

**FINANCIAL RISK MANAGEMENT AS A TOOL FOR IMPROVING  
FINANCIAL PERFORMANCE IN REAL ESTATE INVESTMENT IN  
NAIROBI COUNTY**

**By**

**PATRICK M. MURUNGA**

**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE -  
FINANCE AND INVESTMENT IN THE SCHOOL OF BUSINESS AND  
PUBLIC MANAGEMENT AT KCA UNIVERSITY**

**OCTOBER 2013**

## DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

Student Name: Patrick Muriuki Murunga      Reg, No. 05/16119

Sign: \_\_\_\_\_ Date: \_\_\_\_\_

I do hereby confirm that I have examined the master's dissertation of Patrick Muriuki Murunga

And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Prof. Silas Onyango

Dissertation Supervisor

# **FINANCIAL RISK MANAGEMENT AS A TOOL FOR IMPROVING FINANCIAL PERFORMANCE IN REAL ESTATE INVESTMENT IN NAIROBI COUNTY**

## **ABSTRACT**

The study is an assessment of the financial risk management as a tool for improving financial performance in real estate investment in Nairobi County. The study intended to use descriptive survey design. The population of the study was all 151 real estate firms.

The unit of analysis is the real estate managers of Nairobi County. A sample of 110 firms was taken. The study used primary data which was collected through use of a questionnaire. Data analysis was conducted using descriptive and inferential statistics. The specific descriptive statistics used were mean scores and frequencies. The particular inferential statistics used was regression analysis. The data was then analysed using STATA. This research set out to find out whether financial management can be as a tool for improving Financial Risk Management in real estate in Kenya. The study has found out that financial risks are present in real estate and the same pose serious challenges to real estate managers and investors.

The study has also found out that the risk management measures that the managers in the industry are using are not adequate given the significant losses that are suffered by the real estate managers and investors conducting business within this market. The study has found out that players within the industry are in agreement that effective risk management in real estate can increase profitability, increase operational efficiency and effectiveness and enlarge market share all of which can lead to financial performance.

There is therefore need to consider adopting other risk management measures such as operational hedging and financial hedging that could assist managers in real estate minimize the losses suffered attributable to risks. There is need to carry out an in depth analysis that will help real estate managers identify all the risk facing them in real estate. There may be a need therefore to have further researchers investigate this variance and investigate how prepared real estate managers are in managing foreign exchange risk in the real estate market. Future researchers could also investigate the reasons behind real estate investment and the fundamentals that guide such investment. With a moderate risk attitude attributed to Kenyan property investors and their managers, it would be interesting to know what fundamentals drives real investment in Kenya given that risk is of little concern

**Key words:** Financial Risk Management, Real estate Investment, Financial Performance

## **ACKNOWLEDGEMENT**

I wish to acknowledge my heavenly Father for the love, grace and persevering spirit during my research work. I also wish to acknowledge my supervisor Prof. Onyango who has tirelessly walked with me through this journey. Last but not least I sincerely thank my family for their support and patience as I worked on this document. Thank you all.

## TABLE OF CONTENTS

<b>DECLARATION .....</b>	<b>ii</b>
<b>ABSTRACT.....</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT .....</b>	<b>iv</b>
<b>LIST OF TABLES .....</b>	<b>vii</b>
<b>LIST OF FIGURES .....</b>	<b>vii</b>
<b>DEDICATION .....</b>	<b>viii</b>
<b>LIST OF ABBREVIATIONS .....</b>	<b>ix</b>
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>1.0 INTRODUCTION AND BACKGROUND TO THE STUDY.....</b>	<b>1</b>
1.1 Introduction .....	1
1.2 Background of the study.....	1
1.3 Financial risk management and real estate .....	6
1.4 Background to Kenyans real estate .....	7
1.5 Statement of the problem .....	8
1.6 General Objective.....	9
1.7 Limitations and Delimitations of the study. ....	10
1.8 Assumptions of the study .....	10
1.9 Significance of the Problem .....	11
<b>CHAPTER TWO .....</b>	<b>12</b>
<b>2.0 LITERATURE REVIEW .....</b>	<b>12</b>
2.1 Introduction .....	12
2.2 Definition of Risk.....	12
2.3 Financial Risk Management.....	13
2.4 Risk management process .....	13
2.5 Enterprise risk management .....	17
2.6 Financial Performance.....	18
2.7 Real estate.....	21
2.8 Theoretical Framework .....	28
2.9 Conceptual Frame Work .....	30
<b>CHAPTER THREE.....</b>	<b>32</b>
<b>3.0 RESEARCH METHODOLOGY .....</b>	<b>32</b>
3.1 Introduction .....	32
3.2 Research Design .....	32
3.3 Population.....	33
3.4 Sample Size and Sampling Technique .....	33
3.5 Types and sources of data.....	34
3.6 Data Collection Tools.....	35
3.7 Methods of Data Analysis .....	35
<b>CHAPTER FOUR .....</b>	<b>37</b>
<b>4.0 FINDINGS AND DISCUSSIONS .....</b>	<b>37</b>
4.1 Introduction .....	37
4.2 How real estate managers manage risks facing them.....	41
4.4 How Financial Risks affect real estate business.....	44
4.5 Financial Risk Management Measures.....	48

4.5.1	Credit Risk Management.....	48
4.5.2	Liquidity Risk Management.....	49
4.5.3	Price Risk Management .....	50
4.6	Regression .....	51
4.7	Summary of findings .....	53
	<b>CHAPTER FIVE .....</b>	<b>55</b>
	<b>5.0 CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>55</b>
5.1	Introductions.....	55
5.2	Conclusions .....	55
5.3	Recommendations. ....	56
	<b>REFERENCES. ....</b>	<b>58</b>
	<b>APPENDICES.....</b>	<b>63</b>
	Questionnaire.....	63

### **LIST OF TABLES**

Table 1 Comparative Remittances of Kenyans Abroad (2007-2008) .....	8
Table 2 Approaches to Risk Management .....	15
Table 3 Response Rate on the Research Instruments. ....	38
Table 4 Prevalence of financial transactions in Real Estate .....	43
Table 5 Estimated total loss from monthly rental collection .....	44
Table 6 Assessment of risk management benefits in Real Estate.....	45
Table 7 Assessment of Credit Risk Management Measures.....	49
Table 8 Assessment of Liquidity Risk Management Measures.....	50
Table 9 Assessment of Price risk management measures .....	51
Table 10 Results of the regression model.....	51

### **LIST OF FIGURES**

Figure 1 Conceptual Framework .....	31
Figure 2 Gender Composition of the Respondents .....	39
Figure 3 Education Level of the Respondents .....	40
Figure 4 Experience of the Respondents .....	41
Figure 5 Risk management measures used to manage risks.....	42
Figure 6 Risk Altitude amongst Kenyans Real Estate Investors/Managers .....	46
Figure 7 Reasons for Kenyans Is Altitudes .....	47

## **DEDICATION**

I dedicate this work to my family, specifically my wife and son for bearing with me a lot during my postgraduate studies. I also dedicate it to the School of Business KCA University for being a strong pillar throughout my course. I have been deeply humbled by the knowledge acquired and support accorded to me during my studies at the university.



## **LIST OF ABBREVIATIONS**

<b>CBK</b>	Central Bank of Kenya
<b>COSO</b>	Committee of Sponsoring Organizations of the Treadway Commission
<b>NLP</b>	National Land Policy
<b>CMA</b>	Capital Markets Authority
<b>REITS</b>	Real Estate Investment Trusts

## **CHAPTER ONE**

### **1.0 INTRODUCTION AND BACKGROUND TO THE STUDY.**

#### **1.1 Introduction**

This chapter gives the background of the study area. It defines and analysis the concepts of financial risk management as well as the real estate management. The chapter also enumerates the problem that was studied, the objectives of the study as well as the significance of the research. It also draws attention to the rationale for the study, the justification and scope as well as the assumptions that were made in carrying out the study and the limitations encountered.

#### **1.2 Background of the study**

##### **1.2.1 Risk**

Risk is defined as the likelihood or the probability of a deviation from an expected and anticipated outcome. Allen (2003) argues that risk is constant to the human condition and everything we do has potential risk attached to it. Crouhy, Galaik and Mark (2006) argue that risk means exposing oneself to the potential of a loss, in undertaking an uncertain enterprise, or to gamble. They expound the definition further to mean the expected losses associated with a situation or the variability around the expected losses. Risk is the possibility of suffering loss and has two aspects; some loss must be possible, and there is uncertainty associated with the mentioned loss (Harrington & Niehaus, 2004).Knight (2009) reasons that the term risk and uncertainty though used interchangeably mean different things. Risk is recognized only when future events occur with measurable probability. Uncertainty on the hand is used when the likelihood of future events is indefinite or incalculable. In risk we have the

indeterminacy and the chance of loss and the probabilities are all known. In uncertainty however, the main parameters are known but quantification of these parameters is suspect and it is no possible to quantify the extent of the hazard (knight, 2009;Allen, 2003).

### **1.2.1 Types of risks**

Classifying risks according the modern portfolio theory, Hull (2006) considers risks as either systematic or unsystematic. Systematic risks are that part of total variability in return caused by external forces that cannot be controlled or influenced and affects prices of financial securities (Pandey, 2005).Sources of systematic risk include economic, political and sociological changes. Unsystematic risk is that part of total risk that is unique to a firm or industry and it is controllable. This kind of risk is influenced by factors such as management capability, consumer preference, motivation of workers, technological changes amongst others (Christofferson, 2003).

Risks can also be classified as either business or personal. Business risks are those concerned with possible reductions in business value .e.g. price, default and credits risks. Personal risks are those risks faced by individuals and families and include earnings risk, medical expenses risk, liability risk, physical asset risk, financial asset risk, longevity risk (Harrington & Niehaus, 2004; Elton, gruber, brown & Goetz Mann , 2007).

### **1.2.2 Risk Management.**

Risk Management is the process of monitoring risks and taking steps to mitigate their effect. Risk management does not involve total elimination of the risk but rather

reducing the risk to acceptable proportions. This involves determining those risk to accept and not seeking to avoid all risks and control risk in s manner that would jeopardise the effective operation of the organization within its capabilities and resource constraints (Banks, 2004).The purpose of risk management is to control the effects of uncertain and generally adverse external events of a firms' activities and projects (Hull, 2006).

Abkowitz (2008) argues that the key management task in risk management is to balance the desirable objective of risk reduction with the cost of doing so. The basic risk management premise is to have more or good and less of the bad. The risk management process is continuous and involves continual adjustment of the firms' exposures in the light of changing conditions, the firm's own capacity, and the benefit cost trade-offs involved (Allen, 2003).

### **1.2.3 Risk Management Process**

According to Harrington and Niehaus (2004), the risk management process involves several key steps; Identifying all significant risks, evaluating the potential frequency and severity of losses, developing and selecting methods of managing risk, implementing the risk management methods chosen and monitoring the performance and suitability of the risk management methods and strategies on an on-going bases.

### **1.2.4 Financial risk**

Financial risk is an assessment of the probability that a given investment will fail to bring a return and may result in a loss of the original investment. It is any risk that is related to the form of financing and emanates from the possibility that a given investment may fail or change in its ability to return principal and income (Pandey,

2005). Allen (2003) asserts that financial risks can best be understood by understanding the nature of cash flows in transaction. Herrington and Neihaus (2004) argue that financial risk arises through countless transactions of financial nature. Such transactions include sale and purchases, investments and loans and various other business activities. Financial risk can also arise as a result of legal transactions, new projects, merges and acquisitions, debt financing and energy component of costs or through the activities of the management, stakeholders, competitors, foreign governments, or weather (Elton, Gruber, Brown & Goetzmann, 2007; Maggin & Tuttle, 2007). Examples of financial risks include price risks, market risk, interest rate risks, currency risks, liquidity risk, credit risk, inflation risk, default risk, execution risk, timing risk, pre-payment risk, equity risk, accounting risk, business risk, political risks amongst others (Elliott & Elliott, 2006; Allen, 2003; Los, 2003)

### **1.2.5 Financial risk management**

Allen (2003) defines financial risk management as the taking of action to reduce of unfavourable movement in market prices. Financial risk management involves managing of risks of a financial nature which is not properly managed could cause the firm huge financial losses. It involves taking measures to cushion a firm against adverse effects emanating from its financial transactions and such as can affect its projected cash flows. The process requires taking measures that could safeguard a firm from losses arising due to financial risks (Banks, 2004; Hull, 2006).

### **1.2.6 Financial performance**

Profit is the ultimate goal of real estate firms. All the strategies designed and activities performed thereof are meant to realize this grand objective. However, this does

not mean that Real estate firms have no other goals. Real estate firms could also have additional social and economic goals.

### **1.2.7 Risk management and financial performance**

Allen (2003) argues that financial risk management leads to lower variability and less volatility that can result in lower cost of capital and more investments. Use of risk management enables a firm to manage its risks to acceptable levels and avoid losses. A firm is able to minimize losses by managing its risks effectively and is able to enjoy relatively higher profits compared to a firm in the same industry that ignores risks. This is because such a firm is able to cut down on losses, stream line its operations making them both effective and efficient, manage its cost and thereby withstand competition and give value to its customers. A portfolio of firms using risk management would outperform a portfolio of firms that does not when other aspects of the portfolio are controlled (Hubbard, 2009; porter, 1998).

### **1.2.8 Real estate**

Bayer (2003) defines real estate as land and property permanently attached to it, such as buildings, houses, homes, fences and trees. Real estate refers to things that are not movable such as land and improvements permanently attached to the land. In legal sense real estate is also called real property. The term 'real estate' refers to land and fixtures together, as distinguished from 'real property', referring to ownership rights of the land its self (Brueggeman & Fischer,2008).

Kenya's real estate market has witnessed significant growth in the last five years outperforming other sectors like the capital markets and tourism in the midst of economic downturn and post poll violence.

While high interest rates have slowed down construction, stakeholders reckon that the industry as a whole is still growing fast. In fact they argue that the Diaspora community and foreign investors sourcing financing from outside Kenya stand to benefit given that house prices are not likely to fall due to high demand and inadequate supply.

### **1.2.9 Real estate management**

Coronato and Coronato (2008) define real estate management as the operation of property as a business, including rental, rent collection, and maintenance, and so on. Real estate management is also called property management or real estate brokerage services and involves the administration of a rental or other property that is not owner occupied at a fee (Davis, 2003). Tasks involved in real estate management include accounting and reporting, leasing, maintenance and repair, paying taxes, provision of utilities and insurance, and rent rate setting and collection (Syaggah & Aligula, 2003).

### **1.3 Financial risk management and real estate**

Real estate is considered as one of the most secure forms of investments and hence the huge amount of money involved in real estate transactions. Compared to other forms of investments, there is much preference to real estate mainly because the investment are considered stable both in realizing cash flows and in capital appreciation. Because of its long term nature real estate is also considered a safeguard against inflation as the investment adjust with inflation due to limited supply that is insensitive to price. Long term cash flows as well as future capital appreciation are susceptible to myriad of risk and hence the need of risk management technique real estate. This risk unless well managed can pose to anticipated cash flow returns exposing the investment thereby making them vulnerable (Davis, 2003; Brueggeman & Fisher, 2008).

#### **1.4 Background to Kenyans real estate**

Central Bank of Kenya classifies real estate, renting and business service as a main sector in the Kenya economy whose contribution is paramount in determining the performance of the Kenyan economy. The real estate industry in Kenya as witnessed rapid growth over the last seven years since 2003 when the NAK government took over leadership. Though the growth slowed down in 2008 and part of 2009 due to the 2007 post-election violence, there was improved investors' confidence in the second half of 2009. Investors, both local and international have been investing huge sum of money in the country's real estate industry in the hope of attractive returns (central Bank of Kenya [CBK], 2009).

Report by the central Bank of Kenya [CBK](2009) indicated that cement consumption, a major indicator of growth in the real estate sector under the building and construction industry increased by 38.0% from 2.0mn metric tonnes in 2007 to 2.8mn metric tonnes in 2008. The housing market in Nairobi performed well in 2008 despite election violence and the outlook for 2009 was positive given that global financial crisis did not have too severe effects on consumer spending and tourist numbers (Mwangi, 2009). The presence of Kenyan investors from the diaspora in the Kenyan market partly triggered the witnessed growth. Central Bank of Kenya statistics, indicated that remittance inflows to Kenya reached US\$ 50.4 million in July 2009, an increase of 8.7%, compared with US\$ 46.3 million in June 2009. Total remittance inflows for the period January to July for a three year period between 2007 and 2009 varied as follows;



**TABLE 1**

**Comparative Remittances of Kenyans Abroad (2007-2008)**

Inflow period	Amount of remittances in Million US \$.	Percentage change from previous
January-July 2007	310.4	
January-July 2008	373.3	10.3 increase
January-July 2009	342.3	8.4 decline

According to the CBK report (2008), 30 to 40 per cent of Kenya's real estate is driven by Kenyans living in the diaspora and 17.0% of real estate business comes from the diaspora, and high sales mortgage business is attributed to diaspora purchases. Past returns in the real estate sector have not disappointed and in most cases real estate have guaranteed better returns compared to other forms of investment such as equities and bonds (Central Bank of Kenya [CBK], 2009). With the unmatched demand for housing and office accommodation relative to supply, building and construction was bound to continue stirring growth in Kenya's real estate industry.

**1.5 Statement of the problem**

Real estate investments are a very unique sector owing to the huge investment and capital outlays that is required. This makes financial risk to be amplified. The operating environment is very turbulent. For instance the interest rate has been fluctuating and this is shown by the surge in interest rate in the year 2011 to a high of 18% (the bank rate). In addition, inflation has been fluctuating, therefore affecting prices of real estate.

With the witnessed growth in Kenyan's real estate market, the market has been predisposed to numerous financial risks which include but not limited to; credit risk, liquidity risk and price risk. Okoth (2010) observes that mortgage rates come under

pressure when the property market faces stiff competition from the capital market. The writer attributes the move to the investors attracted by high returns in the government paper who move their cash from real estate and other long term investments. This therefore means that financial risk can no longer be ignored as a primary risk in real estate management. However Okoth(2010) was not comprehensive enough in addressing the concept of financial risk management as a tool for improving the financial performance of real estate firms. It is for this study gap that this study wishes to evaluate the financial risk management as a tool for improving financial performance of the real estate firms in Nairobi County.

## **1.6 General Objective**

The general objective of this study was to find out whether financial risk management could be used as a tool for improving financial performance by real estate firms thereby enabling these firms to enhance returns by increasing profitability, improving effectiveness, efficiency as well as enlarge their market share.

### ***1.6.1 Specific Objectives of the study***

The specific objectives of the study are;

- i. Establish the effect of credit risk management on financial performance of real estate investment firms.
- ii. Establish the effect of liquidity risk management on financial performance of real estate investment firms.
- iii. Establish the effect of price risk management on financial performance of real estate investment firms.

### **1.6.2 Research Questions**

The research questions are;

- i. What is the effect of credit risk management on financial performance of real estate investment firms?
- ii. To what extent does liquidity risk management affect financial performance of real estate investment firms?
- iii. To what extent does price risk management affect financial performance of real estate investment firms?

### **1.7 Limitations and Delimitations of the study.**

The following limitations were encountered while carrying the study and especially while collecting the data;

- i. There were delays in getting responses from the respondent's thereby delaying data collection and analysis. This was overcome by appealing to the respondents to sacrifice a few minutes and fill the questionnaires
- ii. There was Possibility of bias from the researcher who conducts business in the real estate sector. This was managed effectively through the use of a research assistant whose background was not real estate related.

### **1.8 Assumptions of the study**

The study was based on the assumption that;

- i. The respondent would genuinely give the anticipated information.
- ii. The researcher would obtain the necessary support in form of permits and accessibility to enable him carry out the research.
- iii. The respondents understand what financial risk management is all about.

- iv. The respondents were trained professionals with basic training on real estate and are fully aware of the risks involved in the practice.

### **1.9 Significance of the Problem**

The study was considered important in that it would;

- i. Help real estate investors and their managers' use financial risk management in managing real estate risks. This would consequently increase profitability, efficiency and effectiveness as well as the market share and guarantee better returns.
- ii. Provide insight to general readers in helping them understand and appreciate risk management in real estate.
- iii. Help other researchers explore whether financial risk management could be applied in other areas so as to improve profitability.
- iv. Add to the existing body of knowledge.

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents a detailed theoretical and critical review of both primary and secondary sources of data and provides a summary of the gaps to be filled. The chapter examines the concept advanced by financial risk management and how the same can be used to augment the management of risk in real estate. The augmentation is being considered in terms of making real estate management efficient in a manner that can increase profitability hence improving financial performance.

#### **2.2 Definition of Risk**

Brookbanks, Gandy and Pourquery (2006) define risk as the uncertainty or doubt in the face of a situation and which has both beneficial and adverse consequences. Risk is costly and risk management is concerned with decreasing the cost of risk. The term is used to describe any situation where there is uncertainty about what outcome will occur. Life is obviously very risky and even the short term future is often highly uncertain. In financial and investment management, Risk is used in a more specific sense to indicate possible variability in outcomes around some expected value (Harrington & Niehaus, 2004). Hubbard (2009) defines risk in insurance terms to be the expected losses associated with a situation.

Abkowitz (2008) provides that risk is a function of probability where probability is a measure of someone's opinion about the likelihood that an event will occur.

### **2.3 Financial Risk Management**

Risk management is the process of identifying, assessing, and making decisions regarding the treatment of particular risks faced by the organization (Allen, 2003). Grinblatt and Titman (2003) bolster this definition by defining risk management as the awareness, measurement and adjustment of risks facing an organization. Risk identification is the first step to risk management since one cannot manage what they are not aware of. Identification is followed by assessment where the degree of an organization's exposure to the risk is measured. After identification and assessment, the organization must make decisions in respect to the measures which the organization must take in managing its risks (Barkley, 2005).

Risk management does not start with a project but rather with business planning. Allen (2003) perceives risk as a trade-off with benefits, opportunities and payoffs. It is the reason for investment so as to seek out profitability by reducing uncertainty and gaining benefits in terms of customer value and profitability. Overcoming risk equals business success since it is risk that generates the passion of business achievements and to overcome risk is to overcome a competition challenge and create opportunities (Barkely, 2005).

### **2.4 Risk management process**

Crouhy, Galai and Mark (2006) argue that the risk management process involves seven key steps of identifying risk exposures, measuring and estimating risk exposures, assessing the effects of exposures, finding instruments and facilities to shift or trade risks, assessing costs and benefits of instruments, forming a risk mitigation strategy by either avoiding, transferring or mitigating the risk and finally evaluating performance.

These steps are complimented by Barkley (2005) who gives a typical set of six steps in the risk management process.

Grinblatt and Titman (2003) maintain that the basic steps in risk management process includes; risk planning, risk identification, risk assessment, risk scheduling, risk response and risk monitoring and communication. Risk management, financial or otherwise follows a logical process and usually involves three steps; awareness, measurement and adjustment (Brookbanks, Gandy and Pourquery, 2006).

#### **2.4.1 Risk awareness**

Brookbanks et al. (2006) argue that risk awareness is an ongoing discovery exercise that needs to be repeated at frequent intervals to capture changed conditions within the dynamic environment. However, it is not obvious how managers may become aware of risks as some are identified long before while others emerge as a result of changing conditions. According to Allen (2003), there are three levels of risk awareness. The first level involves risks that are unknown and immeasurable i.e. the risks do not manifest themselves or have not been perceived. The second involves risks that are known but still immeasurable in the sense that there is insufficient data on which to base an evaluation of the likely consequences or to quantify the exposure. The last level involves risks that are both known and measurable so in such cases there are many observations on which to build a statistical model in order to predict future behavior (Brookbanks et al., 2006).

#### **2.4.2 Risk Measurement**

Brookbanks et al. explains risk measurement as the process that involves transforming risks which are difficult to measure into quantifiable risks in order to

measure their impact. Once the risk is quantified then decisions about the appropriate course of action can be made. This involves evaluating risks using a cost-benefit approach or the risk-reward trade off according to predetermined criteria. This helps in decision making. Tools for risk assessment includes: probability analysis, sensitivity analysis, and decisions trees.

### 2.4.3 Risk Adjustment.

There are three dimensions to risk management; hedging, diversification and insurance (Allen, 2003). Hedging helps a firm to eliminate risk by selling it in the market to caution itself against the effects of the risk. Diversification helps reduce risk by spreading perfectly correlated risks into portfolios while insurance involves transferring risk to an insurance firm and pay a premium for the insurance firm to take up the risk (Allen, 2003; Kalman, 2007). According to Grinblatt and Titman (2003) the relationship between generic risk management approaches and risk processes can be illustrated as follows:

**TABLE 2**  
**Approaches to risk management**

	Risk pooling	Risk transfer
Hedging	There is no pooling of risk but transactions with an economic effect of selling/ transfer are undertaken	There is exchange or transfer of risk from one party to another
Diversification	Risk is spread across portfolios where the aggregated risk is less compared to individual risks	There is no transfer of risk. Risk is only minimized
Insurance	Risks are aggregated together and the risk taker benefits from the benefits of pooling together	Risks are transferred through selling of premiums from the buyer to the seller.

Grinblatt and Titman (2003) maintain that risk management entails assessing



and managing, through the use of financial derivatives, insurance and other activities, the corporations' exposure to various sources of risk. The writer argues that a risk management specialist must have a sound understanding of derivative securities, tools for estimating firms risk exposure and an understanding of which risks to hedge. Chisholm (2004) defines a derivative as an asset or financial instrument whose value is derived from the value of some other asset usually called an underlying asset. Derivatives are in form of contracts between two parties to exchange value, based on a real good or service. The seller of a derivative receives money in exchange for an agreement to purchase or sell some goods or service at some specified future date. Financial derivatives include forwards, futures, swaps, and options (Allen, 2003).

**Forwards** are legal and binding contractual agreements made directly between two parties where one party agrees to buy a financial asset at a future date and at a fixed price. The other party is bound by the contract to deliver the commodity or asset at the predetermined price. A forward contract is binding on both parties irrespective of the value of the commodity or asset at the point of delivery (Chisholm, 2004).

**Futures** are standardized legal and binding contract similar to a forward made through regulated exchange instead of being negotiated directly between the parties. In a futures contract, one party agrees to deliver a commodity or asset on a future date or within a range of dates at a fixed price and the other party agrees to take delivery. Unlike forwards, future contracts are guaranteed against default; they are standardized in order to promote active trading and are settled on a daily basis (Chisholm, 2004).

**Swaps** are agreements made between two parties to exchange payments on regular future dates where the payment legs are calculated on different basis. They are over the

counter transactions that are used to manage or hedge the risks associated with volatile interest rates, currency exchange rates, commodity prices and share prices (Hull, 2006).

*Options* are classified as either call options or put options. A call option gives the holder an obligation but not a right to buy an underlying asset by a certain date at a given fixed price. A put option conveys the right to sell an underlying asset by a certain date and at a given fixed price. A contract fee called a premium is paid for options (Abkowitz, 2008).

Grinblatt and Titman (2003) maintain that risk management helps an organization determine acceptable level of worry and anxiety without prejudice to the overall business objective. Risk management helps in earnings stability where earnings are kept within acceptable bounds. Allen (2003) gives other objectives of risk management as the ability to maintain operations where normal operations are restored with minimum delay after a loss. Risk management also helps in continued growth and hence enabling the firm to take advantage of growth opportunities. It helps a firm play its role in social responsibility as a good citizen and satisfy its external obligations. Abkowitz (2008) argues that today's concepts of risk management can be well articulated within the context of enterprise risk management

## **2.5 Enterprise risk management**

Brookbanks et al. (2006) argues that enterprise risk management is an emerging concept in respect to the approach that today's organizations are adopting in risk management. COSO (2004) defines enterprise risk management as a risk management process initiated by an organization's management that is applied during strategy setting for application across the organization. The process is designed to identify potential risks that may affect the organization, and manage those risks that are within an

organization's risk appetite so as to provide reasonable assurance regarding the achievement of the organizations objectives. Abkowitz (2008) defines enterprise risk management as the process of planning, organizing, leading and controlling the activities of an organization in order to minimize the effects of risk in a firm's capital and cash flows.

## **2.6 Financial Performance**

Firms financial performance can be measured by, its profitability, market share, effectiveness and efficiency. This is because such a firm is able to cut down on losses, stream line its operations making them both effective and efficient, manage its cost and thereby withstand competition and give value to its customers.

### **2.6.1 Profitability**

Barney (2006) is of the opinion that when a firm earns a higher economic profit than the average rate of economic profit of other firms competing within the same market, then the firm has financial performance in that market. Economic profit is the difference between the profits obtained by investing resources in a particular activity and the profits that could have been obtained by investing the same resources in the most lucrative alternative activity (Besanko, Dranov & Shanley, 2000). Profitability can be achieved either by increasing the profit margin or by reducing costs. Other factors that determine profitability includes the amount of value customers place on the firm's products or services, the price charged and the costs of creating the value (Gary & Kotler, 2009). According to Porter (1998), financial performance provides the tools to understand the drivers of costs and a company's relative cost position.

### **2.6.2 Market share**

Firms with significant market share create a problem for competitors because the competitors will have to rely on stealing the market share away from the competition since they cannot just create business out of thin air (Gregory, Lumpkin & Eisner, 2006). Porter (1998) maintains that market share is great for a company because it means that its products and services are also well known and well received in the market place. The writer claims that it has been observed that firms with a high market share are often quite profitable since they are able to pursue a cost leadership strategy and are able to benefit from the economies of scale. According to Barney (2006), if a firm is able to gain market share over its competitors, the firm can develop a cost advantage where penetration pricing strategies and a significant investment in advertising can be used to increase the market share leading to financial performance.

### ***2.6.3 Effectiveness***

Gary and Kotler (1999) define effectiveness as the degree to which a firm achieves its stated objectives and is able to accomplish what it tries to do and provides a product or service that is valued by the customers. According to these writers, effectiveness is concerned with doing the right things and is related to outputs of the job and what is actually achieved. Porter (1998) defines operational effectiveness as better performance by a company than its rivals at similar activities. The writer argues that, although operational effectiveness is necessary in achieving superior performance by a firm, it is not financial performance in itself. However, when a firm seeks to perform its activities in a better or different way than the competition, then the firm can achieve financial performance. The quality performance of the firm and the ability to deliver its stated objectives is the only effective advantage an enterprise in a competitive economy

can have (Raturi & Evans, 2005).

Effectiveness precludes efficiency since a firm must be engaged in the right kind of work and only then does it matter whether the work is done efficiently or not. Effectiveness however is measured by the efficiency of systems and procedures as well as the standards of the services afforded (Gary & Kotler, 1999).

#### **2.6.4 Efficiency**

Gary and Kotler (1999) define efficiency as the use of minimal resources to produce a desired volume of output and is concerned with doing things right. The writers claim that efficiency is determined by the ratio of inputs to outputs and entails making the most economic use of resources and is concerned with the amount of resources that have to be employed in achieving organizational goals. Sagimo (2002) maintains that efficiency is enhanced if holding outputs constant, inputs are reduced e.g. labor inputs can be reduced if employees are better trained decreasing the time spent on each individual output. The writer also argues that efficiency can also be enhanced if holding inputs constant, outputs are increased. Productivity leads to greater efficiency and lower costs. Superior efficiency helps a company attain a financial performance through a lower cost structure (Besanko, Dranov & Shanley, 2000).

If a firm can achieve the highest efficiency for the same service or product, it can widen the gap between cost and perceived value leading to greater profit margins that can give the firm financial performance (Gregory, Lumpkin & Eisner, 2006). Examples are where a firm derives a method to reduce wastage thereby reducing the amount of material inputs required or finding a way to eliminate downtime and consequently increasing, the number of outputs (Gary & Kotler, 1999).

## **2.7 Real estate**

Syaggah and Aligula (2003) assert that real estate is a legal term that encompasses land along with anything permanently affixed to the land, such as buildings that are stationary or fixed in location and all other fixtures permanently affixed to it. Other fixtures include fences, and fittings such as plumbing<sup>g</sup>, heating, and light fixtures. According to Bayer (2003), real estate comprises all manner of landed properties such as forestry, agricultural properties, industrial, commercial, residential, special purpose properties.

Brueggeman and Fisher (2008) refer to real property as any piece of land including the air above it and the ground below it and any buildings or structures on it. According to this writer the term is used to refer to things that are not movable such as land and improvements permanently attached to the land. Any interest in land, developments, growing plants or the improvements on it, buildings, and all things permanently attached to land are all referred to as real estate (Bayer, 2003). Thomcraft (2004) contends that the use of "real" to refer to land also reflects the ancient preference for land, and the ownership thereof (and the owners thereof).

### **2.7.1 Real Estate Management**

Thomcraft (2004) defines real estate management as the direction and supervision of an interest in landed properties with the aim of securing the optimum returns and these returns need not always be financial but may be in terms of social benefits, status, prestige, political power or some other goals or group of goals. Coronato and Coronato (2008) defines real estate management as the management of

landed properties on behalf of real estate investors in such a manner as to enable the realization of maximum benefits from their investments while at the same time ensuring that the users of such properties maximize the utility realized from the use of such properties. Brueggeman and Fisher (2008) suggest that sound management principles are an essential pre-requisite of a healthy and successful investment in real estate. The writers define real estate management as all factors of the use, development and management of urban estate including sale, purchase and letting of residential, commercial and industrial properties and advising clients on planning.

Professional real estate management encompasses responsibility over all matters relating to real estate. According to Kiyosaki (2009), real estate management has the basic features of other management activities. This point is maintained by Davis (2003) who contends that property management requires basic skills such as marketing management, accounting and people skills. The manager is therefore required to be equipped with the technical, administrative and ethical standards in undertaking the assignment as well as having a thorough and certifiable training and sound knowledge of all aspects of the practice. Balance of emphasis between elements of estate management differs somewhat from that of business management generally since the latter is involved with the problems of control as applied to the entire range of economic factors i.e. people and skills, methods and procedures, equipment's and the physical assets (Kiyosaki, 2009; Syaggah & Aligula, 2003).

### ***2.7.2 Real estate risk management approaches***

In the management of real estate risks the common risk management approaches include: use of guarantors, use of security deposits, internal audits and controls as well as preventive and corrective maintenance (Bayer, 2004; Davis, 2003).

***Use of Guarantors:*** A guarantor is a person who is bound through a contract to pay a loan or other type of debt owed by another person. A guarantor binds himself or herself to pay another person's debt in case that person fail to do so. This is like an insurance policy for property owners or their managers against the tenant defaulting in rent. In the event that a tenant defaults in making rental payments, the guarantor is contractually liable to pay the full amount owed (Davies, 2003).

***Use of security deposits:*** a security deposit refers to money paid in advance of a transaction by a tenant to protect the landlord against damage to their properties or non-payment of rent. The landlord's right to retain the security deposit is contingent upon events that are outside their control. The deposit cushions the landlord against risks occasioned by unpaid rent, unpaid utility bills or damage caused to the property by the tenant (Bayer, 2003).

***Internal audits and controls:*** This is the systematic analysis of business operational processes, procedures and activities with a goal of highlighting organizational problems and recommending solutions. Internal audits and controls seek to improve organizational processes such as operations efficacy and the reliability of financial reporting. It seeks to deter and investigate fraud as well as safeguarding organizational assets and ensuring compliance to laws and regulations. As a risk remedial measure, internal audits and controls helps organizations address



issues to better manage risk, improve control and improve process efficiency (Brueggeman & Fischer, 2008; Davis, 2003).

***Preventive maintenance:*** Routine maintenance that is aimed at preventing possible breakdowns and failures to equipment's and other facilities with a view of mitigating on the effects of failure. This is designed to preserve and enhance the reliability of the equipment or facility by replacing worn out components before they actually fail. The activities involved in this form of maintenance may include building structural surveys, oiling and lubrication, partial or complete overhauls etc. It is the best form of maintenance in that it improves system reliability, decreases replacement costs and reduces system downtime (Thomcraft, 2004).

***Corrective maintenance:*** Maintenance work required when an item has failed or is worn out completely to bring it back to working order. Maintenance works involve the repair or replacement of a component that is totally failed or broken down. Corrective maintenance transfers the risk inherent in a systems failure to the owner. The maintenance works carried out to restore the defective item to specified condition may involve activities such as repair, restoration, or replacement of the equipment (Bayer, 2003).

### ***2.7.3 Development of real estate in Kenya***

The mass of real estate called Kenya has an area of approximately 582,646 sq km. comprising of 97.8% land and 2.2% water surface. Approximately, 75.0% of the country's population lives within the medium to high potential agricultural areas while the rest live in the vast arid and semi-arid lands. Consequently, the size and distribution of land varies quite widely as does population density which ranges from as

low as 2 persons per sq. km. in the arid and semi-arid areas to a high of over 2,000 in high prospect areas (Bidross, 2003).

Geographically, Kenya is located in the equator approximately between the latitudes 5°S and N and the longitudes 34°s - 42° E. The country covers an area of approximately 582,650 Km<sup>2</sup> out of which 569,250 km<sup>2</sup> is land surface and the remaining 13,400Km<sup>2</sup> covered by inland waters (Kenya Vision 2030, 2006). Kenya is one of the East African countries others being Uganda to the west and Tanzania to the south west. Kenya also shares borders with Somalia in the east and Sudan and Ethiopia to the north. The country is delimited by the Indian Ocean to the south east. Nairobi City is the capital of Kenya and the location was a watering hole for Maasai pastoralists until 1899, when British engineers building a railway from Mombasa to Uganda chose it as a supply depot. The settlement became a colonial capital and the manufacturing and commercial Centre of East Africa. After independence in 1963, the city served as a headquarters for the safari trade and for scientists seeking fossil evidence of early man (Bidross, 2003).

Onalo (2006) suggests that the development of real estate in Kenya dates back to pre-colonial era taking real shape during the European "scramble for Africa". Kenya as a country was formed in 1886, under the Anglo German agreement and after the Berlin Conference of 1884 — 5, where a conscious decision was taken to peacefully divide Africa with Britain getting what is now Kenya. The country was by then known as British East Africa (Wanjala, 2008). During the pre-colonial period, Kenya was populated by African exercising a customary land tenure system where land belonged to the community. This was eventually changed by the British settlers and gave birth to

the individualized tenure system as we know it today (Wanjala, 2008).

Land tenure is a term used to explain the manner in which individuals or groups in society hold or have access to land. The most common form of tenure during pre-colonial period was the communal tenure whereby land belonged to no one individual in particular but to the community (clan, tribe, ethnic group) as a whole. Tenure did not however have similar characteristics in all the ethnic communities then found in Kenya (Wanjala, 2008). According to Onalo (2006), the social formation of the people and their philosophy as determined by the dictates of their historical stage of development (hunters, gatherers, fishing, herding and settled farming etc.) influenced land tenure systems of each traditional community.

The customary land tenure system changed with the coming of the Crown Lands Ordinance of 1915 which reduced native communities to tenants at the will of the crown for the land they occupied. With the Crown Lands Ordinance, lands reserved for use of the native tribes could at any time be appropriated and thereafter alienated to settlers. This formed the beginning of the Africans struggle for independence primarily to reclaim back their rights to land as evidenced by the Harry Thuku riots of the 1920's and the subsequent *mau mau* struggle (Onalo, 2006).

The period of colonialism was characterized by three main events: alienation of land, imposition of English property law and the transformation of customary land law and tenure. These three phases in colonial history are the womb from which Kenya's land law was born. With the coming of colonialism, the theory of eminent domain was extended to property relations in Kenya replacing the communal tenure system and hold up to date. The idea that land belongs to an overlord who could grant it to his /

her subjects was inherent in the crown lands ordinance. Investment in real estate became a reality with the individualization of tenure, which consequently destroyed communal access to land (Wanjala, 2008; Onalo, 2006).

#### ***2.7.4 Government policies on real estate***

The Kenyan government in 1997 formulated a land policy that provides an overall operational framework that defines the key measures that are required to address the critical issues of land administration, access, use and planning, among other issues. The policy was giving direction regarding the commercialization of land rights and puts in place structures and instruments that make the land market operations more efficient and effective, including streamlining of the existing land transaction procedures. The National Land Policy provided an overall operational framework that defined the key measures that were required to address the critical issues of land administration, access, use and planning, among other issues.

The proposal by the Capital Market Authority to introduce Real Estate Investment Trusts (REITS) was also expected to transform the real estate market. REITS was to see real estate properties listed in the Nairobi Stock Exchange making it possible for individual investors to buy and own property through purchase of units. Large investors were also to be allowed to raise money through the Capital Market, which was to be channeled into property investment. Investors were required to register a real estate investment trust under the Trustee Act, Cap 167 with the CMA. The investors were to consequently raise capital from the market to invest in real estate projects on behalf of shareholders, with the aim of providing returns to the unit holders. According to these regulations, a real estate investment management company,

incorporated under the Companies Act Cap 486, and registered with CMA was to manage the real estate investment schemes on behalf of the investors. They were also to act as advisors to real estate investors on strategic transactions such as acquisitions, divestures, valuation analysis, legal and tax advisory etc.

Another positive influence to Kenya's real estate market came from the performance of the Kenyan economy. The real estate market is a service sector to the economy and its performance is directly and indirectly affected by the prevailing economic, political and social conditions of the country. The Kenyan economy had been growing steadily after several decades of low growth rates. Kenyan economy grew by 7.1% in 2007 compared to 6.4% in 2006. In 2008, growth however decelerated to 1.7% due to post election violence, global financial crisis, high fuel and food prices, and inadequate rainfall in various parts of the country. Nonetheless, growth recovered to 3.9% during the first quarter of 2009 as compared to a growth of -0.6% seen in the first quarter of 2008 (Economic Survey, 2009). The growth in real GDP in the first quarter was a culmination of rebound activities in wholesale and retail trade, transport and communications, construction and hotel sector which expanded by 4.6%, 4.3%, 30.7% and 59.0% respectively (Central Bank of Kenya [CBK], 2009).

## **2.8 Theoretical Framework**

The research work was informed by theories of financial risk and business risk management as advocated by the modern portfolio theory, theory of financial risk and derivative pricing, project risk management theories, insurance theories, general risk management theories, corporate risk management theories amongst many others. The theories that were used in the research work have a bias towards financial risk

management.

**Credit risk Management:** Credit risk is the risk that a firm's customers and the parties to which it has lent out money will delay or fail to make promised payments. It is the risk that in a transaction, one party to a financial instrument will default and cause another to incur a loss. Credit management there is an effort to mitigate the losses incurred as a result of credit risk. The researcher designed questions to seek answers from the respondents on how they manage credit risk. These questions were analysed and measured using the mean score and the standard deviations.

**Liquidity Risk Management:** Liquidity risk is the risk that an enterprise will encounter difficulty in raising funds to meet commitments associated with financial instruments. It is the inability to sell a financial asset quickly at close to its fair value and the risk that a given security or asset cannot be traded quickly enough in the market to prevent a loss. Liquidity risk management is the measures put in place to mitigate the losses that would arise from liquidity risk. The researcher designed questions to seek answers from the respondents on how they manage liquidity risk. These questions were analysed and measured using the mean score and the standard deviations

**Price risk management:** Price risk is the risk that expected cash flows may not be realized due to possible changes in output prices or fluctuations caused by changes in the market price. Price risk may cause an investor to lose money due a fall in the market price of an asset since the value will decline. Price risk management is the measures put in place to mitigate the losses incurred as a result of price risk. The researcher designed questions to seek answers from the respondents on how they manage price risk. These questions were analysed and measured using the mean score and the standard deviations

**Financial performance:** Firms financial performance can be measured by, its profitability, market share, effectiveness and efficiency. This is because such a firm is able to cut down on losses, stream line its operations making them both effective and efficient, manage its cost and thereby withstand competition and give value to its customers. The researcher designed questions to seek answers from the respondents on how financial risk management affects financial performance. These questions were analysed and measured using the mean score and the standard deviations.

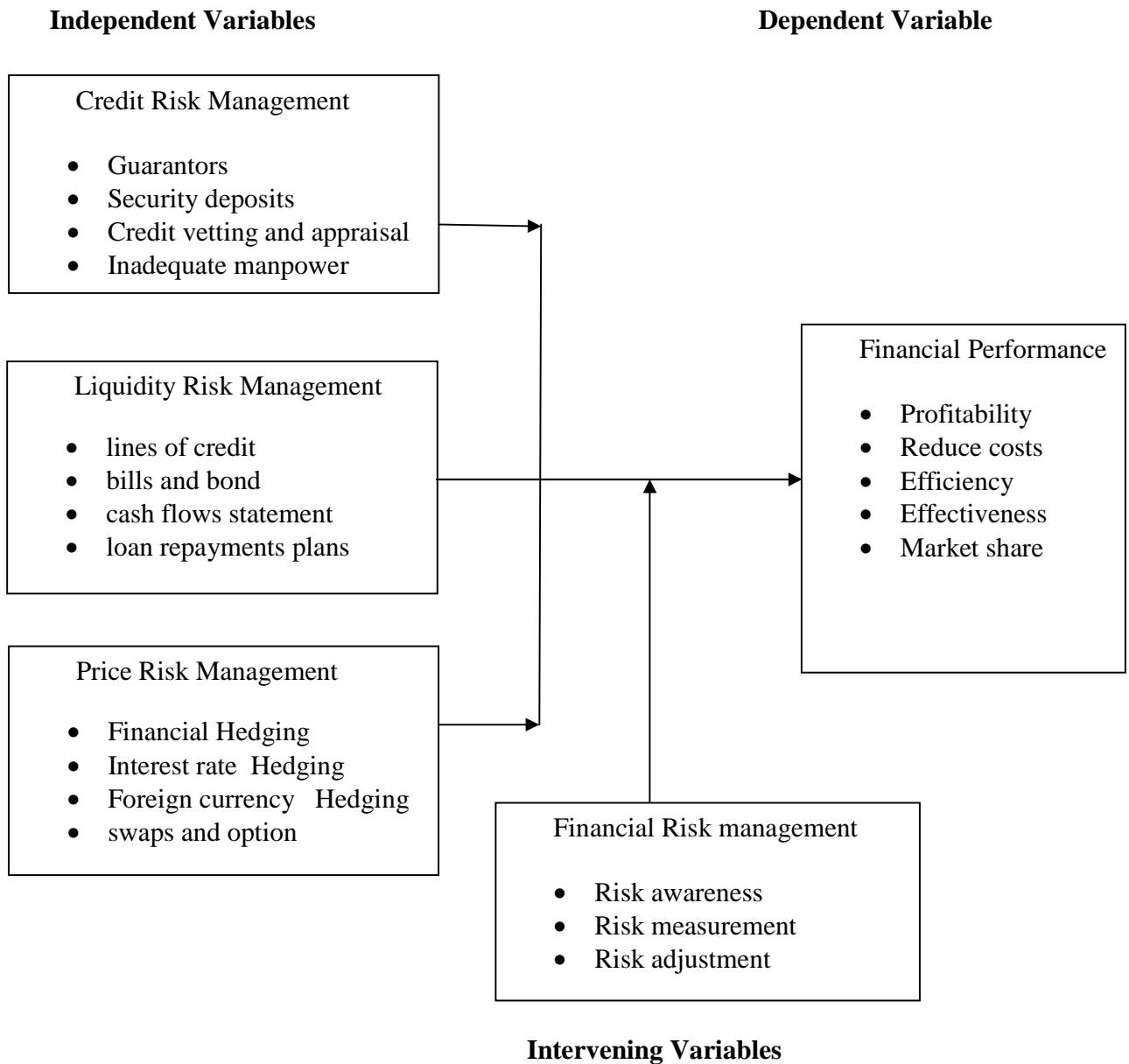
Multiple regression analysis was used to establish the effect of the independent variables on the dependent variables

## **2.9 Conceptual Frame Work**

This study sought to find out whether real estate managers can achieve financial performance in real estate by incorporating financial risk management into real estate. Using financial risk management theories as the independent variables in this study and real estate management practices as the dependent variables, the objectives of the study could be modeled into a conceptual framework that shows how variables

interrelate with each other. The relationship can be modeled as follows:

**FIGURE 1**  
**Conceptual Framework**





## **CHAPTER THREE**

### **3.0 RESEARCH METHODOLOGY**

#### **3.1 Introduction**

Research methodology refers to a specific plan for studying the research problem and constitutes the blue print for the proposed data collection analysis (Bryman, 2001). Mugenda and Mugenda (2003) assert that research methodology provides details regarding the procedures used in conducting a study. This chapter discusses the research design adopted in carrying out the research, population, sample as well as the sampling methods that were used. The chapter also contains data collection processes and tools that were used in carrying out the research, methods of data analysis as well as essential ethical considerations.

#### **3.2 Research Design**

Zikmund (2003) defines a research design as a master plan specifying the methods and procedures for collecting and analysing data. According to Bryman (2001), after a researcher has identified a research problem and has reviewed the relevant literature, the next step involves developing a research design for conducting the research.

This study adopted descriptive research design because it helped to explain the attitudes and behaviours of investors and property managers. Descriptive design is considered the best in answering the questions of who, what, which, when, where as well as how, and especially because real estate managers are defined in these terms in respect of their risk management practices. By the use of this design the researcher sought to find out

whether the concept of financial risk management can be used to improve financial performance of real estate firms.

### **3.3 Population**

According to the estate Agents Registration Board, there are approximately 354 companies in the country providing professional property management services formed by registered members as at 2012. These 354 companies were the population of this study. The specialized nature of the research information required for the study was enough justification for having professional real estate managers as the population of this study. The choice was considered reasonable given that real estate managers are involved in day to day running of the properties, are aware of the nature of the transactions taking place in real estate and have a higher interaction level with the players in the real estate industry such as tenants and the property owners. According to the Nairobi Directory (2009), only 151 companies are listed as property management companies that operate in Nairobi. The 151 companies operating within Nairobi were used as the target population of this study. This was because the firms were easily accessible and manageable (Cooper & Schindler, 2006; Vogt, 2005).

### **3.4 Sample Size and Sampling Technique**

The researcher used Simple random sampling method to select the firms that were studied. The method was considered the most suitable because it eliminated bias.

Yamane (1968) provides a simplified formula for calculating a sample size of smaller populations. The sample size was arrived at using the formula as follows;

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n is the sample size

N is the population size

e is the level of precision required

N = 151

E = 0.05

The sample size was arrived at as follows;

$$n = \frac{151}{1+151(0.05)^2} = 109.62$$

A sample size of 110 firms was arrived at for this study.

### **3.5 Types and sources of data**

Data refers to the information or facts about something. It is all the information gathered by the researcher for the study. Statistics employ data, which have in some way been expressed in a numerical form as frequencies or scores (Cramer & Hewitt, 2004). According to Mugenda and Mugenda, (2003) data can either be primary data or secondary data. Primary data refers to data collected from original sources such as respondents in a study, findings obtained through a census, field survey or focus group discussion. Secondary data refers to the data acquired directly from library, reports and publications. Data may also be classified as either qualitative or quantitative (Mugenda & Mugenda, 2003; Bryman, 2001).

### **3.6 Data Collection Tools.**

The study used primary data which was collected through use of a questionnaire. A questionnaire is a pre-formulated written set of questions to which the respondents record the answers usually within rather closely delineated alternatives. Questionnaires were distributed and dropped in offices of the selected real estate management firms targeting Chief Executive Officer and senior property managers. This was done by a research assistant who was also given an assurance to the effect that all the responses received were treated in confidence and strictly used for the purpose of this research and nothing else.

### **3.7 Methods of Data Analysis**

Data analysis is the process of organising the information collected and relating the data to the research questions (Laws, Harper and Marcus, 2003). Once the questionnaires had been administered the mass of raw data collected from the field was systematically organised to facilitate data analysis.

Data analysis was conducted using descriptive and inferential statistics. The specific descriptive statistics used were mean scores and frequencies. The particular inferential statistics used was regression analysis. The data was then analysed using STATA.

Multiple regression analysis was used to establish the effect of the independent variables on the dependent variables.

The model fitted was as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu$$

Where;

Y = Financial Performance

X<sub>1</sub> = Credit Risk Management

X<sub>2</sub> = Liquidity Risk Management

X<sub>3</sub> = Price Risk Management

In the model,  $\alpha$  = the constant term while the coefficient  $\beta_i = 1 \dots 3$  was used to measure the sensitivity of the dependent variable (Y) to unit change in the predictor variables.  $\mu$  is the error term which captures the unexplained variations in the model. In its complete form, the model was;

*Financial Performance* =  $\alpha + \beta_1$  Credit Risk Management +  $\beta_2$  Liquidity Risk Management +  $\beta_3$  Price Risk Management.

## CHAPTER FOUR

### 4.0 FINDINGS AND DISCUSSIONS

#### 4.1 Introduction

This chapter presents the findings of the study that was carried out to evaluate whether financial risk management could be used as a tool for improving financial performance by real estate firms thereby enabling these firms to enhance returns by increasing profitability, improving efficiency and effectiveness as well enlarge their market share. The objectives of the study were to; establish the effect of credit risk management on financial performance of real estate investment firms, establish the effect of liquidity risk management on financial performance of real estate investment firms and establish the effect of price risk management on financial performance of real estate investment firms.

A sample size of 110 companies was selected from a target population of 151 companies that provided real estate management services in Nairobi. Questionnaires were used as the main instruments of data collection in the study. Data obtained from the research instruments was examined, analysed and interpreted in line with the purpose and objectives of the study, with a summary of the findings presented at the end of the chapter.

##### *4.1.1 Response rate.*

The sample size of the study consisted of 110 companies that dealt with real estate management services in Nairobi. Questionnaires were hand-delivered to the 110

sampled firms targeting senior managers and the company chief executives. The response rate that was recorded from the research instruments was as tabulated below.

**TABLE 3**  
**Response rate on the research instruments.**

	Frequency	percent
<i>Number of questionnaires administer</i>	110	100%
<i>Number of respondents who answered questionnaires</i>	105	95%
<i>Number of respondents who did not cooperate</i>	5	5%

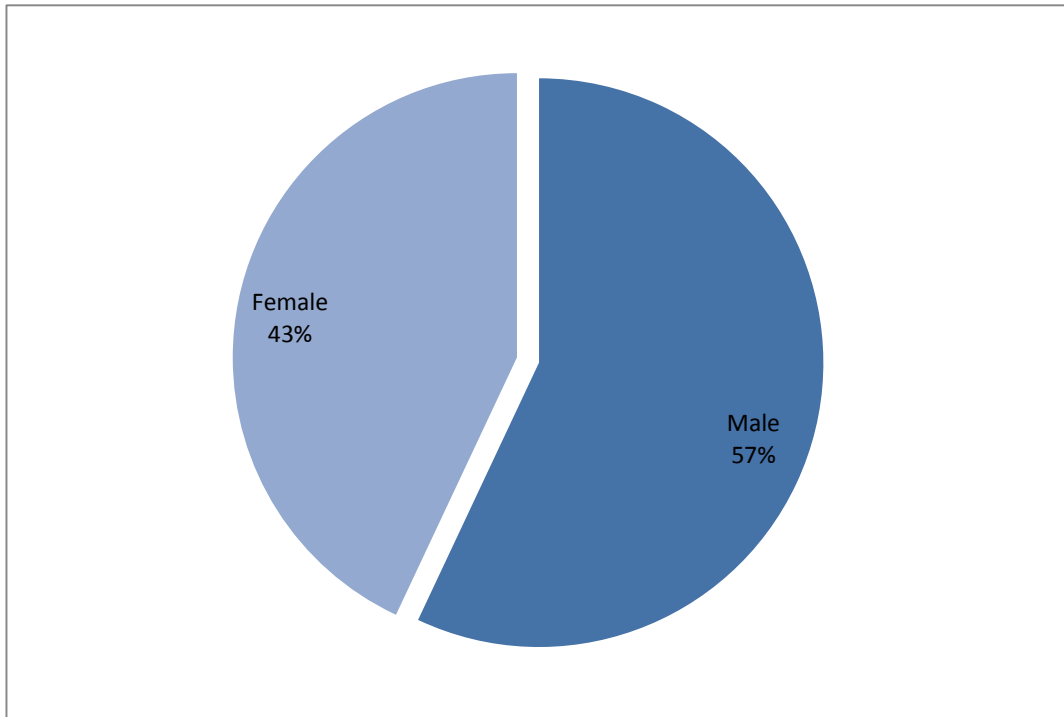
It can be seen from the table 3 that the response rate was 95% , with only 5% failing to return the questionnaires. The response rate was good to enable the researcher to analyse the data.

#### **4.1.2 Gender Representation.**

The question of gender was considered important in the study primarily because, it could help the researcher get a balanced view from both males and females making it possible to assimilate the risk attitude between the genders. Some writers like Gustafson (2004) claim that women are more risk averse compared to men in financial decision making. Of the respondent who participated in the survey, 57% were males and 43 were females. The gender composition of the respondents who participated in the surveys is illustrated in the figure below.

**FIGURE 2**

**Gender composition of the respondents**



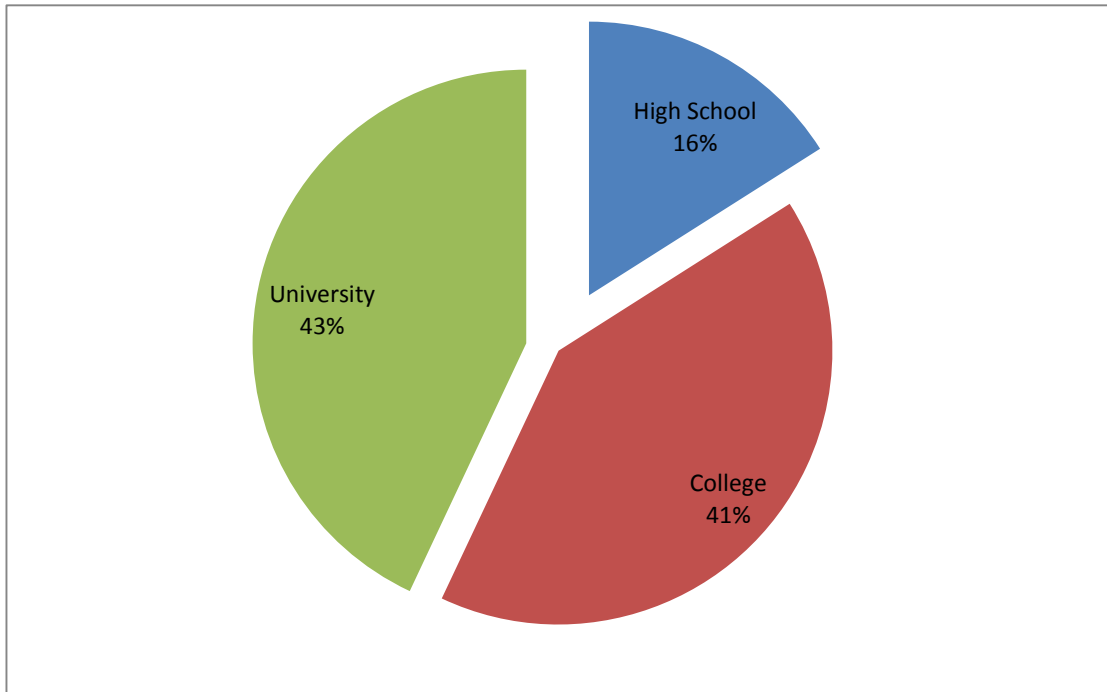
#### ***4.1.3 Education background of the respondents***

The respondent's level of educational was important in helping the researcher get reliable data .Given that the study of risk management is specialized in nature, it was important to engage people who had basic understanding of risk management and were able to perceive and comprehend risk as it related to their real estate practice. Of the respondents who participated in the study, 45 of them had university education, 44 college and 18 had reached secondary level. The figure below summarized the respondents level of education.



**FIGURE 3**

**Education level of the respondents**



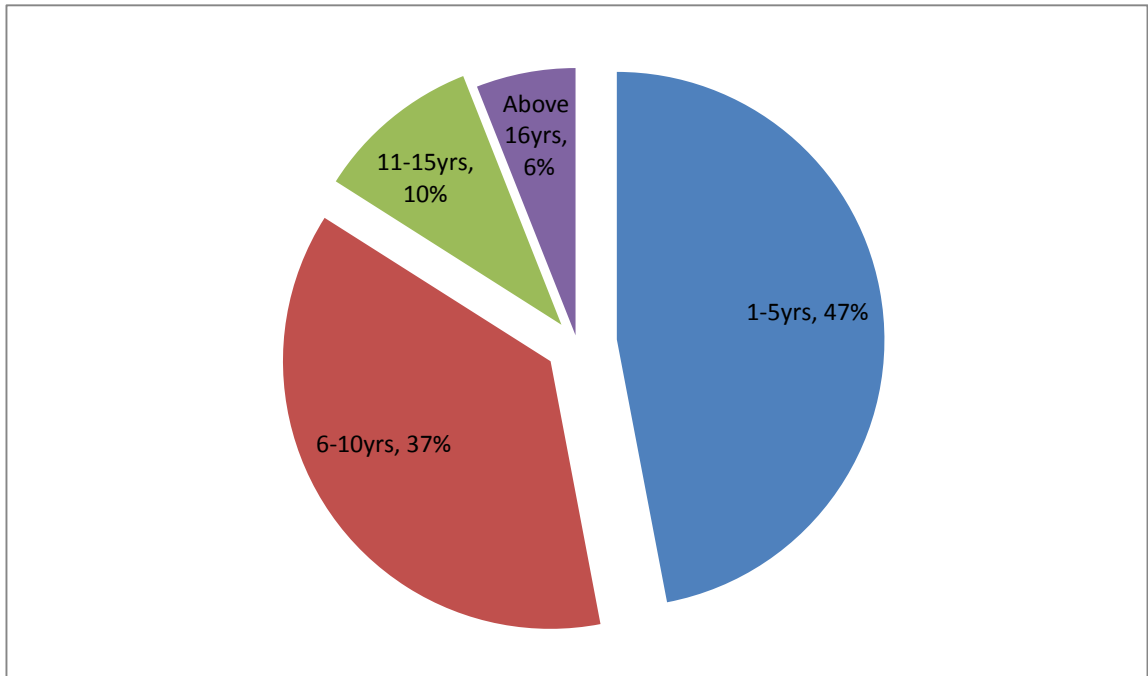
It is evident from fig 3 above, that majority of the respondents in the survey had attained university education. This therefore indicates that majority of the participants had a level of education that warranted their participation in the study and well equipped to respond to the questions appropriately.

#### ***4.1.4 Experience of the respondents in Real Estate Business***

The respondents experience as demonstrated by the years of practice was important in examining how reliable the information given by the respondents in the study was. The figure below shows the experience of the respondents in the study.

**FIGURE 4**

**Experience of the respondents**



It is evident from fig 4 above that 53% of the respondents had over 6 years of real estate practice. This period is obviously sufficient for the respondents to have been satisfactorily exposed to real estate related risks and to have figured out appropriate ways of managing such risks. As such, the respondent experience was considered adequate in giving credible information required of the study.

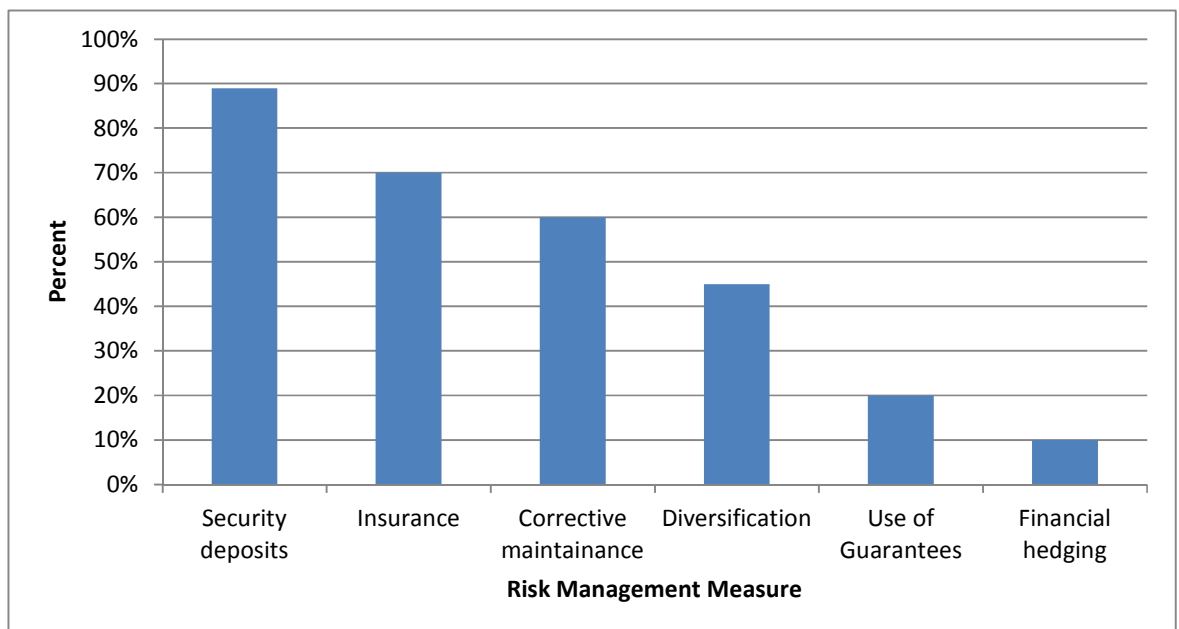
#### **4.2 How real estate managers manage risks facing them.**

The researcher was interested in finding out how real estate managers managed the risks facing the real estate. To find out the methods employed in risk management, the respondents were required to pick any five risk management measures that they employed in managing the risks they had encountered in their practice. A list of risk

management measures was provided with a brief definition and explanation of the same. It emerged from the study findings that 72 of the respondents were using insurance as risk management measure. It was also noted that 51 respondents were using corrective maintenance as a risk management measure with another 43 admitting to using diversification. Some 32 respondent used guarantors to manage risks in real estate.

**FIGURE 5**

**Risk management measures used to manage risks.**



It can be observed that the five main risk management measures employed were security deposits, insurance, corrective maintenance, diversification and use of guarantors. It emerged from the survey that the use of security deposits was quite popular with 89% of the respondents admitting to using it. Insurance was also found to be extensively used with 70% of the respondents acknowledging its use. Other risk management measures that were identified were collective maintenance, diversification

and use of guarantors where 60%,45% and 20% Respectively. 10% of the respondents were found to be using financial hedging a practice that can be associated with foreign-based real estate companies operating in Kenya. This therefore means that real estate managers in Kenya extensively use security deposits, insurance, diversification, corrective maintenance and guarantors as the primary risk management

#### ***4.3.1 Prevalence of financial transactions in real estate***

To find out the prevalence of some financial risks in real estate management, the respondent were expected to rate in a likert scale the frequency with which they come across transactions that involved foreign currency, changes in interest rates, inflation, delay and defaults in payments. The results are as illustrated below.

**TABLE 4**

**Prevalence of financial transactions in real estate**

	Foreign Exchange		Interest Rate		Inflation		Payments Delay		Default	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Quite often	6	7%	3	4%	26	32%	65	80%	63	78%
Moderately happens	10	12%	59	73%	51	63%	12	15%	15	19%
Never happens	65	80%	19	23%	3	4%	4	5%	3	4%

As can be observed 80% of the respondents felt that transactions in real estate were affected by delays in rental payments. It can also be seen that 78% of the respondents associated defaults in payment with real estate transactions. Transactions involving inflation and interest rates were also registered though moderately. Interest rate related transactions were moderate and accounted for 73 % of the transactions whereas inflation related transactions which were also moderate accounted for 73% of

the transactions. Foreign exchange related transactions were least popular amongst the respondent with 80% of the respondents feeling that such transactions never happened. Syaggah and Aligula (2003) assert that a real estate manager's duty is to ensure that losses attributable to delay in payments, defaults in payment and theft are minimized in the property. The findings agree with real estate transactions being affected by delay and default in rental payment.

#### **4.4 How Financial Risks affect real estate business**

The study wanted to find out the percentage of financial losses that was attributed to financial risks. To know what percentage of rental loss the identified risks contributed to the monthly rental cash flow, the respondent were requested to give an estimate of the total loss incurred as a percentage of their monthly cash flows (i.e. rental collections) attributable to the five main risks identified. The findings in respect to the same were illustrated in the table below.

**TABLE 5**  
**Estimated total loss from monthly rental collection**

Rental loss incurred per month	Frequency	Per cent
Below 30%	25	31%
Between 30% and 50%	50	62%
Between 50-70%	6	7%

As indicated in the table 5, 62% of the respondents were of the opinion that the identified risks had significant effects on projected rental cash flows and contributed between 30%-50% of the total rental loss incurred. Some 7% of the respondents felt that the risks contributed to between 50%-70% of the total loss from rental revenues. Only 31% of the respondents felt the risk contributed below 30% of the total loss. This

means that majority of the respondents attested to the fact that risks identified in real estate were responsible for over 30% of the total rental loss incurred.

#### **4.4.1 Effects of risk management**

Participants in the survey were required to give their opinions on weather managing risks facing real estate could help improve profitability, reduce losses, be more efficient, be more effective and increase market share. The results are presented in the table below

**TABLE 6**  
**Assessment of risk management benefits in real estate**

	Profitability		Costs		Efficiency		Effectiveness		Market share	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Strongly agree	62	77%	49	60%	57	70%	57	70%	56	69%
Agree	14	17%	22	27%	18	22%	20	25%	21	26%
Don't agree	4	5%	9	11%	4	5%	3	4%	3	4%
Mean Score	3.93		2.23		3.64		3.72		3.69	

According to the findings 77% of the respondents strongly agreed that managing financial risks facing real estate increased profitability. It also emerged that 60% of the respondents felt that risk management in real estate could help reduce cost significantly. The survey also found out that 70% or the respondents strongly believed that managing real estate related risks increased efficiency and effectiveness while 69% of them believed that it could help increase market share. This mean therefore that risk management can help increase profitability, reduce costs, improve effectiveness and

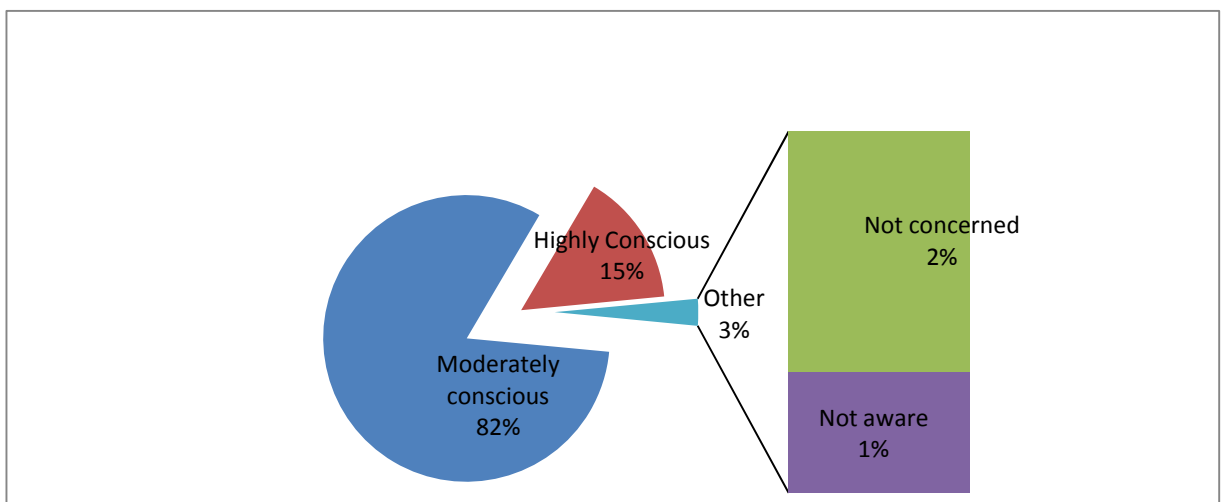
efficiency can help companies increase their market shares all which could improve a firms financial performance.

#### 4.4.2 Risk altitude amongst real estate managers/investors in Kenya

To rate the risk consciousness of real estate managers investors in Kenya, the respondents were required t0o give their opinion in likert scale comprising highly conscious, moderate conscious, not concerned about risks and not aware about risks. The findings from the survey were as follows:

**FIGURE 6**

**Risk Altitude amongst Kenyans Real Estate Investors/Managers**



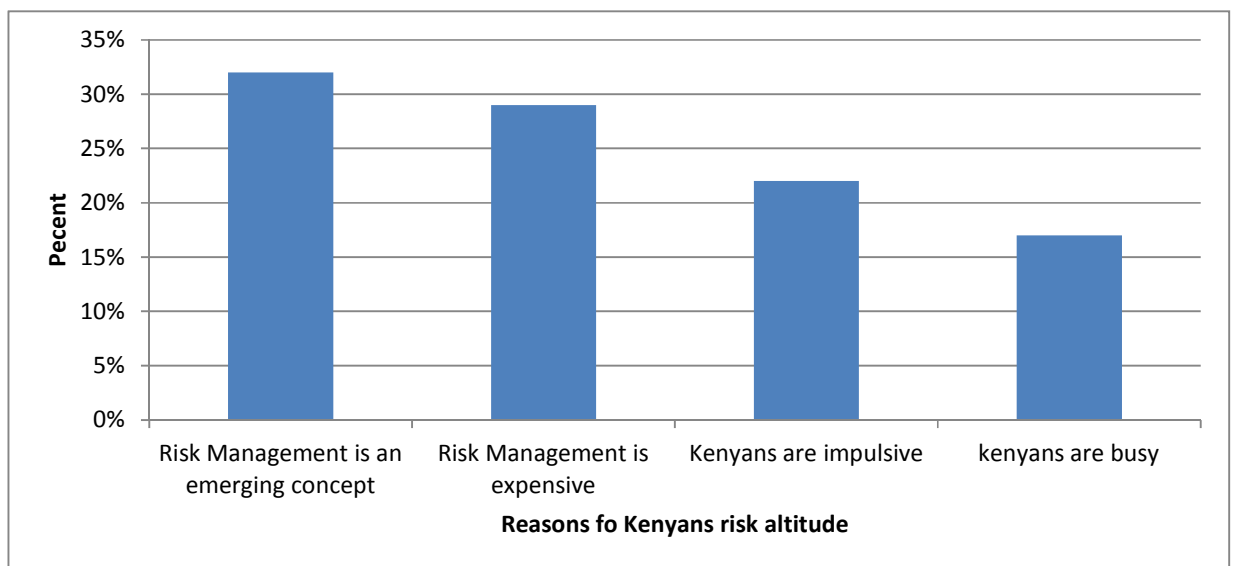
It can be observed from fig 6 that 82% of the respondents considered real estate investors and managers to be moderately conscious about risk with 15% of them rating the investors and managers behaviours to be highly conscious of risks. The findings therefore signify that the main players in Kenyan real estate market have a moderate consciousness about the risk facing them.

#### 4.4.3 Explanations for Kenyans altitude about risks.

The respondents were requested to give their reasons for Kenyans consciousness about risks. The explanations given by the respondents were varied. The main reason advanced by 32% of the respondents was that the study of real estate risk management in Kenya was a emerging concept and that very few companies incorporate the element of risk management in their strategic plans. They were therefore of the opinion that there were still more to learn about risk and how to contain it. They deemed that Kenyans were just beginning to venture into risk management aspiring to expand their knowledge in the field.

**FIGURE 7**

**Reasons for Kenyans Is Altitudes**



Some of the respondents considered risk management as an expensive venture with 29% of them arguing that risk management might end up being more expensive when compared with the losses attributable to the risks. Some felt that many decisions



that Kenyans make were impulse and were not based on informed fundamentals with 22% of the respondents holding on this view. Another reason given by 17% of the respondents was that Kenyan real estate players were busy and therefore unable to dedicate enough time to reflect on risk management. These explanations therefore indicate that the risk consciousness amongst Kenyan real estate players is in its formative stage and is still developing and that may explain why many respondents considered Kenyans as moderately conscious about risks.

#### **4.5 Financial Risk Management Measures**

##### ***4.5.1 Credit Risk Management***

The study sought to establish the credit risk management measures that were undertaken for the purposes of improving performance. On the statement that the organization encouraged the use of Guarantors to minimize credit risk the mean score was 3.84 and standard deviation of 0.56. On the statement that the organization had invested inadequate manpower for debt collection the mean score was 3.52 and standard deviation of 0.97. On the statement that the organizations conducted credit vetting and appraisal of potential customers the mean score was 3.72 and standard deviation of 0.67. On the statement that the organization encouraged the use of security deposits to minimize credit risk the mean score was 3.69 and standard deviation of 0.74. This implied that majority of the respondents agreed with the statement.

**TABLE 7****Assessment of Credit Risk Management Measures**

Statement	N	Min	Max	Mean	Std. Deviation
Our organization encourages the use of Guarantors to minimize credit risk	100	1	4	3.84	0.56
Our organization has invested adequate manpower for debt collection	100	1	4	3.52	0.97
Our organizations conducts credit vetting and appraisal of potential customers	99	1	4	3.72	0.67
Our organization encourages the use of security deposits to minimize credit risk	99	1	4	3.69	0.76
Average				3.69	0.74

**4.5.2 Liquidity Risk Management**

The study sought to establish the liquidity risk management measures that were undertaken for the purposes of improving performance. On the statement that the organization had put in place lines of credit to minimize liquidity risk the mean score was 3.80 and standard deviation of 0.64. On the statement that the organizations regularly prepare cash flows statement to manage its liquidity the mean score was 2.23 and standard deviation of 0.47. On the statement that the organizations conducted credit vetting and appraisal of potential customers the mean score was 3.61 and standard deviation of 0.79. On the statement that the organization negotiates with banks on loan repayments plans as a way to manage liquidity the mean score was 3.56 and standard deviation of 0.84. This implied that majority of the respondents agreed with the statement that liquidity risk management affects performance.

**TABLE 8****Assessment of liquidity risk management measures**

Statement	N	Min	Max	Mean	Std. Deviatin
Our organization has put in place lines of credit to minimize liquidity risk	99	1	4	3.80	0.64
Our organization has invested in treasury bills and bond to manage its liquidity	99	1	3	2.23	0.47
Our organizations regularly prepares cash flows statement to manage its liquidity	99	1	4	3.61	0.79
Our organization negotiates with banks on loan repayments plans as a way to manage liquidity	98	1	4	3.56	0.84
Average				3.30	0.68

**4.5.3 Price Risk Management**

The study sought to establish the price risk management measures that were undertaken for the purposes of improving performance. On the statement that the organization conducts Financial Hedging to minimize price risk the mean score was 3.72 and standard deviation of 0.67. On the statement that the organization conducts interest rate Hedging to minimize price risk the mean score was 3.69 and standard deviation of 0.76. On the statement that the organization conducts foreign currency Hedging to minimize price risk the mean score was 3.80 and standard deviation of 0.64. On the statement that the organization participates in swaps and option to minimize price risk the mean score was 2.23 and standard deviation of 0.47. This implied that majority of the respondents agreed with the statement that price risk management affects performance.

**TABLE 9**

**Assessment of Price risk management measures**

Statement	N	Min	Max	Mean	Std. Deviatin
Our organization conducts Financial Hedging to minimize price risk	99	1	4	3.72	0.67
Our organization conducts interest rate Hedging to minimize price risk	99	1	4	3.69	0.76
Our organization conducts foreign currency Hedging to minimize price risk	99	1	4	3.80	0.64
Our organization participates in swaps and option to minimize price risk	99	1	3	2.23	0.47
Average				3.36	0.64

**4.6 Regression**

**TABLE 10**

**Results of the regression model**

. regress performance Creditrisk Liquidity Pricerisk

Source	SS	df	MS	Number of obs = 99		
Model	8.54410773	3	2.84803591	F( 3, 95) =	151.27	
Residual	1.7886678	95	.018828082	Prob > F =	0.0000	
Total	10.3327755	98	.105436485	R-squared =	0.8269	
				Adj R-squared =	0.8214	
				Root MSE =	.13722	

performance	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
Creditrisk	.202775	.038665	5.24	0.000	.1260154	.2795347
Liquidity	.5377066	.0573845	9.37	0.000	.4237839	.6516294
Pricerisk	.1482254	.0571286	2.59	0.011	.0348108	.2616399
_cons	.4200512	.1431352	2.93	0.004	.135892	.7042105

*Financial Performance* = 0.42 + 0.20 Credit Risk Management + 0.053 Liquidity Risk Management + 0.15 Price Risk Management.

#### **4.6.1 Interpretation of the results**

The study employed multiple linear regression analysis in testing the influence of the predictor variables on the dependent variable. The results indicate that the regression model best fits in explaining financial performance. This is supported by a composite strong and positive correlation of 0.8214 and a coefficient of determination (R Square) of 0.8269. This means that the predictor variables of the study can explain at least 82.69% of the variation in financial performance. The standard error of estimate (0.13722) is negligible which shows that the sample is close representative of the study population.

The results also shows analysis of variance which indicate that the combined effect of the predictor variables is significant in explaining financial performance with an F statistic of 151.27 and a p value of 0.0000.

Results also display the regression output of the predictor variables. Results indicate that credit risk management, liquidity risk management and price risk management are statistically significant factors in influencing financial performance. The beta coefficient indicates the direction and degree of influence of the predictor variable on the dependent variable. For example, a beta coefficient of 0.202775 of credit risk management means that a unit change in credit risk management causes or leads to a 0.202775 positive unit change in financial performance. The regression between financial performance and liquidity risk management and price risk management was 0.5377066, 0.1482254 and 0.4200512 respectively and all had statistically significant relationships.

#### **4.7 Summary of findings**

The key findings of this research study are discussed in light of the research questions and purpose of the study.

##### ***4.7.1 Effect of credit risk management on financial performance***

The first objective was to establish the effect of credit risk management on financial performance of real estate investment firms. Majority of the respondents agreed to the statements and this was supported by a mean score of 3.69 and standard deviation of 0.74. Data analysis also revealed that credit risk management was important in explaining financial performance. This is supported by a p value 0.000 and a beta of 0.202775 which implies that credit risk management is a statistically significant predictor of financial performance.

##### ***4.7.2 Effect of liquidity risk management on financial Performance***

The second objective was to establish the effect of liquidity risk management on financial performance of real estate investment firms. Majority of the respondents agreed to the statements and this was supported by a mean score of 3.30 and standard deviation of 0.68. Data analysis also revealed that liquidity risk management was important in explaining financial performance. This is supported by a p value 0.000 and a beta of 0.5377066 which implies that liquidity risk management is a statistically significant predictor of financial performance.

##### ***4.7.3 Effect of price risk management on financial performance***

The third objective was to establish the effect of price risk management on financial performance of real estate investment firms. Majority of the respondents agreed to the statements and this was supported by a mean score of 3.36 and standard

deviation of 0.64. Data analysis also revealed that price risk management was important in explaining financial performance. This is supported by a p value 0.011 and a beta of 0.1482254 which implies that price risk management is a statistically significant predictor of financial performance.

## CHAPTER FIVE

### 5.0 CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introductions.

This chapter seeks to present the conclusions and make recommendations that can be drawn from the study.

#### 5.2 Conclusions

This research set out to find out whether financial management can be as a tool for financial performance in real estate in Kenya.

The study has found out that financial risks are present in real estate and the same pose serious challenges to real estate managers and investors. The study has also found out that the risk management measures that the managers in the industry are using are not adequate given the significant losses that are suffered by the real estate managers and investors conducting business within this market. The study has found out that players within the industry are in agreement that effective risk management in real estate can increase profitability, increase operational efficiency and effectiveness and enlarge market share all of which can lead to financial performance.

Contrastingly, whereas the real estate managers are in agreements that risk management can increase profitability leading to financial performance, many do not seem to reap the benefits of financial risk management .It is an apparent fact based on the study findings that the current players are yet to reap these benefits owing to the magnanimity of risk that are prevalent in the industry .It is therefore evident that whereas financial risk management can be used as a tool for financial performance in real estate , real estate managers in Kenya are yet to reap these benefits. This is because



they are yet to develop their risk management measures fully and better risk management practices are required if real estate managers are to achieve financial performance through risk management in the industry.

### **5.3 Recommendations.**

This part of the study aims to make recommendations based on the research findings that will guide real estate investors on how to manage financial risks so as to reap the benefits and improve financial performance.

#### ***5.3.1 Policy recommendations***

The following specific recommendations can be made based on the purpose, the objective limitations as well as the findings of this research study. The recommendations could if addressed properly, mitigate the consequences of risks suffered in real estate and assist in managing the identified risks more effectively.

It is apparent from the study that even with the use of current risks management measures involving, security deposits; insurance, corrective maintenance, diversification and use of guarantors, real estate risks still pose a major challenge to real estate managers in Kenya. The managers continue to struggle with financial risk management. This therefore means the methods of risk management as currently employed are inadequate. There is therefore need to consider adopting other risk management measures such as operational hedging and financial hedging that could assist managers in real estate minimize the losses suffered attributable to risks.

Risks presented by transactions involving in changing interest rates though identified in the market are unable to be addressed by the current risk management measures employed. There is need to carry out un in depth analysis that will help real

estate managers identify all the risk facing them in real estate. Consequently the identification processes with help them to be more equipped in knowing how to manage risks attributable to inflation and changes in interest rate.

There is need to integrate the current risk management measures in real estate with conventional financial risk management practices.

### ***5.3.2 Recommendation for future research.***

The findings of this study have several implications for future research implications. This study sort to know whether financial risk management can be used as a tool for improving financial performance by real estate managers in Kenya. The forces was limited to financial risk management but there may be so many other risks that are non-financial in nature and that could provide a rich ground for future researchers to investigate on in addition, future researchers could investigate on the competencies of real estate managers in handling financial risks in real estate and verify whether the same should be the responsibility of accountants and actuaries.

Future researchers could also investigate the reasons behind real estate investment and the fundamentals that guide such investment. With a moderate risk attitude attributed to Kenyan property investors and their managers, it would be interesting to know what fundamentals drives real investment in Kenya given that risk is of little concern

## REFERENCES.

- Abkowitz, M.D (2008). *Operational risk management; a case study approach to effective planning and response*. New Jersey; John Wiley & sons Inc.
- Allen. (2003). *Financial risk management; A Practioner's guide to managing markets and credit risks*. New Jersey; Prentice Hall International Inc.
- Babbie, E. (1998). *The practise of social research*.California; Wadsworth publishing company.
- Banks, E. (2004). *Alternative risk transfer; integrated risk management through insurance, reinsurance and capital markets*.Weinheim; Willey-VCH Verlag.
- Barkley, B.T. (2005).*Project risk management*. New Delhi, India; Tata McGraw Hill.
- Barney, J.B. (2006). *Gaining and sustaining competitive advantages*. New Jersey; Prentice hall international Inc.
- Bayer, G.H. (2003). *Housing a factual analysis*. New York, USA; Macmillan Company.
- Besanko, D., Dranov, D., & Shanley, M., (2000). *Economics of strategy*. New York, USA; john Wiley & sons.
- Bidross, J. (2003). *Kenya; Neck and neck with nature*. Landon, UK; Lonely planet publications Pty Ltd.
- Bonyo, J. (2009). *KenGen, KPLC reach deal on power tariff*. The Daily Nation, p.30. Nairobi Kenya; Nation Media Group.
- Brookbanks, M., Grandy, T. & pourquery, p. (2006).*Operations excellence in risk management*. New Delhi; Efficient Offset Printer.
- Brueggeman, W., & Fisher. (2008). *Real estate finance and investments*. New York, USA; McGraw Hill.
- Bryman, A. (2001). *Research methods and organisation studies*.Landon; Unvil Hyman.
- Central Bank of Kenya [CBK]. (2008). *2008 annual report*. Nairobi Kenya.
- Central Bank of Kenya [CBK]. (2009). *2009 revised annual report*. Nairobi Kenya.

- Chisholm, A. M. (2004). *Derivatives demystified; a step by step guide*. New Jersey , USA ;John Wiley & Sons Inc.
- Christofferson, P. (2003). *Elements of financial risk management*. California, USA; Academic press.
- Cochran, W.G. (1963). *Sampling techniques*. (2<sup>nd</sup> ed.). New York; John Wiley & Sons, Inc.
- Cooper, R.D. & Schindler, S. P. (2006). *Business research methods*. (7<sup>th</sup> ed.). New York; Irwin/McGraw Hill.
- Coronato, T., & Coronato, H. (2008). *Real estate investing*. Avon, USA; Adams Media.
- Committee of Sponsoring Organisations of the Treadway commission (COSO). 2004. *Enterprise risk management –integrated framework*. New York USA.
- Cramer, D., & Hewitt, D.L. (2004). *The sage dictionary of statistics; A practical resource for students in the social services*. London; SAGE Publications Ltd.
- Crouhy, M., Galai, D., & Mark, R. (2006). *The essentials of risk management*. New York; McGraw- Hill companies Inc.
- Dattalo, p. (2008). *Determining sample size*. New York ,USA; Oxford University press.
- Davis, D. (2003). *How to become a power agent in real estate*. New York,USA; McGraw Hill.
- Elliot, B., & Elliot, J. (2006). *Financial accounting, reporting and analysis*. England, UK; FT Prentice Hall.
- Elton, E.,J., Gruber, M.,J.,Brown, S. j., & Goetzmann, W. N. (2007). *Modern portfolio theory and investment analysis*. Massachusetts, USA; John Wiley & Sons Inc.
- Friesecke, F., & Kotter, T. (2006). *The contribution of the surveying profession to disaster risk management*. *The Kenya Surveyor*, 11 (7), 21-28.
- Gary, A. & Kotler, T. (1999). *Principles of Marketing*. New jersey, USA; Prentice Hall.
- Gregory, G., Lumpkin, G., & Eisner, A., (2006). *Strategic Management; text and cases*. Boston, USA; McGraw-Hill, Irwin.

- Grinblatt, M., & Titman, S. (2003). *Financial Markets & corporate strategy* (2<sup>nd</sup> ed.). New Delhi, India: tata McGraw- Hill.
- Gustafson, P. (2004). *Gender differences in risk perception; theoretical and methodological perspectives*. Risk analysis, 18(6) 5-11.
- Hamel, G, & Prahaland, C.,K. (2004). *Competing for the future*. Boston, USA; Harvard Business School press.
- Harrington, S. E., & Niehaus, G. (2004). *Risk management and insurance* (2<sup>nd</sup> ed.) New Delhi, India; Tata McGraw –Hill Publishing Company Limited.
- Hubbard. (2009) .*The failure of risk management*. New Jersey; John Wiley & Sons.
- Hull,J.C. (2006). *Risk management and financial institutions*. San Francisco; jossey-Bass.
- Kalman,M. (2007) . *The principles of uncertainty*. Landon, England; the penguin press.
- Kieffer, R., Esch, L., Lopez, T ., Damel, B. & Hannoset, J. (2005).*Asset and risk management*. New Jersey; John Wiley & Sons Inc.
- Kiyosaki, R .T. (2009). *The real book of real estate*. New York, USA; Vanguard Press.
- Knight, F.H. (2009). *Risk, uncertainty and profit*. Florida, USA; Signalman publishing.
- Laws, S., Harper, C., & Marcus, R.(2003). *Research for development*. Washington DC; Sage Publications limited.
- Lindley, D.V. (2006). *Understanding uncertainty*. New Jersey, USA; John Wiley & sons.
- Los, C., A. (2003). *Financial risk management; measurement and analysis*. New York, USA; Routledge international Studies Publishers.
- Maginn, J.,L., & Tuttle , D.,L. (2007). *Managing investment portfolios. A dynamic process*. New Jersey, USA; John Wiley & Sons.
- Makena, J. (2007). *Development Risk; an assessment of Nairobi property market*. The land and property Digest, 4(2007), 21-22.

- Ministry of planning, National Development & Vision 2030. (2009). *Economic survey 2009*. Nairobi, Kenya.
- Ministry of planning, National Development & Vision 2030. (2007). *Kenya Vision 2030*. Nairobi, Kenya.
- Ministry of lands. (2007). *National Land policy 2007*. Nairobi Kenya.
- Mugenda, O., & Mugenda, A. *Research methods*. Nairobi; Acts press.
- Mwangi, W. (2009). Institutional reforms the panacea to land reforms. *The Land and property digest*, 8(2009), 11-13.
- Narayan, V. (2004). *Effective maintenance management; risk and reliability strategies for optimizing performance*. New York; Industrial press Inc.
- Okoth, J. (2010). Government paper puts pressure on mortgage rates. *The standard financial journal* p.7. Nairobi, Kenya.
- Okumu, R. (2007). City Wide master plan. *The Land and property Digest*, 4(2007), 17-18.
- Onalo, p. (2006). *Land law and conveyancing in Kenya*. Nairobi, Kenya; Law Africa Publishing Kenya limited.
- Pandey, I. M. (2005). *Financial management* (9<sup>th</sup>ed.). New Delhi, India; Vikas Publishing House Pvt ltd.
- Peters, T., & Waterman, R. H. (1982). *In search of excellence; Lessons from American's best run companies*. New York, USA; Harper & Row, Publishers Inc.
- Porter, M. (1998). *Competitive advantage; creating and sustaining superior performance*. New York; free press.
- Porter, M. (1998). *On competition*. Boston; Harvard Business School Publishing.
- Raturi, A. Evans, R. (2005). *Principles of operation management*. Oklahoma, USA; Thomson south-western.
- Ruitha, J. (2008). Challenges in financial public Housing. *The land and property Digest*, 5(2008), 4-5.

- Rumelt, P. Harry, Kunin, E., (2003) *what in the world is competitive advantage?* California, USA; Anderson School press.
- Shapiro, A.C.(2006). *Multinational financial management*. New Jersey, USA; John Wiley & Sons Inc.
- Syaggah, P., & Aligula, E. (2003). *Management and agency in the urban real property market in Kenya*. Germany; Shaker Verlag Aachen.
- Sagimo, P .O. (2002). *Management dynamics*, Nairobi, Kenya; East Africa press.
- Thormcraft, M. (2004). *Principles of estate management*. London; the Estate Gazette Ltd.
- Vogt, P.W.(2005). *Dictionary of statistics and methodology; A non-technical guide for social sciences*. California; SAGE Publications Inc.
- Wanjala, S. (2008). *Land law, the reform debate in Kenya*. Nairobi, Kenya; Fotoform Limited.
- Wheelen, T., & Hunger, J.D. (2008). *Strategic management and Business policy*. New Jersey; Pearson Prentice Hall.
- Yamane, T. (1968). *Statistics; An introductory analysis*. New York, USA; Harper and Row.
- Zikmund, W. (2003). *Business Research methods*. Texas, USA; Harcourt college publishers.

## APPENDICES

### Questionnaire

This questionnaire has been set in relation to the objectives of the study. All questions relate to financial risk management as a tool for financial performance in real estate.

1. Gender

(a) Male  (b) Female

2. Please indicate the level of education

(a) High school level  (b) University level   
(c) College   
(d) Others (specify)

3. Of the following, please tick one

a. I am a real estate investor / owner   
b. I am a registered and practicing real estate agent   
c. None of the above

4. For how many years have you been involved in real estate practice?

(a) 1 — 5 years  (b) 6 – 10 years   
(c) 11-15 years  (d) 16 years and above

5. As a percentage of your gross monthly cash flow (i.e. rental collections), and by giving an estimate, what percentage of total loss would you attribute to the Financial risks?

Below 30% ( ) Between 30 — 50% ( )  
Between 50 — 70% ( ) Above 70% ( )

6. From the risk management measures listed here below, please tick any five (5) that you have come across in your real estate practice.

Financial Hedging	( )	Use of Guarantors	( )
Operational Hedging	( )	Use of security deposits	( )
Diversification	( )	Preventive maintenance	( )
Insurance	( )	Corrective maintenance	( )
Internal audit	( )	Risk retention	( )

7. From your property portfolio and based on a scale of 1 to 3 where 1 is quite often and 3 is never happens, please rate the following on the basis of how often you come across transactions that involve or are affected by the same.



- (a) Payments in foreign currency (1) (2) (3)
- (b) Changes in interest rates (1) (2) (3)
- (c) Inflation (1) (2) (3)
- (d) Delay in payments (1) (2) (3)
- (e) Default in payments (1) (2) (3)

11. This section seeks to establish the credit risk management measures adopted by real estate investment firms. Use the ranking of between 1 to 3 where 1 stands for strongly agree and 3 stands for don't agree

Statement	1	2	3
Our organization encourages the use of Guarantors to minimize credit risk			
Our organization encourages the use of security deposits to minimize credit risk			
Our organizations conducts credit vetting and appraisal of potential customers			
Our organization has invested inadequate manpower for debt collection			

12. This section seeks to establish the liquidity risk management measures adopted by real estate investment firms. Use the ranking of between 1 to 3 where 1 stands for strongly agree and 3 stands for don't agree

Statement	1	2	3
Our organization has put in place lines of credit to minimize liquidity risk			
Our organization has invested in treasury bills and bond to manage its liquidity			
Our organizations regularly prepares cash flows statement to manage its liquidity			
Our organization negotiates with banks on loan repayments plans as a way to manage liquidity			

12. This section seeks to establish the price risk management measures adopted by real estate investment firms. Use the ranking of between 1 to 3 where 1 stands for strongly agree and 3 stands for don't agree

Statement	1	2	3
Our organization conducts Financial Hedging to minimize price risk			
Our organization conducts interest rate Hedging to minimize price risk			
Our organization conducts foreign currency Hedging to minimize price risk			
Our organization participates in swaps and option to minimize price risk			

8. By giving a ranking of between 1 to 4 where 1 stands for strongly agree and 3 stands for don't agree, do you think managing risks facing real estate could help an investor:

- (a) Improve profitability (1) (2) (3) (4)
- (b) Reduce costs (1) (2) (3) (4)
- (c) Be more efficient (1) (2) (3) (4)
- (d) Be more effective (1) (2) (3) (4)
- (e) Increase market share (1) (2) (3) (4)

9. Apart from possible financial losses, are there any other ways the above risks affect real estate properties? (Please highlight here below)

10. By giving a rating of 1 for strongly agree and 3 for don't agree, would you say that real estate investors/companies that manage real estate related risks are more likely to be profitable in the long run compared to those that do not?

- (1) (2) (3)

11. By giving a rating of 1 for strongly agree and 3 for don't agree, would you say that financial risk management is essential for effective real estate investment and management.

(1)    (2)    (3)

12. Using the scale below, how would you rate the risk attitude amongst real estate investors/managers in Kenya?

Highly conscious of risk	<input type="checkbox"/>	Moderately conscious about risk	<input type="checkbox"/>
Not concerned about risk	<input type="checkbox"/>	Are not aware about risk	<input type="checkbox"/>

13. Please explain some of your reasons for No. 15 Above

Thank you so much for taking your time to fill out this questionnaire.