2	22.2	2	22.2	1	11.1	3	33.3	1	11.1	100.0
Traditional economic occupations	9	1	11.1	2	22.2	4	44.4	1	11.1	1	11.1	100.0
Consumer buying patterns	9	1	11.1	3	33.3	4	44.4	0	0.0	1	11.1	100.0
Demand and supply changes	9	5	55.5	0	0.0	1	11.1	2	22.2	1	11.1	100.0

Source: Research Data

Regarding subjective appraisal of risk mitigation, 55.5% of the firms rated changes in demand and supply for given commodities for example oil as very important, while 55.5% of the firms rated Investment preference for listed companies involved in traditional economic occupations such as agriculture and not in fairly recent fields such as information technology as having low to least importance.

Table 4.3.9 Means of Subjective considerations regarding risk mitigation

Subjective Parameters	N	Mean	Std. Dev.
Preference for known brands	8	2.63	1.302
Traditional economic occupations	8	2.63	0.916
Consumer buying patterns	8	2.38	0.744
Demand and supply changes	8	2.63	0.916

Source: Research Data

Preference for known brands, traditional economic occupations and demand and supply changes all had a mean value of 2.63. However, standard deviations differed at 1.302 for the brand preference variable.

Table 4.3.10 Frequencies for hedging against adverse movements

Hedging Against	Hedging Options	N	VI	%	I	%	LoI	%	LeI	%	NR	%	Total
Exchange rate volatilities	Forwards	9	0	0.0	1	11.1	1	11.1	0	0.0	7	77.7	100.0
	Futures	9	1	11.1	0	0.0	0	0.0	1	11.1	7	77.7	100.0
	Options	9	0	0.0	1	11.1	0	0.0	1	11.1	7	77.7	100.0
	Swaps	9	0	0.0	0	0.0	0	0.0	2	22.2	7	77.7	100.0
Interest rate volatilities	Forwards	9	1	11.1	0	0.0	0	0.0	0	0.0	8	88.8	100.0
	Futures	9	0	0.0	1	11.1	0	0.0	0	0.0	8	88.8	100.0
	Options	9	0	0.0	0	0.0	2	22.2	0	0.0	7	77.7	100.0
	Swaps	9	0	0.0	0	0.0	0	0.0	1	11.1	8	88.8	100.0
Inflation rate movements	Forwards	9	1	11.1	0	0.0	0	0.0	0	0.0	8	88.8	100.0
	Futures	9	0	0.0	1	11.1	0	0.0	0	0.0	8	88.8	100.0
	Options	9	0	0.0	0	0.0	1	11.1	0	0.0	8	88.8	100.0
	Swaps	9	0	0.0	0	0.0	0	0.0	1	11.1	8	88.8	100.0

Source: Research Data

Table 4.3.10 shows hedging levels to be quite low within the investment managers. Exchange rate volatilities had the highest level of hedging but only 23% considered hedging to be of any importance

Table 4.3.11 Descriptive data for hedging against listed adversities

Reason for Hedging	Hedging Options	N	Mean	Std. Dev.
Exchange rate volatilities	Forwards	2	2.5	0.707
	Futures	2	2.5	2.121
	Options	2	3.0	1.414
	Swaps	2	4.0	0.000
Interest rate volatilities	Forwards	1	1.0	0.000
	Futures	1	2.0	0.000
	Options	2	3.0	0.000
	Swaps	1	4.0	0.000
Inflation rate movements	Forwards	1	1.0	0.000
	Futures	1	2.0	0.000
	Options	1	3.0	0.000
	Swaps	1	4.0	0.000

Source: Research Data

Table 4.3.11 below shows that hedging under exchange rate volatilities had forwards and futures with means of 2.5, options, 3.0 and swaps with 4.10; interest rate volatilities had the hedging options with rising means from 1.0 for forwards, 2.0 for futures, 3.0 for options and 4.0 for swaps. Inflation rate movements registered the same patterns for the mean values of the hedging options, as did the interest rate volatilities.

Table 4.3.12 Reason for managing risks at fund level

Reason	N	Mean	Std Dev
Fiduciary obligations	5	1.20	0.447
Moral hazard	4	2.25	0.957
Competitor threat	4	2.25	1.500

Source: Research Data

Fiduciary obligations had a mean of 1.20. The standard deviation of 0.447 indicated high clustering of the responses. Moral hazard and competitor threats had equal means of 2.25; the responses for the latter were closer in clustering around their mean than the former as inferred from the standard deviations.

4.4 Challenges faced in Risk Mitigation at the Nairobi Stock Exchange

From table 4.4.1 below insider trading had a mean of 1.25 and a low standard deviation of 0.463 indicating high clustering of the scores around the mean value. Information asymmetry also had a low mean value (1.50) and low standard deviation (0.535) again indicating relatively close clustering of the scores about the mean.

Table 4.4.1 Challenges faced in risk mitigation

Challenges	N	Mean	Std Dev
Accounting impropriety	8	2.25	0.707
Information asymmetry	8	1.50	0.535
Poor legal infrastructure	8	2.13	1.126
Insider trading	8	1.25	0.463

Source: Research Data

Table 4.4.2 Additional risk management instruments required

Risk Mgt Instruments	N	Mean	Std. Dev.
Floating rate securities	7	2.57	1.397
Zero coupons, perpetuals other bond variants	9	2.22	0.972
Advanced mortgage backed securities	9	2.22	1.093
Synthetics and index linked securities	8	3.38	0.916
Debt-Equity hybrids	7	2.43	0.976
Others-plain vanilla derivatives	1	1.00	0.000

Source: Research Data

Zero coupons, perpetuals and other bond variants on the one hand and advanced mortgage backed securities on the other had identical mean values of 2.22; similar standard deviations meant the score distributions are similar. Debt-equity hybrids scored a mean value of 2.43.

CHAPTER FIVE

SUMMARY OF FINDINGS AND CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

5.1 Summary of Findings and Conclusions

5.1.1 Introduction

The stated objectives of this study was to determine the risk mitigation practices employed fund managers at the Nairobi Stock Exchange and to identify challenges faced by fund managers involved in risk mitigation at the Nairobi Stock Exchange.

With respect to the response rate, 9 out of the 13 fund managers completed and returned the questionnaire. This was 69.2% of the total population to whom the questionnaire was completed.

Most of the fund managers were not new to the equity industry in Kenya, the newest having joined 4 years ago. Approximately 50% of the market share belonged to only 2 firms out of the nine that responded. Out of the 6 funds that responded to this question, at least one had important decisions being made abroad.

5.1.2 Risk mitigation practices at the Stock Exchange

Due diligence procedure was rated as the most important risk avoidance action pursued by the funds. Due diligence entails knowing the customer that a fund will deal with (KYC). This means that they should know the customers business operations, who the customer does business with and the kind of risks that such businesses entail. Under due diligence, such business operations such as money lending, cash intensive businesses such as supermarkets and money changers

are normally be classified as high risk. This helps in the initial categorization of businesses. Due to the global risk of money laundering which has been identified with terrorism, due diligence has been increasingly touted as a preemptive risk mitigant. Due diligence will reveal those stocks that the fund may want to avoid altogether.

Portfolio diversification which entails investment in different stocks that have different risk-return profiles is highly rated in the market. This ensures that there is minimal impact on the investor arising from adverse movements in one component of the portfolio by having a component whose movement counters this. Portfolio diversification has only been recently replaced by due diligence as a gate keeping risk avoidance procedure. This remains common especially amongst non-institutional investors. With a mean of 1.5 (on out scale, this lies between very important and important), we see that it is important risk mitigation for the funds.

Hedging was rated important (mean of 2.0) in risk transfer while underwriting rated as low importance (mean of 3.0 to the nearest decimal place). It would appear that hedging is also a commonly used way of avoiding risk in stock purchases at the NSE. Underwriting and syndication were the least popular risk avoidance methods.

In issuer risk acceptance criteria when deciding which stock to invest in, growth potential of the stock, results of financial ratio analysis and management quality were ranked as very important. Growth potential reflects the incremental earnings over the years. The importance of ratio analysis augurs well with the notion that fundamentalism may serve to provide information that allows investors to select portfolios that will yield high returns purely from an investment perspective. Quality of management is a highly valued qualitative factor as it will determine the effectiveness of a company's strategy and the efficiency of its operations, all proxies of risk mitigation.

The rate of the risk acceptance criteria had means of 2.00 that ranked as important. Level of sales will relate to the company's revenues; as such, this will impact on the share price and the profitability of investing in its stocks. The relationship of the stock's owner to government also ranked as important. The logic may be that while a good relationship with the Government of the day is important, Government involvement in company management may interfere with the effectiveness of investment decisions the company makes and as such, devalue the stock price. Understandably, the funds will avoid investing in such stocks. Industry performance, market share of the stockowner and the stocks earning potential also featured prominently in risk acceptance. The latter two affect the stock price and profitability gain while earnings potential reflects on the stock's potential for growth.

Unsophisticated investor activity had an overall rating of least important in aiding formulation of risk mitigating decisions. Reasons cited were the inability of unsophisticated investor activity to influence the stock's intrinsic value and lack of bearing on fundamentals. One fund rated unsophisticated investor activity as important owing to their numbers which may influence the stock prices by influencing the demand and supply equation. On the other hand, sophisticated investor activity had an overall important ranking. Reasons cited are that these follow the smart money approach, are informed, have technical information, may be having insider information. Other funds ranked this aspect as being of low importance as the sophisticated investor activity could be due to internal portfolio re-organization while others believed that it has no bearing on the fundamentals of the stocks.

Overall ranking for dealer activity at the NSE was low importance. Reasons were such as that dealer activity had no bearing on the stock fundamentals, dealers are driven by their personal gain, are emotionally driven and profit oriented. One fund thought dealer activity of low importance as it will affect the supply situation

through increased demand, another rated this as important citing the ability of the dealers to source and dispose off significant blocks.

Finally, investor optimism/pessimism was rated as important overall. Reasons included a reflection on market timing and that a high NSE index being a demonstration of confidence in these shares. Those that ranked this aspect differently argued that investors are emotionally driven and their buy or sell activity does not reflect the market fundamentals. Also, if there was uncertainties about a stock, chances are that the price will go down, rendering outsider activity trivial.

Most of the firms used the technique of risk transfer to eliminate or substantially reduce risk in instances where the institution had no comparative advantage in managing the attendant risk. This was done to by most of the firms to a mild extent. It would appear that most of the risks that such firms assume are also within their abilities to manage.

Regarding the subjective aspects of risk mitigation, investment patterns that reflect trends or /changes in consumer buying patterns such as the fashion industry stocks received a rank of important (mean of 2.0 to one decimal place). Preference for known or reliable stock brands and shunning new, unknown or unreliable brands; investment preference for listed companies involved in traditional economic occupations such as agriculture and not in fairly recent fields such as information technology and changes in demand and supply for given commodities for example oil all had identical means of 2.63; this implies low importance when making investment decisions.

Consumer preferences will affect demand and thus the stock prices through improved profitability of those companies that offer products with a high consumer preference coefficient. On the other hands, the popularity of a brand may not reflect the growth or earnings potential of its stock; neither do stocks in

traditional economic activities show higher than average performance owing to the industries to which they belong. A while ago, stocks in the high technology innovation industries were very volatile in terms of growth and performance; however as the industry became saturated, earnings have stabilized.

Forwards were the most popular instrument for hedging against adverse exchange rate, interest rate and inflation rate movements. Futures, options and swaps in that order followed these.

Funds opted to manage risks at fund level where outsourcing those risks would have compromised confidential customer information; fiduciary obligations were very important in making such decisions. The low variability of scores on this response (standard deviation of 0.447) indicates close agreement among the respondents. Competitors also determine a firm's response; for instance if competitors are offering personalized services regarding certain classified risks, a firm may follow suit and so on.

5.1.3 Challenges Faced in Risk Mitigation at the Nairobi Stock Exchange

Insider trading was the most significant challenge mentioned. Insider trading refers to buying and selling of a firm's stock by persons that hold either a controlling interest or are responsible for the firm's operations e.g. management. These are bound to possess insider information-not available publicly- that may trigger buying or selling decisions. Information asymmetry was the next most important challenge to risk mitigation at the NSE. Information asymmetry arises due to market inefficiencies regarding knowledge of the various determinants of stock risk e.g. a firm's short- and long-term strategy and so on. This information normally affects firm profitability and share price; such information may not be available to outsiders including the funds themselves. Accounting impropriety was also cited as an important challenge. This has recently been a bone of contention globally, with companies being accused of window dressing accounts

to cover poor performance.

Regarding additional risk management instruments, given the NSE's current level of market development, zero coupon bonds, perpetuals and other bond variants together with asset backed mortgage securities and debt-equity hybrids were felt to be important in further complementing the risk management situation at the NSE. Synthetics and index linked securities and floating rate securities were considered of low importance. One fund representative felt that plain vanilla derivatives (sic) would suffice.

5.2 Limitations of the Study

Not all the information sought was obtained, that is, half filled questionnaires characterized the responses; also, owing to confidentiality reasons or the need to keep certain types of information from the market, there was a deliberate lack of response on certain information categories.

The number of fund managers in the exchange is limited, reducing the scope of the study. The high response rate, mitigated this to some extent.

5.3 Recommendations

The study will recommend the introduction of additional risk management instruments such as zero coupon bonds, perpetuals and other bond variants, asset backed mortgage securities and bond-equity hybrids to aid in management of risk at the stock exchange as proposed by some of the respondents.

An intervention policy by the Government to facilitate the development of the stock exchange, especially in the area of derivatives, would lead to a faster development of the Nairobi Stock exchange.

A regulated liberal approach towards increasing the number of fund managers is required to provide the adequate competitiveness leading to development of the market structures needed to support a current day stock exchange

5.4 Areas for further research

As the business environment changes, the need for new research regarding the changing risk profile of the stock market emerges. In particular, the causal relationship between stock risk and returns can be examined with an emphasis on the trend over a period of time. Risk management is an intervening variable in such exploratory research.

The slow pace in the development of market structures need to be investigated further. The infrastructural bottlenecks need to be identified so that policy makers can eliminate them for the maturity of the Nairobi Stock exchange

The levels of both the systematic risks and market risks need to be investigated further. Reduction of these risks could free the development of the institutional framework to cushion investors who participate in the exchange.

REFERENCES

- Asaf, S. (2004), *Executive Corporate Finance*, London, Prentice Hall
- Baldoni, R. (2001): "Financial Management: Journey or Destination?" June 13-20.
- Bergendahl G. (1985 and 1996): *The Management of Foreign Exchange Exposure and Inter Rate Exposures in a number of British and Swedish firms.*" FE-rapport 1997:358, Department of Business Administration
- Beck, U. (1992). *Risk Society: Towards a New Modernity*, Sage Publications Inc.
- Binder, B. (1997), "Managing Financial Risk into the 21st Century", CMA-The Management Accounting Magazine.
- Blumenstein, H. J (2000), "The changing Nature of Risk and the Challenges to Sound Risk Management in the New Global Financial Landscape" *Financial Market Trends*, pp 174 – 194
- Bodnar, G. and Gephardt, G. (1994), 'Derivative Usage in Risk Management by US and German non-Financial Firms: A comparative Survey,' Journal Of International Finance and Accounting, Vol. 10, pp. 153-187
- Brealey, R. A and Myers, S. C (1998), Principles of Corporate Finance, McGraw-Hill, NY
- Brucaite, V. and Yan, V. (2000). Financial Risk Management–Case Studies with SKF and Elof Harrison, Unpublished Masters Thesis, Goteborg University, Graduate Business School

Chandra, P. (2002), Investment Analysis and Portfolio Management, McGraw-Hill, Tata

Crabb, P.R. (2003), Financial Risk Management: The Big and the Small, Nampa, Northwest Nazarene University

Cooper and Schindler (2001), Business Research Methods, McGraw-Hill. Boston

Copeland, T. and Weston, J. (1992), Financial Theory and Corporate Policy, Addison-Wesley

Douglas, M. and Wildavsky, A. (1982), Risk and Culture, University of California Press, Berkeley

Dowd, K. (1998), Beyond Value at Risk, John Wiley and Sons, NY

Emery, Gay (1998), Corporate Finance Principles and Practice, Addison-Wesley, Reading

Eiteman, D. K., Stonehill, A. I. and Moffett, M. H. (1997), Multinational Business Finance, Addison-Wesley Publishing Company, NY

Fatemi, A. and Glaum, M. (2000), Risk Management Practices of German Firms, International Management, Vol. 26

Glaum, M. (2000), Foreign Exchange Risk Management in German Non-Financial Corporations: An Empirical Analysis, Bonn: Licher Stabe

GOK (2002), Interim Poverty Reduction Strategy Paper For The Period 2000-2003, July 13, 2000

Hull, J. (1989), Options, Futures and other Derivative Securities, London, Prentice Hall International

Jalilvand, A., Switzer, J. and Tang, C., (1997), "Risk Management Policies and Practices, Evidence on Canadian Non-Financial corporations"

Jones, C. P. (2002), Investments Analysis and Management, John Wiley and Sons, Eighth Edition

Kenyon A., (1981), Currency Risk Management, John Wiley and Sons

Kimball, R.C., (2000), Failures in Risk Management, New England Economic Review, Jan/Feb, pp 3-12

Kothari, C. (1990), Research Methodology: Methods and Techniques, Washita Parkman

Li, Steven (2003), Future Trends and Challenges of Financial Risk Management, Brisbane, Queensland, Australia

Markowitz, H. (1952), Portfolio Selection. Journal of Finance, Vol. 17, No. 1, pp 77 – 91

Oxelheim, L and Wahlberge, C. (1997), Managing in the turbulent World of Economy, John Willey and Sons

Ross, S. A. and Westerfield, R. W. (1988), Corporate Finance, Times Mirror, St. Louis

Shapiro, A. (1996), Multinational Financial Management, Prentice Hall, NJ

Appendix One

Complimentary Letter To The Respondent

University Of Nairobi
School of Business
P. O. Box 30197
Lower Kabete, Nairobi

12 October 2006

Dear Sir/Madam,

I am a graduate student at the Faculty of Commerce, University of Nairobi. In fulfillment of the requirements for attaining my degree. I am currently conducting a management research whose theme is to investigate how risks are mitigated by institutional equity investors at the Nairobi Stock Exchange.

To this end, I kindly request you to fill out the attached questionnaire to the best of your knowledge as soon as you can to facilitate this research.

I would like to assure you that all information provided will be used solely for the purpose of this research; be treated with the utmost confidence and in no way will the name of your institution be implicated in the research findings.

Your cooperation is highly appreciated. Thanking you in advance.

Yours respectfully,

Mwaura F. N:  _____

Mrs. A. Kithinji (Supervisor): _____

Appendix Two

Questionnaire

Section A

1. Please indicate the name of your fund. _____
2. When was your fund incorporated in Kenya? _____
3. For how long has your fund been involved in equity investments at the Nairobi Stock Exchange? _____
4. Kindly indicate the approximate size of your fund in terms of market share percentage. _____
5. Below, indicate the ownership composition of your fund in terms of shareholding and the approximate percentage.

Foreign owned shares _____ approx. percentage _____

Locally owned shares _____ approx. percentage _____

6. For foreign owned funds, are the key business decisions regarding investment choice formulated locally or in the funds country of origin?

Section B

7. Using a ranking criteria of 1 to 4, where,

1=Very important; 2=Important; 3=Low importance; 4=Least importance

rank the following risk avoidance actions as per their importance in your portfolio strategy and planning process, when deciding which equities to invest in?

- a. Underwriting
- b. Diversification
- c. Due diligence investigation
- d. Syndication or reinsurance
- e. Hedging / asset-liability matching
- f. Other (please rank and explain below):

8. Using a ranking criteria of 1 to 4, where,

1=Very important; 2=Important; 3=Low importance; 4=Least importance

rank the following issuer risk acceptance criteria as per their importance to you when deciding which stock to invest in?

- a. Level of sales of issuer company
- b. Quality of management
- c. Growth potential
- d. Relationship to Government
- e. Market share position within the industry or sector
- f. Financial ratio analysis including performance and solvency ratios
e.g. dividends per share and earnings per share
- g. Earnings potential for your organization
- h. Industry performance analysis
- i. Other (specify plus rank):

9. Using a ranking criteria of 1 to 4, where,

1=Very important; 2=Important; 3=Low importance; 4=Least importance

rank the following risk mitigant procedures as per their importance to you when deciding which stock to invest in and briefly indicate why?

- a. Whether unsophisticated investors in the stock market are currently buying or selling. Rank: _____

Why:

- b. Whether sophisticated investors, for example, other fund managers, are buying or selling. Rank: _____ Why:

- c. Dealer activity in the NSE, whether buying or selling. Rank: _____

Why:

- d. Investor optimism or pessimism as measured by performance of the NSE 20 Index and activity in low-priced stocks. Rank: _____

Why:

10. Some risks can be eliminated or be substantially reduced through the technique of risk transfer if the institution has no comparative advantage in managing the attendant risk. To what extent does your fund sell or buy claims issued and/or assets created to diversify or concentrate the risk in your portfolios.

- a. No extent at all
- b. Mild extent
- c. Fairly high extent
- d. High extent
- e. A great extent

In questions 11, 12, 13, 14, 15, 16 and 17, use a ranking criteria of 1 to 4, where,

1=Very important; 2=Important; 3=Low importance; 4=Least importance

to rank in the square boxes on the left the procedures itemized as per their importance to you when deciding on how to mitigate risk in general or the specific attendant risks enumerated.

11. Rank the following private rules of good judgement (or subjective) considerations according to importance when making decisions regarding risk mitigation in equity investments at the NSE.

- [] Preference for known or reliable stock brands and shunning new, unknown or unreliable brands

- Investment preference for listed companies involved in traditional economic occupations such as agriculture and not in fairly recent fields such as information technology
- Investment patterns that reflect trends/changes in consumer buying patterns such as the fashion industry stocks
- Changes in demand and supply for given commodities for example oil.

Other (plus ranking):

12. Hedging against adverse movements of exchange rate volatilities on equity returns at the NSE?

- Forwards Futures Options Swaps

13. Hedging against the adverse effects of interest rate volatilities on equity returns at the NSE?

- Forwards Futures Options Swaps

14. Hedging against adverse inflation rate movements on the return of equity investments at the NSE.

- Forwards Futures Options Swaps

15. For those risks managed at the fund level, please rank against any of the possible reasons below.

Fiduciary Obligations

Moral Hazard

Need to guard against threat by competitors

Other (plus relevant ranking):

16. Challenges faced when designing risk-mitigating policies/procedures for use at the NSE?

Accounting impropriety by listed companies

Information asymmetry due to limited disclosure of financial information

Poor legal infrastructure to curb wrongful accounting practices, fraud etc

Insider trading

Other (plus relevant ranking):

17. Additional risk management instruments you feel would be necessary given our current level of market development?

- Floating rate securities such as floating rate notes (FRNs), capped FRNs, option-related FRNs, coupon-varied FRNs, currency convertible FRNs etcetera

- Zero-coupons, perpetuals and other bond variants such as tap bonds, puttable bonds and so on

- Advanced mortgage-backed securities

- Synthetics and index-linked securities, that is, those that mimic another assets features, but which the investor may not be able to afford, such as dual currency bonds and bull-bear bonds

- Debt-Equity hybrids. Such as floating rate preferred stock and convertible exchangeable preferred stock

Other(plus ranking):

Appendix Three
Registered Fund Managers

	Company	Acronym	Address	Telephone
1	African Alliance Kenya Limited	AFR	27639	2710978
2	AIG Global Investment Company (EA) Limited	AIG	67262	2733400
3	CFC Financial Services Limited	CFC	44074	3753726
4	Co-op Trust Investment Services Limited	COOP	48231	228711
5	Genesis Kenya Investment Management Limited	GEN	79217	251012
6	ICEA Investment Services Limited	ICEA	46143	221652
7	Jubilee Financial Services Limited	JUBI	30376	340343
8	Kenindia Asset Management Co. Limited	KENI	44372	333100
9	Madison Asset Management Services Limited	MADI	47382	721970
10	Old Mutual Asset Managers (EA) Limited	(OM)(EA)	11589	2711309
11	Old Mutual Asset Managers (K) Limited	(OM)(K)	11589	2711335
12	Royal Investment Management Services Limited	RYL	9480-00100	313356
13	Stanbic Investment Management Services (EA) Limited	SIMS	30550	3268000